# ANNUAL REPORT & ANNUAL ACCOUNTS 2014 – 2015



National Institute of Technology Calicut

Kerala, India

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# ANNUAL REPORT 2014-15

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#### 1.0 INTRODUCTION

#### 1.1 MISSION STATEMENT

To develop high quality technical education and personnel with a sound footing on basic engineering principles, technical and managerial skills, innovative research capabilities and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing technological environment with the highest ethical values as the inner strength.

#### 1.2 VISION

International standing of the highest calibre.

#### 1.3 EDUCATION SYSTEM

Institute offers technical education based on a state of the art curriculum. The syllabi are designed and continuously updated in consultation with the experts and with the approval of the Senate. To meet with national requirement of high quality man power, Institute is not keeping any fixed number of the Ph.D Scholarship but proactively encourage the enrollment. All Undergraduate and Post graduate programmes have been designed in line with the IIT System, giving appropriate weights for the theory and practice.

#### 1.4 NEW INITIATIVES

From 2002 admissions onwards, the curriculum & syllabi followed for the programmes offered in the institute are framed internally and vetted by experts in the relevant area. The institute senate finalizes the curriculum, syllabi, ordinances rules & regulations of various programmes. Major initiatives include the commencement of interdisciplinary and multidisciplinary programmes in cutting edge technology fronts.

#### 2.0 AN OVERVIEW

#### 2.1 HISTORICAL BACKGROUND

The National Institute of Technology Calicut (NITC), originally established in 1961 as a Regional Engineering College and got transformed NIT on 26<sup>th</sup> June 2002, is one of the 30 similar institutions in the country. It is fully funded by Government of India. It is an Institute of National Importance under NIT Act 2007. This Institute mentors NIT Sikkim, which is one among the 10 new NITs added in the year 2009.

#### 2.2 LOCATION

The institute is located at Chathamangalam, 22 km east of Calicut city, along the Kunnamangalam-Mukkam road and covers an area of over 120 hectares, at the foot of the Western Ghats. The Calicut Railway Station and Airport are respectively 22 km and 45 km away from the Campus.

#### 2.3 CAMPUS

The library, computer centre and laboratories of the institute are well equipped. The institute campus has all the essential amenities required. There is a campus school managed by a society formed by faculty members, a branch of State Bank of India, a Post Office, a Telephone exchange and canteensfunctioning within the institute campus. The institute has a Health centre to look after the medical needs of the students, employees and their families. The institute has adequate facilities for indoor and outdoor games, recreation and co-curricular activities. There are ten hostels and 45 apartments for the boys. One hostel with four blocks with an attached recreational centre and a megahostel with 500 rooms are available for girls. One International hostel with twenty semi-furnished rooms is also available. The institute has a good number of staff quarters and a guest house with 20 rooms.

#### 2.4 ADMINISTRATION

#### 2.4.1 GOVERNANCE

Institute is governed by the NIT Act 2007 and the statutes. Board of Governors and the senate are the authority of the Institute.President of India is the visitor to the Institute. Chairperson of the Board of Governors is nominated by the visitor.

2.4.2 Institute follows the multi-tier hierarchical administrative structure, with proper delegation from top to bottom. Director appointed by the Government of India is at the helm of the affairs. Registrar is the head of administration. Five Deans spearhead the consultative mechanism that assists the Director in administration and management. The academic units of Departments and Schools are headed by faculty and the administrative sections are headed by officers of appropriate rank.

#### 2.5 ACADEMIC PROGRAMMES

The institute imparts technical education at the degree and post graduate levels viz., (1) Under-Graduate (UG) programme of four years duration leading to B.Tech Degree, (2) UG programme of five years

duration leading to B.Arch. degree, (3) Post-Graduate (PG) programme of two years duration leading to M.Tech degree, (4) PG programme of two years duration leading to M.Sc degree (5) PG programme of three years duration leading to M.Sc (Tech) degree (6) a programme of three years duration leading to the Master of Computer Applications (MCA) degree and (7) a two year MBA programme. All the programmes are offered in credit-semester pattern. In addition, Ph.D programmes in all disciplines are also offered.

#### 2.6 PROGRAMMES OFFERED

- (a) Bachelor of Architecture (B. Arch)
- (b) Bachelor of Technology (B. Tech) in the following disciplines:

Biotechnology
Chemical Engineering
Civil Engineering
Computer Science and Engineering
Electronics and Communication Engineering
Electrical and Electronics Engineering
Engineering Physics
Mechanical Engineering
Production Engineering

(c) Master of Technology (M. Tech) Programmes

Department/School	Department/ School code	M. Tech Programmes	Pgm. Code
		Structural Engineering	CE61
		Traffic and Transportation Planning	CE62
Civil Engineering	CE	Offshore Structures	CE63
		Environmental Geotechnology	CE64
		Water Resources Engineering	CE65
Computer Science &	00	Computer Science and Engineering	CS61
Engineering	CS	Computer Science & Engineering (Information Security)	CS62
		Instrumentation and Control Systems	EE61
Electrical Engineering	EE	Power Systems	EE62
Liectifical Engineering		Power Electronics	EE63
		Industrial Power and Automation	EE64
		High Vol.tage Engineering	EE65
Electronics and		Electronics Design and Technology	EC61
Communication	EC	Microelectronics and VLSI Design	EC62
Engineering		Telecommunication	EC63
0 0		Signal Processing	EC64
		Industrial Engineering and	ME61
		Management	IVILOI
		Thermal Sciences	ME62
Mechanical Engineering	ME	Manufacturing Technology	ME63
		Energy Engineering and Management	ME64
		Material Science and Technology	ME65
		Machine Design	ME66
Nano Science and Technology	NST	Nanotechnology (NS61)	NS61

#### (d) Master of Science (Technology)

M. Sc (Tech) in the following disciplines:

- 1. Polymer Science and Technology (CY61)
- 2. Mathematics and Scientific Computing (MA61)
- 3. Photonics (PH 61)

#### (e) Master of Science

M.Sc (Tech) programmes listed in (d) above have been replaced by M. Sc in the following disciplines from 2012 admissions onwards:

- 1. Chemistry
- 2. Mathematics
- 3. Physics

#### (f) Master of Computer Applications (M C A)

M C A Programme is offered by the department of Computer Science and Engineering.

#### (g) Master of Business Administration (M B A)

M B A Programme is offered by the school of Management Studies.

#### (h) Doctor of Philosophy (Ph. D)

Ph. D programmes are offered by all the departments/schools.

#### 2.7 ADMISSION PROCEDURE

Admission to B.Tech /B.Arch. programmes offered at NIT Calicut is made under the following categories:

SI.	Category	Basis of	Sanctioned
No.	Category	Admission	Intake
1	Candidates from Kerala state (Home State Quota) †	*JEE Rank	469
2	Candidates from Other State (Other State Quota)†	*JEE Rank	468
3	Candidates from Lakshadweep & Kandvi (Home State Quota) †	*JEE Rank	33
4	Foreign Nationals \$	Marks in the Qualifying Examination	16
5	MEA Welfare Scheme #	Marks in the Qualifying Examination	02
6	Direct Admission of Students from Abroad (DASA) scheme	SAT II Score	94
	Total		1082

- † Reservations as per Rules of Gol.
- Joint Entrance Examination (Main), conducted by the Central Board of Secondary Education (CBSE), New Delhi.
- \$ Nominated by Ministry of External Affairs (Students Cell), GoI, through Indian Council for Cultural Relations (ICCR).
- # Nominated by Ministry of External Affairs

#### **PG Programmes**

- The admission to PG programmes in Engineering and Technology with fellowship is based on GATE score
- The admission to PG sponserd sears are based on the written test/interview conducted by the respective department.
- The admission to PG programmes if M.S.c Tech and MBA without fellowship is based on Institutio's Criteria

#### Ph.D. Programmes

The admissions to Ph.D. programmes are based on merit and the written test/interview conducted by the Institute.

#### 2.8 **STUDENTS**

The Student Affairs Council (SAC) 2014-15 was elected and constituted with 64 Branch Councillors and 11 Executive council members. The annual Techno-Management festival Tathva'14 was successfully conducted in November 2014. The event witnessed an all-time-high registration count of 1750 external participation. 'Aavishkaar' was conducted as a social initiative of Tathva'14. The project was to equip 30 houses with a solar panel and lighting system, in Vettilakolli grama panchayat in the midst of Nilambur forest, where no electric assistance was provided by the government. The whole equipment set was designed and assembled by the students. SNEHARAGAM was organized this year also as a pre-RAGAM event, exclusively for physically challenged students of different schools of northern Kerala which witnessed excellent participation. The annual cultural festival RAGAM 2015 was organized in March 2015. The event marked an all-time record in terms of registration with above 2000 external participation.

#### 2.9 EXAMINATION & EVALUATION

All academic programmes of the Institute follow the credit-semester system. Minimum credits to be earned for the award of various degrees are specified in the respective curricula. The modalities for continuous evaluation of various courses being offered by the departments are decided by the Institute Senate from time to time and are followed scrupulously. Slow learners are given adequate chances to pursue the studies.

#### 2.10 PLACEMENT

During the session 2014-15, 113 companies visited the campus for recruitment. 113 firms made a total of 596 offers. The details are shown in Annexure I.

<u>B.Tech Programme</u>: 468 out of 665 eligible B.Tech students (71.3%) got placed. The B.Tech placement details are shown in <u>Annexure I.</u>The highest salary (CTC) offered for B Tech is 27 lakhs by Amazon.com. The institute average salary is 5.51 L

Bio Technology students got 5 offers, out of eligible 11 students

Civil Engg students got 53offers, out of the 100 eligible students

Chemical Engg students got 40 offers, out of the 71 eligible students

Computer Science students got 91 offers out of the 101 eligible students

Electronics Engg students got 95 jobs out of the 105 eligible students

Electrical Engg students got 75 jobs out of the 107 eligible students

Engineering Physics got 7 offers out of the 14 eligible students

Mechanical Engg students got 85 jobs out of the 111 eligible students

Production Engg students got 18 jobs out of the 36 eligible students

The average salaries for the various branches are as follows.

Bio Technology	5.3L
Civil Engineering	4L
Chemical Engg	6.3 L
Computer Science Engg.	8.5 L
Electronics & Communication	6.2 L
Electrical & Electronics	5.1 L
Engineering Physics	4.0 L
Mechanical Engineering	5.4 L
Production Engineering	4.8 L

<u>B.Arch Programme</u>: Since the students were doing projects outside the campus, the students could not attend the campus placement.

M.Tech Programme: Out of the 261 M.Tech students 88 students got placed. Overall 34% got placed.

MCA Programme: Out of the 34 students 25 students got placed leading to 65% placement.

MBA Programme: Out of 23 students 6 students got placed.

#### 2.11 GAMES AND SPORTS

#### PHYSICAL EDUCATION OBJECTIVES

Unlike the REC days, where physical education and sports was a voluntary activity and optional in the curriculum, the NIT scenario has physical education as a compulsory entity in the curriculum. The OT programme included in the time table comprise of class-room orientation of freshers and a one-credit course in physical education (Code: ZZ1093). Mass participation and interclass activities run simultaneously aiding in talent search, formation of institute teams, providing them specialist training by professional coaches and exposing them in as many interscholastic tournaments as possible. Participation in 2014-15 was all time high inspite of shortage of infrastructure. Olympic values programme stress on character development through sports & event-managerial abilities. Tae Kwon-do equiped girl students with courage and skill to defend themselves and fight in justice.

#### 2.12 STAFF POSITION

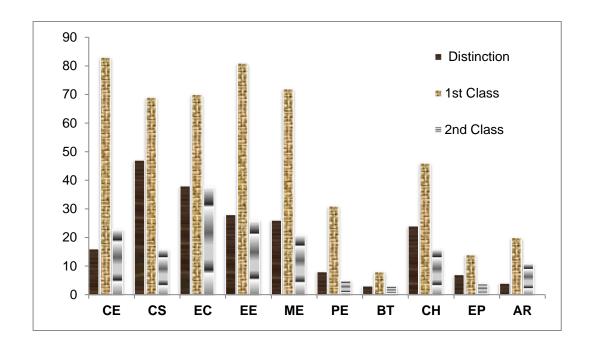
#### **Teaching Staff**

The sanctioned strength of teaching staff is 282. The department wise break-up of the sanctioned and in position strength of faculty is given below.

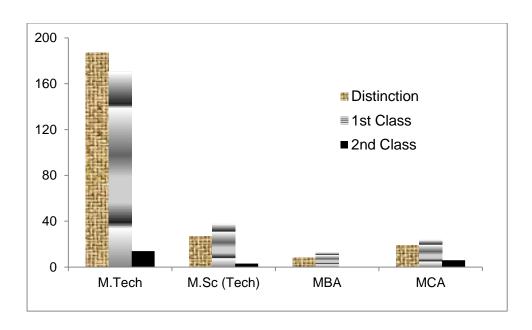
Department	Sanctioned	In position as on 31.03.2015
Architecture	12	7
Chemical Engineering	12	9
Civil Engineering	41	28
Computer Science & Engineering	33	21
Electrical & Electronics Engineering	38	25
Electronics & Communication Engineering	34	24
Mechanical Engineering	52	31
Mathematics	19	15
Physics, Chemistry and Humanities	18	14
Training & Placement& Physical Education	4	3
Biotechnology		7
School of Management Studies		4
School of Nanoscience & Technology		6
Additional Posts Sanctioned	19	
Total	282	194

#### 2.13 NOTABLE ACHIEVEMENTS (using Graphs, Charts, Diagrams)

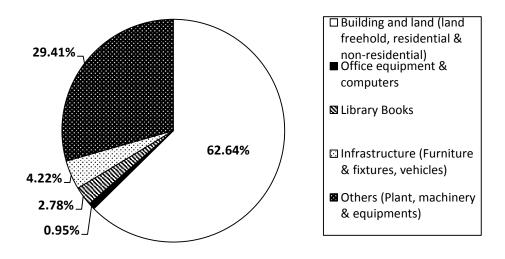
#### (i) Details of B.Tech & B.Arch students passed out in 2014-2015



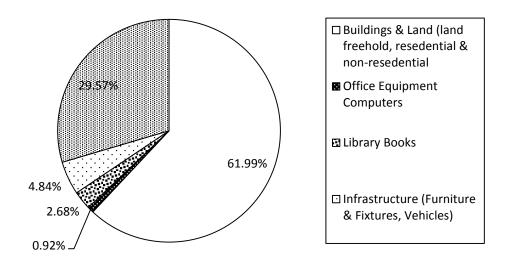
#### (ii) Details of M.Tech.MCA & MSc.Tech.Students passed out in 2014-2015



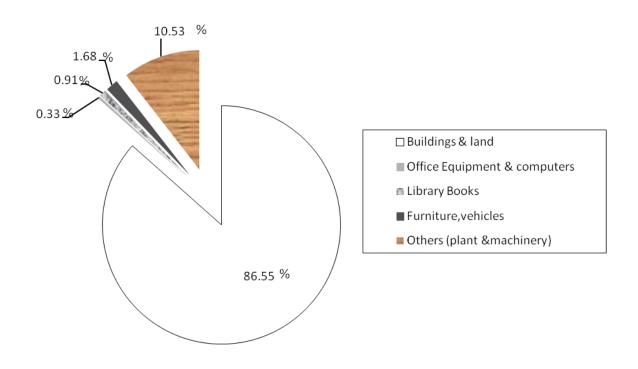
#### (iii) Details of Assets as on 31.03.2012



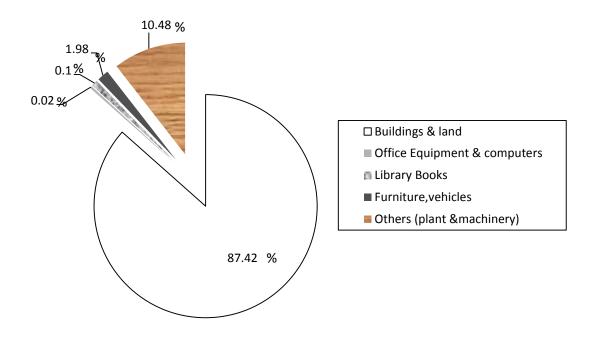
#### (iv) Details of Assets as on 31.03.2013



#### (v) Details of Assets as on 31.03.2014



#### (i) Details of Assets as on 31.03.2015



#### 3.0. THE STAFF

DIRECTOR: Dr. M N Bandyopadhyay

**REGISTRAR:** 1) Dr. Santosh G Thampi (01.04.2014 to 15.07.2014)

2) Dr. B. Sukumar (16.07.2014 to 31.03.2015)

#### **DEANS**

Dr.A. P. Shashikala : Academic

Dr. S. Chandrakaran : Planning & Development Dr. Abraham T Mathew : Research and Consultancy

Dr.R Sridharan : Faculty Welfare
Dr. M L Joy : Students Welfare

#### **ASSOCIATE DEANS**

Dr.A. Santhiagu : Academic Dr.Lity Alen Varghese : Academic

Dr.V .Sajith : Planning & Development
Dr.K Krishnamurthy : Planning & Development
Dr.Rijil Ramchand : Research and Consultancy

Dr.Deepthi P P : Faculty Welfare Dr.A S Sajith : Students Welfare

#### 3.1 ACADEMIC STAFF (Teaching)

#### **DEPARTMENT OF ARCHITECTURE**

SI. No	Name	Designation	Qualification	Specialization
1.	Dr. P.P Anil Kumar.	Associate Professor& Head	B.Tech MCP,Ph.D	Architectural Engg. City Planning

2.	Dr. Naseer M.A	Associate Professor	B.Tech,MCP Ph.D	Architectural Engg. City Planning
3.	Dr. Kasthurba A. K	Associate Professor	B Arch M Tech Ph.D	Building Technology Architectural Conservation
4.	Mr. Mohammed Firoz	Assistant Professor	B. Arch. MURP	Architecture Urban and Regional Planning
5.	Ms Chithra .K	Assistant Professor	B. Arch M Planning	Architecture Town Planning
6.	Ms. Shyni (On QIP to IIT Kgp)	Assistant Professor	B. Tech M Planning	Architectural Engg, Housing
7.	Mr. Bimal P	Assistant Professor	B.Arch MCP	Architecture, City Planning
8.	Mr. Sundeep Kumar	Adhoc Lecturer	B.Arch MCP	Architecture City Planning
9.	Ms. Arsha SomanTP	Adhoc Lecturer	B. Tech M Tech	Civil Engineering Geo Technical Engineering
10.	Ms. Chenju Prince	Adhoc Lecturer	B Tech M Tech	Civil Engineering Remote Sensing & GIS
11.	Ms.Suzana Jacob V	Adhoc Lecturer	B Tech M Tech	Urban planning
12.	Ms.Samiksha Srichandan	Adhoc Lecturer	B.Arch M.Arch	Architectural Conservation
13.	Ms.Jyothi Anna John	Adhoc Lecturer	B.Arch M. Plan	Environmental Planning
14	Ms.Jasna Bhargavan	Adhoc Lecturer	B.Arch MCP	City Planning
15	Mr.George Tharakan	Adhoc Lecturer	B Tech M Tech	Geo Technical Engineering
16	Ms.Priyanka Singh	Adhoc Lecturer	B.Arch M. Plan	Environmental Planning
17	Ms. Anu V V	Adhoc Lecturer	B Tech M Tech	Geo Technical Engineering

#### **DEPARTMENT OF CHEMICAL ENGINEERING**

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. Shiny Joseph	Associate Professor & Head	Ph.D	Mass transfer and Hydrodynamics
2	Dr. V.Sivasubramaninan	Associate Professor	M.Tech, MBA, PhD	Fluidization Engineering
3	Dr. Lity Alen Varghese	Associate Professor	Ph.D	Polymer Technology
4	Dr. Aparna. K	Assistant Professor	Ph.D	Heat Transfer
5	Dr. N. Selvaraju	Assistant Professor	Ph.D	Modelling & Simulation
6	Dr.Malladi V Pavan Kumar	Assistant Professor	Ph.D	Process control
7	Dr. S. Bhuvaneshwari	Assistant Professor	Ph.D	Bio separation Technology
8	Mr. Vineesh Ravi	Assistant Professor	M.Tech., (Ph.D)	Fuel cell
9	Mr. K. Haribabu	Assistant Professor	M.E. ,(PhD)	Separation and water treatment technology

#### **DEPARTMENT OF CIVIL ENGINEERING**

SI. No.	Name	Designation	Qualification	Specialisation
1	Dr. T.P.Somasundaran	Professor & Head	M.Tech., Ph.D	Structural Engg
2	Dr. M.V.L.R. Anjaneyulu	Professor	M.Tech, Ph.D	Transportation Engg.
3	Dr. S.Chandrakaran	Professor	M.E., Ph.D	Geotechnical Engg
4	Dr. N.Ganesan	Professor	M.E, Ph.D	Structural Engg.

5	Dr. P.V.Indira	Professor	M.Tech, Ph. D	Structural Engg.
6	Dr. T.M.Madhavan Pillai	Professor	M.Tech., Ph.D	Structural Engg.
7	Dr. Mohammed Ameen	Professor	M.E., Ph.D	Structural Engg.
8	Dr. V.Mustafa	Professor	M.Tech., Ph.D	Structural Engg.
9	Dr. N.Sankar	Professor	M.Tech. Ph.D	Geotechnical Engg
10	Dr Santosh.G. Thampi	Professor	M.Tech., Ph.D	Hydraulics
11	Dr. A.P.Shashikala	Professor	M.Sc (Engg), Ph.D	Structural Engg.
12	Dr. J.Sudhakumar	Professor	M.Tech., Ph.D	Building Technology
13	Dr. T.Zachariah Varghese	Professor	M.E, Ph.D	Structural Engg.
14	Dr. K. Krishna Murthy	Associate Professor	M.Tech., Ph.D	Transportation Engg.
15	Dr. Praveen Nagarajan	Associate Professor	M.Tech., Ph.D	Structural Engg.
16	Sri K.Saseendran	Associate Professor	B.Sc.(Geo.), M.Tech.	Geology
17	Dr. K Sasikumar	Associate Professor	M.Tech., Ph.D	Water Resources Engg.
18	Smt. Chitra N R	Asst. Professor	M.Tech	Hydraulics & Water Resources Engg
19	Dr. George K Varghese	Asst. Professor	M.Tech	Environment Engg.
20	Dr. Harikrishna M	Asst. Professor	M.Tech	Transportation Engg.
21	Dr. Kodi Ranga Swamy	Asst. Professor	M.Tech., Ph.D	Geotechnical Engg
22	Dr. Mini Remanan	Asst. Professor	M.Tech., Ph.D	Structural Engg.
23	Dr. Pramada S K	Asst. Professor	M.Tech	Water Resources Engg
24	Smt. Reesha Bharath K (Pursuing Ph. D under QIP)	Asst. Professor	M.Tech	Construction Technology
25	Dr. Sajith A S	Asst. Professor	M.Tech	Structural Engg.
26	Dr. Sathish Kumar D	Asst. Professor	M.Tech	Remote Sensing & GIS
27	Sri. Siva Kumar M	Asst. Professor	M.Tech	Transportation Engg.
28	Dr. Vinu Palissery	Asst. Professor	M.S., Ph.D	Structural Engg.
Adho	c Faculty			
29	Ms. Sheena Melayil	Adhoc Faculty	M.Tech.	
30	Ms. Anjana Bhasi	Adhoc Faculty	M.Tech.	
31	Mr. Mamtha.B.S	Adhoc Faculty	M.Tech	
32	Ms. Nisha.l	Adhoc Faculty	M.Tech	
33	Mr. Shibi Rajaram	Adhoc Faculty	M.Tech	
34	Mr. Nidheesh.P.V	Adhoc Faculty	M.Tech	
35	Ms. Khadeeja Henna.P	Adhoc Faculty	M.Tech	
36	Mr. Noorah Rasheed	Adhoc Faculty	M.Tech	
37	Mr. Leeban Joseph.P	Adhoc Faculty	M.Tech	
38	Ms. Jesmi Prakash.A.K	Adhoc Faculty	M.Tech	
39	Ms. Midhula Jayanandan	Adhoc Faculty	M.Tech	
40	Ms. Sudeeptha	Adhoc Faculty	M.Tech	
41	Mr. Remjish	Adhoc Faculty	M.Tech	

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

SI. No.	Name	Designation	Qualification	Specialisation
1	Dr. V K Govindan	Professor	Ph. D	Image Processing, Medical Imaging, Agent Technology, Pattern Recognition, Document Imaging
2	Dr. Vineeth Paleri	Professor	Ph. D	Programming Languages & Compilers.

3	Dr. Priya Chandran	Professor	Ph. D	Theoretical Computer Science, Analysis of Algorithms, Computer Architecture
4	Dr. S.D Madhu Kumar	Associate Professor	Ph. D	Database Systems, Middleware, Software Engineering, Distributed Computing, Cloud Computing
5	Dr. Abdul Nazeer K A	Associate Professor & Head	Ph. D	atabase Systems, B I informatics, omputational Intelligence
6	Dr. Murali Krishnan K	Associate Professor	Ph. D	omplexity theory, Igorithms, coding theory, ryptography
7	Dr. Vinod P	Assistant Professor	Ph. D	heoretical Computer cience, Information ecurity
8	Sri. Saidalavi Kalady	Assistant Professor	M. E	itelligent Agents, ardware Systems
9	Smt. Saleena N	Assistant Professor	M. Tech.	rogram Analysis , ompilers
10	Smt. Subhasree M (On leave under QIP for Ph. D)	Assistant Professor	M. E	lathematical Logic, erification
11	Dr. Subashini R	Assistant Professor	Ph. D	Igorithm, Computer Arc- tecture, Data Structures, esign and Analysis of Igorithms
12	Sri. Sumesh T A (On leave under QIP for Ph. D)	Assistant Professor	M. Tech.	omputer Networks
13	Sri. Sreenivasa T M (On leave for Ph. D )	Assistant Professor	M. Tech.	Bioinformatics, Data structures, Design & Analysis of algorithms
14	Sri. Sreenu Naik Bhukya	Assistant Professor	M. Tech.	Computer Networks, Network security & Cryptography, Data Warehouse & Data Mining and Operating System.
15	Smt. Lijiya A	Assistant Professor	M. Tech.	Artificial Intelligence, Image Processing, Pattern Recognition
16	Sri. Jimmy Jose (On leave under QIP for Ph. D)	Assistant Professor	M. Tech.	Cryptography and Security
17	Smt. Anu Mary Chacko	Assistant Professor	M. Tech.	Computer Security, Software Engineering
18	Smt. Pournami P.N.	Assistant Professor	M. Tech.	Digital Image Processing, Data Structures, Analysis and Design of Algorith.
19	Sri. Jayaraj P B	Assistant Professor	M. Tech.	High Performance Computing, Parallel Computing, Computational Drug Design, Operating Systems
20	Dr. Gopakumar G	Assistant Professor	M. Phil (Bioinformatics), Ph. D	Bioinformatics , Fractals, Biocomputing Algorithms , Data Structures
21	Dr. Sudeep K.S	Assistant Professor	Ph. D	Algorithms, Discrete Mathematics
22	Dr. Mathew J Palakal	Adjunct Professor	Ph.D.	Biomedical Text Mining, Intelligent Information Management Systems

23	Dr. Mansoor Alicherry	Adjunct Associate Professor	PhD	Systems, Network security, Algorithms, Cloud computing
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#### DEPARTMENT OF ELECTRICAL ENGINEERING

SI No	Name	Designation	Qualification	Specialization
1	Dr. Abraham T Mathew	Professor	Ph.D. (IIT Delhi)	Instrumentation & Control
2	Dr. Ashok S	Professor	Ph.D. (IIT Bombay)	Power & Energy Systems
3	Dr. Jeevamma Jacob	Professor & Head	Ph.D. (IIT Bombay)	Control Systems
4	Dr. M. P. Nandakumar	Professor	Ph.D. (IIT Kanpur)	Control Systems
5	Dr. Paul Joseph K.	Professor	Ph.D. (IIT Madras)	Biomedical Instrumentation
6	Dr. Saly George	Professor	Ph.D. (REC Calicut)	Power Electronics
8	Dr. K S Sivanandan	Professor	Ph.D. (IIT Roorkee)	Instrumentation & Control
9	Dr. Susy Thomas	Professor	Ph.D. (IIT Bombay)	Control Systems
10	Dr. M V Vaidyan	Professor	Ph.D. (University of Calicut)	Control Systems
11	Mr. P. Ananthakrishnan	Associate Professor	M.Tech. (IIT Madras)	Power Electronics & Drives
12	Mr. K. S. Suresh Kumar	Associate Professor	M.Tech. (IIT Madras)	Power Electronics
13	Dr. Elizabeth P. Cheriyan	Associate Professor	Ph.D. (IIT Bombay)	Power Systems
14	Dr. Preetha. P.	Associate Professor	Ph.D. (IISc Bangalore)	High Voltage Engg.
15	Dr. Rijil Ramchand	Associate Professor	Ph.D. (IISc,Bangalore)	Power Electronics
16	Ms. Hema Rani.P	Assistant Professor	M.Tech (IIT Kanpur)	Power Electronics
17	Dr. Jagadanand G	Assistant Professor	Ph.D. (NIT Calicut)	Signal Processing
18	Dr. Kumaravel S	Assistant Professor	Ph.D. (NIT Calicut)	Power Systems
19	Dr. Mija S J	Assistant Professor	Ph.D (NIT Calicut)	Control Systems
20	Dr. Mukti Barai	Assistant Professor	Ph.D. (IIT Kharagpur)	Power Electronics
21	Dr. Sindhu T K	Assistant Professor	Ph.D. (IIT Chennai)	Power Systems & High Voltage Engg.
22	Dr. Subha. D.P	Assistant Professor	Ph.D (NIT Calicut)	Biomedical Engineering
23	Mr. Subhash K.M.	Assistant Professor	M.Tech (NIT Calicut)	Instrumentation & Control
24	Dr. T K Sunil Kumar	Assistant Professor	Ph.D. (IIT Kharagpur)	Power Systems
25	Dr. Sunitha K	Assistant Professor	Ph.D. (IISc,Bangalore)	High Voltage Engg.
26	Dr. Sunitha. R	Assistant Professor	Ph.D (NIT Calicut)	Power Systems

#### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SI. No	Name	Designation	Qualification	Specialization
1	Dr. Elizabeth Elias	Professor	Ph. D	Multirate Signal Processing
2	Dr. Lillykutty Jacob	Professor	Ph. D	Wireless Communication

	1			and Networks;
				Performance Modeling
				and Analysis; Network
				Protocol Design and
				Implementation
3	Dr. P. C. Subramaniam	Professor	Ph. D	Optical Communication
				Speech and Audio
4	Dr. P. S. Sathidevi	Professor	Ph. D	Processing
5	Dr. G. Abhilash	Associate Professor	Ph. D	Signal Theory
6	Ms. Lyla B. Das	Associate Professor	M.Tech	Embedded Systems
7	Dr. C. K. Ali	Associate Professor	Ph. D	Communication
	DI. G. IV. All	& HOD	111. 0	Engineering
				Communication
8	Mr. R. Suresh	Associate Professor	M.Tech	Engineering and Signal
				Processing
9	Dr. S. M. Sameer	Associate Professor	Ph. D	Wireless Communication
10	Dr. A. V. Babu	Associate Professor	Ph. D	Wireless Networks
11	Mr. Jaikumar M. G.	Associate Professor	M. Tech	Microelectronics
				Nanoelectronics, Novel
	Dr. Rama			Semiconductor devices,
12	Subrahmanyam Komaragiri	Associate Professor	Ph. D	VLSI, Power
				semiconductor
				devices, MEMS, NEMS,
13	Dr. Sreelekha G.	Associate Professor	Ph. D	Image Processing
14	Dr. Deepthi P. P.	Associate Professor	Ph. D	Communication and
14	Dr. Deeptrii P. P.	ASSOCIATE PTOTESSOI	PII. D	Signal Processing
15	Mr. Dhanaraj K J	Assistant Professor	M.Tech	Digital Systems and
13	Wir. Drianaraj K 3	Assistant i folessoi	IVI. I COII	Communication
16	Mr.V Sakthivel	Assistant Professor	M.Tech	Advanced
	Wii. V Caltinver	7.03034411.1 10103301	W. TOOT	Communication Systems
		Assistant Professor		Electronics Design and
17	Mr.B.Bhuvan	(On leave: QIP)	M.Tech	Technology
		A : - t t - D f		Floates aio Doniese and
18	Mr. Raghu C. V.	Assistant Professor	M. Tech	Electronic Design and
40	Ma. Ovia IX I	(On Leave: QIP)	NATL	Technology
19	Ms. Suja K J	Assistant Professor	M.Tech	Optoelectronics
20	Dr. Bindiya T S	Assistant Professor	Ph. D	Digital Signal Processing
21	Dr. Ameer P M	Assistant Professor	Ph. D	Wireless Networking
22	Mr. Jayakumar E. P.	Assistant Professor	M. Tech	VLSI Design
23	Dr. Sudhish N George	Assistant Professor	Ph. D	Signal Processing
24	Dr. Praveen Sankaran	Assistant Professor	Ph. D	Pattern classification,
				Computer Vision

#### **DEPARTMENT OF MECHANICAL ENGINEERING**

SI. No	Faculty Name	Designation	Qualification	Specialization
1.	Dr. Allesu K	Professor & Head	Ph.D.	Manufacturing Science
2.	Dr. Ghulam Jilani	Professor	Ph.D.	Thermal Engineering
3.	Dr. Jayaraj S	Professor	Ph.D.	Computational Fluid Dynamics
4.	Dr. Jose Mathew	Professor	Ph.D.	Manufacturing Science
5.	Dr. Joseph M A	Professor	Ph.D.	Production Engineering
6	Dr. Joy M L	Professor	Ph.D.	Machine Design & Tribology
7	Dr. Muraleedharan C	Professor	Ph.D.	Refrign & Air Conditioning
8	Dr. Prabhakaran Nair K	Professor	Ph.D.	Machine Design & Tribology
9	Dr.Rajendra Kumar P K	Professor	Ph.D.	Machine Design & Tribology
10	Dr. Ramachandran N	Professor	Ph.D.	Unconventional Machining
11	Dr. Sridharan R	Professor	Ph.D.	Industrial Engineering
12	Dr. Biju T. Kuzhiveli	Asso. Professor	Ph.D.	Cryogenics

13	Dr. Madhusudanan Pillai V	Asso. Professor	Ph.D.	Industrial Engineering
14	Dr. Manu R	Asso. Professor	Ph.D.	Manufacturing Engineering
15	Dr. Narayanan M D	Asso. Professor	Ph.D.	Solid Mech. & Design
16	Dr. Shaija A	Asso. Professor	Ph.D.	CFD and Heat Transfer
17	Dr. Arun P	Asst. Professor	Ph.D.	Energy Engineering
18	Dr. Dhanish P B	Asst. Professor	Ph.D.	Production Engineering
19	Sri.Gangadhara Kiran Kumar L	Asst. Professor	M. Tech.	Fluids and Thermal Sciences
20	Sri. Jagadeesha T	Asst. Professor	M. Tech.	Manufacturing Technology
21	Dr. Jayadeep U B	Asst. Professor	Ph.D.	Solid Mechanics & Design
22	Sri. Manu P V	Asst. Professor	M. Tech.	Propulsion Engineering
23	Dr. Radha Ramanan T	Asst. Professor	Ph.D.	Industrial Engineering
24	Sri. Ratnakumar K	Asst. Professor	M. Tech.	Industrial Management
25	Sri. Rohini Kumar B	Asst. Professor	M. Tech.	Thermal Engineering
26	Dr.Sarvoththama JothiT J	Asst. Professor	Ph.D.	Thermal and Fluids Engineering
27	Sri. Sekar K	Asst. Professor	M. Tech.	Manufacturing Technology
28	Sri. Sudheer A P	Asst. Professor	M. E.	Manufacturing Engineering / Robotics
29	Sri. Sreenath A M	Asst. Professor	M. Tech.	Machine Design
30	Sri. Srinivas M	Asst. Professor	M. Tech.	Energy Engineering
31	Dr. Varaprasad G	Asst. Professor	Ph.D.	Industrial Engineering & Management
32	Dr. Vinay V. Panicker	Asst. Professor	Ph.D.	Industrial Engineering
33	Sri. Hariharan C P	Programmer	B.Tech., M.B.A.	Management

#### **DEPARTMENT OF MATHEMATICS**

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. M.J. Jacob	Professor	M.Sc., Ph.D.	Stochastic Processes
2	Dr. Jessy John C	Professor	M.Sc., Ph.D.	Time series Modelling
3	Dr. V. Narayanan	Associate Professor	M.Sc., Ph.D.	Queuing Theory
4	Dr. Chithra. A.V.	Associate Professor & Head	M.Sc., Ph.D.	Operator Theory
5	Dr. Sunil Jacob John	Associate Professor	M.Sc., M. Phil., Ph.D.	Generalized Set Theory, Topology
6	Dr. M.S. Sunitha	Associate Professor	M.Sc., M. Phil. Ph.D.	Fuzzy Graph Theory
7	Dr. C. M. Sushama	Associate Professor	M.Sc., Ph.D.	Fuzzy Optimization
8	Dr. Satyananda Panda	Associate Professor	M.Sc., Ph.D.	Computational Fluid Dynamics, Modeling & Scientific Computing
9	Mr. Lineesh. M.C.	Asst. Professor	M.Sc.	Time Series Modelling
10	Dr. Sanjay. P.K.	Asst. Professor	M.Sc, Ph.D.	Harmonic Analysis
11	Dr. Krishnan Paramasivam	Asst. Professor	M.Sc., Ph.D.	Algebraic Graph Theory, Algorithms & Complexity
12	Dr. Sunil Mathew	Asst. Professor	M.Sc. ,Ph.D.	Fuzzy Graph Theory, Biocomputational modeling, Fractal Geometry
13	Dr. Mahesh Kumar	Asst. Professor	M.Sc., Ph.D.	Applied Statistics, Reliability of systems
14	Dr. Suresh Kumar Nadupuri	Asst. Professor	M.Sc. , Ph.D.	Numerical Methods and Scientific Computing.
15	Dr. Ashish Awasthi	Asst. Professor	M.Sc. ,Ph.D.	Numerical Analysis, Singular Perturbation

#### **DEPARTMENT OF CHEMISTRY**

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. G. Unnikrishnan	Professor	M. Sc. Ph.D.	Polymer Science &Technology
2	Dr. Lakshmi C.	Associate Professor	M. Sc. Ph.D.	Bio-organic Chemistry
3	Dr. Lisa Sreejith	Associate Professor & Head	M. Sc. M Phil, Ph.D.	Surface Chemistry
4	Dr. Sujith A	Assistant Professor	M. Sc. PhD.	Polymer Technology
5	Dr. Suni Vasudevan	Assistant Professor	M. Sc. Ph.D.	Inorganic Chemistry
6	Dr. C. Arunkumar	Assistant Professor	M. Sc. Ph.D.	Bio-inorganic Chemistry
7	Dr. Parameswaran Pattiyil	Assistant Professor	M. Sc. Ph.D.	Theoretical & Computational Chemistry

#### **DEPARTMENT OF PHYSICS**

SI. No.	Name	Designation	Qualification	Specialization
1.	Dr. P. Predeep	Professor	M.Sc., Ph.D.	Condensed Matter Physics – Molecular Electronics, Photonics and Advanced Materials
2.	Dr. Chandrasekharan. K.	Professor	M.Sc., Ph.D.	Solid state physics, Nonlinear Optics
3.	Dr. Raghu Chatanathodi	Associate Professor	M.Sc., Ph.D.	Computational Condensed Matter Physics
4.	Dr. M. K. Ravi Varma	Associate Professor & Head	M.Sc., Ph.D.	Atmospheric Optics & Instrumentation
5.	Dr. Vari Sivaji Reddy	Assistant Professor	M.Sc., M.Phil, Ph.D.	Condensed Matter Physics – Organic and Nano Electronics, Photonics
6.	Dr. P. K. Madhavan Unni	Assistant Professor	M.Sc., Ph.D.	Soft condensed matter physics, Critical point phenomena
7.	Dr. Aji A. Anappara	Assistant Professor	M.Sc, M.Phil, Ph.D.	Light-matter interaction in nanoscale, Semiconductor heterostructures, Graphene Photonics

#### **CENTRE FOR TRAINING & PLACEMENT**

SI. No.	Name	Designation	Qualification	Specialization
1.	Dr T. K. Suresh Babu	Professor (T & P)	M.E.,Ph.D	Management Science

#### PHYSICAL EDUCATION SECTION

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. A.M. Najeeb	Associate Professor	M.A,, M.Phil., Ph.D	Exercise Physiology, Olympic Values Education, Sports Infrastructure management.
2	Sri. Sunil M.S	Assistant Professor	M.P.Ed., M.Phil.	Physiology, Soccer training.

#### **SCHOOL OF NANO SCIENCE & TECHNOLOGY**

SI. No.	Name	Designation	Qualification	Specialization
1	Dr.C.B. Sobhan	Professor	Ph.D.	Micro and Nanoscale heat transfer
2	Dr.N. Sandhyarani	Associate Professor & Head	Ph.D.	Nano Science and Bionanotechnology
3	Dr.Sajith V.	Asst. Professor	Ph.D.	Optical Measurements ,Nano fluids
4	Dr.Soney Varghese	Asst. Professor	Ph.D.	Polymer/Nano Technology
5	Shijo Thomas	Asst. Professor	M. Tech	Thermal Engineering (IC Engines)
6	Hanas T.	Asst. Professor	M. Tech	Materials Science

#### **SCHOOL OF MANAGEMENT STUDIES**

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. R. Sridharan	Professor & Head	Ph.D.	Operations
2	Dr. N Sudarsan	Professor	PhD	Human Resources Management
3	Dr.K Muhammad Shafi	Assistant Professor	PhD	Finance &General Management
4	Dr. S. Sunitha	Assistant Professor	PhD	Economics
5	Dr. Preeti Navaneeth	Assistant Professor	PhD	Communication

#### SCHOOL OF BIOTECHNOLOGY

SI. No.	Name	Designation	Qualification	Specialization
1	Dr. Md. AnaulKabir	Associate Professor	Ph.D	Molecular Genetics, Genetic Engineering
2	Dr. Santhiagu. A	Associate Professor	Ph.D	Bioprocess Technology, Recombinant Technology, Enzymology
3	Dr. Rajanikant G.K	Associate Professor & Head	Ph.D	Radiantion biology Neuroscience
4	Dr. Prem Raj Pushpakaran	Assistant Professor	Ph.D	Biochemistry, Microbiology, Molecular biology
5	Dr. R.Aswathi Nair	Assistant Professor	Ph.D	Molecular plant biotechnology, Molecular biology
6	Dr. Suchithara T.V	Assistant Professor	Ph.D	Micobiology, Enzymology, Biofuels
7	Dr. Rathinasamy	Assistant Professor	Ph.D	Cell biology, Cancer research, Apoptosis

#### **CENTRE FOR BIOMECHANICS**

#### **FACULTY**

Dr. Mohammed Ameen (Head), Professor of Civil Engineering

Dr. T. M. MadhavanPillai, Professor of Civil Engineering

Dr. P.K. Rajendrakumar, Professor of Mechanical Engineering

Dr. G. Abhilash, Associate Professor of Electronics Engineering

Dr. Vinu Palissery, Assistant Professor of Civil Engineering

ADJUNCT FACULTY

Dr T.S. Gopakumar, Professor & Head, Department of Orthopaedics, Medical College, Trivandrum. Dr George Joseph, (Retd.) Professor & Head, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.

Sri. M. Sreekumar, Prosthetic & Orthotic Engineer, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.

Sri. M. Sreekumar, Prosthetic & Orthotic Engineer, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.

#### 3.2. NON-ACADEMIC STAFF (NON-TEACHING STAFF)

SI. No.	Name	Designation	Qualification
1	Dr.Santosh G Thampi	Registrar ( 01.04.2014 to 15.07.2014)	Ph.D.
2	Dr. B. Sukumar	Registrar (16.07.2014 to 31.03.2015)	Ph.D.
3	Dr. Raghunadhan T	Deputy Registrar (Stores & Purchase) upto 29.07.2014	Ph.D.MA, M.Com., LLB-Low of Taxation, LLM
4	Sri. P.T. Jose	Officer on Special Duty (on deputation)(Stores & Purchase) 30.07.2014 to 31.03.2015	MA
5	Dr. Raghunadhan. T	Deputy Registrar (Academic) (26.03.2014 to 26.12.2014)	Ph.D.MA, M.Com., LLB-Low of Taxation, LLM
6	Dr. A. Santhiagu	Dy. Registrar (Academic) 27.12.2014 to 31.03.2015	Ph.D
7	Sri. P M Krishnan	Officer on Special Duty(on deputation) Sr. Audit Officer, AG's office upto 30.11.2014 (Establishment)	BSc. B Ed. SAS. RAE & CPD-1
8	Sri. P.T. Jose	Officer on Special Duty (incharge) 01.12.2014 to 31.03.2015	MA
9	Sri. C Unnikrishnan	Officer on Special Duty(on deputation) Finance Sr. Audit Officer, AG's office upto 16.12.2014	B Com. SAS. RAE & CPD-1
10	Sri. B. Sabarinathan	Dy.Registrar (Finance) (on deputation) 17.12.2014 to 31.03.2015	B.Sc, PGDPM, CISA,CFE, CIA, CRMA
11	Sri. V Muraleedharan	Internal Audit Officer(on deputation) from AG's office	B Sc. SAS. RAE & CPD -1
12	Dr. Celine A.A	Resident Medical Officer	BSc, MBBS
13	Smt. Sweety Mathew	Lib.Gr.III (Hr.Gr)	M.Sc., M L I Sc , UGC NET
14	Smt. Lalitha Kumari P.S	Librarian Gr.IV (Hr.Gr)	BA, Bachelor of Lib and Information
15	Sri. Balachandran Nair C.G	Librarian Gr.IV (Hr. Gr.)	BA, MLISc. Type (E&M)Higher (retired)
16	Smt. Sobhana J	Librarian Gr.IV (Hr. Gr)	MA, Bachelors Degree in Library & Information Science
17	Sri. Jayarajan.T	Librarian Gr.IV (Hr. Gr)	BA, Bachelor of Lib and Information, M L I Sc.
18	Smt. Latha. C	Librarian Gr.IV (Hr. Gr)	MA, B L I Sc., Master of Degree in Library and Information Science, UGC. NET
19	Sri. C P Balan	Library Attender	SSLC (failed)
20	Sri. K P Shaju	Librarian Gr.IV	SSLC, Certificate in Llibrary Science
21	Sri. M K Chandramohan	Graphic Artist (Hr. Gr)	Bachelor of Fine Arts in Applied Arts
22	Sri. K Jayaraman	Offset Machine Operator (Hr. Gr)	SSLC, Diploma in Printing and Technology
23	Sri. P Abraham	Pharmacist	SSLC, Diploma Course in Pharmacy

		T	
			SSLC, Certificate in General
24	Smt. Rosamma V J	Staff Nurse (Hr. Gr)	Nursing and Midwifery
			Examination
0.5	0 04-11-14-0	Fair Carry Companies and and	SSLC, Typewriting English &
25	Smt. Stella V C	Fair Copy Superintendent.	Malayalam (Lower & Higher),
			Short hand English (Lower)
26	Sri. T Vijayan	Sr. Gr. Typist	SSLC, Typewriting English &
	, ,	71	Malayalam (Higher)
07	Const. Cook is a slore C. K.	Confidential Assistant	SSLC, Typewriting English &
27	Smt. Subhadra C K	SI.Gr	Malayalam Higher Short hand
			English Lower
		Confidential Assistant	SSLC, Typewriting English &
28	Smt. V Vilasini	Sr.Gr.I	Malayalam Higher , Short hand
			English Lower
00	0	Confidential Assistant	SSLC, Typewriting English &
29	Smt. Veluthakki C	Gr.II (Hr. Gr.)	Malayalam Higher , Short hand
	0:04:		English Lower
30	Sri. Sathianandan.P	UD Steward	SSLC, Typewriting English lower
31	Sri. Narayanankutty. P	U.D Steward	SSLC
32	Sri. Anwar Sadath. C	L.D Steward	PDC, Restaurant Counter
			Service, Typewriting English (lwr)
33	Smt. Devaki P P	Sr. Supdt	PDC
34	Smt. C.P Rugmini	Sr.Supdt	SSLC Typewriting Eng.(H)
35	Sri. A. Balan	DA	SSLC, Typewriting (E) Lower
36	Sri. M. Reejish Kumar	Jr. Supdt	SSLC
37	Sri. P. Muraleedharan	Jr.Supdt	SSLC
38	Smt. K.Mini	Js.Supdt	SSLC
39	Smt. P. Prama	U D Clerk	SSLC
40	Sri. A. Venugopal	Jr.Supdt	PDC
41	Smt. P.P Karthiayani	U D Clerk	SSLC (retired)
42	Sri. V. Hassan Mohammed	U D Clerk	SSLC
43	Smt. P.M Madhavi	U D Clerk	SSLC,Typewriting EnglishLower
44	Sri. S.M Shafi	U D Clerk	SSLC
45	Sri. P. Praveen Kumar	U D Clerk	BA
46	Sri. Petson Andrew	U D Clerk	BBA,MBA, Master of journalism
40	Sii. Petsoii Andrew	O D Clerk	& Mass communication
47	Sri. N. Sukumaran Nair	U D Clerk	BA
48	Sri. Prasad .M.V	DA	BA, PGDCA(Software)
49	Sri. Sasikumar K.T	U D Clerk	PDC
			BA, Typewriting English Higher,
50	Sri. K. Unnikrishnan	U D Clerk	Malayalam Lower, Part time
			course on Data Base
51	Smt. Soosy Kutty J.L	U D Clerk	BSc, Typewriting English Higher
5	, ,		Malayalam Lower
52	Smt. Juliet Das P.D	U D Clerk	MA, Typewriting English Higher
F2	Sri.Sethumadhavan	UD Clerk	SSLC Typowriting English Lower
53	Mecheri	OD CIGIK	SSLC,Typewriting English Lower
54	Sri. K.N Purushothaman	U D Clerk	RA Typewriting English Higher
J <del>4</del>	Pillai		BA, Typewriting English Higher
55	Smt. C.K Kanakambujam	L D Clerk (on leave)	PDC
56	Smt. G. Chandrika	U D Clerk	PDC
			BA, MA, Type writing English
57	Smt. P. Sindu	UDC	Lower ,Word Processing-
37	Silit. P. Silidu	000	Computer Course, Office
			Automation Course
58	Smt. Smera K.S.	U D Clerk	M.Sc. Computer Science,
59	Smt. Mereena John	U D Clerk	B.Sc., Typewriting English Lower
29	Sint. Wereena Julii	O D CIGIK	Computer Word Processing.
60	Smt. Sobhana T.	U D Clerk	B.Sc., PGDCA, Higher Diploma
5	Onit. Obbilaria 1.	O D Olerk	in Co-operation.
			PDC, NTC Trade-Electrician,
61	Sri. M.T Varughese	Assistant Engineer, EMU	Diploma in EE, Wireman License
			Certificate of Electrical Wiring
			SSLC, Diploma in CE,Part-time
62	Sri. T.E Thomas	Assistant Engineer, Engg.	course Architectural
UZ	Cit. I.L IIIOIIIAS	Unit	Draughtsman-ship, PT course on
			structural design and tall

			buildings
			SSLC, NTC-Mechanic
63	Sri. P.Keraleeyan	Sr. Foreman,MED	Refrigeration & Air Conditioning
			Diploma in M.E, B.TechME.
			SSLC, NTC Mechanic General
64	Cri K D Vanusanalas	In attricate a FOFD	Electronics,NTC Electrician
64	Sri. K.P Venugopalan	Instructor, ECED	trade, Diploma in EE, Post Diploma in Communications,
			B.Tech. (ECE)
GE.	Sri. T.K Sasidharan	Instructor CCD	PDC, NTC Electrician trade,
65	Sii. I.K Sasidharan	Instructor, EED	Diploma in EE
00	Sri. P. Anil Kumar	Supervisor, MED	SSLC, ITI Trade- Mechanic
66			R&A/c, Diploma in ME SSLC, Diploma in Civil Engg.,
67	Sri. A. K. Mohan Kumar	Asst.Engineer	B.TechCE.
68	Sri. E. Pradeep Kumar	Supervisor, MED	Diploma in Mechanical Engg.
69	Sri. P. Prabhakaran	Senior Mechanic (SI.Gr),	SSLC, Diploma in Electrical
	- Chilin Falanananan	EMU	Engineering (retired)
70		Senior Mechanic (SI.Gr),	SSLC, English Typewriting lower
	Sri. T.V Varghese	Engineering Unit	Certificate in CE (2 yearscourse)
71	Sri. B. Venugopal	Sr.Mechanic Sl.Gr.EMU	SSLC, NTC-wireman, Diploma in EE
72	P.T. Ashoka Kumar	Sr.Mechanic Sl.Gr.EED	SSLC, Certificate Exam in EE,
12	i . i . Asiioka Kuillal	GLIVIGGHANIC GLGLEED	Diploma in EE
73	Sri A Pajagonalan	System Analyst (Hr.Gr),	BSc, PG Diploma in Operations Research & computer
13	Sri. A. Rajagopalan	CSED	application, MSc, M.Tech.
			B.Sc., M.Sc.(maths), M.Sc in
			Information System, PG Diploma
74	Sri. Santhosh Kumar. S	System Programmer, CSED	in Computer Engg, & in Software
		3	Tech., Degree of master of science in information system
			(University of Chester)
			BSC,Typewriting English &
			Malayalam Higher, Computer
75	Sri. G. Sasidharan Pillai	Computer Technician, CSED	programming (COBOL), Console
			Operator Cum Programmer Asst.
			(NCVT), PG Diploma in computer Application
76	Sri V. P. Aigyachandran	Computer Operator	PDC, Diploma in ME, Post
70	Sri. V.R Ajayachandran	(Hr. Gr), CSED	Diploma in Computer Application
77	Pradeep Kumar K K	Instructor, MED	SSLC, ITI Trade- Mechanic
<u> </u>			Motor Vehicle, Diploma in ME SSLC, NTC Trade –Mechanic
78	Rajendran M.K	Instructor , MED	Gen. Electronics, Diploma in ME
79	Abhilash A	Sr. Mechanic, Sl. Gr. MED	ITI Fitter, Diploma in ME
80	Anandan P	Sr. Mechanic, Sl. Gr. MED	SSLC, Certificate Exam In Automobile Engineering
81	Dharmarajan K	Sr. Mechanic, Sl. Gr. MED	SSLC(Failed), Plumber-Trade
82	Joseph George P G	Sr. Mechanic, Sl. Gr.MED	SSLC, NTC-Turner
83	Mohanan T P	Sr. Mechanic, Sl. Gr. MED	ITI Diesel Mechanic, SSLC
84	Sasi. K K	Sr. Mechanic, Sl.Gr. MED	Pre Degree, Diploma in Computer Engg, Type Writing
04	Jasi. IN IN	SI. MEGHANIG, SI.GI. MED	English Lower
85	Velayudhan Kutty N P	Sr. Mechanic, Sl. Gr. MED	P D C, NCVT Electrical &
	v Giayuunan Kully IN F	Gr. Medianio, Gr. Gr. MED	Electronics, Diploma in ME
86	Ajayan A	Sr. Mechanic Sl.Gr. MED	J.T.S L C(Foundry), NTC Electrician (Foundry)
87	Eldho P Varghese	Sr. Mechanic ,MED	SSLC, NTC Mechanic Diesel, VHSE, Diploma in ME
88	George T M	Sr. Mechanic Sl.Gr. MED	SSLC, NTC Trade-Fitter
89	Manoj KG	Sr. Mechanic, MED	THSLC (Trade-Turning), Diploma in ME
00	Dropped Monophilded Veriath	Cr Machania MED	SSLC, NTC Welder, Diploma in
90	Prasad Moochikkal Variath	Sr. Mechanic , MED	ME

			JTSLC, Sheet Metal Diploma in
91	Raghu P V	Sr. Mechanic Sl.Gr.,MED	M.E
92	Sanal P R	Sr. Mechanic Sl.Gr, MED	P D C, NTC Mechanist (Trade)
93	Shali Joseph	Sr. Mechanic MED	SSLC, NTC(Foundry Trade)
94	Suresh K.C	Sr. Mechanic Sl.Gr,MED	SSLC, NTC Trade-Welder
95	Surendran. P.K	Sr. Mechanic Sl.Gr.MED	SSLC, Trade Mechanist-NAC Pre Degree, Diploma in M.E
96	Unnikrishnan R	Sr. Mechanic MED	(Machinist)
97	Vasu TC	Sr. Mechanic Sl.Gr.MED	SSLC, NTC- Mechanic (Diesel)
98	Sri. Mohanlal .D	Sr. Mechanic, Sl.Gr.CED Sr. Mechanic, Sl.Gr.CED	SSLC, NTC Trade Welder SSLC, NTC Trade Plumber
99	Sri. P. Sreenivasan	Sr. Mechanic, Si.Gr.CED	SSLC, NTC Trade Plumber ,
100	Sri. K. Shibu	Instructor, CED	Diploma in CE,Computer Shikshan
101	Sri. K. Sahadevan Nair	Sr.Mechanic,Sl.Gr.EED	VIIth Std
102	Sri. N.K Mohammed Sali	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
103	Sri. K. A Somanath	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
104	Sri. Sasesh A.R	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
105	Sri. Nanda Kumar K	Sr. Mechanic, EED	JTSLC, NTC Electrician ,B.com, Diploma in EE ,PT course in Data Entry & consoleoperation
106	Sri. Suresh Kumar. G	Sr.Mechanic, Sl.Gr. ECED	SSLC, NTC Trade Mechanic General Electronics
107	Sri. V. Krishnan Kutty	Sr. Mechanic, Sl.Gr.ECED	JTSLC, Trade Certificate Mechanic General Electronics
108	Sri. Anandan K.R	Sr. Mechanic, Sl.Gr.ECED	SSLC, NTC-Mechanic Radio & Television, NAC Trade Electronic Mechanic
109	Sri. Abdul Sathar V.M	Sr. Mechanic, CSED	Pre Degree, NTC Data preparation and Computer Software, Diploma IT
110	Sri. Narayana Lal M	Sr. Mechanic, MED	SSLC, ITI Electronics 1 year Diploma
111	Sri. Beljith P	Sr. Mechanic ,Bio-Mechanics	Pre Degree, Typewriting English Lower & Higher, B.Sc. Maths, Business Professional Programmer
112	Sri. Rameshan N	Driver	Driving Licence (Heavy) (retired)
113	Sri. T. Rajendran Pillai	Sr.Mechanic, CED	Army Trade Brick layer Construction (Ex-Military)
114	Sri. Noushad K.K	Sr.Mechanic, CED	Diploma in Computer Engg., NTC Data Preparation & Computer Software, Typewriting English (lower), Business professional programmer O'Level
115	Sri. Ajaya Kumar. R	Sr.Mechanic, CED	SSLC, NTC-D'man Civil
116	Sri. Jayan V.S	Sr.Mechanic, EED	SSLC, NTC Electrician,
117	Sri. Praveen H Babu	Sr. Mechanic, ECED	Electrical wireman license  SSLC, NTC ElectronicMechanic, Typewriting English (Lower), Job Training course in Advanced Electronics
118	Smt. Sreeja .V	Sr.Mechanic, CSED	Diploma in Computer Engg. – O' level, M.Sc
119	Sri. Biju Francis	Sr.Mechanic, CSED	PDC, Data Preparation & Computer Software (NTC) Typewriting English Lower, Word Processing and Data Entry Techniques
120	Sri. Raju K P	Sr. Mechanic, EMU	SSLC, NTC Electrician, Wireman
121	Sri.Santhosh Kumar MV	Sr.Mechanic, EMU	SSLC, Electrician NTC
122	Sri. Mahesan K A	Sr.Mechanic, EMU	SSLC, Electrician NTC, Diploma in EE

373   Sri. Sudheer P. R.   Sri. Mechanic Engg. Unit   PDC, NTC-Plumber	400	Cui Cudhaan D.D	Ca Mashania Faran Hait	COLO NITO Diserting
126   Sri. T K Sadanandan   Sr. Mechanic Sl.Gr., EED   NTC-Plumber   Sri. Polivakaran   Sr. Mechanic, Sl.Gr.   SSLC, NTC-Plumber   Sri. McAlawkutty   Sr. Mechanic Sl.Gr. Engg. Unit   SSLC, NTC-Plumber   Sri. McAbu Sicheek P K   Sr. Mechanic Engg. Unit   PDC, NTC-Plumber   Sri. Mathew Varghese   Sr. Mechanic Engg. Unit   PDC, NTC-Plumber   Sri. Abdul Sicheek P K   Sr. Mechanic Sig. Gr. ED   SSLC, NTC-Plumber   Sri. Asthyan P K   Sr. Mechanic Sig. Gr. ED   SSLC, NTC-Plumber   Sri. Asthyan P K   Sr. Mechanic, Sl.Gr. ED   SSLC, NTC-Plumber   Sri. C Sreenivasan   Sr. Mechanic, Sl.Gr. EMU   SSLC, NTC-Plumber   Sri. C Sreenivasan   Sr. Mechanic, Sl.Gr. EMU   SSLC, NTC-Plumber   SSLC, NTC-Plumber   Sri. C Steenivasan   Sr. Mechanic, Sl.Gr. EMU   SSLC, NTC-Plumber   SSLC, NTC-Plumber   Sri. C St. C Steenivasan   Sr. Mechanic EMU   SSLC, NTC-Plumber   SSLC, NTC-Plumber   SSLC, NTC-Plumber   Sri. C St. Mechanic EMU   SSLC, NTC-Plumber   SSLC, Pailed   Stl. Nt. Stl. Nt. Stl. Nt. Stl. Nt. Stl. Nt. Stl.				
126   Sri. P. Divakaran   Sr. Mechanic, (Sl.Gr.)   SSLC, NTC-Plumber				
Engg.Unit   SSLC, NIC-Flumber   SSLC, NIC-Flumber   SSLC   Sin. Mathew Varighese   Sr. Mechanic SI.Gr.Engg.Unit   PDC, NTC-Plumber   ST. Mechanic Engg Unit   PDC, NTC-Plumber   ST. Mechanic Engg Unit   SSLC, NTC-Plumber   ST. Mechanic SI.Gr.CED   SSLC, NTC-Plumber   ST. Mechanic SI.Gr.CED   SSLC, NTC-Plumber   ST. St. Mechanic SI.Gr.CED   SSLC, NTC-Plumber   ST. Mechanic SI.Gr.EMU   SSLC, NTC-Plumber   SSLC, Pailed   STLC, NT	125	SII. I N Sadanandan		NTC-Plumber
128   Sri. Mathew Varghese   Sr. Mechanic Engg.Unit   PDC, NTC-Plumber   129   Sri. Abudi Sidheek PK   Sr. Mechanic Sil Gr.CED   SSLC, NTC-Plumber   130   Sri. Sathyan P K   Sr. Mechanic (Si.Gr.) Engg   SSLC, NTC-Plumber   131   Sri. A M Mathew   Sr. Mechanic, (Si.Gr.) Engg   SSLC, NTC-Plumber   132   Sri. C Sreenivasan   Sr. Mechanic, Si.Gr. EMU   SSLC, NTC-Plumber   SSLC, ST.C. Plumber   SSLC, ST.C. Plumber   SSLC, NTC-Electrician   SSLC, NTC-Electrician   SSLC, NTC-Electrician   Trade, Type writing (E) Lower, Wireman Licance   SSLC, NTC-Electrician   Trade, Type writing (E) Lower, Wireman Licance   Sri. C V Abraham   Sr. Mechanic EMU   SSLC, NTC-Electrician   Sri. C V Abraham   Sr. Mechanic EMU   SSLC, NTC-Electrician   Sri. C V Abraham   Pach Ssistant (Hr. Gr.)   PDC, Certified Course in   Computer Programme   SS.C. Physics   Sri. Prakash Peter   Lab Assistant, Chemistry   B. Sc(Chemistry), CCCA   M.Sc(Applied Psychology)   Sri. Prakash Peter   Lab Assistant, Chemistry   Sri. Prakash Peter   Peon   SSLC Failed   Sri. P. Apputry   Peon   SSLC Failed   Sri. P. Apputry   Peon   SSLC Failed   Sri. B. Mchanan Nair   Peon   With Std.   Sri. Sangeetha P.K.   Peon   SSLC Failed   Sri. Sangeetha P.K.   Peon   With Std.   Sri. Sangeetha P.K.   Peon   With Std. (retired)   Watchman   Watchman   Watchman   With Std.   Sri. N. Abdul Hamee   Watchman   Watchman   With Std.   Watchman   With Std.   Watchman   Watchman   Watchman   With Std.   Watchman   Watchman   Watchman   Watchman   With Std.   Watchman   Watch			Engg.Unit	·
129   Sri. Abdul Sidheek P K   Sr. Mechanic Engg.Unit   SSLC, NTC-Plumber   130   Sri. Sathyan P K   Sr. Mechanic St. Gr. EDD   SSLC, NTC-Plumber   131   Sri. A M Mathew   Unit   Sr. Mechanic, (Sl.Gr.) Engg.   SSLC, NTC-Plumber   132   Sri. C Sreenivasan   Sr. Mechanic, Sl.Gr. EMU   SSLC, NTC-Plumber   SSLC, NTC-Electrician   Trade   Portion   SSLC, NTC-Electrician   SSLC, NTC-Electrician   SSLC, NTC-Electrician   Trade   Portion   Portion   Portion   SSLC, NTC-Electrician   Portion   Portion   SSLC, NTC-Electrician   Portion   Portion   SSLC, NTC-Electrician   Trade   Portion   Portion   Portion   SSLC, Portion   SSLC, Portion   SSLC, Portion				
391   Sri. Sathyan P K   Sr. Mechanic, Si.Gr. CED   SSLC, NTC-Plumber				
131         Sri. A M Mathew         Sr. Mechanic, (Sl.Gr. Engg. Unit           132         Sri. C Sreenivasan         Sr.Mechanic, Sl.Gr. EMU         SSLC, NTC-Plumber           133         Sri. C R Climson         Sr. Mechanic EMU         SSLC, NTC-Electrician           134         Sri. M K Radhakrishnan         Sr. Mechanic EMU         SSLC, NTC Electrician Trade           135         Sri. N K Radhakrishnan         Sr. Mechanic EMU         SSLC, NTC Electrician Trade           136         Sri. Prakash Peter         Lab Assistant, Chemistry         PDC, Certified Course in Computer Programme           136         Sri. Prakash Peter         Lab Assistant, Chemistry         B. Sc(Chemistry), CCCA           137         Smt. A. Sumathi         Peon (Hr.Gr)         Ist Std           138         Sri. C. Gopalan         Peon         SSLC Failed           140         Smt. T. P. Ravia         Peon         Illth Std.           141         Sri. B. Mohanan Nair         Peon         Illth Std.           142         Sri. K.V.Chandu         Peon         Illth Std.           143         Sri. Sangieri P.         Peon         Illth Std.           144         Smt. Sarojini P.         Peon         Illth Std.           145         Smt. Sangieri P.         Peon				
132   Sri. C Sreenivasan   Sr. Mechanic, St.Gr. EMU   SSLC, Miraman Exam (retired)	130	Sri. Sathyan P K	Sr. Mechanic Sl.Gr.CED	SSLC, NTC-Plumber
132   Sri. C. Sreenivasan   Sr.Mechanic, Si.Gr. EMU   SSLC, Wireman Exam (retired)	131	Sri. A M Mathew	Unit	SSLC, NTC-Plumber
133   Sri. C R Climson   Sr. Mechanic EMU   Trade, Type writing (E) Lower, Wireman Licence	132	Sri. C Sreenivasan	Sr.Mechanic, Sl.Gr. EMU	SSLC, Wireman Exam (retired)
134   Sri. M K Radhakrishnan   Sr. Mechanic EMU   SSLC, NTC Electrician Trade   Lab Assistant (Hr. Gr), PDC, Certified Course in Physics   PDC, Certified Course in Computer Programme   PSC, Chemistry), CCCA   Sri. Prakash Peter   Lab Assistant, Chemistry   B.Sc(Chemistry), CCCA   M.Sc(Applied Psychology)   Sit. St. Pakash Peter   Lab Assistant, Chemistry   S.S.C Failed   Sit. P. Apputty   Peon   SSLC Failed   Sit. C. Gopalan   Peon   Wth Std.   Wth Std.   Wth Std.   Str. P. Apputty   Peon   SSLC Failed   Wth Std.   Wth Std.   Wth Std.   Wth Std.   Sit. P. Apputty   Peon   Wth Std.   Wt	133	Sri. C R Climson	Sr. Mechanic EMU	Trade, Type writing (E) Lower,
Sri. C V Abraham	134	Sri. M K Radhakrishnan	Sr. Mechanic FMU	
136			Lab Assistant (Hr. Gr),	PDC, Certified Course in
137	136	Sri. Prakash Peter		B.Sc(Chemistry), CCCA
138   Sri, P. Apputty   Peon   SSLC Failed     139   Sri, C. Gopalan   Peon   Vth Std.     140   Smt, T.P. Ravia   Peon   Vth Std.     141   Sri, B. Mohanan Nair   Peon   Illth Std.     142   Sri, K.V.Chandu   Peon   Illth Std.     143   Smt, Sangeetha P.K.   Peon   SSLC Failed     144   Smt, Sarojini P.   Peon   Vilth Std. (retired)     145   Smt, Savithri, C.   Peon   Vilth Std. (retired)     146   Sri, M. Rajan   Watchman   SSLC Failed     147   Sri, K. Abdul Hameed   Watchman   Vilth Std.     148   Sri, P. Aravindan   Watchman   Vilth Std.     149   Sri, N.K. Ummerkutty   Watchman   Vilth Std.     149   Sri, N.K. Ummerkutty   Watchman   Vilth Std.     150   Sr. M. Sivaraman   Watchman   Vilth Std.     151   Sri, V.P. Sadanandan   Gardener   Vth Std. (retired)     152   Sri, P.K. Koran   Watchman cum Gardener   Vth Std. (retired)     153   Sri, T. Janardhanan   Watchman cum Gardener   SSLC     154   Sri, Sadanandan M.M.   Watchman cum Gardener   SSLC     155   Sri, Mamukoya M.   Watchman cum Gardener   SSLC     156   Sri, Abdul Razak P.   Watchman cum Gardener   Vilth Std.     157   Sri, C. Preman   Watchman cum Gardener   Vilth Std.     158   Sri, M.K. Rajan   Watchman cum Gardener   Vilth Std.     159   Sri, M.K. Rajan   Watchman cum Gardener   SSLC     160   Sri, P. V. Bhagyanathan   Watchman cum Gardener   SSLC     161   Sri, Vinod K.P.   Watchman cum Gardener   SSLC     162   Sri, Revi V.   Watchman cum Gardener   SSLC     163   Sri, K. Bhaskaran   Watchman cum Gardener   SSLC     164   Sri, K. Balakrishnan   Watchman cum Gardener   SSLC     165   Sri, M.K. Rajan   Watchman cum Gardener   SSLC     166   Smt. V. Pushpavally   Sanitation Worker   SSLC     167   Smt. K. Santha   Sanitation Worker   SSLC     168   Smt. O. Chandramathi   Sanitation Worker   SSLC     179   Smt. K.P. Devi   Sanitation Worker   SSLC     170   Smt. L. Sianala   Sanitation Worker   SSLC     171   Smt. C. Geetha   Sweeper cum Sanitation   SSLC     172   Smt. C. Geetha   Sweeper cum Sanitation   SSLC     173   Smt. C. Geetha   Sw	137	Smt. A. Sumathi	Peon (Hr.Gr)	
139   Sri. C. Gopalan   Peon   Vth Std.     140   Smt. T.P. Ravia   Peon   Vth Std.     141   Sri. B. Mohanan Nair   Peon   Illith Std.     142   Sri. K.V.Chandu   Peon   Illith Std.     143   Smt. Sangeetha P.K.   Peon   SSLC Failed     144   Smt. Sarojini P.   Peon   Vilth Std. (retired)     145   Smt. Savithri.C   Peon   Vilth Std. (retired)     146   Sri. M. Rajan   Watchman   SSLC Failed     147   Sri. K. Abdul Hameed   Watchman   Vilth Std. (retired)     148   Sri. P. Aravindan   Watchman   Vilth Std.     149   Sri. N.K. Ummerkutty   Watchman   Vilth Std.     149   Sri. N.K. Ummerkutty   Watchman   Vilth Std.     150   Sr. M. Sivaraman   Watchman   Vilth Std.     151   Sri. V.P. Sadanandan   Gardener   Vth Std. (retired)     152   Sri. P.K. Koran   Watchman cum Gardener   Vth Std. (retired)     153   Sri. T. Janardhanan   Watchman cum Gardener   SSLC     154   Sri. Sadanandan M.M.   Watchman cum Gardener   SSLC     155   Sri. Mamukoya M.   Watchman cum Gardener   Vilth Std.     156   Sri. Abdul Razak P.   Watchman cum Gardener   Vilth Std.     157   Sri. C. Preman   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     159   Sri. M.K. Rajan   Watchman cum Gardener   SSLC     161   Sri. Vinod K.P.   Watchman cum Gardener   SSLC     162   Sri. Revi V.   Watchman cum Gardener   IVth Std.     163   Sri. K. Bhaskaran   Watchman cum Gardener   IVth Std.     164   Sri. K. T. Balakrishnan   Watchman cum Gardener   IVth Std.     165   Smt. V. Pushpavally   Sanitation Worker   SSLC     166   Smt. K. Thankamani   Sanitation Worker   SSLC     170   Smt. I. Siamala   Sanitation Worker   SSLC     171   Smt. K. Saniha   Sanitation Worker   SSLC     172   Smt. Sasikala L.   Sweeper cum Sanitation   SSLC     173   Smt. C. Geetha   Sweeper cum Sanitation   SSLC     174   Smt. C. Cheetha   Sweeper cum Sanitation   SSLC     175   Smt. C. Chetha   Sweeper cum Sanitation   SSLC     176   Smt. C. Chetha   Sweeper			· · · · · · ·	
140   Smt. T.P. Ravia   Peon   Illth Std.     141   Sri. B. Mohanan Nair   Peon   Illth Std.     142   Sri. K.V.Chandu   Peon   Illth Std.     143   Smt. Sangeetha P.K.   Peon   SSLC Failed     144   Smt. Sarojini P.   Peon   Vilth Std. (retired)     145   Smt. Savithri.C   Peon   Vilth Std. (retired)     146   Sri. M. Rajan   Watchman   SSLC Failed     147   Sri. K. Abdul Hameed   Watchman   Vilth Std.     148   Sri. P. Aravindan   Watchman   Vilth Std.     149   Sri. N.K. Ummerkutty   Watchman   Vilth Std.     149   Sri. N.K. Ummerkutty   Watchman   Vilth Std.     150   Sr. M. Sivaraman   Watchman   Vilth Std.     151   Sri. V.P. Sadanandan   Gardener   Vth Std. (retired)     152   Sri. P.K. Koran   Watchman cum Gardener   Vth Std. (retired)     153   Sri. T. Janardhanan   Watchman cum Gardener   SSLC     154   Sri. Sadanandan M.M.   Watchman cum Gardener   SSLC     155   Sri. Mamukoya M.   Watchman cum Gardener   Vilth Std.     156   Sri. Abdul Razak P.   Watchman cum Gardener   Vilth Std.     157   Sri. C. Preman   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     159   Sri. M.K. Rajan   Watchman cum Gardener   Vilth Std.     160   Sri. P. V. Bhagyanathan   Watchman cum Gardener   SSLC     161   Sri. Vinod K.P.   Watchman cum Gardener   SSLC     162   Sri. Revi V.   Watchman cum Gardener   SSLC     163   Sri. K. T. Balakrishnan   Watchman cum Gardener   SSLC     164   Sri. K. T. Balakrishnan   Watchman cum Gardener   SSLC     165   Smt. V. Pushpavally   Sanitation Worker   Vilth Std.     166   Smt. V. Pushpavally   Sanitation Worker   Vilth Std.     167   Smt. Freeda S. Balan   Sanitation Worker   SSLC Failed     170   Smt. I. Siamala   Sanitation Worker   SSLC Failed     171   Smt. K.K. Santha   Sanitation Worker   SSLC Failed     172   Smt. K.P. Devi   Sanitation Worker   SSLC Failed     173   Smt. C. Geetha   Sweeper cum Sanitation   SSLC Failed     176   Smt. C. Geetha   Sweeper cum S				
141   Sri. B. Mohanan Nair   Peon   Illth Std.     142   Sri. K.V.Chandu   Peon   IVth Std.     143   Smt. Sangeetha P.K.   Peon   SSLC Failed     144   Smt. Sarojini P.   Peon   Vilth Std. (retired)     145   Smt. Savithri.C   Peon   Vilth Std. (retired)     146   Sri. M. Rajan   Watchman   SSLC Failed     147   Sri. K. Abdul Hameed   Watchman   Vilth Std.     148   Sri. P. Aravindan   Watchman   Vilth Std.     149   Sri. N.K. Ummerkuty   Watchman   Vilth Std.     149   Sri. N.K. Ummerkuty   Watchman   Vilth Std.     150   Sr. M. Sivaraman   Watchman   Vilth Std.     151   Sri. V.P. Sadanandan   Gardener   Vth Std. (retired)     152   Sri. P.K. Koran   Watchman cum Gardener   Vth Std. (retired)     153   Sri. T. Janardhanan   Watchman cum Gardener   SSLC     154   Sri. Sadanandan M.M.   Watchman cum Gardener   Vilth Std.     155   Sri. Mamukoya M.   Watchman cum Gardener   Vilth Std.     156   Sri. Abdul Razak P.   Watchman cum Gardener   Vilth Std.     157   Sri. C. Preman   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     159   Sri. M.K. Rajan   Watchman cum Gardener   Vilth Std.     150   Sri. P. V. Bhagyanathan   Watchman cum Gardener   Vilth Std.     150   Sri. Revi V.   Watchman cum Gardener   SSLC     161   Sri. Vinod K.P.   Watchman cum Gardener   IVth Std.     162   Sri. Revi V.   Watchman cum Gardener   IVth Std.     163   Sri. K. Bhaskaran   Watchman cum Gardener   IVth Std.     164   Sri. K. Balakrishnan   Watchman cum Gardener   IVth Std.     165   Smt. V. Pushpavally   Sanitation Worker   IVth Std.     166   Smt. V. Pushpavally   Sanitation Worker   IVth Std.     167   Smt. Freeda S. Balan   Sanitation Worker   IVth Std.     168   Smt. V. P. Thankam   Sanitation Worker   IVth Std.     170   Smt. I. Siamala   Sanitation Worker   SSLC Failed     171   Smt. K.K. Santha   Sanitation Worker   SSLC Failed     172   Smt. K.P. Devi   Sanitation Worker   SSLC Failed     173   Smt. Devi Poolakkal   Sanitation Worker   SSLC Failed     176   Smt. Sasik				
142         Sri. K.V.Chandu         Peon         IVth Std           143         Smt. Sangeetha P.K.         Peon         SSLC Failed           144         Smt. Savithri.C         Peon         VIIth Std.(retired)           145         Smt. Savithri.C         Peon         VIIth Std (retired)           146         Sri. M. Rajan         Watchman         SSLC Failed           147         Sri. K. Abdul Hameed         Watchman         VIIth Std.           148         Sri. P. Aravindan         Watchman         VIIth Std.           149         Sri. N.K. Ummerkutty         Watchman         VIIth Std.           150         Sr. M. Sivaraman         Watchman         VIIth Std.           151         Sri. N.K. Coran         Watchman cum Gardener         Vth Std. (retired)           152         Sri. P.K. Koran         Watchman cum Gardener         Vth Std. (retired)           153         Sri. T. Janardhanan         Watchman cum Gardener         SSLC           155         Sri. Mamukoya M.         Watchman cum Gardener         VIIth Std.           155         Sri. A. Abdul Razak P.         Watchman cum Gardener         VIIth Std.           156         Sri. A. Bajan         Watchman cum Gardener         VIIth Std.           159	141			IIIth Std.
143   Smt. Sangeetha P.K.   Peon   SSLC Failed     144   Smt. Sarojini P.   Peon   Vilth Std.(retired)     145   Smt. Savithri.C   Peon   Vilth Std. (retired)     146   Sri. M. Rajan   Watchman   SSLC Failed     147   Sri. K. Abdul Hameed   Watchman   Vilth Std.     148   Sri. P. Aravindan   Watchman   Vilth Std.     149   Sri. N.K. Ummerkutty   Watchman   Vilth Std.     150   Sr. M. Sivaraman   Watchman   Vilth Std.     151   Sri. V.P. Sadanandan   Gardener   Vith Std. (retired)     152   Sri. P.K. Koran   Watchman cum Gardener   Vith Std. (retired)     153   Sri. T. Janardhanan   Watchman cum Gardener   Vith Std. (retired)     154   Sri. Sadanandan M.M.   Watchman cum Gardener   SSLC     155   Sri. Mamukoya M.   Watchman cum Gardener   Vilth Std.     156   Sri. Abdul Razak P.   Watchman cum Gardener   Vilth Std.     157   Sri. C. Preman   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   Vilth Std.     158   Sri. T. Narayanan   Watchman cum Gardener   SSLC     158   Sri. Sri. Narayanan   Watchman cum Gardener   SSLC     159   Sri. M.K. Rajan   Watchman cum Gardener   SSLC     160   Sri. P. V. Bhagyanathan   Watchman cum Gardener   SSLC     161   Sri. V. Shagyanathan   Watchman cum Gardener   SSLC     162   Sri. Revi V.   Watchman cum Gardener   SSLC     163   Sri. K. Bhaskaran   Watchman cum Gardener   SSLC     164   Sri. K. T. Balakrishnan   Watchman cum Gardener   SSLC     165   Smt. V. Pushpavally   Sanitation Worker   Vith Std.     166   Smt. K. Thankamani   Sanitation Worker   Vith Std.     167   Smt. Freeda S. Balan   Sanitation Worker   SSLC     178   Smt. V. Pushpavally   Sanitation Worker   SSLC     179   Smt. K.P. Devi   Sanitation Worker   SSLC Failed     171   Smt. K. Santha   Sanitation Worker   SSLC Failed     172   Smt. K.P. Devi   Sanitation Worker   SSLC Failed     173   Smt. Devi Poolakkal   Sanitation Worker   SSLC Failed     176   Smt. Sasikala L.   Sweeper cum Sanitation     177   Smt. C. Geetha   Sweeper cum Sanitation   SSLC     178   Smt. C. Tha				
144         Smt. Savithri.C         Peon         Vilth Std. (retired)           145         Smt. Savithri.C         Peon         Vilth Std (retired)           146         Sri. M. Rajan         Watchman         SSLC Failed           147         Sri. K. Abdul Hameed         Watchman         Vilth Std.           148         Sri. P. Aravindan         Watchman         Vilth Std.           148         Sri. N.K. Ummerkutty         Watchman         Vilth Std.           150         Sr. M. Sivaraman         Watchman         Vilth Std.           151         Sri. N.K. Ummerkutty         Watchman         Vilth Std.           151         Sri. N.K. Koran         Watchman         Vilth Std.           152         Sri. K. Koran         Watchman cum Gardener         Vilth Std. (retired)           152         Sri. K. Koran         Watchman cum Gardener         SSLC           154         Sri. Sadanandan M.M.         Watchman cum Gardener         SSLC           155         Sri. Abdul Razak P.         Watchman cum Gardener         Vilth Std.           156         Sri. Abdul Razak P.         Watchman cum Gardener         Vilth Std.           157         Sri. C. Preman         Watchman cum Gardener         Vilth Std.           158 <td></td> <td></td> <td></td> <td></td>				
145         Smt. Savithri.C         Peon         Vilth Std (retired)           146         Sri. M. Rajan         Watchman         SSLC Failed           147         Sri. K. Abdul Hameed         Watchman         Vilth Std.           148         Sri. P. Aravindan         Watchman         Villth Std.           149         Sri. N.K. Ummerkutty         Watchman         Villth Std.           150         Sr. M. Sivaraman         Watchman         Villth Std.           151         Sri. V.F. Sadanandan         Gardener         Vth Std. (retired)           151         Sri. V.F. Sadanandan         Gardener         Vth Std. (retired)           152         Sri. P.K. Koran         Watchman cum Gardener         Vilth Std. (retired)           153         Sri. T. Janardhanan         Watchman cum Gardener         SSLC           154         Sri. Sadanandan M.M.         Watchman cum Gardener         SSLC           155         Sri. Mamukoya M.         Watchman cum Gardener         Villth Std.           156         Sri. Abdul Razak P.         Watchman cum Gardener         Villth Std.           157         Sri. C. Preman         Watchman cum Gardener         Villth Std.           159         Sri. M. Rajan         Watchman cum Gardener         SSLC </td <td></td> <td>Smt. Sarojini P.</td> <td></td> <td></td>		Smt. Sarojini P.		
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176     Smt. Sasikala L.     Sweeper cum Sanitation Worker     SSLC Failed       177     Smt. C.Geetha     Sweeper cum Sanitation Worker     SSLC       178     Smt. C Thanka     Sweeper cum Sanitation Worker     SSLC				
177     Smt. C.Geetha     Sweeper cum Sanitation Worker     SSLC       178     Smt. C Thanka     Sweeper cum Sanitation Worker     SSLC		•	Sweeper cum Sanitation	
Worker SSLC	177	Smt. C.Geetha	Sweeper cum Sanitation	SSLC
179 Smt. Jameela A.K. Sweeper cum Sanitation SSLC Failed	178	Smt. C Thanka		SSLC
	179	Smt. Jameela A.K.	Sweeper cum Sanitation	SSLC Failed

		Worker	
180	Sri. K Parameswaran	Bearer cum Roomboy	SSLC Failed
181	Sri. P. Abdurahiman	Bearer cum Roomboy	SSLC Failed
182	Sri. Unnikrishnan C.	Vehicle Cleaner	SSLC Failed

# 3.3 TRAINING STATUS DEPARTMENT OF ARCHITECTURE

SI. No	Name of Faculty member	Details of Training programme
	Ar. Mohammed Firoz	Residential Management Development Programme on 'Academic Leadership' from 2 <sup>nd</sup> March to 7 <sup>th</sup> March at IIM Kozhikode.
		(sponsored by TEQIP)

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

SI. No	Name of Faculty member	Details of Training programme
1	Mr. Jimmy Jose	Participated and presented paper in ACRI 2014, International Conference on Cellular Automata for Research and Industry during September 22-25, 2014 held at Krakow, Poland
2	Abdul Nazeer K A	Participated and presented paper in4th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS-2014)., Florida, USA.

#### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SI. No	Name of Faculty member	Details of Training programme
1	Dr.Elizabeth Elias	Attended 3 days Advanced pedagogy training conducted by Teaching Learning Centre IITM during 22-24, December, 2014
2	Dr.P.SSathidevi	Attended 3 days Advanced pedagogy training conducted by Teaching Learning Centre IITM during 22-24, December, 2014
3	Dr.Sreelekha G	Attended 3 days Advanced pedagogy training conducted by Teaching Learning Centre IITM during 22-24, December, 2014 Attended One day workshop on "Procurement Practices" conducted by NPIU at PSG college of Management, Coimbatore on 22nd August, 2014.
4	Dr.Ameer P M	Attended National Workshop on Application of Wireless Sensor Networks and Robotics in Agriculture and Rural Development , 17-18 March 2015, Trivandrum.
5	Dr.Bindiya T.S.	Attended 3 days Advanced pedagogy training conducted by Teaching Learning Centre IITM during 22-24, December, 2014
6	Dr. Praveen Sankaran	Sponsorship for 4 conference papers under PDA

#### DEPARTMENT OF ELECTRICAL ENGINEERING

SI.No	Name of faculty member	Details of Training programme
1	Dr.Subha D.P	(1) Attended and presented a paper in International Conference on Bio. Engg. & Biomedical Engg. (ICBBE 2014) held at Zuruih during July 30-31, 2014.
		(2) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Dec 22 - Dec 24, 2014.
2	Dr. Jagadanand G	<ol> <li>Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Dec 22 - Dec 24, 2014.</li> <li>Attended 3 day workshop on Academic Leadership conducted by IIM Kozhikode, from Feb 27- March 1, 2015.</li> </ol>
3	Dr. Jeevamma Jacob	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Dec 22 - Dec 24, 2014.

4	Dr. RijilRamchand	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Oct 20 - Oct 22, 2014.
5	Dr. Sunitha K.	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Dec 22 - Dec 24, 2014.
6	Dr. T. K. Sunil Kumar	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Oct 20 - Oct 22, 2014.
7	Ms. Hemarani P	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Dec 22 - Dec 24, 2014.
8	Dr. Elizabeth P. Cheriyan	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Oct 20 - Oct 22, 2014.
9	Dr. Sunitha R.	(1) Attended 3 day workshop on Advanced Pedagogy conducted by IIT Chennai, from Oct 20 - Oct 22, 2014.
10	Dr. Mija S. J.	(1) Attended and presented paper at IEEE International conference on industrial technology (ICIT 2015) held at Seville, Spain during 17-19 March 2015.

#### 3.4. PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

#### DEPARTMENT OF COMPUTER SCIENCE& ENGINEERING

SI No	Name	Academic Excellence
1	Smt. Anu Mary Chacko	Pursuing Ph.D (Part Time) at NIT Calicut
2	Sri.Jayaraj P B	Pursuing Ph.D (Part Time) at NIT Calicut
4	Smt.Lijiya A	Pursuing Ph.D(Part Time) at NIT Calicut
5	Smt. Pournami P N	Pursuing Ph.D(Part Time) at NIT Calicut
6	Sri.SaidalaviKalady	Pursuing Ph.D(Part Time) at NIT Calicut
7	Smt.Saleena N	Pursuing Ph.D(Part Time) at NIT Calicut

#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SI. No.	Name	Academic Excellence
1	Sri.Jaikumar M.G.	Pursuing Ph. D under QIP at IIT Madras
2	Sri.Sudhish N. George	Pursuing Ph. D (PT) at NIT Calicut
3	Smt.Suja K. J.	Pursuing Ph. D (PT) at NIT Calicut
4	Smt.Bindiya T. S.	Pursuing Ph. D (PT) at NIT Calicut
5	Sri.Dhanaraj K. J.	Pursuing Ph. D under QIP Scheme at IIT Delhi
6	Sri.V. Sakthivel	Pursuing Ph. D (PT) at NIT Calicut
7	Sri.Jayakumar E. P.	Pursuing Ph. D (PT) at NIT Calicut
8	Sri.Raghu C.V.	Pursuing Ph. D under QIP Scheme at IISc
9	Sri.Bhuvan B.	Pursuing Ph. D under QIP Scheme at IIT Delhi

#### **DEPARTMENT OF CHEMICAL ENGINEERING**

SI No.	Name	Academic Excellence
1.	Sri.Vineesh Ravi	Pursuing Ph.D (PT) at NIT Calicut
2.	Sri.Haribabu	Pursuing Ph.D (PT) at NIT Calicut

#### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

SI. No	Name	Academic Excellence
1.	Sri.Hanas.T	Pursuing Ph. D under QIP at IIT Madras

#### 4.0 TEACHING PROGRAMMES

#### 4.1 Programmes Offered

#### **DEPARTMENT OF ARCHITECTURE**

- i) B.Arch.
- ii) Ph.D.

#### **DEPARTMENT OF BIOTECHNOLOGY**

- i) B.Tech. (Biotechnology)
- ii) Ph.D. in Biotechnology

#### **DEPARTMENT OF CHEMICAL ENGINEERING**

- i) B.Tech. (Chemical Engineering)
- ii) Ph.D. (Chemical Engineering)

#### **DEPARTMENT OF CHEMISTRY**

- i) M.Sc (Chemistry)
- ii) Ph.D. Organic, Inorganic, Physical, Polymer, Theoretical, Bio-Organic and Bio-inorganic Chemistry

#### **DEPARTMENT OF CIVIL ENGINEERING**

- i) B.Tech. (Civil Engineering)
- ii) M.Tech. (Structural Engineering)
- iii) M.Tech. (Traffic & Transportation Planning)
- iv) M.Tech. (Offshore Structures)
- v) M.Tech. (Environmental Geotechnology)
- vi M.Tech. (Water Resources Engineering))
- vii) Ph.D.

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

- i) B.Tech. (Computer Science & Engineering)
- ii) MCA
- iii) M.Tech. (Computer Science & Engineering)
- iv) M.Tech. (Computer Science & Engineering (Information Security)
- v) Ph.D.

#### **DEPARTMENT OF ELECTRICAL ENGINEERING**

- i) B.Tech. (Electrical & Electronics Engineering)
- ii) M.Tech. (Instrumentation & Control Systems)
- iii) M.Tech. (Power Systems)
- iv) M.Tech. (Power Electronics)
- v) M.Tech. (Industrial Power & Automation)
- vi) M. Tech (High voltage Engineering)
- Vii) Ph.D various areas of Electrical Engineering

#### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

- i) B. Tech. (Electronics and Communication Engineering)
- ii) M.Tech. (Electronics Design and Technology)
- iii) M.Tech. (Microelectronics and VLSI Design)
- iv) M.Tech. (Telecommunication)
- v) M.Tech. (Signal Processing)
- vi) Ph. D

#### **DEPARTMENT OF MATHEMATICS**

- i) M.Sc. (Tech.) (Mathematics and Scientific Computing)
- ii) M.Sc (Mathematics)
- iii) Ph.D

#### **DEPARTMENT OF MECHANICAL ENGINEERING**

- i) B.Tech. (Mechanical Engineering)
- ii) B.Tech. (Production Engineering)
- iii)M.Tech.(Industrial Engineering and Management)
- iv) M.Tech.(Thermal Sciences)
- v) M.Tech.(Manufacturing Technology)
- vi) M. Tech. (Energy Engineering and Management)
- vii) M.Tech. (Materials Science and Technology)
- viii) Ph. D.(All area Mechanical engineering)

#### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

i) M Tech (Nanotechnology) ii)Ph.D

#### **DEPARTMENT OF PHYSICS (Confusion)**

- i) B.Tech (Engineering Physics) 4 years
- ii) M.Sc (Tech) Photonics 3 years
- iii) M.Sc Physics 2 years
- iv) Ph.D

#### **SCHOOL OF MANAGEMENT STUDIES**

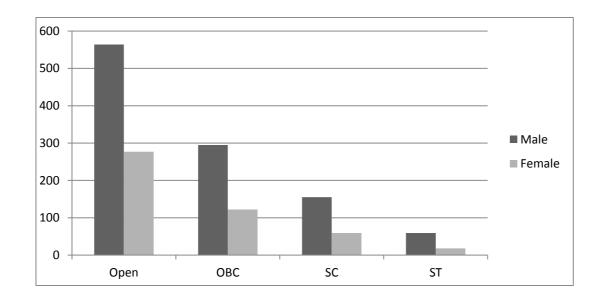
- i) MBA
- ii) Ph.D.

#### **DEPARTMENT OF PHYSICAL EDUCATION**

Class-room orientation of freshers and One-credit course in physical education (ZZ1093) including Olympic Values Education Programme, a course intended to inculcate values, character through sports and event-managerial abilities in students and Tae kwon-do for teaching girls self defence and martial arts. The courses were included in institute time-table for all the first year students.

#### 4.2 COURSE-WISE ENROLMENT WITH SEX, CASTE, BREAK UP 2014-2015

Level	(	Open	(	OBC		SC	S	TOTAL	
Level	Male	Female	Male	Female	Male	Female	Male	Female	IOIAL
B.Tech./B.Arch.	321	142	183	72	99	38	41	12	908
M.Tech.	158	51	81	26	42	15	14	5	392
MCA	14	6	6	4	5	1	2	0	38
MBA	9	15	8	2	1	2	0	1	38
M.Sc.	2	28	9	8	6	2	1	0	56
Ph.D.	60	35	8	10	2	1	1	0	117
Total	564	277	295	122	155	59	59	18	1549



#### 4.3. Admission Statistics-UG/PG Programmes, course-wise

#### 4.3.1. 1st semester B.Tech/B.Arch Admission 2014-15

SPECIALISATION	OO	ОР(РН)	OP(OB)	оР(ов)РН	OP(SC)	оР(SC)РН	OB	ОВ(РН)	၁ၭ	SC(PH)	ST	ST(РН)	NRI	DASA	FOREIGN	MEA (WELFARE)	TOTAL	MALE	FEMALE	TOTAL
Architecture	21	1	0	0	0	0	12	0	7	0	3	0	0	5	0	0	49	26	23	49
Bio Technology	12	0	0	0	0	0	7	0	4	0	1	0	0	5	0	0	29	12	17	29
Civil Engineering	69	1	0	0	0	0	35	1	20	0	9	1	0	13	3	0	152	102	50	152
Chemical Engineering	44	2	0	0	0	0	24	1	14	0	4	0	0	7	0	0	96	68	28	96
Computer Science and Engineering	66	3	0	0	0	0	38	1	20	1	8	0	0	13	1	0	151	101	50	151
Electrical and Electronics Engineering	67	2	0	0	0	0	36	1	20	0	6	0	0	13	0	0	145	103	42	145
Electronics and Communication Engineering	68	2	0	0	0	0	37	1	20	0	7	0	0	13	1	1	150	90	60	150
Engineering Physics	15	0	0	0	0	0	8	0	5	0	1	0	0	4	0	0	33	24	9	33
Mechanical Engineering	67	1	0	0	0	0	38	1	19	1	10	1	0	13	0	0	151	149	2	151
Production Engineering	20	1	0	0	0	0	13	1	6	0	2	0	0	5	0	0	48	40	8	48
Total	449	13	0	0	0	0	248	7	135	2	51	2	0	91	5	1	1004	715	289	1004

#### 4.3.2. 1st Semester M.Tech. 2014-2015

SI No	Departments and Programmes	Code	1 0 0	Z L D		OP-PD	OBC		0B -	PD		သွ	ŀ	<u>,</u>		QIP	dio	(POLY)		SP	6	ASAO		TOTAL	Total
					C	IVIL	ENG	NEE	RING	DEF	PART	MEN	Γ												
			M	F	M	F	М	F	М	F	M	F	М	F	М	F	M	F	M	F	M	F	M	F	
1	Structural Engineering	CE61	9	1	0	0	4	2	0	0	2	1	0	1	0	0	0	0	0	0	0	0	15	5	20
2	Traffic & Transportation Engg.	CE62	4	6	0	0	1	5	0	0	2	1	0	0	0	0	0	0	0	0	0	0	7	12	19
3	Offshore Structures	CE63	3	6	1	0	5	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	10	7	17
4	Environmental Geotechnology	CE64	2	8	0	0	1	5	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	15	19
5	Water Resources Engineering	CE65	2	4	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	7	9
				(	CON	IPUT	ER S	CIEN	CE A	ND I	ENGII	NEER	ING												
1	Computer Science and Engineering	CS61	8	2	0	0	5	1	0	0	2	1	1	0	3	1	0	0	1	0	0	0	20	5	25
2	Computer Science and Engg. (Information Security	CS62	5	4	1	0	3	2	0	0	1	1	0	1	0	0	0	0	0	0	0	0	10	8	18
			E	LECT	ΓRΟΙ	NICS	AND	CON	IMUN	NICA	TION	ENG	NEEF	RING	i										
1	Electronics Design And Technology	EC61	7	3	0	0	4	2	0	0	2	1	0	1	0	0	0	0	1	0	0	0	14	7	21
2	Microelectronics &VIsi Design	EC62	8	2	0	0	4	0	1	0	2	1	2	0	1	0	0	0	0	0	0	0	18	3	21
3	Tele Communication	EC63	4	2	0	0	3	1	0	0	1	1	0	0	0	1	0	0	1	0	1	1	10	6	16
4	Signal Processing	EC64	3	3	1	0	3	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	8	6	14
						El	ECT	RICA	L EN	GINE	EERIN	NG													
1	Instrumentation And Control Systems	EE61	9	1	0	0	4	1	0	0	3	0	1	0	0	0	0	0	1	1	0	0	18	3	21
2	Power Systems	EE62	7	3	0	0	4	1	0	0	2	1	1	1	0	0	1	0	0	1	0	0	15	7	22
3	Power Electronics	EE63	7	3	0	0	3	2	0	0	3	0	2	0	0	0	0	0	1	0	0	1	15	7	22
4	Industrial Power And Automation	EE64	9	0	1	0	3	2	0	0	3	0	0	1	1	0	0	0	0	0	0	0	17	3	20
5	High Voltage Engineering	EE65	5	2	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	10	2	12
						ME	ЕСНА	NICA	L EN	IGIN	EERII	NG													
1	Industrial Engineering And Management	ME61	10	0	0	0	5	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	19	0	19
2	Thermal Sciences	ME62	10	0	0	0	6	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	21	0	21
3	Manufacturing Technology	ME63	9	1	0	0	5	0	0	0	2	0	1	0	0	0	0	0	1	0	0	0	18	1	19
4	Energy Management	ME64	10	0	0	0	3	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	17	0	17
5	Materials Science And Technology	ME65	10	0	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	19	0	19
6	Machine Design	ME66	7	0	0	0	3	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	12	1	13
			•		N	ANO	SCIE	NCE	AND	TEC	CHNC	LOG	Y								•				
1	Nano Technology	NS61	6	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	1	10
	Total		154	51	4	0	80	26	1	0	42	15	14	5	5	3	1	0	7	3	1	2	308	106	414

#### 4.3.3. M.Sc. (Tech.), MCA & Ph.D. 2014-2015

DEPARTMENT	COURSE	OPEN	Q4-40	овс	OBC-PD	၁ၭ	SC-PD	ST	ST-PD	MALE	FEMALE	TOTAL	F.TIME	P.TIME	EXTERNAL	TOTAL
Mathematics(MMA)		10	0	5	0	2	0	0	0	4	13	17				
Physics(PHA)	M.Sc.(Tech.)	10	0	7	0	3	0	1	0	9	12	21				
Chemistry(CYA)		10	0	5	0	3	0	0	0	5	13	18				
	Total	30	0	17	0	8	0	1	0	18	38	56				
	MCA	20	0	10	0	6	0	2	0	27	11	38				
	MBA	24	0	10	0	3	0	1	0	18	20	38				

Ph. D

				С	ateg	ory					Scheme											
Departments	OP	EN	0	вс	S	С	S	Т	То	tal	Full Time	Internal	Part	External	QIP	QIP						
	M	F	M	F	M	F	M	F	M	F	T dil Tillic	internal	Time	LXterrial	Q.II	(Poly)	Total					
Architecture	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1					
Biotechnology	3	2	0	0	0	0	0	0	3	2	4	0	0	1	0	0	5					
Chemical Engineering	9	3	1	1	0	0	0	0	10	4	9	0	5	0	0	0	14					
Civil Enginnering	4	5	1	1	1	1	0	0	6	7	11	0	2	0	0	0	13					
Computer Science and Enginnering	2	2	0	2	0	0	1	0	3	4	4	1	1	0	1	0	7					
Chemistry	2	6	2	2	1	0	0	0	5	8	7	2	3	1	0	0	13					
Electrical Engineering	9	2	1	2	0	0	0	0	10	4	10	0	2	1	1	0	14					
Electronics Engineering	8	7	0	1	0	0	0	0	8	8	9	0	4	0	3	0	16					
Mathematics	6	2	0	1	0	0	0	0	6	3	4	0	5	0	0	0	9					
Mechanical Engineering	8	2	1	0	0	0	0	0	9	2	8	0	1	0	2	0	11					
Nano Science and Technology	3	0	1	0	0	0	0	0	4	0	3	0	1	0	0	0	4					
Physics	4	2	1	0	0	0	0	0	5	2	5	1	1	0	0	0	7					
School of Management Studies	2	1	0	0	0	0	0	0	2	1	2	0	1	0	0	0	3					
TOTAL	60	35	8	10	2	1	1	0	71	46	76	4	27	3	7	0	117					

#### 4.4. Student's Total Strength 2014-15

#### 4.4.1 B.Tech. /B.Arch.

SI. No	Branch	C	PEN		(	OP-PH			ОВС		0	в-РН			sc			SC-P	Н
		М	F	T	M	F	T	M	F	T	М	F	T	М	F	T	М	F	T
1	ARC	8	12	20	1	0	1	5	8	13	0	0	0	6	1	7	0	0	0
2	SBT	4	8	12	0	0	0	3	4	7	0	0	0	2	2	4	0	0	0
3	CHED	29	15	44	2	0	2	17	7	24	1	0	1	9	5	14	0	0	0
4	CED	42	24	66	2	0	2	28	9	37	1	0	1	13	7	20	0	0	0
5	CSED	42	25	67	3	0	3	26	11	37	1	0	1	14	6	20	1	0	1
6	EED	45	22	67	2	0	2	27	9	36	1	0	1	13	7	20	0	0	0
7	ECED	41	28	69	1	1	2	22	15	37	0	1	1	14	6	20	0	0	0
8	Physics	12	3	15	0	0	0	5	3	8	0	0	0	2	3	5	0	0	0
9	MED	67	1	68	2	0	2	35	1	36	1	0	1	19	0	19	1	0	1
10	Production Engineering	17	3	20	1	0	1	9	4	13	1	0	1	5	1	6	0	0	0
	Total	307	141	448	14	1	15	177	71	248	6	1	7	97	38	135	2	0	2

SI. No	Branch	ST			ST-PH				DASA	FN			MEA				Grand Total			
		M	F	T	M	F	T	М	F	T	M	F	Т	М	F	T	M	F	T	
1	ARC	2	1	3	0	0	0	4	1	5	0	0	0	0	0	0	26	23	2	49
2	SBT	1	0	1	0	0	0	2	3	5	0	0	0	0	0	0	12	17	1	29
3	CHED	4	0	4	0	0	0	6	1	7	0	0	0	0	0	0	68	28	4	96
4	CED	6	3	9	0	1	1	7	6	13	3	0	3	0	0	0	102	50	6	152
5	CSED	5	3	8	0	0	0	8	5	13	1	0	1	0	0	0	101	50	5	151
6	EED	5	1	6	0	0	0	10	3	13	0	0	0	0	0	0	103	42	5	145
7	ECED	4	3	7	0	0	0	7	6	13	0	1	1	1	0	1	90	60	4	150
8	Physics	1	0	1	0	0	0	4	0	4	0	0	0	0	0	0	24	9	1	33
9	MED	10	0	10	1	0	1	13	0	13	0	0	0	0	0	0	149	2	10	151
10	Production Engineering	2	0	2	0	0	0	5	0	5	0	0	0	0	0	0	40	8	2	48
	Total	40	11	51	1	1	2	66	25	91	4	1	5	1	0	1	715	289	40	1004

#### 4.4.2. 1st Semester M.Tech

	BRANCH					_																		
SI. No		OPEN		OP-PH		ОВС		OB - PH		SC		ST		QI-P		QIP (POLY)		SP		DASA		TOTAL		TOTAL
		М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F	
1	CE61	9	1	0	0	4	2	0	0	2	1	0	1	0	0	0	0	0	0	0	0	15	5	20
2	CE62	4	6	0	0	1	5	0	0	2	1	0	0	0	0	0	0	0	0	0	0	7	12	19
3	CE63	3	6	1	0	5	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	10	7	17
4	CE64	2	8	0	0	1	5	0	0	1	2	0	0	0	0	0	0	0	0	0	0	4	15	19
5	CE65	2	4	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	7	9
1	CS61	8	2	0	0	5	1	0	0	2	1	1	0	3	1	0	0	1	0	0	0	20	5	25
2	CS62	5	4	1	0	3	2	0	0	1	1	0	1	0	0	0	0	0	0	0	0	10	8	18
			1	1	1	1	ı		ı	ı		1						1		1			1	
1	EC61	7	3	0	0	4	2	0	0	2	1	0	1	0	0	0	0	1	0	0	0	14	7	21
2	EC62	8	2	0	0	4	0	1	0	2	1	2	0	1	0	0	0	0	0	0	0	18	3	21
3	EC63	4	2	0	0	3	1	0	0	1	1	0	0	0	1	0	0	1	0	1	1	10	6	16
4	EC64	3	3	1	0	3	0	0	0	1	1	0	0	0	1	0	0	0	1	0	0	8	6	14
			1		Т		ı		ı	ı		Т	_	1				1		1			ı	
1	EE61	9	1	0	0	4	1	0	0	3	0	1	0	0	0	0	0	1	1	0	0	18	3	21
2	EE62	7	3	0	0	4	1	0	0	2	1	1	1	0	0	1	0	0	1	0	0	15	7	22
3	EE63	7	3	0	0	3	2	0	0	3	0	2	0	0	0	0	0	1	0	0	1	15	7	22
4	EE64	9	0	1	0	3	2	0	0	3	0	0	1	1	0	0	0	0	0	0	0	17	3	20
5	EE65	5	2	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	10	2	12
			T -	1 -	I	T	I =		I =			l .	T -	1 -	T -	T -			T -	1			l .	
1	ME61	10	0	0	0	5	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	19	0	19
2	ME62	10	0	0	0	6	0	0	0	3	0	1	0	0	0	0	0	1	0	0	0	21	0	21
3	ME63	9	1	0	0	5	0	0	0	2	0	1	0	0	0	0	0	1	0	0	0	18	1	19
4	ME64	10	0	0	0	3	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	17	0	17
5	ME65	10	0	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	19	0	19
			1 -	1 -				-	_		_		T -	1 -		1 -					-			
1	NS61	6	0	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	1	10
			<u> </u>										<u> </u>	_					_					
	TOTAL	154	51	4	0	80	26	1	0	42	15	14	5	5	3	1	0	7	3	1	2	308	106	414

# 4.4.3. M.TECH., M.Sc. & Ph.D.

BRANCH		SC			ST			OPEN		O	PEN-P	С		OBC		(	DBC-P	С		TOTAL	_
BRANOIT	М	F	Т	М	F	Т	М	F	Т	М	F	Т	М	F	Т	М	F	Т	М	F	Т
CED	5	7	12	1	1	2	20	25	45	1	0	1	11	13	24	0	0	0	38	46	84
CSD	3	2	5	1	1	2	13	6	19	1	0	1	8	3	11	0	0	0	26	12	38
ECD	6	4	10	2	1	3	22	10	32	1	0	1	14	3	17	1	0	1	46	18	64
EED	13	1	14	4	2	6	37	9	46	1	0	1	17	6	23	0	0	0	72	18	90
MED	15	1	16	5	0	5	56	1	57	0	0	0	28	0	28	0	0	0	104	2	106
NST	0	0	0	1	0	1	6	0	6	0	0	0	2	1	3	0	0	0	9	1	10
Total	42	15	67	14	5	19	154	51	205	4	0	4	80	26	106	1	0	1	295	97	392
MCA	5	1	6	2	0	2	14	6	20	0	0	0	6	4	10	0	0	0	27	11	38
MBA	1	2	3	0	1	1	9	15	24	0	0	0	8	2	10	0	0	0	18	20	38
M.Sc.	6	2	8	1	0	1	2	28	30	0	0	0	9	8	17	0	0	0	18	38	56
Ph.D.	2	1	3	1	0	1	60	35	95	0	0	0	8	10	18	0	0	0	71	46	117

## 4.4.4 Total number of Students of all semesters and all courses as on 31.03.2015

	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011	2009-2010
Programme	Admission	Admission	Admission	Admission	Admission	Admission
B. Tech	863	945	947	915	901	811
B. Arch	44	51	48	45	45	41
M. Tech	392	376	384	380	Left	Left
M.C.A	38	42	46	41	45	Left
M. Sc(Tech)	Nil	Nil	Nil	32	29	Left
M. Sc	56	51	38	Nil	Nil	Nil
MBA	38	33	25	26	Left	Left
Ph.D.	117	99	114	106	85	72
Total	1549	1597	1602	1545	1105	924

### 4.5 THE HOSTELS

#### Accommodation

There are ten hostels and 45 apartments for the boys and two hostels for the girls. One International hostel with twenty three semi-furnished rooms is also available. The details of current students' accommodation are given below.

	Men	Women
Sanctioned accommodation in the hostels	4126	1494
Number of inmates in the Hostels (as on 31.03.2012)	3629	1358

The hostel buildings are maintained by the Institute. Day to day matters of administration and management of the hostels is vested with the Hostel & Mess Committee consisting of the student's representatives and the nominated faculty members who will be the Wardens. Stewards/Matrons are the caretakers of the hostel. Administration is overseen by the Council of Wardens headed by the Chief Warden. Hostel office is headed by the Hostel Manager, and he is assisted by office staff. Hostel messes are managed by the Hostel & Mess Committee.

Chief Warden: Dr. G.Unnikrishnan

#### Wardens:

- Dr. Ashok. S, EEE
- 2. Mr. George K. Varghese, CED
- 3. Dr. Rajanikant G. K. Biotechnology
- 4. Dr. Ameer P M, ECE
- 5. Dr. Sathish Kumar D. CED
- 6. Dr. Lineesh M C, Mathematics
- 7. Dr. Praveen Sankaran, ECE
- 8. Dr. Rama Subrahmanyam Komaragiri, ECED
- 9. Dr. K Krishnamurthy, CED
- 10. Dr. Jagadanand G, EEE
- 11. Mr. Gangadhara Kirankumar.L, MED
- Dr. C.Arunkumar, Chemistry
- 13. Dr. Aji A. Anappara, Physics
- 14. Mr. SreenuNaik B, CSE
- 15. Mr. SaidalaviKalady, CSE
- 16. Dr. Sunil Mathew, Maths
- Mr. Shijo Thomas, SNST
- 18. Dr. Muhammed Shafi, SOMS
- Dr. A. P. Sudheer, MED
   Mr. Bimal P. Architecture
- 20. Mr. Bimal P, Architecture21. Ms. Mija S J, EEE
- 22. Dr. S. Bhuvaneshwari, Chem Engg.
- 23. Dr. S.Sunitha, SOMS
- 24. Dr. Pramada S. K, CED

Hostel Manager (Officiating): Sri. Venugopal. A

### Stewards:

Sri. Sathyanandan P
 Sri. Narayanankutty .P
 Sri. Anwar Sadath

Peon: Sri.Chandu. K U

### 4.6 SCHOLARSHIPS/ ASSISTANTSHIPS

## Financial Assistance to M.Tech Students:

Teaching Assistantship/Research Assistantship/Scholarships are awarded to eligible M.Tech. Students as per rules formulated by the Govt. of India and the Institute for such awards from time to time, subject to availability of funds. Currently an amount of Rs.12,400/- per month for 22 months will be given to candidates admitted through GATE score. This facility will not be available to sponsored candidates, foreign nationals and dependants of NRIs.

### **Financial Assistance to Research Scholars:**

Teaching Assistantship/Research Assistantship/Scholarships are awarded to eligible FT research scholars as per the rules formulated by the Institute for such awards from time to time. Currently the scholarships are at the rate of Rs.28, 000/- per month for engineering departments and Rs.25,000/- per month for other departments. This facility will not be available to UGC/CSIR Fellowship/National Doctoral Fellowship Holders, sponsored candidates, foreign nationals and dependants of NRIs

### 4.7 GAMES AND SPORTS

Academic activities commenced with the class room sessions for all 14 batches of first year students as part of one credit course ZZ1093. Talent spotting and NITC teams 2014-15 for all games were selected by January 2015. Teams were soon trained and sent out to participate in National level Inter NIT tournaments at various NITs of the country. Inter NIT tournaments in Tennis, Hockey, Kabadi were hosted at NIT Calicut during 16-19 April 2015. In campus mass participation activities were conducted on a satisfactory note. Nano-cricket, Willow cup cricket, FORZ Soccer were the leading activities, which attracted hundreds of students and exhibited the managerial prowess of student-organisers. As usual, the Intramural interclass competition was held for both boys and girls. Participation was total and the organization was ably assisted by OVEP students as part of their credit-course project. Kozikode District League championship is one tournament we frequent every year. Participation was complete in events like Foot ball, Cricket, Basket ball, Badminton, Volley ball, Hockey, Table tennis and Tennis.

### 4.8. AWARDS

### **DEPARTMENT OF ARCHITECTURE**

SI. No.	Name	Award
1.	National ranking of Schools of Architecture by Outlook Magazine	Ranked the department as the sixth best Architecture department in the country.
2.	Dr. P.P.Anilkumar	Elected as Board Member of the INTBAU's (International Network for Traditional Buildings, Architecture and Urbanization, an International organization headquartered at London and patroned by HRH, the Prince of Wales) Island States chapter in Mauritius.
3.	Dr. P.P.Anilkumar	Became a Fellow of the Institution of Engineers.

### **DEPARTMENT OF COMPUTER SCIENCE**

SI. No.	Name	Award
1	A research paper authored by Shabana K M, Abdul Nazeer K A, Meeta Pradhan & Mathew Palakal titled "A Computational Method for Drug Repositioning using publicly available Gene Expression Data"	Best Paper Award in the 4th IEEE International Conference on Computational Advances in Bio & Medical Sciences (ICCABS-2014), Florida, USA.

## **DEPARTMENT OF PHYSICS**

SI. No	Name	Award
	Vari Sivaji Reddy	Bhaskara Advanced Solar Energy (BASE) Fellowship-2015 supported by the Department of Science and Technology (DST), Govt. of India, and the Indo-US Science and Technology Forum (IUSSTF).

## PHYSICAL EDUCATION SECTION

SI. No.	Name of the team	Award/ Laurel won
1.	Inter NIT Hand ball at NIT Agarthala	Champion
2.	Inter NIT Volley ball at NIT Kurukshetra	Third place
3.	Inter NIT Tennis at NIT Calicut	Runner up in team event.
	Mr. Akhil Raj	Championship singles.
4.	Inter NIT Table Tennis at NIT Bhopal	Third place
5.	Inter NIT Kabadi at NIT Calicut	Third Place
6.	Inter NIT Hockey at NIT Calicut	Third place

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#### 4.9 **EXAMINATION DETAILS**

# B.Tech./B.Arch. Result

Pgm. Code	Total Registered	1st class with Distinction	1st Class	2nd Class	Total Pass	Percentage
						_
CE	139	16	83	23	122	87.77
CS	133	47	69	16	132	99.25
EC	153	38	70	38	146	95.42
EE	139	28	81	26	135	97.12
ME	129	26	72	21	119	92.25
PE	44	8	31	5	44	100.00
ВТ	14	3	8	3	14	100.00
СН	89	24	46	16	86	96.63
EP	25	7	14	4	25	100.00
TOTAL	865	197	474	152	823	95.14
AR	55	4	20	11	35	63.64

Detail of M.Tech,M0 Pgm. Code	Total Registered	1st class with Distinction	1st Class	2nd Class	Total Pass	Percentage
CE61	20	9	10	1	20	100.00
CE62	18	10	6	2	18	100.00
CE63	18	7	8	3	18	100.00
CE64	19	15	4	0	19	100.00
CS61	22	12	10	0	22	100.00
CS62	20	10	8	2	20	100.00
EE61	25	15	9	1	25	100.00
EE62	24	10	13	1	24	100.00
EE63	20	8	12	0	20	100.00
EE64	23	14	9	0	23	100.00
EC61	19	11	8	0	19	100.00
EC62	20	8	12	0	20	100.00
EC63	12	5	5	2	12	100.00
EC64	14	7	7	0	14	100.00
ME61	15	5	9	1	15	100.00
ME62	18	7	11	0	18	100.00
ME63	17	7	10	0	17	100.00
ME64	20	9	11	0	20	100.00
ME65	18	12	5	1	18	100.00
NS61	10	6	4	0	10	100.00
TOTAL M.Tech	372	187	171	14	372	100.00
MA61	13	2	11	0	13	100.00
CY61	10	1	9	0	10	100.00
PH61	9	4	5	0	9	100.00
Total M.Sc (Tech)	32	7	25	0	32	100.00
MA62	16	9	5	2	16	100.00
CY62	10	5	4	1	10	100.00
PH62	10	6	4	0	10	100.00

TOTAL M.Sc (Tech)	36	20	13	3	36	100.00
MBA	21	8	13	0	21	100.00
MCA	40	10	24	6	40	100.00
Ph.D	41	0	0	0	41	100.00
TOTAL	542	232	246	23	542	100.00

### 4.10. TECHNOLOGY BUSINESS INCUBATOR (TBI)

National Institute of Technology Calicut has set up a Technology Business Incubator (TBI-NITC) in 2003-04 with the support of National Science & Technology Entrepreneurship Development Board (NSTEDB) Department of Science and Technology, Govt. of India to incubate startup industries in IT and Electronics. TBI is registered as a society under the society's registration Act XXI of 1860 on 16 Sep 2009. The following table shows what TBI is so far:

1	Total number of units in Technology Business Incubator	14
2	Number of units joined during 2014 – 2015	2
3	Number of units graduated from TBI during 2014 – 2015	2
4	Number of units preparing to graduate	2
5	Total number of units so far assisted by TBI	45
6	Total number of employees in the incubated companies	750

### **Programmes Conducted by TBI**

- One day workshop on B2B Sales Idea to Revenue conducted on 21 Nov 2014
- FACULTY DEVELOPMENT PROGRAMME ON ENTREPRENEURSHIP conducted during 05 -16 Jan 2015.
- ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 09 Mar to 1 Apr 2015.
- WOMEN ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 03 to 26 Aug 2015
- TECHNICAL ENTREPRENEURSHIP DEVELOPMENT PROGRAMME (FOOD PROCESSING) conducted during 05 May to 12 Jun 2015

## 4.11. TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

This Institute has been selected for funding under TEQIP-II Sub Component-1.2. The total allocation under the TEQIP-II is 12.5 Crores Rupees and the period has been extended till October 2016. Funding under TEQIP-II is intended mainly for scaling up Post graduate education, research and other related activities. During 2014-15, 23 faculty members have been deputed for International and National Conferences, Workshops etc. 58 faculty members have attended the Advanced Pedagogy training conducted by IIT Madras. 20 Research Scholars and 52 PG and UG students have been sponsored for the Conferences ,Research Project work and Training programme in India and abroad. 4 Senior Faculty has attended the Management Capacity Development Programme at IIM Kozhikkode and elevennon Faculty members have attended the short term course in various National organizations. 10 Student Research Project have been supported .The procurement of equipment for strengthening the Institution is in progress and procurement plan has been drawn for more amount than the 45% of the allocation so that the funds can be effectively utilized well within the project period and before October 2016. Nine Faculty Development Programme have been conducted by the faculty of the Institute with support from TEQIP II. Institute has embarked in Tier I Accreditation of all UG and PG Engineering Degree Programmes with the help of TEQIP II. Institute has signed Memorandum of Understanding with various reputed National and International Institutions using support from TEQIP.

## 5.0 RESEARCH AND DEVELOPMENT ACTIVITIES

### 5.1 Ph.D PROGRAMMES-EXISTING AND PROPOSED

## **DEPARTMENT OF ARCHITECTURE**

### a. On-going Ph. Ds under the Existing Scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1.	Ar. Bimal.P, Architect Planner, Assistant Professor, Dept. of Architecture, NIT Calicut	Dr.P.PAnilkumar	Landuse impacts and parametric characterization of Kerala's urban pattern –	Internal

2.	Ar. Chithra.K, Assistant Professor, Dept.of Architecture, NIT Calicut	Dr.P.PAnilkumar and Dr.Naseer.M.A	Landuse Impacts' analysis in a medium scale urban area -	Internal
3.	Ar. Muhammed Sharief,, M.Arch,Dean, School of Architetcure, Karpagam School of Architecture, Coimbatore	Dr.P.PAnilkumar and Dr.Naseer.M.A	Climatic comfort as applied in vernacular architecture	PT
4.	Ar. Katiravan, M.Arch, Chief Architect, Venkitaramanan Associates, Coimbatore.	Dr.P.PAnilkumar and Dr.Arun	Norms for green buildings for the Indian context	PT
5.	Ar. Pradeep.p, Engineer planner, Town planning Dept. of Kerala	Dr.P.P.Anilkumar	Built up space vs Infrastructure capacity assessment.	PT
6.	Ar. Amrutha.K, Landscape Architect.	Dr.P.P.Anilkumar	Solid waste disposal through landscape development and maintenance –	FT
7.	Ar. Josna Raphael	Dr. Kasthurba A K	Spatial development of Historic Cities	PT
8.	Ar. Anjana Bhagyanathan	Dr. Kasthurba A K	Environmental conservation of Sacred Groves in Malabar	FT
9.	Ar. V Rajina Rahiman	Dr. Naseer M A	Urban Transportation	PT
10.	Ms. Vidya G Mohan	Dr. Naseer M A	Urban transportation	PT
11	Shine George	Dr.P.P.Anilkumar	Deliverance of Community Housing in the Aftermath of Natural Disasters–	PT

# **DEPARTMENT OF CIVIL ENGINEERING**

# a. On-going Ph. D under existing scheme:

SI. No.	Name	Guide	Area of specialization	Scheme (QIP/PT/)
1	V Vishnu	Dr. P Syamala	Water Resources Engineering	PT
2	Madhu Raj P C	Dr. J Sudhakumar	Building Science Engineering	QIP
3	Savitha C	Dr. S Chandrakaran Dr T.M. Madhavan Pillai	Geotechnical Engg	FT
4	Anil Kumar P.S	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg	QIP
5	Hari G	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg	PT
6	Gopan M	Dr. Santosh G Thampi	Environmental Engineering	PT
7	Shamla Rasheed	Dr. K Sasikumar Dr P Syamala	Water Resources Engineering	PT
8	K Smitha	Dr. Santosh G Thampi	Water Resources Engineering	FT
9	Sreela P K	Dr MVLR Anjaneyulu	Transportation Engineering	QIP
10	Sivakumar M	Dr MVLR Anjaneyulu	Transportation Engineering	PT (internal)
11	Sabna V	Dr. Santosh G Thampi	Environmental Engineering	FT
12	Chithra N.R	Dr. Santosh G Thampi	Water Resources Engineering	PT(internal)
13	Aneesha Balaji	Dr. T M Madhavan Pillai Dr. Praveen Nagarajan	Structural Engg	PT
14	Manjula N.K.	Dr. Praveen Nagarajan Dr. T M Madhavan Pillai	Structural Engg	FT

15	Yashida Nadir	Dr. Praveen Nagarajan Dr. Mohammed Ameen	Structural Engg	FT QIP
16	Sri. Ragesh P.P.	Dr. V Mustafa	Offshore Structures	FT QIP
17	Smt. Sreelekha M.G.	Dr MVLR Anjaneyulu	Transportation Engineering	FT QIP
18	Sri.B.Venkata Subbaiah	Dr. V Mustafa Dr. Santhosh G Thampi	Offshore Structures	FT QIP-Poly
19	Safeer ali Abbas Ali	Dr. Arun C	Building Science Engg.	FT
20	Mohammed Abdul Akbar	Dr. V Mustafa	Structural Engg.	FT
21	Binil Gopinath	Dr MVLR Anjaneyulu	Transportation Engineering	FT
22	Asha C. Raju	Dr. Mathava Kumar S	Environmental Engg.	FT
23	Lila P.C.	Dr MVLR Anjaneyulu	Transportation Engineering	PT
24	V.S.Sanjjay Kumar	Dr. C Arun	Construction Management	PT
25	Bybin Paul	Dr MVLR Anjaneyulu	Transportation Engineering	PT
26	Nidhi M	Dr. P V Indira	Structural Engg	FT
27	Raghu Kumar C.	Dr. Vinu Pallisserry Dr. T P Somasundaran	Bio Mechanics	FT
28	Beena B.R.	Dr. A P Shashikala	Structural Engg	PT
29	Shiji P.	Dr. C Arun	Construction Management	FT
30	Bindu Sugunan	Dr. Santhosh G Thampi	Environmental Engg.	PT
31	Muneera C.P.	Dr. K Krishnamurthy	Transportation Engineering	FT
32	Saji K.P.	Dr. T M Madhavan Pillai Dr. Sajith A S	Structural Engg	PT
33	Abey E.Thomas	Dr. T P Somasundaran Dr. Sajith A S	Structural Engg	FT
34	Biju M.S.	Dr. Santhosh G Thampi	Environmental Engg.	PT
35	Anil Joseph	Dr. S Chandrakaran Dr. N Ganesan	Geotechnical Engg	PT
36	Ansu V	Dr MVLR Anjaneyulu	Transportation Engineering	QIP
37	Devika Babu	Dr MVLR Anjaneyulu	Transportation Engineering	FT
38	Harikumar M	Dr. S Chandrakaran Dr. N Sankar	Geotechnical Engg	FT
39	Greeshma Nizy Eujine	Dr. S Chandrakaran Dr. N Sankar	Geotechnical Engg	FT
40	Lamanto T. Somervell	Dr. Santhosh G Thampi	Hydraulics	FT
41	Prashob P S	Dr. T P Somasundaran	Offshore Structures	FT
42	Sahana Ranganatha	Dr. N Ganesan Dr. P V Indira	Structural Engg	FT
43	Sivakumar B	Dr. K Krishnamurthy	Transportation Engineering	PT
44	Sabitha N M	Dr. Santhosh G Thampi Dr. Sathish Kumar D	Hydraulics	PT
45	Dipty Sarin Isaac	Dr. S Chandrakaran Dr. K Rangaswamy	Geotechnical Engg	PT
46	Arun Baby Zacharia	Dr. Harikrishna M Dr MVLR Anjaneyulu	Transportation Engineering	FT
47	Drisya.T	Dr. Sathishkumar D	Hydraulics	FT
48	Mandala Siva Priyanka Yadav	Dr. Mathavakumar S	Geotechnical Engg	FT
49	Neena.M.Joseph	Dr. Harikrishna M Dr MVLR Anjaneyulu	Transportation Engineering	FT
50	Ciby Jacob Cherian	Dr. Sajith A S Dr. T M Madhavan Pillai	Structural Engg	FT
51	Irshad Abdul Azeez.P	Dr. P V Indira Dr. N Ganesan	Structural Engg	FT
52	Prakash.C	Dr. Santhosh G Thampi	Environmental Engg.	PT
53	Sandeep.M.S	Dr.Praveen Nagarajan Dr. A P Shashikala	Structural Engg	FT

54	R.Sathya Prakash	Dr. K Krishnamurthy	Transportation Engineering	FT
55	M. Drisya	Dr. K Krishnamurthy	Transportation Engineering	FT
56	Femy M Makkar	Dr. K Rangaswamy Dr. S Chandrakaran	Geo. Tech	FT
57	Sukanya J Nair	Dr. K Sasikumar	Water Resources Engineering	FT
58	Minu Ann Peter	Dr. Sajith A S Dr. Praveen Nagarajan	Structural Engg	FT
59	Sherin K S	Dr. N Sankar Dr. S Chandrakaran	Geo. Tech	PT
60	Himasree P R	Dr. P V Indira Dr. N Ganesan	Structural Engg	FT
61	Muhammed Siddik A	Dr. Geirge K Varghese	Env. Engg.	PT
62	Akhila M	Dr. K Rangaswamy	Env. Engg	FT

# **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

# a. Ph. Ds completed under Existing Scheme:

SI No	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1	Mr.Gylson Thomas	Dr.V K Govindan	Image Processing	PT
2	Mr. Dinesh Peter	Dr.V K Govindan	Image Registration	FT
3	Mr.K Santle Camilus	Dr.V K Govindan	Image Processing	FT
4	Mr. Prasad S M	Dr. V K Govindan , Dr. P S Sathi devi	Image Processing	QIP
5	Ms. Jyothisha J. Nair	Dr. V K Govindan	Image Processing	FT
6	Mr.A Shajin Nagarjun	Dr. M P Sebastian	Adhoc Network	PT
7	Mr. Abdul Haleem P P	Dr. M P Sebastian, Dr. S D Madhu Kumar	Mobile Networks	FT
8	Mr. Sajeev G P	Dr. M P Sebastian/Dr.Murali Krishnan	Web Caching	PT
9	Ms. Anitha V S	Dr. M P Sebastian, Dr. S D Madhu Kumar	Adhoc and Mobile Networks	QIP
10	Mr. Abdul Nazeer K A	Dr. M P Sebastian, Dr. S D Madhu Kumar	Bioinformatics	PT
11	Mr. Vinodu George	Dr. M P Sebastian, Dr. K Murali Krishnan	Network Security	PT

# b. Ongoing Ph. Ds under the Existing Scheme:

SI. No.	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1.	Mr. Manu J Pillai	Dr. M P Sebastian, Dr. S.D Madhu Kumar	Mobile Networks	PT
2.	Mr. K.S.Valasaraj	Dr. Vineeth Paleri	Compilers	QIP
3.	Mr. Shyam P Joy	Dr. Priya Chandran	Information Security	PT
4.	Mr. Saidalavi Kalady	Dr. V K Govindan	Intelligent agents	PT, Internal
5.	Ms. Saleena N	Dr. Vineeth K Paleri	Compilers	PT, Internal
6.	Ms. Anu Mary Chacko	Dr. S D Madhu Kumar	Network Security	PT, Internal
7.	Ms. Rekha R.	Dr. Vineeth K Paleri	Compilers	FT
8.	Ms. Pournami P.N.	Dr. V.K. Govindan	Image Processing	PT, Internal
9.	Mr. Vinith R	Dr. V.K. Govindan	Image Processing	PT
10.	Ms. Pamela Vinita Eric	Dr. K. Murali Krishnan	Algorithms	PT
11.	Mr. Jayaraj P B	Dr. K. Murali Krishnan	Operating Systems	PT, Internal
12.	Mr. Jereesh A S	Dr. V.K Govindan	Image Processing	PT

13.	Ms. Lijiya A	Dr. V.K Govindan	Image Processing	PT, Internal
14.	Mr. Jithin R	Dr. Priya Chandran	Information Security	FT
15.	Mr.Unnikrishnan P	Dr. V.K.Govindan	Pattern Recognition	FT
16.	Ms.Shabeera T P	Dr. S D Madhu Kumar	Cloud Compuing	FT
17.	Ranju Ann George	Dr.Sudeep K S	Algorithms & Graph Theory	FT
18.	Nishamol P H	Dr. G. Gopakumar	Bioinformatics	FT
19.	K Nagaraju	Dr.Sudeep K S	Algorithms & Graph Theory	FT
20.	Jeethu V Devasia	Dr. Priya Chandran	Algorithms	FT
21.	Sreejini K S	Dr. V.K.Govindan	Image Processing	FT
22.	Sameera Muhammed Salam	Dr. K Muralikrishnan	Graph Theory	FT
23.	Remya K Sasi	Dr. V.K Govindan	Image Processing	FT
24.	Nandini J Warrier	Dr. K Muralikrishnan	Graph Theory	FT
25.	Daphna Chacko	Dr. K Muralikrishnan	Graph Theory	FT
26.	Arun K S	Dr. V.K.Govindan	Image Processing	FT
27.	Anita Brijit Mathew	Dr. S D Madhu Kumar	Cloud Computing	FT
28.	Ojus Thomas Lee	Dr. S D Madhu Kumar, Dr.Priya Chandran	Cloud Computing	FT
29.	Sunil Kumar P V	Dr. G. Gopakumar	Bioinformatics	FT
30.	Sarang Sukumar A	Dr. G. Gopakumar	Bioinformatics	FT
31.	Gilesh M P	Dr. S D Madhu Kumar	Cloud Computing	FT
32.	Mahija K C	Dr. K A Abdul Nazeer	Bioinformatics	FT
33.	Vishak R	Dr. K A Abdul Nazeer	Bioinformatics	FT
34.	Shamna P	Dr. V.K Govindan, Dr. K A Abdul Nazeer	Image Processing	FT
35.	Jeena Kleenankandy	Dr. K A Abdul Nazeer	Natural Language Processing	FT
36.	Sreenu Naik Bhukia	Dr. Sudeep K S and Dr A V Babu (ECED)	Wireless Mobile adhoc Networks.	PT

# **DEPARTMENT OF ELECTRICAL ENGINEERING**

# a. Ph. Ds completed under Exixiting Sheme:

SI No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Mija S.J	Dr. Susy Thomas	Dynamic control system	Internal
2	R Sunitha	Dr. R. Sreeram Kumar & Dr. Abraham T Mathew	Power system security	Internal
3	Asha ND	Dr. Paul Joseph K	Cardiac signal processing	FT
4	A Dolly Mary	Dr. Abraham T & Dr. Jeevamma Jacob	Control systems	QIP
5	T SrinivasSirish	Dr. K S Sivanandan	Control Systems	QIP
6	O. Asokan	Dr. R Sreeram Kumar	Investigations on Voltage Instability Problems	PT
7	Nafeesa K	Dr. Saly George	Power Electronics	FT

# b. Ongoing Ph. Ds under the Existing Scheme:

SI. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Sreekanth M	Dr. Abraham T Mathew	Control Systems	FT
2	Shyma Muhammed	Dr. Abraham T Mathew	Control Systems	FT
3	Mary Reena K E	Dr. Abraham T Mathew	Control Systems	QIP
4	Ajay Babu	Dr. Ashok S	Investigations on Plug-in Vehicles	FT
5	Rajeev T	Dr. Ashok S	Cloud Computing Applications in DG	QIP
6	Vasanthi V	Dr. Ashok S	Power Quality issues of Railway traction.	QIP
7	Sujo George	Dr. Ashok S	Adaptive Relaying for Microgrid Protection	FT
8	Maya G	Dr. Elizabeth P Cheriyan and Dr.Jeevamma Jacob	Power Systems	FT

10 N	Paul M Pala Prasad		Control Systems	PT
	Reddy	Dr. Jeevamma Jacob	Control Systems	FT
11   5	Shalu George	Dr. K S Sivanandan	Control Systems	QIP
	Jinu K T	Dr. K S Sivanandan	Control Systems	PT
	Ashmi M	Dr. K S Sivanandan	Control Systems	FT
		Dr. K S Sivanandan&	Control of self-balancing	' '
14 5	Sujalakshmi V	Dr. K & Sivanandana Dr. K M Moideenkutty	system	PT
15 F	RehnaNalakath	Dr. M P Nandakumar.	Control Systems, Optimal Control	FT
16 k	K Dheeraj	Dr. M P Nandakumar.	Control Systems, Optimal Control	FT
17	T Ananthan	Dr. M. V. Vaidyan	Control Systems	FT
	Shijoh V	Dr. M. V. Vaidyan	Control Systems	FT
	Anirudh K M	Dr. Mukti Barai	Power Electronics	FT
	Meenu D Nair	Dr. Mukti Barai	Power Electronics	FT.
	Vivek G	Dr. Mukti Barai	Power Electronics	FT
	Reeda K	Dr. Paul Joseph K.	Nerve conduction studies	PT
23	Jayachandran E S	Dr. Paul Joseph K.	Biosignal processing	FT
24	Saritha M	Dr. Paul Joseph K. & Dr. Abraham T Mathew	Biomedical image processing	FT
0.5			Biomedical image	5-
	Ahammed Muneer	Dr. Paul Joseph K.	processing	PT
	Thasneem Fathima N K	Dr. Paul Joseph K.	Biomedical Engineering	FT
27 I	Ismayil	Dr. R Sreeram Kumar & Dr. Sindhu T K	Power Systems	QIP
28 F	K. G. Jolly	Dr. R. Sreeram Kumar & Dr. R. Vijaya Kumar	Intelligent Task Planning and Action selection in a Multi-agent Robot-Soccer System	PT
29 E	Binu K Baby	Dr. Saly George	Power Electronics	FT
	·			
30 5	Siny Paul	Dr. Sindhu T K	Nanocomposite Insulators	PT
31 N	Nisha P V	Dr. Sindhu T K & Dr. Elizabeth P Cheriyan	Electromagnetic interference	PT
32	Sony Kurian	Dr. Sindhu T K & Dr. Elizabeth P Cheriyan	Power Systems	FT
33 [	Devika KB	Dr. Susy Thomas	Control Systems	FT
	Rinu Alice Koshy	Dr. Susy Thomas	Control Systems	PT
	Mini V	Dr. T. K. Sunil Kumar	Power Systems	QIP
	Priya N	Dr. T. K. Sunil Kumar	Control Systems	FT
37	Shinghare D Y	Dr. T. K. Sunil Kumar	Power Systems	QIP (Poly)
1 3 2 1	Suresh P Damodaran	Dr. T. K. Sunil Kumar	Power Systems	QIP
	Febina Beevi	Dr. Jeevamma Jacob & Dr. T. K. Sunil Kumar	Control Systems	FT
40 (	Guguloth Ramesh	Dr. T. K. Sunil Kumar	Power Systems	FT
	Suraj Damodaran	Dr. T. K. Sunil Kumar	Image processing and its application to robotics	FT
42	John George	Dr. T.L. Jose & Dr. Jeevamma Jacob	FACTS Controllers for Power Quality Improvement	FT
43	Joseph Peter	Dr. Rijil Ramchand	Constant switching frequency hysteresis controllers	FT
44 E	Biju K	Dr.RijilRamchand	Grid interfacing of renewable energy sources using multilevel inverters	PT
45 F	Pratheesh K J	Dr.Rijil Ramchand, Dr. Jagadanand G	Multi Level Inverters	FT
	Doomathi C Noin	Dr. Saly George,	Torque ripple reduction in BLDC motors	FT
46	Deepthi S Nair	Dr. Jagadanand G		
	Nithin Raj	Dr. Jagadanand G Dr. Saly George, Dr. Jagadanand G	Condition monitoring of Induction Machine	FT

49	Jino M Pattery	Dr. Elizabeth P. Cheriyan & Dr. Rijil Ramchand	Power Systems	PT
50	Sivaprasad	Dr. Kumaravel S & Dr. S Ashok	Optimal Interfacing strategies for Micro-Grids	FT
51	Rajashree Raghavan	Dr. Susy Thomas	Control Systems	QIP
52	M J Laly	Dr. Elizabeth P Cheriyan & Dr. Abraham T Mathew	Control Systems	QIP
53	Sandeep J	Dr. Rijil Ramchand & Dr. S Ashok	Matrix converter topology for VF Drives	FT
54	Rohit K Mathew	Dr.Ashok S & Dr Kumarvel S.	Reliaiblity Cs Resilance of Microgrid	FT
55	Haseena K A	Dr.Jeevamma Jacob & Dr. Abraham T Mathew	Control Applications in Power Systems	FT
56	Jaya C K	Dr. Sunitha R & Dr. Abraham T Mathew	Control Applications in Power Systems	FT
57	Smt.Parvathy	Dr. M. P. Nandakumar	Optimal Control	FT
58	Avinash V Nelson	Dr. Preetha P/Dr. Sunitha K	Condition monitoring of Power Transformers	FT
59	Jineeth Joseph	Dr Sindhu T K	Condition monitoring of power apparatus	FT
60	Rohikaa Micky	Dr.Sunitha R & Dr.Ashok.	Stability Stratagies of Microgrid	FT
61	Anjana K G	Dr. Mukti Barai	Power Electronics	FT
62	Aswini Kumar Muthavarapu	Dr. Mukti Barai	Power Electronics	FT
63	Akhil Vinayak B	Dr. Jagadanand G	Fault detection in Induction Motor Drives.	FT

# **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

# a. Ph. Ds completed under Existing Scheme :

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Bindiya T S	Dr Elizabeth Elias	Multirate Signal Processing	PT
2	James T G	Dr Elizabeth Elias	Multirate Signal Processing	PT
3	Ameer P M	Dr. Lillykutty Jacob	Network Localization	FT
4	Harigovindan V P	Dr.Lillykutty Jacob and Dr. A V Babu	Vehicular Networks	FT
5	Cibile K K	Dr. Lillykutty Jacob an Dr. S M Sameer	Cooperative Communication	QIP
6	Anzar S.M.	Dr. P.S Sathidevi	Multibiometrics	FT
7	Thafasalljyas V.P.	Dr. Sameer S. M.	Wireless Communications	FT
8	Sudhish N George	Dr. Deepthi P.P.	Multimedia Security	PT

# b. On-going Ph. Ds under the Existing Scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Ms. ShaeenK	Dr. Elizabeth Elias	Multirate Signal Processing	FT
2	Ms. Nisha Haridas	Dr. Elizabeth Elias	Multirate Signal Processing	FT
3	Mr. V Sakthivel	Dr. Elizabeth Elias	Multirate Signal Processing	PT
4	Smt. Bindima T	Dr Elizabeth Elias	Multirate Signal Processing	QIP
5	Mr. Amir A	Dr Elizabeth Elias and Dr Bindiya T S	Multirate Signal Processing	FT
6	Mr. Anil Jacob	Dr. Lillykutty Jacob	Medical Sensor Networks	FT
7	Ms. M J Jalaja	Dr. Lillykutty Jacob	Under Water Sensor Networks	QIP
8	Ms. Shamna H R	Dr. Lillykutty Jacob	Cooperative Networks	QIP
9	Ms. Mary Reena	Dr.Lillykutty Jacob and Abraham T Mathew	Networked Control Systems	QIP

10	Ms. Deepthi Renjith	Dr. Lillykutty Jacob	Low Power Lossy Wireless Networks	QIP
11	Mr. Gilesh M P	Dr. Lillykutty Jacob and S D Madhukumar	Cloud Computing	QIP
12	Ms. Susan Dominic	Dr. Lillykutty Jacob	5G Mobile Networks	FT
13	Ms. Remya Jayachandran	Dr. P C Subramaniam and Dr. Rama Komaragiri	VLSI	FT
14	Mr. E.P. Jayakumar	Dr. P S Sathidevi	Speech Processing	PT
15	Ms. Lekshmi M.S	Dr. P S Sathidevi	Speech Processing	PT
16	Ms. Sreelatha G	Dr. P S Sathidevi	Bio Signal Processing	QIP
17	Ms. Nisha K.L.	Dr. P S Sathidevi and Dr. Sreelekha G.	Image Processing	FT
18	Ms. V Meena	Dr. G Abhilash	Signal Processing	PT
19	Ms. Gayatri Parthasarathy	Dr.G Abhilash	Signal Processing	FT
20	Ms. Shahnaz K V	Dr.C.K.Ali	Wireless Communication	PT
21	Mr. Deepak P M	Dr.C.K.Ali	Wireless Communication	FT
22	Mr. Muneer P.	Dr. Sameer S. M.	Wireless Communications	FT
23	Ms. Namitha A. S.	Dr. Sameer S. M.	Wireless System Design	FT
24	Mr. FintoRaphel	Dr. Sameer S. M.	Multimedia Transmission over Wireless Networks	FT
25	Mr. Nishanth N.	Dr. Sameer S. M.	Security Issues in Wireless Networks	PT
26	Mr. Nandakumar R	Dr. Deepthi P.P.& Dr. Sameer S.M.	Light Weight Cryptography	PT
27	Mr. Sidharth Shelly	Dr. A.V. Babu	Wireless Networks	FT
28	Ms. Deepak K.S.	Dr. A.V. Babu	Wireless Networks	PT
29	Ms. Geethu K.S.	Dr. A.V. Babu	Underwater Acoustic Networks	FT
30	Ms. Upama Rajan	Dr. A.V. Babu	Wireless Networks	FT
31	Mr. Rambabu K	Dr. A.V. Babu	Wireless Networks	FT
32	Smt. Suja K.J	Dr. Rama Komaragiri	MEMS	PT
33	Mr. Ranjith R	Dr. Rama Komaragiri	VLSI	FT
34	Ms. Krishnapriya			
	S Mr. Abhilash	Dr. Rama Komaragiri	VLSI	FT
35	Antony	Dr. Sreelekha G	Video Compression	FT
36	Mr. Arun Varghese	Dr. Sreelekha G	Video Analysis	QIP
37	Celine Mary Stuart	Dr. Deepthi P.P.	Channel Coding & Cryptography	QIP
38	Ms. Jilna P.	Dr. Deepthi P.P.	Cryptographic System Development and Implementation	FT
39	Mr. Unde Amit	Dr. Deepthi P.P.	Energy Efficient Schemes for Multimedia Security	FT
40	Ms. Lakshmi V.S.	Dr. Deepthi P.P.	Distributed Coding Schemes	QIP
41	Ms. Mridula	Dr. Ameer P M	Wireless Communication	FT
42	Mr. Roy Thankachan	Dr. Ameer P M	Wireless Communication	PT
43	Mr. Abdu Rahiman V	Dr. Sudhish N George	Multimedia Super-resolution	PT
44	Mr. Sameera Mhd Sageer	Dr. Sudhish N George	Image Denoising	FT
45	Mr. Hari C. V	Dr. Praveen Sankaran	Computer Vision	FT
46	Ms. Rashmi M.	Dr. Praveen Sankaran	Pattern Classification	FT
47	Ms. Deepa Nair	Dr. Praveen Sankaran	Image Processing	FT
L	<u>'</u>			

48	Ms. Kalpana George	Dr. Praveen Sankaran, Dr. Paul Joseph	Medical Image Processing	FT
49	Mr. Shameer Faziludeen	Dr. Praveen Sankaran	Pattern Classification	FT

# **DEPARTMENT OF MECHANICAL ENGINEERING**

# a. Ph. Ds completed under Existing Scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Shiyas	Dr. Madhusudanan Pillai V	Industrial Engineering	QIP
2	Talari Chinna Pamulety	Dr. Madhusudanan Pillai V	Industrial Engineering	FT
3	Suresh Kumar	Dr. Madhusudanan Pillai V	Industrial Engineering	PT
4	Ciby Thomas,	Dr. Ghulam Jilani	Thermal Engineering	PT
5	K Jayakumar	Dr. M. A. Joseph and Dr. Jose Mathew	Manufacturing	PT
6	Sreedhar Babu	Dr. K. Prabhakaran Nair and Dr. Rajendrakumar, P.K.	Tribology	FT
7	Senthil	Dr. R. Sridharan	Industrial Engineering	PT
8	Sreejith CC	C. Muraleedharan And Dr. P Arun	Energy Engineering	FT

# b. On-going Ph. Ds under the Existing Scheme:

SI. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme (FT/PT /QIP)
1	Bipin Balaram	Dr. M.D. Narayanan & Dr. P. K. Rajendra kumar	Design	FT
2	M. Srinivas	Dr. S. Jayaraj	Energy	PT
3	K Jayakumar	Dr. M. A. Joseph & Dr. Jose Mathew	Fabrication of particulate composites	PT
4	Shijo Thomas	Dr. C. B. Shoban	Nano Technology	PT
5	Bharatbhushan V Kamble	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
6	Jesseela S	Dr. C. B. Shoban and Dr. Sarith P Sathian	Nano Technology	QIP
7	Favas T K	Dr. Ghulam Jilani	Thermal Science	PT
8	A.P. Sudheer	Dr. R. Vijayakumar and Dr. Mohandas	Robotics	PT
9	Sekar K	Dr. Allesu Kanjirathinkal and Dr. M A Joseph	Al alloy pressure casting	PT
10	Rohinikumar. B.	Dr. C. Muraleedharan	Analysis of solar thermal water pumping system	PT
11	Umarali, K	Dr. T. Radha Ramanan and Dr. R. Sridharan	Scheduling	PT
12	Sreenath A.M.	Dr. Rajendrakumar, P.K.and Dr. M.L.Joy	Design	PT
13	Sajith K.G.	Dr. C. Muraleedharan	Studies on hybrid solar thermal-pv system	PT
14	Arunkumar O.N	Dr. T. Radha Ramanan	Working capital Management	FT
15	J. Laxmi Lalitha,	Dr. V. Madhusudanan Pillai	Manufacturing execution system	PT
16	Rajesh T N	Dr. T J Sarvoththama Jothi and Dr. T. Jayachandran (ISRO)	Experimental Studies in Vortex Chamber	FT
17	Vinod V	Dr. M.D. Narayanan	Synchronization in mechanical systems	FT
18	PV Manu	Dr. A. Ramaraju	Thermal Science	PT

SI. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme (FT/PT /QIP)
19	N. Jayasree	Dr. T. Radha Ramanan and Dr. R. Sridharan	Forecasting	QIP
20	Pradeepmon T G	Dr. N. Sudarsan	Industrial Engineering	PT
21	Kishor Kumar V V	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
22	Deepa Mohan	Dr. N. Sudarsan	Industrial Management	PT
23	Nidhi M. B.,	Dr. V. Madhusudanan Pillai	Green supply chain management	PT
24	Sajan T John	Dr. R. Sridharan	Reverse logistics	FT
25	Rakesh Hari	Dr. C. Muraleedharan	Entropy estimation during phase change in heat pipes	FT
26	K Pratheesh	Dr. M A Joseph, Dr. M Ravi	Al alloy structure modification	PT
27	Eby Dabid	Dr. R. Manu	Manufacturing Technology	FT
28	Rajesh VR	Dr. Biju T Kuzhiveli	Thermal Sciences	FT
29	Premchand VP	Dr. M.D. Narayanan and Dr. A.S.Sajith,	Nonlinear vibration absorbers	FT
30	Salumuri. S. L. Rao,	Dr. A. Shaija and Dr. S. Jayaraj	Design and development of Fuel Cell	QIP
31	Remil George Thomas	Dr. R. Manu	Manufacturing technology	PT
32	Chacko Preno Koshy	Dr. Rajendrakumar,P.K.	Design	FT
33	Monikantan V	Dr. M. A. Joseph and Dr. PK Rajendrakumar	Wear studies of nanocomposite	FT
34	Amit Aravind	Dr. ML Joy and Dr. K. Prabhakaran Nair	Development of a new lubricant	FT
35	Basil Kuriachen	Dr. Jose Mathew	Manufacturing	FT
36	Jobin M.V.	Dr. T. Radha Ramanan	Lean Manufacturing	PT
37	Pretheesh K	Dr. Allesu Kanjirathinkal, M A	Strengthening of AI castings	PT
38	Saijal KK	Dr. K. Prabhakaran Nair and Dr. ML Joy	Optimization of helicopter rotor	PT
39	Shaiju M R	Dr. S Jayaraj and Dr. Arun P	Gas turbine diagonostics	PT
40	Rony Johnson,	Dr. S Jayaraj and Dr. Arun P	Solar thermal hybrid systems	PT
41	Rani S	Dr. K. Prabhakaran Nair and Dr. ML Joy	Development of a new lubricant	QIP
42	Abdul Nazar K. P	V. Madhusudanan Pillai	Analysis of pull control policies for multi-product	FT
43	Anish M N	Dhanish P B and Dr R Sridharan	Qualitiy management	QIP
44	Eldose KK	Dr. R. Sridharan	Supply chain scheduling	PT
45	Jagadessah T	Dr. T. J Sarvoththama Jothi	Stress and Thermal analysis in welding	PT
46	Mithun Paul	Dr. T. Radha Ramanan	Scheduling	FT
47	Joseph Babu	Dr. ML Joy and Dr. K. Prabhakaran Nair	Development of a new grease	FT
48	Ajith Kuriakose	Dr. M.D. Narayanan	Modeling of complex systems using fractional calculus	FT
	i -		Expt. investigations on the	
49	Mubarak.M,	Dr. A. Shaija	use of biofuels produced	FT

SI. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme (FT/PT /QIP)
51	Madhu V V	Dr. Dhanish P B	Qualitiy management	PT
52	DeepanRaj B	Dr. S. Jayaraj Dr. V. Subramaniam	Bio-gasification	FT
53	Solomon joseph	Dr. R. Sridharan	Cross docking in supply chains	FT
54	Joby George,	Dr. V. Madhusudanan Pillai	Analysis of inventory policies in supply chain	FT
55	Rupesh S	Dr. Arun P and Dr. C Muraleedharan	Biomass gasification	FT
56	Ramesh M	Dr. Dhanish P B	Qualitiy management	FT
57	Dileep k	Dr. S. Jayaraj	Thermal Science	PT
58	Jobin Varghese	Dr. P.K. Rajendra kumar and	Design	FT
59	Vinod O M	Dr. Dhanish P B	Statistical Process Analysis	QIP
60	Ladeesh V G	Dr. R. Manu	Electrochemical Discharge Machininig	FT
61	Anjana Viswanath	Dr. R.Sridharan	Flow shop scheduling	FT
62	Kiran Mohan	Dr. V. Madhusudanan Pillai	Ergonomic Design of Agricultural Implements	FT
63	Rajesh Kana,	Dr. A. Shaija	Expt. investigations on the use of biofuels produced	FT
64	Srinivasala Rao	Dr. A. Shaija	Flame acoustic interaction applicable to gas turbines combustion instabilities	PT
65	Lokesh. B paradeshi	Dr. S. Jayaraj	Thermal Engineering	FT
66	Shruthi C M	Dr. M.L. Joy	Robotics	FT
67	Jabir E.	Dr. R. Sridharan and Dr. V. Vinay Panicker	Green Logistics	FT
68	Rakesh. L	Dr. T.J.S. Jothi	Jet Flows	FT
69	Ajyuk Raj	Dr. R. Sridharan and Dr. V. Vinay Panicker	Integrated Airline Fleet Assignment and Crew Scheduling Problem Problem	FT
70	Jilse Sebastian	Dr. C. Muraleedharan and Dr. Santhiagu	Enzymatic Transesterification of Vegetable Oils	FT
71	Joel George	Dr. C. Muraleedharan and Dr. Arun P	Experimental Analysis of Fluidesed Bed Gasification	FT
72	K. Srikanth	Dr. R. Vijayakumar and Dr. Abraham T Mathew	Robotics	FT
73	Arun P raj	Dr . PB Dhanish	Metrology	FT
74	Anoop K. P. (P140091ME)	Dr. Vinay v. Panicker	Food grain Supply Chain	FT
75	Sabarinath P140087ME	Dr. K. Prabhakaran Nair and P.K. Rajendra kumar	Tribology	FT

SI. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme (FT/PT /QIP)
76	Ambika PS	Dr. K. Prabhakaran Nair and P.K. Rajendra kumar	Tribology	FT
77	Deepak G. Dilip P140030ME	Dr. Jose Mathew, Dr Satyananda Panda	Micromachining	FT
78	Vipindas K. P140041ME	Dr. Jose Mathew	Micromachining	FT

# **DEPARTMENTS OF MATHEMATICS**

# a. Ph.D.s completed under Existing Scheme

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1	Linda J P	Dr. M S Sunitha	Studies on Different types of Vertices based on Geodesic and Detour distances in Graphs and Fuzzy graphs Awarded in January 2015)	Part Time

# b. On-going Ph.Ds under the existing Scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Deepak D	Dr.Sunil Jacob John	Hesitant Fuzzy Sets	FT
2	Shahida.A.T	Dr. M.S.Sunitha.	Topological Graph Theory	FT
3	Bajeel.P.N	Dr. Mahesh Kumar	Reliability of Systems	FT
4	K.M. Abdushukoor	Dr. C.M.Sushama	Mathematical Programming.	FT
5	Naveen.P	Dr. Chithra.A.V	Algebraic Graph Theory	FT
6	Rubell Marion Lincy	Dr. Jessy John	Stochastic Modelling	FT
7	Vijitha Mukundan	Dr.Ashish Awasthi	Computational methods for nonlinear partial differential equations	FT
8	Siju.K.C	Dr. Mahesh Kumar	Stochastic Process and Reliability Analysis	FT
9	Lakshmi C	Dr. Ashish Awasthi	Splines based numerical methods for nonlinear partial differential equations	FT
10	Dhanyamol M.V	Dr. Sunil Mathew	Convexity in weighted graphs	FT
11	Shijina V	Dr.Sunil Jacob John	Generalized Set Theory – Multiple Sets.	FT
12	Gayathri Varma	Dr.Sunil Jacob John	Generalized Set Theory – Rough Sets.	FT
13	Anjali N	Dr. Sunil Mathew	Connectivity in Weighted Graphs	FT
14	Lisna P.C	Dr. M.S.Sunitha.	On b- coloring of Graphs	FT
15	Ramyamol PC	Dr. Mahesh Kumar	Reliability Acceptance sampling plans	FT
16	Eda Suresh Reddy	Dr. Satyananda Panda	Shape Optimization	FT
17	Manimaran J	Dr. Jessy John	Stochastic modeling – Time series modeling	FT
18	Aswin V.S	Dr. Ashish Awasthi	Numerical Analysis and Numerical methods of differential equations	FT
19	Aswathy R.K	Dr. Sunil Mathew	Fractal and Chaos	FT

20         Kiran Kumar Patra         Dr. Satyananda Panda         Thin Fluid Film Dynamics         FT           21         Shinoj T K         Dr. Sunil Jacob John         Intuitionistic Fuzzy Multi sets         PT           22         Boby P Mathew         Dr. Sunil Jacob John         Rough Topology         PT           23         Shinto K G         Dr. Sushama C M         Integer DEA Models         PT           24         Shija.G         Dr. M.J. Jacob         Stochastic Processes         PT           25         Chitralekha K         Dr. Jessy John C         Time Series Modelling and PT Forecasting         PT           26         Jyothis Thomas         Dr. Sunil Jacob John         Topology         PT           26         Jyothis Thomas         Dr. Sunil Mathew         Graph Theory         PT           28         Shanas Babu P         Dr. Chithra A V         Graph Theory         PT           29         Jinesh P Joseph         Dr. Ashish Awasthi         Singular perturbation         PT           30         Shinoy George         Dr. Sunil Mathew         Coloring of Fuzzy graphs         PT           31         Anjali Kishore         Dr. M.S. Sunitha         Coloring of Fuzzy graphs         PT           32         Rinju Balu K.K.         Dr. Sun					
22 Boby P Mathew Dr.Sunil Jacob John Rough Topology PT 23 Shinto K G Dr.Sushama C M Integer DEA Models PT 24 Shija.G Dr.M.J.Jacob Stochastic Processes PT 25 Chitralekha K Dr.Jessy John C Time Series Modelling and PT 26 Jyothis Thomas Dr.Sunil Jacob John Topology PT 27 Jill K Mathew Dr. Sunil Mathew Graph Theory PT 28 Shanas Babu P Dr. Chithra A V Graph Theory PT 29 Jinesh P Joseph Dr. Ashish Awasthi Problems 30 Shinoy George Dr. Sushama C M Common Weights in DEA PT 31 Anjali Kishore Dr.M.S. Sunitha Coloring of Fuzzy graphs PT 32 Rinju Balu K.K. Dr. Sunil Mathew Fractal Theory PT 33 Jincy.N Dr. Sunil Mathew Graph Theory PT 34 Anoop N Nair Dr.M.J.Jacob Queuing Theory PT 35 Dhanya V Dr. Sunil Jacob John Series Mukundan Dr. V. Narayanan (MAT) 36 Dr. Sunil Mathew Tor. Sunit Mathew Graph Theory PT 37 Mubeen M Dr. V. Narayanan (MAT) 38 Dharshanlal M Nair Dr. Sunil Mathew Weighted Graph Theory PT 39 Jahfar.K.T Dr. Chithra AV Spectral Graph Theory PT 40 Manjusha O.T Dr. Ms. Sunitha Fuzzy Graph Theory PT 41 Suma P Dr. Sunil Jacob John Multiset Theory PT 42 Priyadarsan K P Dr. Satyananda Panda Sirructural Dynamics, Modeling and Simulation PT 43 Depak P Dr. Satyananda Panda CFD PT 44 Ratheesh K.P Dr. Satyananda Panda Sirructural Dynamics, Modeling and Simulation PT 45 Dhaneesh P Dr. Ms. Sunitha Fuzzy graph PT 46 Sophyia S Dharan Dr. M.S. Sunitha Fuzzy graphs PT 47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT 48 Minirani S Dr. Sunil Mathew Fractal theory PT 49 Narayan Dr. M.S. Sunitha Puzzy graphs PT 40 Minirani S Dr. Sunil Mathew Fractal theory PT 41 Studies on injective coloring of graphs and connectivity in complement of fuzzy graphs Submitted — December 2014. 48 Minirani S Dr. Sunitha Connectivity in complement of fuzzy graphs Submitted — December 2014. 49 Narayan Dr. M.S. Sunitha Connectivity in complement of fuzzy graphs Submitted — December 2014.	20	Kiran Kumar Patra	Dr. Satyananda Panda	Thin Fluid Film Dynamics	FT
23 Shinto K G Dr.Sushama C M Integer DEA Models PT  24 Shija G Dr.M.J.Jacob Stochastic Processes PT  25 Chitralekha K Dr.Jessy John C Time Series Modelling and Forecasting  26 Jyothis Thomas Dr.Sunil Jacob John Topology PT  27 Jill K Mathew Dr. Sunil Mathew Graph Theory PT  28 Shanas Babu P Dr. Chithra A V Graph Theory PT  29 Jinesh P Joseph Dr. Ashish Awasthi Problems  30 Shinoy George Dr. Sushama C M Common Weights in DEA PT  31 Anjali Kishore Dr.M.S.Sunitha Coloring of Fuzzy graphs PT  32 Rinju Balu K.K. Dr. Sunil Mathew Fractal Theory PT  33 Jincy.N Dr. Sunil Mathew Graph Theory PT  34 Anoop N Nair Dr.M.J.Jacob Queuing Theory PT  35 Dhanya V Mukundan Dr. Sunil Jacob John Type Two Fuzzy and Multi sets  36 Jaya Paul Dr. Sunil Jacob John Type Two Fuzzy and Multi sets  37 Mubeen M R.Dr. S. Abhilash (ECD)  38 Dharshanlal M Nair Dr. Sunil Mathew Weighted Graph Theory PT  40 Manjusha O.T Dr. Chithra AV Spectral Graph Theory PT  41 Suma P Dr. Sunil Jacob John Multiset Theory PT  42 Priyadarsan K P Dr. Satyananda Panda Fuzzy Graph Theory PT  43 Deepak P Dr. Satyananda Panda Fuzzy Graph Theory PT  44 Ratheesh K.P Dr. Satyananda Panda CFD PT  45 Dhanesh P Dr. Sunil Jacob John Multiset Theory PT  46 Sophyia S Dharan Dr. Chithra AV Spectral Graph Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy Graph Theory PT  48 Minirani S Dr. Sunil Mathew Fractal Ineory PT  49 Marayan Dr. Sunil Mathew Fractal Ineory PT  40 Manjusha O.T Dr. Sunil Jacob John Multiset Theory PT  41 Suma P Dr. Sunil Jacob John Soft Sets  42 Depak P Dr. Satyananda Panda CFD PT  43 Depak P Dr. Sunil Jacob John Structural Dynamics, Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Mathew Fractal Ineory PT  45 Dhaneesh P Dr. M.S. Sunitha Fuzzy graphs PT  46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Puzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal Ineory PT  49 Nr. Sanila Dr. Sunil Mathew Proceeding of graphs and connectivity in complement of Inzzy graphs and connectivity In complement on Dr. M.S.	21	Shinoj T K	Dr.Sunil Jacob John	Intuitionistic Fuzzy Multi sets	PT
24 Shija G Dr.M.J.Jacob Stochastic Processes PT 25 Chitralekha K Dr.Jessy John C Time Series Modelling and Forecasting 26 Jyothis Thomas Dr. Sunil Jacob John Topology PT 27 Jill K Mathew Dr. Sunil Mathew Graph Theory PT 28 Shanas Babu P Dr. Chithra A V Graph Theory PT 29 Jinesh P Joseph Dr. Ashish Awasthi Problems 30 Shinoy George Dr. Sushama C M Common Weights in DEA PT 31 Anjali Kishore Dr.M.S. Sunitha Coloring of Fuzzy graphs PT 32 Rinju Balu K.K. Dr. Sunil Mathew Fractal Theory PT 33 Jincy, N Dr. Sunil Mathew Graph Theory PT 34 Anoop N Nair Dr.M.J.Jacob Queuing Theory PT 35 Dhanya V Mukundan Dr. Sunil Jacob John Sels Wavelets Analysis PT 36 Jaya Paul Dr. Sunil Jacob John Type Two Fuzzy grand Multi sels Dharshanlal M Nair Dr. Sunil Mathew Weighted Graph Theory PT 39 Jahfar.K.T Dr. Chithra AW Spectral Graph Theory PT 40 Manjusha O.T Dr. Sunil Jacob John Multiset Theory PT 41 Suma P Dr. Sunil Jacob John Multiset Theory PT 42 Priyadarsan K P Dr. Sunitha Fuzzy Graph Theory PT 43 Deepak P Dr. Sunit Jacob John Multiset Theory PT 44 Ratheesh K.P Dr. Sunitha Fuzzy Graph Theory PT 45 Dhanesh P Dr. Sunit Jacob John Multiset Theory PT 46 Sophyia S Dharan Dr. Chithra AW Spectral Graph Theory PT 47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy Graph Theory PT 48 Minitani S Dr. Sunitha Fuzzy Graph Theory PT 49 K.R.Sandeep Dr. M.S. Sunitha Fuzzy graphs PT 40 Minitani S Dr. Sunitha Pruzzy graphs PT 41 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT 42 Priyadarsan K P Dr. Sunil Mathew Fractal theory PT 43 Deepak P Dr. M.S. Sunitha Fuzzy graphs PT 44 Ratheesh K.P Dr. Shuil Jacob John Soft Sets 50 Minita December PT 50 Minitani S Dr. Sunitha Pruzzy graphs PT 51 Sumayan Dr. M.S. Sunitha Pruzzy graphs PT 52 Minitani Summited — December PT 53 December Dr. M.S. Sunitha Connectivity, Sun Distance, December Dr. M.S. Sunitha Submitted — December PT 54 Minitani S Dr. Sunitha Pruzzy Graphs Submitted — December Dr. M.S. Sunitha Summitted — December Dr. Molement Dr. M.S. Sunitha Submitted — December Dr. M.S. Sunitha Submitted — December Dr. M.	22	Boby P Mathew	Dr.Sunil Jacob John	Rough Topology	PT
Dr. June   Dr. Sunil Jacob John   Dr. Sunil Mathew   Dr. Dr. Chithra A V   Dr.	23	Shinto K G	Dr.Sushama C M	Integer DEA Models	PT
Dr. Sunil Jacob John   Dr. Sunil Mathew   Graph Theory   PT	24	Shija.G	Dr.M.J.Jacob	Stochastic Processes	PT
27 Jill K Mathew Dr. Sunil Mathew Graph Theory PT 28 Shanas Babu P Dr. Chithra A V Graph Theory PT 29 Jinesh P Joseph Dr. Ashish Awasthi Problems 30 Shinoy George Dr. Sushama C M Common Weights in DEA PT 31 Anjali Kishore Dr.M.S.Sunitha Coloring of Fuzzy graphs PT 32 Rinju Balu K.K. Dr. Sunil Mathew Fractal Theory PT 33 Jincy.N Dr. Sunil Mathew Graph Theory PT 34 Anoop N Nair Dr.M.J.Jacob Queuing Theory PT 35 Dhanya V Dr. Sunil Jacob John Jaya Paul Dr. Sunil Jacob John Sets PT 36 Dharya V Dr. Sunil Jacob John Sets PT 37 Mubeen M Dr. V. Narayanan (MAT) & Dr. G. Abhilash (ECD) Weighted Graph Theory PT 39 Jahfar.K.T Dr. Chithra .AV Spectral Graph Theory PT 40 Manjusha O.T Dr. M.S. Sunitha Fuzzy Graph Theory PT 41 Suma P Dr. Sunil Jacob John Multiset Theory PT 42 Priyadarsan K P Dr. Satyananda Panda Panda Priyadarsan K P Dr. Satyananda Panda Priyadarsan K P Dr. Satyananda Panda Priyadarsan K P Dr. Sunil Jacob John Multiset Theory PT 41 Suma P Dr. Sunil Jacob John Multiset Theory PT 42 Priyadarsan K P Dr. Satyananda Panda CFD PT 43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT 44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT 45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs 46 Sophyla S Dharan Dr. Chithra.A V Operator Theory PT 47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs Dr. Studies on distance parameters in graphs and chromaticity in complement of Luzzy graphs Submitted – November 2014. 48 Miniran i S Dr. M.S. Sunitha Submitted – December 2014. 50 MiniTom Dr. M.S. Sunitha Dr. M.S. Sunitha Dr.	25	Chitralekha K	Dr.Jessy John C		PT
28 Shanas Babu P Dr. Chithra A V Graph Theory PT  29 Jinesh P Joseph Dr. Ashish Awasthi Singular perturbation PT Problems PT  30 Shinoy George Dr. Sushama C M Common Weights in DEA PT  31 Anjali Kishore Dr.M.S. Sunitha Coloring of Fuzzy graphs PT  32 Rinju Balu K.K. Dr. Sunil Mathew Fractal Theory PT  33 Jincy.N Dr. Sunil Mathew Graph Theory PT  34 Anoop N Nair Dr.M.J.Jacob Queuing Theory PT  35 Dhanya V Mukundan Dr. Satyananda Panda Fiber Dynamics PT  36 Jaya Paul Dr. Sunil Jacob John Sets Dhartan Dr. V. Narayanan (MAT) & Dr. G. Abhilash (ECD) Weighted Graph Theory PT  38 Dharshanlal M Nair Dr. Sunil Mathew Weighted Graph Theory PT  40 Manjusha O.T Dr. M.S. Sunitha Fuzzy Graph Theory PT  41 Suma P Dr. Satyananda Panda Fuzzy Graph Theory PT  42 Priyadarsan K P Dr. Satyananda Panda Fuzzy Graph Theory PT  43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs  46 Sophyia S Dharan Dr. M.S. Sunitha Fuzzy graphs PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory PT  49 Marayan Dr. M.S. Sunitha Fuzzy graphs PT  40 Marayan Dr. M.S. Sunitha Fuzzy graphs PT  41 Suma P Dr. Sunil Jacob John PT  42 Priyadarsan K P Dr. Sunil Jacob John Multiset Theory PT  43 Deepak P Dr. Sunil Jacob John Soft Sets PT  44 Ratheesh K.P Dr. Sunil Jacob John PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs  46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  49 Narayan Dr. M.S. Sunitha Puzzy graphs PT  40 Marayan Dr. M.S. Sunitha Dr. M.S. Sunitha Connectivity in complement of fuzzy graphs and connectivity in complement of Guzzy graphs and connectivity in complement of Guzzy graphs and c	26	Jyothis Thomas	Dr.Sunil Jacob John	Topology	PT
29   Jinesh P Joseph   Dr. Ashish Awasthi   Numerical Techniques for singular perturbation   PT	27	Jill K Mathew	Dr. Sunil Mathew	Graph Theory	PT
29    Jinesh P Joseph   Dr. Ashish Awasthi   Singular perturbation   PT	28	Shanas Babu P	Dr. Chithra A V	Graph Theory	PT
Anjali Kishore   Dr.M.S.Sunitha   Coloring of Fuzzy graphs   PT	29	Jinesh P Joseph	Dr. Ashish Awasthi	singular perturbation	PT
Rinju Balu K.K.   Dr. Sunil Mathew   Fractal Theory   PT	30	Shinoy George	Dr. Sushama C M	Common Weights in DEA	PT
33 Jincy.N   Dr. Sunil Mathew   Graph Theory   PT	31	Anjali Kishore	Dr.M.S.Sunitha	Coloring of Fuzzy graphs	PT
Anoop N Nair   Dr.M.J.Jacob   Queuing Theory   PT	32	Rinju Balu K.K.	Dr. Sunil Mathew	Fractal Theory	PT
Dhanya V   Mukundan	33	Jincy.N	Dr. Sunil Mathew	Graph Theory	PT
Mukundan	34	-	Dr.M.J.Jacob	Queuing Theory	PT
So	35		Dr Satyananda Panda	-	PT
37 Mubeen M & Dr. G. Abhilash (ECD) Wavelets Analysis PT  38 Dharshanlal M Nair Dr. Sunil Mathew Weighted Graph Theory PT  39 Jahfar.K.T Dr. Chithra .AV Spectral Graph Theory PT  40 Manjusha O.T Dr. M.S. Sunitha Fuzzy Graph Theory PT  41 Suma P Dr. Sunil Jacob John Multiset Theory PT  42 Priyadarsan K P Dr. Satyananda Panda CFD PT  43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs-  46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  K.R. Sandeep Narayan Dr. M S Sunitha Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – November 2014.  MiniTom Dr. M S Sunitha Dr. M S Sunitha Submitted – December 2014.  MiniTom Dr. M S Sunitha Dr. M S Sunitha Dr. M S Sunitha Dr. M S Sunitha Submitted – December 2014.  Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December 2014.	36	Jaya Paul	Dr. Sunil Jacob John	1	PT
39 Jahfar.K.T Dr. Chithra .AV Spectral Graph Theory PT 40 Manjusha O.T Dr. M.S. Sunitha Fuzzy Graph Theory PT 41 Suma P Dr. Sunil Jacob John Multiset Theory PT 42 Priyadarsan K P Dr. Satyananda Panda CFD PT 43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT 44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT 45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs- 46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT 47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT 48 Minirani S Dr. Sunil Mathew Fractal theory FT K.R.Sandeep Narayan Dr. M S Sunitha Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – December 2014.  MiniTom Dr. M S Sunitha Dr. M S Sunitha Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December Submit	37	Mubeen M		Wavelets Analysis	PT
40 Manjusha O.T Dr. M.S. Sunitha Fuzzy Graph Theory PT  41 Suma P Dr. Sunil Jacob John Multiset Theory PT  42 Priyadarsan K P Dr. Satyananda Panda CFD PT  43 Deepak P Dr. Satyananda Panda Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs-  46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  49 Narayan Dr. M S Sunitha Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  50 Sunitha Sunitha Connectivity in complement of graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  51 Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – November 2014.  52 MiniTom Dr. M S Sunitha Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December Submitted – December	38	Dharshanlal M Nair	Dr. Sunil Mathew	Weighted Graph Theory	PT
41 Suma P Dr. Sunil Jacob John Multiset Theory PT  42 Priyadarsan K P Dr. Satyananda Panda CFD PT  43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs- 46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  K.R.Sandeep Narayan Dr. M S Sunitha Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Anjaly Kishore Dr. M S Sunitha Sunitha Connectivity of fuzzy graphs Submitted – November 2014.  MiniTom Dr. M S Sunitha Dr. Dr. Dr. Dr. M S Sunitha Dr. Dr. Dr. M S Sunitha Dr.	39	Jahfar.K.T	Dr. Chithra .AV	Spectral Graph Theory	PT
42 Priyadarsan K P Dr. Satyananda Panda CFD PT  43 Deepak P Dr. Satyananda Panda Structural Dynamics, Modeling and Simulation PT  44 Ratheesh K.P Dr. Sunil Jacob John Soft Sets PT  45 Dhaneesh P Dr. M.S. Sunitha Coloring in graphs and fuzzy graphs- 46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  49 Narayan Dr. M S Sunitha Connectivity in complement of fuzzy graphs Submitted – November 2014.  Anjaly Kishore Dr. M S Sunitha Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December S	40	Manjusha O.T	Dr. M.S. Sunitha	Fuzzy Graph Theory	PT
Deepak P   Dr. Satyananda Panda   Structural Dynamics, Modeling and Simulation   PT	41	Suma P	Dr. Sunil Jacob John	Multiset Theory	PT
Modeling and Simulation   PT	42	Priyadarsan K P	Dr. Satyananda Panda		PT
Dhaneesh P   Dr. M.S. Sunitha   Coloring in graphs and fuzzy graphs-	43	Deepak P	Dr. Satyananda Panda		PT
45 Dhaneesh P Dr. M.S. Sunitha graphs- 46 Sophyia S Dharan Dr. Chithra.A.V Operator Theory PT  47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  49 Narayan Dr. M S Sunitha Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  50 Anjaly Kishore Dr. M S Sunitha Submitted – December 2014.  51 Dr. M S Sunitha Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December Submitted – December Submitted – December Dr. M S Sunitha Dr. M S Sunitha Dr. M S Sunitha Submitted – December Dr. M S Sunitha Dr. M S Suni	44	Ratheesh K.P	Dr. Sunil Jacob John	Soft Sets	PT
47 Sameeha Rehmani Dr. M.S. Sunitha Fuzzy graphs PT  48 Minirani S Dr. Sunil Mathew Fractal theory FT  K.R.Sandeep Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Anjaly Kishore Dr. M S Sunitha Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – December 2014.  MiniTom Dr. M S Sunitha Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December  Dr. M S Sunitha Dr. M S Sunitha Submitted – December	45	Dhaneesh P	Dr. M.S. Sunitha	graphs-	PT
48 Minirani S Dr. Sunil Mathew Fractal theory FT  K.R.Sandeep Narayan Dr. M S Sunitha  Dr. M S Sunitha  Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – December 2014.  Dr. M S Sunitha	46	Sophyia S Dharan	Dr. Chithra.A.V	Operator Theory	PT
K.R.Sandeep Narayan  Dr. M S Sunitha  Studies on distance parameters in graphs and connectivity in complement of fuzzy graphs Submitted – November 2014.  Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – December 2014.  MiniTom  Dr. M S Sunitha  Dr. M S Sunitha  Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December	47	Sameeha Rehmani	Dr. M.S. Sunitha	Fuzzy graphs	PT
K.R.Sandeep Narayan  Dr. M S Sunitha  Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – November 2014.  Dr. M S Sunitha	48	Minirani S	Dr. Sunil Mathew	-	FT
Anjaly Kishore  Dr. M S Sunitha  of graphs and chromaticity of fuzzy graphs Submitted – December 2014.  Connectivity, Sum Distance, Boundary and Interior nodes in Fuzzy Graphs Submitted – December	49		Dr. M S Sunitha	parameters in graphs and connectivity in complement of fuzzy graphs Submitted –	PT
MiniTom  Dr. M S Sunitha  Boundary and Interior nodes in Fuzzy Graphs Submitted – December	50	Anjaly Kishore	Dr. M S Sunitha	Studies on injective coloring of graphs and chromaticity of fuzzy graphs Submitted – December 2014.	PT
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	52	MiniTom	Dr. M S Sunitha	Boundary and Interior nodes in Fuzzy Graphs	PT

# **DEPARTMENT OF CHEMISTRY**

# a. On-going Ph. Ds under the Existing Scheme

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Suraj Varma	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
2	Riyasudheen N	Dr. Suiith A	Biomaterials	FT
3	Rafeeque P	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
4	Sangeetha C	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
5	Abineesh Babu	Dr. Lakshmi C	Bio-organic chemistry	FT
6	Jasila K	Dr. Lisa Sreejith	Surface Chemistry	FT
7	Sruthi C	Dr. Suni Vasudevan	Bioinorganic Chemistry	PT
8	Sheeja	Dr. Sujith A	Polymer science & Technology	FT
9	Fasalu Rahman	Dr. Arunkumar C	Bio-inorganic Chemistry	FT
10	Linet Rose	Dr. Lisa sreejith	Surface Chemistry	FT
11	Rojisha V.C.	Dr. Parameswaran P	Computational Chemistry	FT
12	Rahul Soman	Dr. C Arunkumar	Bio-inorganic Chemistry	FT
13	Reshmi C.R.	Dr. Sujith A	Polymer Science & Technology	FT
14	Nijesh K	Dr. Parameswaran P	Computational Chemistry	FT
15	Manju Chembath	Dr. Lakshmi C	Bio-organic chemistry	External
16	Anusha C	Dr. Parameswaran P	Computational Chemistry	FT
17	Nimisha K	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
18	Indu P	Dr. Parameswaran P	Computational Chemistry	FT
19	Divya T.T.	Dr. Lakshmi C	Bio-organic chemistry	FT
20	Premjith U.P.	Dr. Suni Vasudevan	Bioinorganic Chemistry	FT
21	Bindu M.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
22	ASri.itha B.	Dr. Suni Vasudevan	Bioinorganic Chemistry	FT
23	Ramesh J.	Dr. Arunkumar C	Bio-inorganic Chemistry	FT
24	Shyvindraj U.P.	Dr. Lakshmi C	Bio-organic chemistry	FT
25	Janisha Jayadevan	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
26	Yoganandan G	Dr. Lakshmi C	Bio-organic chemistry	External
27	Tesi Thomas	Dr. Sujith A	Polymer science & Technology	PT
28	Nishad K.V.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
29	Amitha G.S	Dr. Suni Vasudevan	Bioinorganic Chemistry	FT
30	Dijo Prassannan.	Dr. Arunkumar C	Bio-inorganic Chemistry	FT
31	Shebi.A	Dr. Lisa Sreejith	Soft materials	FT
32	Sabarish.R	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
33	Renu Jose	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
34	Manoj.M	Dr. Sujith A	Polymer science & Technology	PT
35	Roy.K.J	Dr. Sujith A	Polymer science & Technology	PT
36	Jithinraj.T.K	Dr. Lakshmi C	Bio-organic chemistry	FT
37	Vintu M.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
38	Reja Henna M.	Dr. Lisa Sreejith	Surface Chemistry	FT
39	Manaf O.	Dr. Sujith A	Polymer Science & Technology	FT
40	Anitha S.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT

41	Sunitha K.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT	
42	Ms. Suja P. Sundaran	Dr. Sujith A	Polymer Science & Technology	FT	
43	Mrs. Muhasina P. V.	Dr. Parameswaran P	Computational Chemistry	FT	
44	Ms. Anjana George	Dr. Parameswaran P	Computational Chemistry	PT	
45	Mr. Satheesh Kumar B.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT	
46	Mrs. Hannathamleena A.	Dr. Parameswaran P	Computational Chemistry	Internal	
47	Mr. Saeed P. A.	Dr. Sujith A	Polymer Science & Technology	FT	
48	Mr. Subburaj K.	Dr. C Arunkumar	Bio-inorganic Chemistry	Internal	
49	Mr. Muhammed Adnan P. K.	Dr. Lisa Sreejith	Surface Chemistry	FT	

## **DEPARTMENT OF PHYSICS**

# a. Ph.D. completed under existing scheme:

SI. No.	Name	Guide	Area of specialization	Scheme (QIP/ FT/PT
1.	Dr. John Kiran .K	Dr. Chandrasekharan .K	Non linear optics	Full time
2.	Dr. Vijayakumar .S	Dr. Chandrasekharan .K	Non linear optics	Part time
3.	Dr. Sharfudheen K.N	Dr. Chandrasekharan .K	Non linear optics	Full time
4.	Dr. Sudheesh. P	Dr. Chandrasekharan .K	Non linear optics	Full time

# b. Ongoing Ph.D. under existing scheme:

SI. No	Name	Guide	Area of specialization	Scheme
1.	Jayan Manuel	Dr. P. Predeep	Organic Electronics	Progressing
2.	Murali Krishnan M	Dr. P. Predeep	Spintronic	External
3.	Kulkarni PrabhanjanDilip	Dr. P. Predeep	Spintronic	External
4.	Praveen T	Dr. P. Predeep	Organic Electronics	Progressing
5	Shiju K	Dr. P. Predeep	Organic Electronics	Progressing
6.	Rosemary Davis	Dr. P. Predeep	Organic Electronics	Started
7.	Siji Narendran	Dr. Chandrasekharan .K	Nonlinear optics	Progressing
8.	Divyasree M. C	Dr. Chandrasekharan .K	Nonlinear optics	Progressing
9.	Vijisha M V	Dr. Chandrasekharan .K	Photonic Crystals	Progressing
10.	Shiju E	Dr. Chandrasekharan .K	Nonlinear optics	Started
11.	Ayishabi .P.K	Dr. Raghu Chatanathodi	Electronic Structure, Surface Phenomena	PT
12.	Lakshmikanth.G	Dr. Raghu Chatanathodi	Electronic Structure, Surface Phenomena	PT
13.	Daughty John	Dr. Raghu Chatanathodi	Electronic Structure of Graphene and other Nano- structures	PT
14.	Satheesh Chandran. P. M	Dr. M. K. Ravi Varma	Applied Optics	Progressing
15.	Issac S. I.	Dr. M. K. Ravi Varma	Applied Optics	PT, in progress
16.	Suhail Kuttoth	Dr. M. K. Ravi Varma	Spectroscopy	FT
17.	Arun R	Dr. M. K. Ravi Varma	Spectroscopy	FT
18.	Yoosuf Ameen	Dr. Vari Sivaji Reddy	Organic Solar cells	FT
19	Mr. Shamjid P	Dr. Vari Sivaji Reddy	Organic Solar cells	FT
20	Mr. Abhijith	Dr. Vari Sivaji Reddy	Organic Solar cells	FT

21	Mr. Naseer A. P.	Dr. P. K. Madhavan Unni	Face Transition, Critical Point Phenomena	FT	
22	Ms.Santhikrishna U	Dr. P.K Madhavan Unni	Face Transition, Critical Point Phenomena	FT	
23	Julin Joseph	Dr. Aji A Anappara	Carbon Quantum Dots (Material Science)	FT	
24	Nishaina Sahadev	Dr. Aji A Anappara	Graphene (Material Science)	FT	
25	Saju K John	Dr. Aji A Anappara	2 diemensionalcrystals (Material Science)	FT	
26	Simimol. A	Dr. Aji A. Anappara (Internal guide)	Graphene (Material Science)	External	

## **DEPARTMENT OF PHYSICAL EDUCATION**

# a. On-going Ph. Ds under the Existing Scheme

SI. No.	Name	Guide	Area of Specialization	Scheme(QIP/ PT/FT)
1	Baby Salini	Dr. A.M. Najeeb	Physical education sciences	PT( under Karpagam University)

# **SCHOOL OF MANAGEMENT STUDIES**

# a. On-going Ph. Ds under the Existing Scheme

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)	
1	Shobitha Poulose	Dr.N Sudarsan	Human Resources Management	FT	
2	Salwa C H	Dr. N. Sudarsan	Marketing	FT	
3	Abdul Latheef Kiliyanni	Dr. S. Sunitha	Human Resources Management	FT	
4	Lisbeth Mary John	Dr.K Muhammad Shafi	Human Resources Management	FT	
5	Shanujas	Dr.N. Sudarsan	Gen. Management	FT	
6	Jyothi P T	Dr.M. Shafi & Dr. Sunitha	Investment Analysis	PT	
7	Biju Mathew	DrS. Sunitha	Economics	PT	
8	Smitha Syed Ali	Dr.N Sudarsan	Human Resources Management	PT	
9	Sreekumar	Dr. T Radha Ramanan & Dr. Madhu Kumar S D	System	PT	
10	Binesh Jose	Dr.T Radha Ramanan & Dr. Madhu Kumar SD	Strategic Management	PT	
11	Pratap Kumar S	Dr.K Muhammad Shafi	Gen. Management	PT	
12	Preethi M	Dr. T Radha Ramanan	Technology Transfer	PT	

# SCHOOL OF BIOTECHNOLOGY

## a. On-going Ph. Ds under the Existing Scheme:

SI. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Mr. Praveen Kumar Reddy	Dr. Md. AnaulKabir	Molecular Biology	FT
2	Ms. Aswathy.N	Dr. Md. AnaulKabir	Protein folding	FT
3	Mr. WasimUddin	Dr. Md. AnaulKabir	Drug Resistance	FT
4	Mr. Dileep. P	Dr. Md. AnaulKabir	Gene Regulation	FT
5	Mr.Darshan Rajesh Dhabalia	Dr. Md. AnaulKabir	Gene Regulation & Drug Resistance	FT

6	Ms.VidhunaSadanan dan	Dr. Santhiagu. A	Enzyme technology	FT
7	Mr. Yuvaraj. K.R	Dr. Santhiagu.A	Herbal Biotechnology	FT
8	Ms. Divya.A	Dr. Santhiagu. A	Bioprocess technology	FT
9	Mr.SaravanaPerumal	Dr. Santhiagu.A	Bioprocess technology	FT
10	Ms.Joji.K	Dr. Santhiagu.A	Bioprocess technology	FT
11	Ms.NishaSalim	Dr. Santhiagu.A	Bioprocess technology	FT
12	Mr. Adarsh. V.K	Dr. Santhiagu.A	Bioinformatics& Drug Discovery	FT
13	Ms.Bincy.B.c	Dr. Santhiagu.A	Drug Discovery & Synthesis	FT
14	Mr. Pradeep H	Dr. Rajanikanth. G.K	Neuroscience	FT
15	Mr. S. Md. Fayaz	Dr. Rajanikanth. G.K	Bioinformatics	FT
16	Mr.SinoySugunan	Dr. Rajanikanth. G.K	Bioinformatics	FT
17	Mr. ArunAnirudhan	Dr. Rajanikanth. G.K	Bioinformatics	FT
18	Mr. Suvanish Kumar	Dr. Rajanikanth. G.K	Bioinformatics	FT
19	Ms.SreekalaNampoo thiri	Dr. Rajanikanth. G.K	Bioinformatics	FT
20	Mr. Charles K Davis	Dr. Rajanikanth. G.K	Bioinformatics	FT
21	Mr. Lakshmi Mohan	Dr. Rathinasamy	Cancer biology	FT
22	Mr. Arul Kirubakaran	Dr. Rathinasamy	Cancer biology	FT
23	Mr. Darpan Raghav	Dr. Rathinasamy	Cancer biology	FT
24	Ms.Geethu Chellappan	Dr. Aswathi Nair	Plant Biotechnology	FT
25	Ms.KeerthiDivakaran	Dr. Aswathi Nair	Plant Biotechnology	FT
26	Mr. Ganapathy.G	Dr. Aswathi Nair	Plant Biotechnology	FT
27	Ms. Princy. C.P	Dr. Aswathi Nair	Plant Biotechnology	FT
28	Ms.Saumya Mary Mathew	Dr. Suchithra T.V	Enzymology	FT
29	Ms. Anna SajuKynadi	Dr. Suchithra T.V	Bioplastics	FT
30	Ms. Sareena.C	Dr. Suchithra T.V	Multidrug resistance	FT
31	Mr. Ilshad Sabah	Dr. Suchithra T.V	Microbial Fuel Cell	FT

# SCHOOL OF NANO SCIENCE & TECHNOLOGY

# a. PhD's completed under existing scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Sooraj K. Prabha	Dr. Sarith P. Sathian	Gas Surface Interaction in Nanosystems	FT
2	Manjusha Mathew	Dr. N. Sandhyarani	Nanomaterial based biosensors	FT
3	Nandu Gopan	Dr. Sarith P. Sathian	Studies on Liquid Nanostructures	FT
4	Parvathy R Chandran	Dr. N Sandhyarani	Targeted drug delivery	FT
5	Jeetu S. Babu	Dr.Sarith P. Sathian	Thermal & Fluid Transport through Carbon Nanotubes	FT
6	Kulwant Singh	Dr.Soney Varghese	Piezoresistive MEMS	FT

# b. Ongoing PhD's under existing scheme:

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)	
1	Uvais V. N.	Dr.Soney Varghese	Ferroelectric nonvolatile memory devices	FT	
2	Abdul Rasheed	Dr.N. Sandhyarani	Early Stage Diagnosis of Cancer	FT	

3	Joe Francis T.	Dr.Sarith P. Sathian	Fluid Transport through Nanoscale Systems	PT
4	Reny Thankam Thomas	Dr.N. Sandhyarani	Nanomaterials for environmental remediation	FT
6	Raji K.	Dr.C. B. Sobhan	Theoretical and experimental investigation on CVD synthesis of carbon nanotubes	FT
7	Ajin C. Sajeevan	Dr.V. Sajith	Synthesis of Catalytic Nano particles and its application as Fuel additives	FT
8	S. Balamurugan	Dr.V. Sajith	Investigation on the Effect of Catalytic Nano particles in fuels on Combustion using Optical measurementTechniques	FT
9	Anjan R. Nair	Dr.Sarith P. Sathian	DSMC Study of solid rocket motor exhaust plume	FT
10	Loksani Bhanu Prakash	Dr.Soney Varghese	Composite materials	FT
11	Subash C K	Dr.Soney Varghese	Piezoelectric polymer nanocomposite for Pressure sensors and Energy harvesting	FT
12	Robin Joyce	Dr.Soney Varghese	Role of Anodic Bonding in Packaging of MEMS Devices; RF Switches and Pressure Sensors	FT
13	Rahul T K	Dr.N. Sandhyarani	Photonic crystals	FT
14	Vibin Antony	Dr.V. Sajith	Convective heat transfer studies in Corona discharge systems	FT
15	Nair Thulasi Radhakrishnan	Dr.N. Sandhyarani	Development of Nano electrocatalysts for fuel cell applications	FT
16	Preseetha Paul	Dr.Soney Varghese	Pyroelectric energy harvesting devices	PT
17	Nimmy Jhon	Dr.N. Sandhyarani	Liquid crystal display	FT
18	Jamsheed K	Dr.Soney Varghese	Design and Development of Curcumin Nanoparticles and Nanoconjugates to Enhance Bio-availability	PT
19	Arun Kumar V	Dr.Sarith P Sathian and Dr. V. Sajith	Computational Studies On the Evaporation of Nanodroplets	PT
20	Arjun Ajith Mohan	Dr.N. Sandhyarani	Development of efficient bio fuel cell	FT

# 5.2 DETAILS OF Ph.D DONE SO FAR

SI.No	Donortmont	No.of Ph.D		Scheme	)
SI.NO	Department	Completed	QIP	FT	PT
1	Architecture	1	-	-	1
2	Civil Engineering	5	2	2	-
3	Computer Science & Engineering	2	-	1	-
4	Electrical Engineering	10	3	2	2
5	Electronics and Communication Engineering	3	-	2	-
6	Mechanical Engineering	7	1	2	-
7	Mathematics	5	-	1	2
8	Chemistry	3	-	1	-
9	Physics	1	-	-	-
10	School of Nano Science & Technology	7	-	4	-
11	School of Biotechnology	3	-	2	1
12	Chemical Engineering	5	-	2	-

### 5.3 PROPOSED PLAN FOR RESEARCH

#### **DEPARTMENT OF ARCHITECTURE**

- BoG has approved starting a new PG programme in Urban Planning in the Department. The programme is starting in July 2015.
- Department also proposes to establish a Remote Sensing and GIS Laboratory
- Department is in the process of setting up a Material Museum
- Department is developing a virtual design studio for furthering interaction in Architectural. Design studio work with other universities.
- Department is also developing Architectural Photography and Documentation lab.
- It is proposed to further develop the building science lab in the areas of acoustics, illumination, thermal studies and wind flow studies.

### DEPARTMENT OF CIVIL ENGINERING

- Department proposes to enhance the research activities by attracting more number of sponsored research programmes from industries, apart from taking up routine research programmes funded by funding agencies like CSIR, DST, AR & DB, MHRD etc. Department also wishes to encourage more and more Scientists / Engineers from R & D institutions to avail the External Registration Scheme to enroll for Ph.D programmes. The Department wishes to undertake collaborative research work leading to the award of Ph.Ds.
- The Department carries out / propose to carry out research on the following areas/topics:
  - 1. Rheology of Cementitious materials
  - 2. Studies on application of fracture mechanics to cementitious materials
  - 3. Strength and behaviour of Geo-Polymer concrete structural elements
  - Studies on the effect of Hybrid Fibres on the Strength and Behavior of High Performance Concrete
  - 5. Studies on the effect of Ferro cement as a retrofitting material
  - 6. Development of sustainable concrete and other techniques
  - 7. Studies on strength and behavior of FRC shear wall
  - 8. Travel Behaviour Modelling and Stated and Revealed Preference Survey planning and design
  - Compressive Constitutive Behaviour and Fracture properties of Hybrid Fibre Reinforced High Performance Concrete
  - 10. Studies on High Performance Concrete Shear wall- Frame Interaction
  - 11. Strength and Behaviour of RC Multistoried Frames with different Infills
  - 12. Retrofitting of Beam Column Joints under Seismic Loading using SIMCON Composites
  - 13. Structural Control using mass dampers and Performance based design of Structures
  - 14. Study of human gait for detection/diagnosis of abnormal walking
  - 15. Performance evaluation of fracture fixators and implants
  - 16. Modelling/analysis of musculoskeletal structures

### **DEPARTMENT OF ELECTRICAL ENGINEERING**

Department has identified five major areas for research and development, namely, Energy & Power Systems, Control & Instrumentation, Electrical machines and Power Electronics, Industrial Power & Automation and High Voltage Engineering. Department has also undertaken sponsored research activities for strengthening the areas of expertise. Department has already completed about 18 sponsored research projects.

Ongoing sponsored research projects are (1) 'Development of Centre for Distributed Energy Research' under DST-FIST (Rs 100 lakhs–Dr Ashok S), (2) Development of composite insulators for high energy storage applications under DST –FT (Rs 23 lakhs –Dr. Sindhu T K), (3) Development of intelligent robot for fault diagnosis of power lines" under KSCSTE,Govt of Kerala (Rs 11 lakhs –Dr Ashok S), (4) Investigation of distributed generation & integration on a laboratory scale Microgrid under DRDO (Rs 7 lakhs –Dr Elizabeth P Cherian.), and (5) Non Linear analysis of EEG signals in patients with Alzheimers under DST-FT (Rs 17.95 Lakhs – Dr. Subha D.P) ) (6) Development of Highway wind Mill , Intelligent Road Stud -CTR , Dr Ashok S (Rs 12 lakhs)

Dept. faculty are proposing to submit research proposals to various funding agencies in the following area:

- High Voltage Engineering.
- Power Quality Research.
- Smart Grid.
- Control System Technologies
- Distribution Generation
- Robotic Facility and Automation.

- MicroGrid
- Power Electronics
- · Biomedical Engineering
- Industrial Automation

### **DEPARTMENT OF CHEMISTRY**

The main areas of research in the Department of Chemistry are as follows

One of the areas that the bio-organic chemistry laboratory focuses on is the development of low molecular weight stimuli responsive sensors for cations, anions and biologically important molecules. Development of fluorogenic peptides to explore peptide aggregation and conformational transitions is a rather under explored area and effort will be made to study the detailed mechanism that underlies these phenomena. Design and synthesis of smart materials, the properties of which can be controlled externally, will be attempted in the coming year.

Polymer research group mainly focuses on the development and characterization of multi – phase polymer systems. This includes blends and short natural fiber reinforced polymer composites. The group is also interested in polymer – based nano composites. The development and characterization of polymer membranes for the separation of liquid mixtures, including azeotropes, forms the major research interest in the next two years. Soft Materials research group will concentrate on the study of the possible structural transitions in micellar media, which can have applications in various fields of interest. To materialize a molecular DLVO incorporating surfactants with zeolites, polymers, latex, their characterization, a biocompatible packing material from natural resources and a temperature tunable optical sensor/filter are the plans for the coming year. The group also focuses on developing energy conversion technology from waste materials. Developing an ecofriendly solution for the safe use of plastic products of daily purpose is another area that is actively pursued.

Bio-Inorganic Chemistry team focuses on developing transition metal based coordination complexes for binding interaction studies with mammalian DNA. This will give more insight into the mechanism and modes of binding, which will in turn facilitate development of new generation drugs with site specific activities. The research of computational chemistry group mainly focuses on the applications of theoretical and computational methods to solve problems in organic, organometallic and main group chemistry as well as nano-materials. The most key aspect of the studies are structure, bonding, reactivity, reaction mechanism in molecular level and the growth of nanomaterial, their properties and reactivities in the nanoscale.

### **DEPARTMENT OF PHYSICS**

Dr. Pradeep's Laboratory for Molecular Photonics and Electronics research group identified elastomers, especially natural rubber as a sustainable and cost effective material to be developed as semiconductors. Development of rubber based fullerene derivatives to use as cost effective to currently popular small molecules is a major area of research. Dr. Chandrasekharan's Non-linear Optics Laboratory Development of Photonic Crystal based optical switches by using nonlinear optical materials, Dr. Raghu, C heads the Computational Materials research on Electronic Structure Calculations for molecules and solids, study of adsorption and other interesting surface phenomena, design of photo active molecular materials for energy storage, study of low dimensional systems. Dr. Vari Sivaji Reddy is an experimental condensed matter physicist working on development of novel organic semiconductor devices such as solar cells, light emitting diodes and memory devices; and the development of new techniques to improve device performance. With the help of funding projects, a laboratory for research in the field of organic electronics and photovoltaics has been set up in the Department. Dr. Reddy is also investigating the plasmonic effects of metal nanostructures on the performance of polymer bulk heterojunction solar cells as a part of this fellowship at Northwestern University, USA. Dr. P.K Madhavan Unni is working on Realisation of Quarduple Critical Point (QCP) in the guaternary system Methyl Ethyl Ketone + sec-Butyl Alcohol and Water, Light Scattering studies close to the QCP and Developing static light scattering setup for light scattering study close to a liquid-liquid critical point. Dr. Aji A Anppara works on Optics of carbon quantum dots: The goal of his group's research in this direction is to explore a suitable protocol for the synthesis of C-dots with high fluorescence quantum yield and to get a better understanding into the origins of their photo physical behavior. Once a deeper knowledge of their fundamental properties is achieved, C-dot based nanodevices may be envisioned; photochemical fuels based on nanomaterial hybrids: In this project, we intend to develop such a photochemical fuel, based on nanomaterials-templated photoactive molecules. On exposure to sunlight, these hybrid materials capture light energy and get converted to a high-energy conformation, whose subsequent triggered reversal to the stable low-energy form release the stored energy as heat. Dr. M K Ravi Varma works in the field of Spectroscopy, Development of Instrumentation for Atmospheric, and Environmental monitoring using principles of Optics, Radiative transfer and aerosol forcing on Climate (Global and Regional). Currently Dr. M K Ravi Varma has two ongoing sponsored research projects funded by the Department of Science and Technology (DST), Government of India and Kerala State Council for Science, Technology and Environment (KSCSTE).

### SCHOOL OF BIOTECHNOLOGY

Research is planned in the following areas:

- 1. Gene Regulation
- 2. Molecular Genetics
- 3. Protein Folding
- 4. Protein Engineering
- 5. Genetic Engineering
- 6. Bio modeling and Drug Design
- 7. Plant Molecular Biology
- 8. Neurobiology
- 9. Immuno Technology
- 10. Enzyme Technology
- 11. Cell Biology
- 12. Cancer Research

### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

The varied interests of the school of Nano Science and Technology include study of nanoscale physical phenomena, experimental research in nanoscale flow and heat transfer, nanomaterials and composites, biosensors, nanomaterials for energy and environmental applications, photonic crystals, optical measurements, combustion and nanoparticle fuel additives, synthesis of nanomaterials including carbon nanotubes, discrete computational studies on nanoscale systems using molecular dynamics simulations, polymer technology, liquid crystal devices, nanocomposites, ferroelectric devices and nanofabrication, experimental research in particle patterning at nanoscale and light transport through highly scattering nanostructured media.

### **SCHOOL OF MANAGEMENT STUDIES**

The major areas of research of School of Management Studies are Applied Finance, Applied Econometrics, Development Economics, Macro Economics, Data Mining and Risk Management, Strategic Management, Marketing, Organisation Behaviour, Human Resoures Management and Entrepreneurship and Technology Management.

## 5.4 INSTITUTE - INDUSTRY COLLABORATION

### **DEPARTMENT OF ARCHITECTURE**

 Organized an International Conference on Reinventing Design Pedagogy and Contextual Aesthetics jointly with IIA Calicut during Jan 30-31<sup>st</sup> 2015.

## DEPARTMENT OF CIVIL ENGINEERING

SI. No.	Firm
1	Airport Authority of India, Calicut Airport.
2	CPWD, Calicut
3	Wayanad District Panchayat
4	Tirur Municipality, Malappuram
5	Southern Railway
6	LIC of India, Branch Office, Sulthan Bathery, Wayanad Dist.
7	L & T, ECC division
8	Steel Complex Ltd. P.B No. 42, Feroke, 673631, Calicut
9	Kerala State Electricity Board
10	Kerala Water Authority
11	Malabar Institute of Medical Science Ltd. Calicut-16
12	The Assistant Engineer, N H Bypass Junction Nellikode, Civil Station, Kozhikode
13	The Secretary, Uralungal Labour Contract Co-Operative Society Ltd. Vatakara.
14	IVRCL Infrastructures & Projects Ltd, Indraneelam, Madathil Lane, Chevayoor(P.O), Kozhikode-17

15	Minor irrigation division,Kasargode
16	M/S Aban Constructions (P) Ltd. KWA - JBIC Drinking Water Project, Perumannamuzhi(Post), Kozhikode-673528
17	Mangalore port trust
18	The Assistant Executive Engineer, Office of the Assistant Executive Engineer, KRP Subdivision No.II, Vazhavatta.
19	Kalamassery Municipality, Cochin
20	Mahe Municipality
21	National High way authority of India Kalamassery, Eanakulam - 683 104
22	Prasar Bharathi Broad Casting Corporation of India, O/o the Additional Director General(E), Chennai
23	Aluva Muncipality, Aluva – 683101
24	Kochi Metro Rail Project, Eastern Entry Tower, Eranakulam Southern Railway Station Kochi - 686 016
25	The Muncipal Secretary, Cherthala
26	The Regional Engineer, Kerala State Nirmidhi Kendra, Regional Nirmidhi Kendra, Kozhikode
27	The Asst. Executive Engineer, Fishery Harbour Project, Sub-Sub Division, Habour Engineering Dept., Koyilandy
28	M/S KITKO, Cochin
29	Palakkad District Panchayat
30	Kottakkal Municipality, Malappuram Dist.
31	Centre for Water Resources Development and Management, Calicut
32	Kozhikode District Panchayat, Calicut
33	Food corporation of India, Regional office, Thiruvananthapuram
34	CSIR-Central Road Research Institute, New Delhi
35	Road safety council, Kozhikode district
36	Regional Town & Country Planning Office, Kozhikode
37	Many other Govt., Semi Govt. and Private Organisations

# **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

SI. No.	Name	Firm & Description of the work
1	Academic Interface Programme by Tata Consultancy Service (TCS) Faculty in charge: Dr. Subashinin R	Arranging workshops/seminars for NITC students by the experts from TCS in the area where the expertise from industry is essential

# **DEPARTMENT OF CHEMISTRY**

SI. No.	Name	Firm & Description of the work
4	G. Unnikrishnan	1. Choice Rubbers, Koodaranji, Calicut.
'	G. Offilikristinari	2. Hevea Rubbers, Calicut.Consultancy for Rubbers. Adhesives etc.

## **DEPARTMENT OF ELECTRICAL ENGINEERING**

- (a) Students of M. Tech. Industrial Power and Automation are mandatorily required to undergo industrial Training for period of two months after their second semester.
- (b) Dr Ashok S is a Member of PRSG- "Advanced Automation & Process Optimization System for 1200 TPD, Malabar Cements Factory, Walayar, Palakkad",

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(c) M Tech (Industrial Power & Automation) projects under Internship Scheme from M/s ABB Ltd, Bangaolre & Cromption Greaves Ltd , Mumbai

### **DEPARTMENT OF PHYSICS**

A new project proposal on organic solar cells in collaboration with Agilent technologies is proposed

### 5.5. INNOVATIONS AND TECHNOLOGY TRANSFER

### **DEPARTMENT OF ARCHITECTURE**

The B. Arch programme offered is designed to instill a good understanding of Building Climatology, Structures and Construction. It also enables better understanding of the Architecture practice through comprehensive training in realization of projects. The knowledge transfer emphasizes on adequate field exposure through case studies, professional training, studios and thesis work. Guest Lectures, Visiting Faculty interactions and short term courses are chosen to expose the students to career and subject possibilities even while providing the faculty opportunities for development.

### **DEPARTMENT OF CHEMISTRY**

- Isolation of Nano cellulose from banana plant (Being processed for patent)
- Polymer Conjugate and A Process for Preparing the Same Dr. G. Unnikrishnan and Ms. Nimisha K. (Being processed for patent)
- Novel Matrix Controlling Transdermal Patches from Chemically Modified Natural Rubber Dr. G. Unnikrishnan and Mrs. Janisha Jayadevan (Being processed for patent)

### **DEPARTMENT OF PHYSICS**

Dr. P Predeep developed and demonstrated the potential of natural rubber as a cost effective and innovative semiconductor. :

### 6.0 THE COUNCIL, BOG, AND OTHER COMMITTEES

### 6.1 INSTITUTE'S COUNCIL

The Senate is the institute council to decide upon all academic matters. The Senate of the institute consists of the following members:

- o The Director, ex-officio, who shall be the Chairman of the Senate
- The Professors appointed or recognized as such by the institute for the purpose of imparting instruction in the Institute
- Three persons, one of whom shall be a woman, not being employees of the institute, to be nominated by the Chairman.BOG in consultation with the Director from among educationists of repute, one each from the field of science, engineering and humanities
- Such other members as laid down in the Statutes

### 6.2 BOARD OF GOVERNORS

### **Constitution of Board of Governors**

- The Chairperson to be nominated by the Visitor.
- The Director, ex officio.
- Two persons not below the rank of the Joint Secretary to the Government of India to be nominated by the Central Government from amongst persons dealing with technical education and finance.
- Two persons to be nominated by the Government of the State in which the Institute is situated from amongst persons, who, in the opinion of that Government, are technologies or industrialists of repute.
- Two persons, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, engineering or science to be nominated by the Council and
- One professor and one assistant professor or a lecturer of the Institute to be nominated by the Senate.

### 6.3 FINANCE COMMITTEE

The Finance Committee consists of the following members:

- The Chairperson Board of Governors, ex-officio Chairman
- The Director, ex-officio member
- Joint Secretary dealing with National Institutes of Technology or his nominee and Financial Advisor (Human Resource Development) or his nominee members
- Two persons nominated by the Board from amongst its members and
- The Registrar, ex-officio Member Secretary
   Provided that in addition to the above, the Chairman may, in consultation with the Director, co-opt a member as and when found necessary.

### 6.4 BUILDING AND WORKS COMMITTEE

The Building and works committee consists of the following members:

- The Director, ex-officio Chairman
- One member nominated by the Central Government not below the rank of Director or Deputy Secretary
- One member nominated by the Board of Governors
- The Registrar, ex-officio, Member Secretary
- o Dean, Planning & Development or similar position Member and
- One expert each from Civil and Electrical Engineering Wing of Central or State Government or any autonomous body of repute - Member

### 7.0 CONCESSION FOR SC, ST& HANDICAPPED STUDENTS

### 7.1 Concessions provided for students:

Educational Concession to SC/ST/OEC/SEBC (under KPCR) students: Students from Kerala are eligible for educational concessions from the SC & ST development Departments as per the norms of Government of Kerala. Students from other states can apply for scholarships as per the rules of the respective states. In addition, National scholarships are also offered to persons with disabilities for pursuing technical and professional courses for recognized institutions by the National Handicapped Finance and Development Corporation (NHFDC) Faridabad on behalf of Ministry of Social justice & Empowerment, Govt. of India subject to fulfill the conditions laid out by them.

A New Central Sector Scholarship Scheme to the first top 12 SC and 5 ST students of Top Class Education given by the Central Government (Ministry of Social Justice and Empowerment & Ministry of Tribal Affairs, respectively) [i.e. Institute Tuition Fee + Boarding charges + Books & Stationary + Cost of a PC- (P-IV Computer, UPS, Printer, Multimedia)] based on their entrance rank. Family income limit is Rs.4.5 lakhs per annum.

**Merit cum Means Scholarship** for eligible Minority Communities in Kerala and other states given by the Ministry of Monority Affairs, Govt. of India.

**District Merit Scholarships** to eligible students in Kerala by the Directorate of Collegiate Education, Thiruvananthapuram.

**Central Sector Scholarship Scheme** for eligible College & University students by the Department of Higher Education, Ministry of Human Resources Development, Govt. of India.

7.2 Concessions provided for staff: Faculty members are given concession in fee for PT

### 8.0 FINANCIAL STATUS

## 8.1 ANALYSIS OF PLAN AND NON-PLAN GRANTS

(Grant received)

Particulars	Rs. in lakhs			
Particulars	2011-2012	2012-2013	2013- 2014	2014-2015
Govt. of India –Grant (Non-Plan)	3700.00	4800.00	7020	6000
State Govt. Grant (Non-Plan)	-	-		
Govt. of India Grant (Plan-General)	3900	5949.99		
Govt.of India (Plan-OSC)	1700		1375	975

### 8.2. EXPENDITURE POSITION FOR LAST THREE YEARS

Particulars	Rs. in lakhs		
Faiticulais	2012-2013	2013-2014	2014-2015
Expenditure- (a) Under Plan(General)	2673.92	1824.79	2649.10
Expenditure -(b) Under Plan(OSC)			
Expenditure-Under Non-Plan	6871.51	7050.86	7904.74

### 9.0. CENTRAL FACILITIES AND SERVICES

#### 9.1 COMPUTING & IT SERVICES

### 9.1.1 CENTRAL COMPUTER CENTRE

The Central Computer Centre provides computational facility for NITC students and staff. Centre has state of the art infrastructure with four fully operational terminals spanning over three floors of the building. Decision Support System (DSS) also operate from the Centre building. The Centre has 190+ client machines and has a capacity to include 400+ machines. Client systems are of both desktop and workstation genre. Desktops contain DELL OPTIPLEX 755 and 7010 series which are of adequate performance and workstations contain HP XW4550 and DELL Precision series machines which are capable of more than handling high end production and design level applications. CCC hosts some of the high end servers and a parallel processing cluster machine. Servers include DELL PowerEdge T620which has a dual Hexa-core processor and HP ProLiant Rack server which has a dual Quad-core processor. High performance cluster machine which has a computational capability of 1.6 Teraflops is named P.U.R.N.A (Parallel Universal Remote Numerical Analyzer) and is accessible along the length and breadth of NITC campus.Centre is fully air-conditioned and has UPS power backup. There are numerous applications which support academic and creative needs of the students. ANSYS, MATLAB, Adobe Suite etc. being some of them. Machines are loaded with Windows and Linux operating systems for convenience and centralized authentication is provided for both. Students are mandated to follow strict classroom discipline inside the Centre. The Centre works 16 hours a day (7am - 12am) 7 days a week except few public holidays.

### 9.1.2 CAMPUS NETWORKING CENTRE

Campus Networking Centre (CNC) of the Institute manages the Internet connectivity (both wired and wireless), Institute website, IP Phones and also provide hardware and software solution for the entire Institute. The campus is interconnected with about 30 KMs of fiber optic backbone network with 80 routed internal networks, managed by the Unified Threat management system. The Centre is equipped with Unified Threat management system, Authenticator, Web server, Domain Name Server, IP Phone Servers and Core Switches. Presently the network is served by one Gbps of Internet connectivityprovided by BSNL under NKN scheme of MHRD and tweleve Mbps by RELIANCE. All the hostels are served with Internet connectivity through wired mode. The Institute website is managed by CNC. CNC functions on a 24x7 basis 365 days without any holidays. IP Phones are installed in all academic and administrative sections. The IP Phones and IP Phone servers are also managed by CNC.

Hardware maintenance unit of CNC provides quality service support to minimize system downtime in the entire campus. The services include installation and maintenance of computer and peripheral devices, software and operating system installations.

## 9.2 WORKSHOP

### **CENTRAL WORKSHOP - FACILITIES AND WORKS UNDERTAKEN**

The facilities in Central Workshop of Mechanical Engineering Department are effectively utilized for the conduct of practical classes for all students of first year undergraduate course and also by Post graduate students. This section forms a central facility and as such caters to the requirements of all departments. The practical classes are compulsory for both B.Tech. and B.Arch. first year UG students. The primary idea is to impart them with the basic ideas of manufacturing. For the UG students of Mechanical Engineering streams, advanced training in various skills with one semester on the design and fabrication build up their confidence level in practical fields too. The syllabi too are formed accordingly. The research works, requiring fabrication, assembly and testing by other departments, are carried out in the sections of central workshop. Apart from the regular practical classes, interdepartmental requirements involving fabrication are carried out here. This centre has ample facilities to undertake consultancy and fabrication works in all manufacturing fields.

The workshop sections are equipped with the following machineries/equipments.

 Centre Lathes
 – total of 44 nos. –(HARIHAR, KIRLOSKAR GD2-, MK brand Enterprise 1330, Turnmaster 35- INVESTA, CHAMUNDI HMT LATHE-. and PSG ALL GEARED TYPE141E)-

- Shaping Machines- 8 nos- (By M/s COOPER, MODGIL and BATLIBOI)
- Slotting Machine- 1no. (ROSCHER ELCHLER German make)
- Milling Machines- 3 nos. PRECISION type, (BS- PEDERSEN make, HMT Vertical type)
- Radial Drilling Machines- 2 nos- (BATLIBOI, VRZ grade 1, EIFCO model)
- Drilling Machine- 4nos. (DAULAT, PRAGA ½" CAPACITY, ½ HP, 3 Phase., WOLF make, WOLF HEAVY DUTY 1 ¼")
- Tool & Cutter Grinder-(M/s ADDISONS)
- Tool Post Grinder- (M/s MPD- H08)
- Band Saw Machine

  1 no. (LAXONS).
- Kirloskar Hack Saw Machine- 9" capacity 1 no.
- Band Saw and Circular Saw Blade Sharpening Machine- (ITALIAN MODEL)
- Wolf Portable Grinder
- Precision Lathe Tool Grinder WOLF, G23
- Bench buffing machine- ROHIT
- Arc Welding equipment- (TRANSFORMERS 5nos. STROJEX (Czechoslovakian) Trydyn K-320 and MALIK make) Rectifier- 1 Kirloskar make 400 amps
- Portable Arc welding transformer- ELECTROWELD
- · Gas welding equipment- Swiss make standard set
- Gas tungsten / metal arc welding setup- ADVANI-OERLIKON- THYROTIG
- Submerged arc welding outfit with flux drying oven Advani Oerlikon
- Portable Flame cutting machine- ADOR MAKE
- ADOR make RANGER 400-B MIG WELDING SET UP
- ADOR make AP -100 Air plasma Cutting machine with circle and line master
- Spot welding Machine- Advani Oerlikon, pedal operated- 1 no.
- Spot Welding Machine -ELECTROWELD- 1 no.
- Bench Grinder- 7 Nos (double ended, with wheels)
- PROTECH flexible shaft grinder- 2 Nos.
- All tools for fitting operations
- All carpentry tools- Hand tools- chisels, Mallet, Hand Saws, G Clamps etc.
- BOSCH make power operated tools for carpentry, sheet metal and fitting works
- Air compressor. KAC Brand, 55 litre tank capacity, complete set- 2 nos.
- Metal cutting band saw- 1 no.
- · Wood cutting band saw machine- 1no.
- Wood working lathes, (MYFORD ML-8 OF 4' make)- 3 nos
- Universal wood working machine
- American model JIG saw machine- SPRUNGER J200 with accessories
- Belt & disc sander- BD-2.
- Circular saw
- Universal edge bending and folding machine- International make, for 4" dia tube
- Shearing machine- GULLIOTINE Power operated model UCG/48, to cut 3.2 mm 1220 wide sheets
- Shearing machine
  - o Samson English make- 14" blade, cutting size1/8", with handle
  - o Portable Electric Shear
- Riveting Machine
- Fly Press- Pillar type, MASTER
- Hydraulic Pipe Bending Machine- HYDROBRAND, 1" to 3"
- Spray-painting unitcylinder 1, stage, IMPERIAL
- Hand Operated Circle Cutting Machine
- Edge Folding Machine Type REF Indian make, 36" X 24
- Shell testing equipment Model VHH digital temperature Indicator, tester.
- Oil fired tilting Furnace- Sklener Crusibleless 200 lbs capacity
- Oil Preheater 1.5 KV capacity. Type GGOP 1.5
- Resistance furnace. Hindustan Furnace, capacity 10 kg, ammeter, Vol.tmeter etc.
- Hand Molding MACHINE- P.F.M. with hand operated head.
- Vibrating table for foundry works- 1 NO
- · Metallic and ceramic moulds for castings
- Diesel generator. RUSTAM model, 30KVA
- GODREJ heavy-duty workbench with fittings.
- Air Blowers, Parsha 5 HP & 3 HP
- Swage blockCl, 18X18X6"-6 nos.
- Surface plates- 2 Nos
- Marking off table- 3X3
- Platform Trolley, Crane, Chain pulley block

### 9.3 EDUCATIONAL TECHNOLOGY & LIBRARY

Educational Technology& Library (ETL) presently comprises of Central Library and Digital Library. Both the Library & Digital Library are working form 8 a.m to 11 p.m on all days except Sundays and Public Holidays.

### 9.3.1 CENTRAL LIBRARY

CENTRAL LIBRARY offers its services to about 5000 users comprising of undergraduate, postgraduate students, research scholars, faculty and Supporting Staff from various Departments of the Instittute/Centres/Sections. The Library uses LIBSYS Sofware version 7.0 for its operations. Collection is fully bar coded and offers Web OPAC service throughout the Campus LAN. Current Print Holdings:-

### (a) Print Books

SI. No.	Category	Books at the end of the year 2013-14	Books added during the year 2014-15	Total books as on March 2015
1.	General books	109967	7690	102277
2.	Books for SC/ST	12778	1181	13959
3.	Reference books	5900	NIL	5900
	Total	128645	8871	122136

### (b) Print Journals / Magazines/ Dailies

SI. No.	Category	PrintJournals/Magaz ines/Dailies at the end of the year 2013- 14	Print Jounals/Magazines /Dailies added during the year 2014-15	Total Print Jounals Magazines/ Dailies as on March 2015
1.	National	99	NIL	17
2.	International 482+ (P + O) 8Sub.Collection		NIL	NIL
3.	Dailies+ Weekly	17	NIL	17
	Total	291	NIL	34

### 9.3.2. DIGITAL LIBRARY

The Digital Library - NALANDA- serves members of the campus in meeting their academic & research needs by providing timely and up-to-date information with value added services in all the areas of Science/Engineering/Technology. Apart form the Digital Library Reading Room, members can access the Nalanda from the entire campus.

Other services

- Web-OPAC useful for searching books in the library and knowing their status online. This service is available in NITC intranet.
- An educational server on the open source moodle platform is reinstated for the faculty of all departments to run their courses. This server will be accessible outside NITC too.
- 3) For the project / thesis reports of NITC students an ETD server (electronic theses and dissertations) maintained using Dspace (an open-source institutional repository package) has been initiated. All abstracts are visible for everyone within NITC and privileged access is given to the full contents. International standards (BIS and ASTM) could also be accessed from this server; access being restricted to NITC intranet.
- 4) A local copy of all NPTEL course materials (provided by IIT Madras, already available in public domain) which could be accessed from within the Digital Library.
- 5) Subscribtion to the services of <u>i-gate</u> which makes the search for journals / contents easier.
- 6) Services of turnitin online plagiarism checker for the use of researchers of the institute.

Current Alexa Rank of NALANDA Digital Library shows 231,228, which is the highest among NITs'. E-Resources-subscription

Category	Additions during the year 2014-15	Total as on March 2015
Online e-Journals (through INDEST consortia)	-	1485

E-books	-	2117
E-Journals	-	3205
E-Databases (EI-Village 2, Indian Standards, ASTM etc)	-	31647
NITC Resources (Faculty reports, Students' thesis, Course notes)	-	1401
Journal Back Vol.s	-	14,411
Total		54266

Major Hardware / Facilities of Digital Library

HP Storage server DL 3800, Wipro NET Power z2215

3 Dual Xeon processor Compaq servers (Proliant ML 350 G4)

Dual Pentium Processor Compag Server (Proliant ML 350 G2)

2 Quad - core Intel Xeon Processor HP (Proliant DL 350 G5)

2 Xeorn Processor Workstation (HP XW 8200)

69 Pentium IV Microsoft Windows XP client machines.

14 CoreTM 2duo Microsoft Windows XP client machine

Sonic WALL NSA 3500 Firewall, HP 6730 Note Book Computer

Canon make A3 Color Scanner, Nikon cool pix 5700 Digitak Camera,

Datamax Barcode Printer, 2 KVM Switch. 30KVA APLAB UPS

5 Cisco SRS 2024 switches

### 9.3.2 EDUSERVER

This will provide facility for faculty to offer common and additional on line topics/subjects as the part of the curriculum including on-line tutorials, evaluation and simulation etc.

List of courses offered by the Edu serverZZ1001 Engineering Mechanics

### **Civil Engineering Department**

CE6141 Orthopaedic Biomechanics CE3001 Structural Analysis II

## **Electronics and Communication Engineering Department**

EC2011 Network Theory

### **Mathematics Department**

MA1001 Mathematics I MA6202 Linear Algebra

### School of Bio Technology

BT4001 Ethics & Regulations in BioTechnology

BTP705 Environmental BioEngineering

BT3005 Environmental Studies

BT3023 Food BioTechnology

## **Computer Science and Engineering**

CS6213 Foundations of Information Security

## 9.3.4 Programmes organized by ETL during 2014-15

•A demo on Scopus organised on 14.01.2015

• A demo on Grammarly@edu writing tools and Plagiarism checker by bridge people on 21.08.2015

### 9.3.5. Staff possition

Chairperson (ETL) : Dr. Saly George Vice Chairman (ETL) : Dr. Vinod Pathari

Librarian (Gr.I) : Vacant Librarian (Gr.1I) :Vacant

Sweety Mathew	Librarian Gr.III (Librarian In – charge)
P.S Lalithakumari	Librarian Gr IV (Hr.Gr)
C G Balachandran Nair	Librarian Gr IV (retired)
J Sobhana	Librarian Gr IV

T. Jayarajan	Librarian Gr IV
C Latha	Librarian Gr IV
K P shaju	Librarian Gr IV
M K Chandramohan	Graphic Artist
K Jayaraman	Offset Machine Operator
C. P Balan	Library Attender

Supporting office staff

Siamala I	Sanitary worker
Vinod K P	Watchman cum Gardner

Project Digital Library Technical Assistant : 2
Project Digital Library Computer Assistant : 3
Library Contract Staff : 11
Library Helper : 6
Office Assistant : 2

### 9.4 LABORATORIES

### **DEPARTMENT OF ARCHITECTURE**

- 1. Building Science Lab
- 2. CADD Lab
- 3. Creative Arts Lab
- 4. IMD Lab

### **DEPARTMENT OF CIVIL ENGINEERING**

- 1. Transportation Engineering Lab
- 2. Structural Engineering Lab
- 3. Concrete Lab
- 4. Strength of Materials Lab.
- 5. Geotechnical Engineering Lab.
- 6. Survey Lab.
- 7. Offshore Structures Lab
- 8. Water Resources Engineering Lab
- 9. Environmental Engineering Lab
- 10. CAD Lab

## **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

# (i) Software Systems Laboratory

This lab was established in 2006. The objective of this laboratory is to provide the infrastructure for conducting the regular labs (Data Structures Lab, DBMS Lab, Network Lab, Compiler Lab, OS Lab and Programming Languages Lab) and project works for the B. Tech Programme. The lab is equipped with state of the art servers, desktops, and software (Linux and compliers for C, C++, Fortran, Perl, TCL, PHP, ASP, Ruby, ADA, Java, Python, Pascal, Nasm, etc.).

Faculty in charge: Mr. Sumesh T A

## Major Equipments:

Item	Quantity
Dell Optiplex 7010 Core i5 Desktop with Dell 18.5" LED Monitor	75 Nos.
Dell Power Edge Rack server	2
Dell Power Edge server	1
Dell Power Edge server	3

Dell Optiplex 755	4
Dell Optiplex 520	1

#### Features:

- Browsing facility provided for students
- Supports client server application development in the following areas:
  - Systems Programming
  - Linux kernel programming and Operating System development
  - Compiler development
- Networking: Linux, TCP/IP and RPC
- Database: Postgress SQLFully Air-conditioned

### (ii) Hardware & Embedded Systems Laboratory

This lab was established in 2006. The objective of this laboratory is to provide the infrastructure for conducting the regular labs (Hardware Lab) and project works for the B.Tech. and MCA Programmes.

Faculty in charge: Sri. Saidalavi Kalady

## **Major Equipments:**

Item	Quantity
OSCILLOSCOPE	10
DIGITAL TRAINER KITS	15
LINEAR IC TESTER	1
DIGITAL IC TESTER	1
POWER SUPPLY	
FUNCTION GENERATOR	
LASER PRINTER	1
ARM PROCESSOR	5
DIGITAL TRAINER KIT	13
DELL OPTIPLEX 7010 CORE i5 DESKTOP	27
DELL OPTIPLEX 7010 MT DESKTOP Dell optiplex 7010 mt	1

### Features:

This lab is equipped with all necessary facilities to impart state-of-the-art training to the students in the following areas:

- Microprocessors
- Hardware and Interfacing
- PC assembling and trouble shooting
- Digital Electronics
- Fully Air conditioned

### (iii) Network Systems Laboratory

This lab was established in 2006. The objective of this laboratory is to provide the infrastructure for conducting the regular labs (Programming Lab, Data Structures Lab, DBMS Lab and Compiler Lab) and project works for the MCA Programme. This lab caters to regular laboratory and project requirements of both B.Tech and MCA students of the department. The desktops and Servers of the laboratory are installed with fedora 8 Operating Systems

Faculty in charge: Sri. Jayaraj P B

# **Major Equipments:**

	Item	Quantity
SERVERS		3 Nos.
Desktops		75 Nos.

Workstations	2 Nos.
Network server	1 No.
Wireless access point	1 No.

#### Features:

- •Round-the-clock Internet facility with bandwidth 20 Mbps (shared)
- All the modern softwares and tools available
- Fully Air conditioned

### (iv) Image Processing & Multimedia Laboratory

Established in 2006 as part of research projects in Image Processing. This lab is currently being utilized by the first year M.Tech students of the department for their project and course activities. Faculty in charge: Ms Pournami P. N

### **Major Equipments:**

SI. No	Items	Quantity
1	DELL OPTIPLEX 7010 Desktop	30 Nos
2	DELL OPTIPLEX 7010MT Desktop	2 Nos
3	DELL PRECISION T3610 Workstation	1 Nos
4	Scanner	1 Nos
5	DELL POWER EDGE T620 Server	1 Nos

### Features:

- This lab has an Apple Airport Extreme base-station, which provides wireless connectivity to the Computer Engineering Department
- Round-the-clock Internet connectivity with bandwidth 20 Mbps (shared)

## (ii) Computational Intelligence Lab

Established in 2003 as part of a project "Centre for Speech and Natural Language Processing," with a view to promote research activities in areas like Artificial Intelligence, Bioinformatics, Natural Language Processing, Knowledge Based Systems and Information Retrieval. This lab is currently being utilized by the M.Tech students of the department for their project and research activities. The lab is equipped with state of the art computing facilities with seamless wired and wireless Internet connectivity, and is functioning round-the-clock with student assistance.

Faculty in charge: Dr. K A Abdul Nazeer

### **Major Equipments:**

SI. No	Specification	Quality
1	Dell Optiplex 7010 Desktop Intel Core i53470 Processor Intel Q77 Express Chipset 4 GB DDR3 SD RAM 1600 MHz 500 GB 7200 RPM SATA	30 Nos.
2	Dell Optiplex 7010 MT Desktop (High End) Intel Core i73770 Processor Quad Core 8 MB Cache 16GB(2x 8GB) 1600 MHz DDR3 1 TB 7200 RPM ST HDD Dell USB Keyboard and Mouse 21.5" Wide Screen with LED Backlight	1 No.

3	Dell Precision T3610 Workstation Intel Xeon E5 1620 Processor Quad Core HT 3.7 GHz TURBO 8GB DDR3 RAM 1TB SATA 7200 RPM HDD Dell USB Keyboard and Mouse DVD +/- RW Drive 2 GB NVDIA Quadro K2000 Graphic	
4	21.5" Wide Screen with LED Backlight  Dell Precision T3400 Workstation Intel Core 2 Extreme CPU X9650 @ 3GHz 4 GB of RAM	1 No.

## (Vi). Bio-Computing Research Laboratory

This laboratory was established in 2009 with an objective of fostering research in the emerging area of Bioinformatics and Computational Biology. Equipped with a Dell brand 16 node HPC cluster, this facility currently caters to the requirements of the research and graduate students working in the area. The department has a long term objective of developing this into a 'Centre of Excellence in Biocomputing' with collaboration from institutes of national and international repute.

Faculty in charge: Dr. K A Abdul Nazeer, Dr. Gopakumar G

### **Major Equipments:**

Item	Quantity
Dell OPtiplex 755 N	7
Dell Optiplex 760	2

### Features:

- •Functioning on a 24 X 7 X 365 basis with support from the PG students.
- •Round the clock Internet facility (both wired and wireless) with bandwidth 20 Mbps (shared)

# (vii) Cloud Computing Laboratory

Cloud Computing is emerging rapidly as the new computing paradigm of the coming decade. Cloud computing offers a viable solution to the problem of addressing scalability and availability concerns for large scale applications. The concept has eVol.ved over the years starting from data centers to present day infrastructure virtualization. Cloud computing as envisaged today covers all walks of computing . In Computer Science & Engineering discipline, cloud computing is having significant impact and influence in the key areas like Software Engineering, Operating Systems, Computer Architecture, Programming and Web engineering.

We plan to offer specialized courses in this area both at UG and PG levels and take research scholars to work in this area. A state of the art lab for cloud computing can attract potential industry sponsored R&D projects and consultancy projects.

### Features:

- UG & PG Students will exposure and opportunity to work in this emerging area
- Can play a crucial role in attracting industry sponsored projects and consultancy projects
- Can play a vital role in arriving at collaborations with foreign universities and IITs for intensive research in the area of cloud computing

Faculty in charge: Dr. S.D. Madhukumar

### **Major Equipments:**

SI. No	LAB EQUIPMENT	Quantity	Specification
1	DELL OPTIPLEX 760 Desktop	11 Nos.	Core2 duo Processor, 2GB DDR2 RAM, 256GB HardDisk
2	DELL OPTIPLEX 755 Desktop	7 Nos.	Core2 duo Processor, 2GB DDR2 RAM, 256GB HardDisk
3	DELL OPTIPLEX 520 Desktop	3 Nos.	Intel Pentium Processor, 2GB DDR2 RAM, 80GB HardDisk

	DELL OPTIPLEX 7010MT		Core i7 Processor, 16GB DDR3 RAM, 1 TB HardDisk,
4	Desktop	2 Nos.	21.5" Display
	DELL PRECISION T3610	1 Nos.	Intel Quad Core Processor, 8GB DDR3 RAM,
5	Workstation	I NOS.	1 TB HardDisk, 21.5" Display, 2GB Graphics Card
6	Wifi Access point	1 Nos.	NetGear WNAP 210

## (viii) Secure Computing Laboratory

This lab was established in 2005. The objective of this laboratory is to provide the infrastructure for research in various aspects of security in computing. The research scholars are the main users of this lab. The lab is equipped with state of the art machines and software.

Faculty in Charge :Dr. Priya Chandran

## Major equipments:

Item	Quantity
Dell optiplex 7010 Corei 7	3
Dell Optiplex x 7010 Core i5	7
Dell Precision T 3610	4
IBM x 3100	1
Dell Power Edge T 620	1
Brother Pinter and Scanner	1

### **Facilities**

Direct Internet connectivity through campus network.

### **DEPARTMENT OF ELECTRICAL ENGINEERING**

### **UG** Laboratories:

Electrical Machines Laboratory, Electrical Measurements Laboratory, Control Systems Laboratory, Electronics Circuits Laboratory, Electrical Workshop, Electronics Workshop, Power Engineering Laboratory.

## PG and Research Laboratories:

Electrical Simulation Laboratory, Power System Laboratory, Power Electronics Laboratory, Industrial Power & Automation Laboratory, Embedded System Application Lab, DCS Applications Lab, Process Automation Lab, Distributed Energy Research Lab, Bio Medical Lab, High Voltage Lab (under development).

### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

- 1. Electronics Circuits Lab
- 2. Communication Engineering Lab
- 3. Integrated Circuits Lab
- 4. Digital Signal Processing Lab
- 5. Embedded Systems Lab
- 6. VLSI & Microele
- 7. ctronics Lab
- 8. Telecommunication Technologies Lab
- 9. Electronics Workshop
- 10. PSoC Lab
- 11. Signal Processing and Communication (SPCom) Lab
- 12. DST FIST Lab
- 13. Simulation Lab

### **DEPARTMENT OF MECHANICAL ENGINEERING**

- 1. Metrology Lab
- 2. Industrial Engineering Lab
- 3. Production Engineering Lab
- 4. Heat Engines Lab
- 5. Thermal Science Lab
- 6. Vibration, Acoustics & Tribology Lab
- 7. Fluid Mechanics and Fluid Machinery Lab
- 8. Solar Energy Centre
- 9. Mechatronics and Robotics Lab
- 10. CAD/CAM Lab
- 11. Computer Aided Graphics & Design Lab
- 12. Material Science Lab
- 13. Advaced Manufaturing Center
- 14. Sophisticated Instruments Centere

### **DEPARTMENT OF CHEMISTRY**

- 1. B.Tech Laboratory-I & -II
- 2. PG Physical Chemistry Laboratory
- 3. PG Instrumentation Laboratory
- 4. Sophisticated Instrumentation Laboratory (with DSC, TGA, FTIR etc.)
- 5. Computational laboratory (Common facility)
- 6. Polymer Science & Technology Research Laboratory
- 7. Soft Materials Research Laboratory
- 8. Materials Research Laboratory
- 9. Bio-organic Research Laboratory
- 10. Bio-inorganic Materials Research Laboratory
- 11. Inorganic and Bioinorganic Research Laboratory
- 12. Theoretical and Computational Chemistry Research Laboratory

## **DEPARTMENT OF PHYSICS**

- 1. B.Tech I year Physics Lab
- 2. B.Tech EP General Physics Lab
- 3. B.Tech EP Electronics Lab
- 4. B.Tech EP Solid State Physics Lab
- 5. M.Sc (Tech) General Physics Lab
- 6. M.Sc (Tech) Electronics Lab
- 7. M.Sc (Tech) Optics Lab
- 8. Computer Centre & Computational Lab
- 9. Critical Point Phenomena & Polymer Dynamics Lab
- 10. Unconventional Electronics and Photonics Lab
- 11. Laser and nonlinear optics Lab
- 12. Computational Materials Science Lab Research Labs
- 13. Applied Optics and Instrumentation Lab
- 14. Organic and Nano electronics laboratory
- 15. Photonic Materials and Devices Laboratory

### **DEPARTMENT OF CHEMICAL ENGINEERING**

- 1. Chemical Technology Laboratory
- 2. Fluid Mechanics Laboratory
- 3. Mass Transfer Laboratory
- 4. Heat Transfer Laboratory
- 5. Environmental Engineering Laboratory
- 6. Chemical Reaction Engineering Laboratory
- 7. Process control Laboratory
- 8. Research Laboratory
- 9. Project Laboratory

## SCHOOL OF BIOTECHNOLOGY

- 1. Biochemistry Laboratory
- 2. Microbiology Laboratory
- 3. Bioprocess Laboratory
- 4. Molecular Biology Laboratory
- 5. Immunology Laboratory
- 6. Bioinformatics Laboratory
- 7. Plant Biotechnology and Enzyme Kinetics Laboratory

## **SCHOOL OF NANO SCIENCE & TECHNOLOGY**

- 1. Nanotechnology Research Laboratory
- 2. Nanoscience Research Laboratory
- 3. Fuels and Combustion Research Laboratory
- 4. Computational Nanotechnology Lab
- 5. Nano Display Laboratory
- 6. PG Laboratory
- 7. Microscopy centre

# 9.5 HOSPITAL, POST OFFICE, SHOPPING CENTRE

## **HOSPITAL**

Institute has a Health centre providing the medical needs of students, staff and their families.

Dr.Celine .A.A. is working as Resident Medical Officer

Dr. Balasubramanian .MD. was appointed in the Health centre on contract basis on every Wednesdays  $3.00~\mathrm{pm}$  to  $5.00~\mathrm{pm}$ 

Additional R.M.Os.Dr.Rakesh and Dr. Sreejith.C were appointed from 4th January 2015 onwards.

# **Paramedical Staff**

a) Smt. Rosamma.V.J. - Staff Nurse

b) Sri. Abraham.P. - Pharmacist

c) Smt. Sasikala.L - Sanitation Worker

## Adhoc Staff

a) Staff Nurse -1

b) Lab-Technician -1

c) Nursing Assistant cum Attender -1

### NIT Health centre Medical laboratory.

A newly constructed well equipped Medical Laboratory is functioning in the Health Centre from 2007 onwards

### **POST OFFICE**

There is a branch of State Bank of India, a Post and Telegraph Office and a Telephone exchange functioning in the Institute Campus

### **SHOPPING CENTRE**

There is also a shopping centre run by the co-operative society of the employees of the institute staff Functioning in the Campus.

## 9.6 PHYSICAL FACILITIES (GAMES & SPORTS)

Academic activities commenced with the class room sessions for all 14 batches of first year students as part of one-credit course ZZ1093 which archde practical sessions in play grounds. Talent spotting and NITC teams 2014-15 in all games were selected by January 2015. Teams were soon trained and sent out to participate in National level Inter NIT tournaments at various NITs of the country. Inter NIT tournament in Tennis, Hockey, Kabadi were hosted at NIT Calicut on 16-19 April 2015.

**In-Campus Mass Participation Activities** were conducted were on a satisfactory note. Nano-cricket, Willow cup cricket, FORZ Soccer were the leading activities. These activities attracted hundreds of students and exhibited the managerial prowess of student-organisers.

As usual, **the Intramural interclass competition** was held for both boys and girls. Participation was total and the organization was by **OVEP** students.

Kozikode District League championship is one tournament we frequent every year. Participation was complete in events like Foot ball, Cricket, Basket ball, Badminton, Volley ball, Hockey, Table tennis and Tennis.

## 9.7. OTHER FACILITIES

#### 9.7.1. CENTRE FOR BIOMECHANICS

The Centre for Biomechanics, inaugurated on September 10, 1998, is a unique centre in which active and useful academic interactions take place between doctors and engineers. Such centres, although essential for the benefit of society, unfortunately is not common in our country. R & D work of an interdisciplinary nature is carried out here, with Faculty drawn from various departments of this Institute and Adjunct Faculty from other institutions.

## i. Proposed plan of Research

- a. Research interactions are going on with the Department of Physical Medicine and Rehabilitation and the Department of Orthopaedics, Calicut Medical College and a few other medical/rehabilitation centres. A few inter-disciplinary research initiatives have taken place in areas like gait analysis, deformity corrections etc.
- b. There are a few PhD students and PG students who have already shown interest and in working in Biomechanics related projects under the guidance of adjunct faculty in the Centre. Dr Vinu Palissery, an adjunct faculty at the Centre had organised an FDP on *Biomechanics for Engineers* in December 2013.
- c. The Centre plans to organise seminars, workshops/training courses in relevant fields of biomechanics so as to bring an exposure and awareness among the students and faculty about various interdisciplinary research areas in biomechanics.
- d. Updating the current facilities in the Centre for Biomechanics and reviving the R&D and consultancy activities are also planned.

## ii. Other Facilities

Using the funds from Ministry of Human Resource Development, Thrust Area, (letter of sanction no. F.27-2/2000-TS-I, dated 20-03-98), a high precision, computer controlled, Universal Testing Machine was imported for a total cost of Rs. 12 lakhs.

## iii. Notable Achievements

- VDS Fixator: Such a configuration, arrived at by elaborate finite element analysis, has proved to be superior to the existing ones. Clinical trials support the conclusions arrived at by detailed parametric study conducted on the computer. This invention has lead to a patent (India Patent No. 194925).
- 2. Dynamic Wrist Fixator: The new and improved dynamic wrist fixator aimed to solve the problem of healing unstable fractures of the wrist, with nearly complete recovery of the original mobility of the wrist joint. Multi-centred clinical trials were carried out at a number of medical

- college hospitals in Kerala and the device is proven to be superior to the existing ones available in the market. This invention also has lead to a patent (India Patent No. 196326).
- 3. Extensive finite element analyses were carried out on Ilizarov fixator used for correcting tibial fractures and in bone-lengthening procedures. Results of parametric studies gives doctors directions on how to use them more effectively.
- 4. Dermotaxis: This is a term coined to describe a simple and innovative method of achieving closure of skin defects and wounds through continual stretching of the skin. The Centre has developed a tool for skin closure using K-wires, which seems to be a cost effective and quicker method, compared to conventional procedures. It also has the advantage of retaining the sensation of skin in contrast to the conventional methods where it is lost. A viscoelastic model was used to study the behaviour of human skin the results from which indicates the rate at which the skin could be stretched without inducing separation of epidermis.
- 5. Methods to assess the goodness of healing of a fractured wrist were developed. Certain statistical methods were developed to estimate the gripping strength of the wrist before fracture from measurements of gripping strength of the other (unbroken) hand.
- 6. Pinch-Force Meter: A simple device to measure the pinch force has been developed. This device is useful in assessing how good the healing of a wrist injury is. A person with a wrist injury usually loses ability to exert much of pinch force.
- 7. Simple device to measure the viscosity of blood was fabricated. The blood viscosity measure is an easy indicator for several diseases including heart attack.
- 8. Simple device to prepare a blood smear has been developed. Some more studies are necessary before it can be commercialised.
- 9. A surgical tourniquet has been developed as part of an M.Tech project work. It is possible now, with this experience, to design a fully automatic programmable digital electronic tourniquet. Tourniquet is useful for the bloodless operation of limbs.
- 10. Use of LTTP in Prostheses and Orthoses: Low-temperature thermoplastics (LTTP) are extremely useful in developing orthoses such as braces. The advantage comes from the special property of LTTP that it becomes malleable at a temperature of 70° C and hardens when cooled to room temperature. Thus, it can be moulded by pressing against the patient's body. This enables doctors to provide the orthoses to the patients in the quickest possible time resulting in a faster cure of the disability. Trials carried out have demonstrated that it is possible to use LTTP in a variety of situations including the fabrication of sockets of artificial limbs. A research project funded by DST has been completed which benefited a large number of patients visiting the Physical Medicine and Rehabilitation Centre of Calicut Medical College. DST has sent a letter of appreciation regarding this work. It is planned to extend and propagate this work so that more patients from different parts of the country are able to draw the benefits from this work. This work is being extended so that complete prostheses could be made out of LTTP. This will enable the patients to get the prostheses with very little waiting.

Several tests on glues and appliances used by the dentists were carried out by postgraduate dental students. This formed part of a few postgraduate theses by students from different Medical Colleges in and around the state of Kerala.

### **Patents**

Tibial External Fixator Assembly—A new biomechanical configuration for improved treatment of fractures of the tibia

Dynamic Wrist Fixator—A new biomechanical device to facilitate treatment of unstable fractures of the distal radius (wrist)

## 9.7.2 CENTRE FOR TESTING & CERTIFICATION – CTC

The centre for testing and certification was established in 1999 with financial assistance from Ministry of Industries& Commerce, Government of Kerala. The centre was established in mainly to help small scale entrepreneurs of the State of Kerala. Variety of testing equipments has been acquired for facilitating testing of electronic components, systems and gadgets.

Faculty in Charge : Dr.K.S.Sivanandan

### 9.7.3 ENGINEERING UNIT FOR CIVIL AND ELECTRICAL WORKS

The status of works as on 31.03.2015

SI. No	Name of the Building	Present Stage
1	Construction of building for Central Library	90 % Completed
2	Mega Hostel – I	90 % Completed
3	Construction of 100 Nos. Residential Quarters	Completed (By CPWD)

4	Construction of 500 Unit Single bedded	Completed (By CPWD) except
4	Ladies Hostel	rectification.
	Construction of building for	By CPWD
	Classroom	Completed, except rectification
	MBA Block	Complete
	Hostel Block	Complete
	Auditorium	More than 95 % (Not Handover)
6	Construction of 1500 Rooms Mega Hostel -II	45 %

### 9.7.4. CAMPUS SCHOOL

## **Spring Valley School**

Spring Valley School is a Senior Secondary Co-educational English Medium School, functioning since 1991 in the institute campus as one of the staff welfare measures. The school is affiliated to the Central Board of Secondary Education, New Delhi with code No.930100. School is being managed by REC SPECTRA (Society for Promotion of Educational, Cultural and Training Activities), a charitable society registered under the Societies' Act (1860), the members of which are the faculty members of the institute. Most of the infrastructure facilities of the school like land, buildings, laboratories, playground, etc. have been made available by the institute. The School has excelled in academics, could present its 18th batch of class X and 16th batch of class XII students for the Board Examinations in March 2014 and could achieve 100% pass both in Class X and XII. Digitally enabled classroom facilities and the School Band have been provided to strengthen the academic and coscholastic abilities of the students. One child participated in National Level Painting competition on Energy conservation in New Delhi. Apart from the formal academics, the students have participated and excelled in CBSE Kalotsav 2014 (Zonal Youth Festival), conducted by the Sahodaya School Complex, Malabar Region and 2 students participated in State CBSE Kalotsav. One Student got two second prizes and another student got third prize. The 15th issue of School Magazine "SPERENTIA" was released during the Annual Day Celebrations on 16th January 2015.

## Office Bearers as on 31.03.2015

- Dr. G. R. C. Reddy, Chairman, REC SPECTRA
- Dr. G. Unnikrishnan, Vice Chairman, REC SPECTRA & President, School Managing Committee.
- Dr. R. Manu, Secretary, REC SPECTRA & Manager cum Correspondent, Spring Valley School.
- Dr. Sunil Mathew, Vice President, School Managing Committee.
- Dr. Sindhu T.K., Joint Secretary cum Treasurer, REC SPECTRA
- Prof. Unnikrishnan Nambeesan, Senior Principal
- Smt. Shiny A., Principal

## 10.0 NOTABLE ACHIEVEMENTS

## 10.1 PAST ACHIEVEMENTS

# **DEPARTMENT OF ARCHITECTURE**

- The department has conducted several short term courses and summer/winter term courses sponsored by AICTE and IEI
- The department has three excellent centers:
  - i. Building Science Laboratory.
  - ii. CAAD Laboratory
  - iii. Material Museum
- The department has carried out large number of consultancy works and also plays a major role in industry- institute interaction.
- The department has also carried out large number of research projects.
- The faculty of the department has published papers in National/International Journals and National/ International conferences.
- Workshops and Short term courses have been organized by the faculty of the Department.

### DEPARTMENT OF CIVIL ENGINEERING

 The department had taken up training of local unemployed youth for self-employment under the Nehru Rozgar Yoganas (NRY) funded by Kerala Urban Development Finance Corporation. The training was given in Plumbing, Carpentry, Masonry and Landscaping. About 300 youths were trained under this programme

- The Department had three centres of excellence
  - I. Vehicle Motion Analyser Laboratory
  - **II.Non Destructive Testing Laboratory**
  - III. Biomechanics Laboratory
- Department has already conducted more than 35 summer/winter schools sponsored by Indian Society for Technical Education and All India Council for Technical Education.
- Department in collaboration with Department of Training and Placement has organised, more than 52 Short term courses in different fields of Civil Engineering
- Department has already produced 27 Ph.D Scholars in different fields of specialisation
- The Department has carried out more than 40 sponsored Research Projects funded by MHRD, DST, ISCHMS, AICTE, Ministry of Water Resources etc.
- The Department has been recognized as a Centre for Scrutinizing the Design of important Public Buildings, by the Government of Kerala.
- The Department generates on an average Rs. 22 lakhs per year through testing and consultancy
- The Faculty of the Department published papers in the National/International Journals and National /International Conferences on an average of about 40 papers per year
- The Ferro-cement technology transfer: large scale water tank of 5,000 and 10,000 litres capacity, fabricated using Ferro-cement technology was transferred to JALANIDHI of Kerala Water Authority to be used under rain water harvesting schemes
- Developed an effective retrofitting technique using ferrocemnt wrapping for RCC frames under distress.
- · Developed sustainable cementitious composites
- The Department had received two patents in the area of Bio-mechanics for the following:
- Dynamic External Wrist Fixator
- External Fixator Assembly for Tibial Fracture
- Community Services
  - i. Popularized the cost effective Ferrocement water tanks in the rural and urban sector
  - ii. Design and Development of water conservation techniques such as rain water harvesting and construction of check dams
  - iii. People participation programmes of Panchayats
  - iv. Creating awareness of traffic rules and regulations in schools
  - v. Actively associated with the awareness building campaign in connection with the implementation of the Model Solid Waste Disposal Scheme in Calicut Corporation
  - vi. Involved in a few biomechanics related projects which have benefited a number of patients visiting the Physical Medicine & Rehabilitation Centre of Calicut Medical College.
  - vii. Organise special lectures on good construction practices at the Licensed Engineers and Supervisors Federation Kozhikode
  - viii. A project under the TEQIP under the Service to Community scheme titled "IT Training and Social Surveys for Chathamangalam Grama Panchayath", October March 2007
  - ix. Assists in implementing Model Solid Waste Disposal Scheme in Calicut City.
  - x. Skill up-gradation of rural craftsmen and women workers under TEQIP
  - xi. Organized a 5-day Workshop on "Career Guidance and Preparation for Interview" for 80 students from colleges all over Kerala from November 29- December 3, 2007 as part of NSS activities, Conducted a 10 day special camp at Katippara Panchayat, Thamarassery, Kozhikode District from 7th December 2007 to 15th December 2007.
  - xii. Conducted "Self Enrichment programme" for a selected group of first year students of the Department of Civil Engineering, in association with Centre for Research & Education for Social Transformation (CREST), Kozhikode, 22nd December to 28th December 2012
  - xiii. Ferrocement water tank for community water supply schemes
  - xiv. Development of low cost precast structural elements such as walls, lintels, beams etc. For buildings in rural areas

### **DEPARTMENT OF ELECTRICAL ENGINEERING**

- Dr. Susy Thomas chaired technical session for '2014 IEEEMulti-conference on Systems and Control (2014 MSC)' October 8-10, 2014 in Nice, France
- Dr. Sindhu T. K. set up 100kVAC/140kV DC/140 kV impulse high voltage laboratory
- Dr. Mukti Barai reviewed five papers on IEEE transactions on Power Electronics, one paper on IEEE transactions on Circuits and Systems and Reviewed three papers on IEEE Spices 2015 conference and four papers on IECON2015.

- Dr. Jagadanand G chaired a session during the IEEE sponsored international conference 'SPICES 2015' and chaired a session during the international conference on Computing, Communication and energy systems 'ICCCES 14'.
- Dr. Rijil Ramachand chaired a technical session for 2014 IEEE ISIE conference held at Istanbul, Turkey, June 1-4 2014.

### **DEPARTMENT OF MECHANICAL ENGINEERING**

- Dr. Madhusudhanan Pillai: Developed a supply chain role play game Version three is developed in this year. This game is similar to the 'Beer Distribution Game' of MIT, USA. The previous versions are very widely used for research and as a lab experiment/exercise for UG (Production Engineering) and PG (Industrial Engineering and Management) programmes. This Game is probably the first of its kind in India.
- Dr. Madhusudhanan Pillai: Developed a 'Process Layout Planning Package' in this year. Online
  and standalone versions are developed. Standalone version allows the optimal layout
  development. Simulated annealing based algorithm is used for near optimal development of
  layout. This algorithm based layout was used in the lab classes of UG (Production Engineering)
  and PG (Industrial Engineering and Management) programmes. This package is probably the
  first of its kind in India.
- Dr. Madhusudhanan Pillai: Developed an exercise for performance analysis of a four stage serial supply chain under P-system inventory control at all stages of the supply chain using Excel spread sheet. This is used as an exercise for PG (Industrial Engineering and Management) programme
- Dr. A. Shaija is selected as the joint secretary of Combustion Institute- Indian Section December, 2011
- Dr. Jose Mathew received ISTE- Certificate of Achievement 2012 National award (First Prize) for having guided the Best M. Tech thesis. Awarded in December 2012 at Hyderabad.
- Dr. Jose Mathew received International Travel Support Scheme award from DST for attending ASME International Conference at Chicago, USA during November 2012
- Dr. T.J.S. Jothi received Young Engineer Award 2012-2013: Awarded by Institution of Engineers, India (IEI) Young Engineers Award in Mechanical Engineering Discipline
- Dr. T.J.S. Jothi received JNCASR visiting scholar fellowship 2013-2014.

# **DEPARTMENT OF PHYSICS**

## Dr. P. Predeep

Supervised 20 PhD theses, Published more than 200 papers, Eight books, two patents, Visiting professor assignment at the University of Nantes, France, Visited and lectured at various universities and institutes including USA, Russia, France, Italy, Germany, Czech, Spain, undertaken external projects worth more than INR 11 million, MoU with University Auburn, USA, UGC research award, INSA visiting Fellowships etc.

## Dr. M. K. Ravi Varma

- (i) 15 peer reviewed publications and over 25 conference proceedings
- (ii) 4 years of (post-PhD) industry experience
- (iii) 3 years of post-doctoral experience including teaching of UG courses
- (iv) 3 years of NIT teaching/research experience

## Dr. P. K. Madhavan Unni

- (a) Assistant Professor, Department of Physics, NIT-Calicut (2010 present)
- (a) Post-Doctoral Fellow, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel (2006-2008)
- (b) Ph.D. in Physics, Department of Physics, Indian Institute of Science, Bangalore. (2006)
- (c) Senior Research Fellowship (SRF) (2000-2003), Council of Scientific and Industrial Research (CSIR), Government of India.

- (d) Junior Research Fellowship (JRF) (1998-2000), Council of Scientific and Industrial Research (CSIR), Government of India.
- (e) Qualified in the CSIR-UGC National Eligibility Test (NET) with JRF.
- (f) University 2nd Rank in M. Sc. Physics Course of the University of Calicut, Kerala, India (1993-1995)

### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

- Dr. Sajith V and Shijo Thomas won the Dronacharya Award for the Best Faculty Advisors
  of the Teams participated in the Baja SAE India 2012 Competition held at Pithampur,
  Indore.
- Dr. Sajith V. won the Best Young Teacher Award for the performance during the academic year 2007-08 from, NIT Calicut
- Dr. Sajith V. won the Bhagyalakshmi & Krishna Iyengar Award for the best project in the year 2005, from IIT madras

### DEPARTMENT OF ELETRONICS AND COMMUNICATION

- The department has conducted several workshops short term courses and summer/winter term courses.
- The department has conducted own international Conference on its own in 20111 and one international conference combined with EEE and CSE departments.
- Department has also carried out a number of research projects.
- The faculty of the department has large number of published papers in National/ International Journals and National/ International conferences.
- The department is a member of SMDP project by Government of India

### **DEPARTMENT OF BIOTECHNOLOGY**

- Dr. Premraj Pushpakaran
- Conference Committee member, Asian Conference on Civil, Material and Environmental Sciences, Mar. 15-17, 2013, Tokyo, Japan
- International Conference Committee Board member, Global Conference on Agriculture Economoics and Environment Research (GCAEER 2013), Sep. 28-30, 2013, Kuala Lumpur, Malaysia

# **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

- Organized the International Symposium on Biocomputing (ISB 2010) at Calicut, Kerala, jointly
  with the Indiana University Purdue University Indianapolis (IUPUI), USA, with cooperation
  from the Association for Computing Machinery (ACM).
- Organized the Indo-US Workshop on Biocomputing (ISB 2011) at Calicut, Kerala, jointly with the Indiana University Purdue University Indianapolis (IUPUI), USA, with cooperation from the IUSSTF and NSF.
- Organized the IEEE International Conference on Signal Processing, Informatics, Control and Energy Systems (IEEE SPICES) jointly with the Departments of Electrical Engineering and Electronics and Communication Engineering, NIT Calicut in February 2015.
- Dr. Muralikrishnan K won the 'Best Ph. D Thesis Award' from the Indian Institute of Science (IISc), Bangalore in the year 2008.
- Dr. S.D Madhu Kumar has been selected as 'Big Data' Track- Co-Chair for the IEEE International Conference - Recent Advances in Intelligent Computing Systems (RAICS 2013)
- Dr. S.D Madhu Kumar has been selected as an External Examiner for evaluating the Computer Science courses offered by the colleges under Glasgow Caledonian University, UK.
- Dr. S.D Madhu Kumar has been Invited speaker in the International Conference on Advances in Computing, Communications and Information Science (ACCIS'14) at TKM College of Engineering Kollam.
- Dr. S.D Madhu Kumar has been selected as Algorithms Tracks Co-Chair along with Dr.Priya Chandran and Dr.K Murali Krishnan for Seventh International Conference on Cotemporary Computing (IC3 2014)-
- Dr. S.D Madhu Kumar has been selected as Program Chair for the International Workshop on Access Control Policies, Models and Mechanisms (ACPM-2014), Delhi.

- Dr.S.D Madhu Kumar has been selected as Vice Chair- ACM Trivandrum Professional Chapter.
- Dr. S.D Madhu Kumar has been selected Publications and Web Support Chair for the IEEE Malabar Subsection.
- Dr. S.D Madhu Kumar has been selected as Publicity Co-Chair for the ACM DEBS 2014.
- Dr. S.D Madhu Kumar has been selected as Cloud Computing Track co-Chair for the ACM SAC 2014.
- Dr. S.D Madhu Kumar has been selected as TPC Member for the 3rd International Workshop on Collaborative Cloud (CollabCloud 2014) of 10th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing, Miami, Florida, United States
- A paper by titled "A Computational Method for Drug Repositioning using Publicly Available Gene
- Expression Data" authored by Shabana K M, Abdul Nazeer K A, Meeta Pradhan and Mathew J Palakal won the "Best paper Award" in the 4th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS-2014) held at Florida, USA in June 2014.

## **DEPARTMENT OF CHEMICAL ENGINEERING**

- Department has conducted various international conference, seminars, workshops, summer and winter school.
- Department of has bagged 4 funded research projects from various funding agencies.
- The department has established sophisticated instruments lab.

## 10.2 ACHIEVEMENTS THAT TOOK PLACE DURING THE YEAR 2014-2015

## **DEPARTMENT OF ARCHITECTURE**

## a. Publications

### i) Journals

SI No	Name of the Author	Title of the Paper	Publications/ Journals	Vol., Year, p.p
1	Dr.P.P.Anilkumar & Ar.Chithra K	"Identification of Critical Landuses and their predominant Solid waste generator aspects for a Landuse based Solid waste assessment system"	Abacus, Refereed International Journal on Architectural conservation and Urban Studies, Spring 2014, Volume 9, Issue 2014.	Volume-9 Year – 2014 PP- 1 to 8
2.	Dr.A.K.Kasthurba & Dr. Josna Raphael	Social Logic of Morphological Evolution of Temple Towns of Kerala, India :Understanding the cultural influence on the spatial configuration of Temple Towns	International Journal of Chemical, Environmental and Biological Sciences (IJCEBS) ISSN 2320- 4079 (Printed Version) Vol. 5	Volume-5 Year - 2015 May PP - 54 to 60
3.	Dr.A.K.Kasthurba & Dr. Josna Raphael	The Integration of Tangible and Intangible Cultural heritage values for the Sustainable development of the cultural capital of Kerala: Thrissur, India	International Journal in Management & Social Science (ISSN -2321– 1784)Vol. 4	Volume-3 Year – April 2015 PP - 329 to 339
4.	Dr.A.K.Kasthurba & Dr. Josna Raphael	Understanding the cultural influence through space syntax on the spatial configuration of Temple Towns Of Kerala, India	International Journal in IT & Engineering (ISSN- 2321–1776) Vol. 4	Volume-3(4) Year-April 2015 PP – 461 to 468

Ę	5.	Dr.A.K.Kasthurba & Dr. Josna Raphael	Use of Laterite as a Sustainable Building Material in Developing Countries	International Journal of Earth Science & Engineering pp12511258- 5904,Volume 07,No. 4	Volume-7(4) Year–August 2014 PP – 1251 to 1258
6	6.	Dr.A.K.Kasthurba, Dr.K R Reddy& Dr. D V Reddy	Sustainable Approaches for utilizing waste in Building Construction: Two case studies in India	IJEE ISSN 0974-5904	Volume-7 (4) Year – June 2014 PP - 834 to 844

# i) International Conferences

SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Dr.P.P.Anilkumar	"Urban Land and Built Space Management Ensuring Equity of Built Space in Urban Areas."	2 <sup>nd</sup> International Conference on Materials, Mechanical and Management held at College of Engineering, Thiruvananthapuram from December 17 <sup>th</sup> to 19 <sup>th</sup> 2014.	December 17 <sup>th</sup> to 19 <sup>th</sup> 2014.
2	Dr.P.P.Anilkumar	'Landscaped Landfills as a Sustainable Solid Waste Management Option and its Environmental Impacts'.	Fifth International Conference on the 'Constructed Environment' organized by the University of Pennsylvania in Philadelphia USA from 16 <sup>th</sup> to 18 <sup>th</sup> October 2014.	16 <sup>th</sup> to 18 <sup>th</sup> October 2014.
3	Dr.P.P.Anilkumar	'Better resonance of sense of aesthetics as transpired by vernacular architecture; a broad enquiry into the process'	1st International conference on 'Reinventing Design pedagogy and Contextual Aesthetics, ICDPCA 2015 organized by Department of Architecture at NIT Calicut from January 30th to 31st, 2015.	January 30 <sup>th</sup> 31 <sup>st</sup> , 2015.
4	Ar.Chithra K	Aesthetics evaluation of buildings, a methodological frame work.	1st International conference on 'Reinventing Design pedagogy and Contextual Aesthetics, ICDPCA 2015 organized by Department of Architecture at NIT Calicut from January 30th to 31st, 2015.	January 30 <sup>th</sup> 31 <sup>st</sup> , 2015.
5	Dr.A.K.Kasthurba	Understanding the cultural influence through space syntax on the spatial configuration of Temple Towns of Kerala, India	7th International Conference On Emerging Technologies in Civil Engineering, Architecture and Environmental Engineering for Global Sustainability (CEAEGS- 2015),Jawaharlal Nehru University, New Delhi	2015
6	Dr.A.K.Kasthurba	Social Logic of Morphological Evolution of Temple Towns of Kerala, India :Understanding the cultural influence on the spatial configuration of Temple Towns	4th International Conference on Civil Engineering and Urban Planning (ICCEUP'15) Bali (Indonesia)	

7	Dr.A.K.Kasthurba	Understanding the Culture Specific Space Proxemics on Spatial Configuration of Traditional Temple Towns of Kerala	6th International Conference on Urban space and Social life :Theory and practice, Hong Kong	
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# iii. National Conference

SI. No	Name of the Author	Title of Paper	Name of National conference	Vol,Year, p.p.
1	Dr.P.P.Anikumar	"Inclusive Cities, Inclusive DCRs, Inclusive F.A.R. for ensuring inclusiveness of built up space through DRC	63 <sup>rd</sup> ITPI national Conference held at Chennai from 9 <sup>th</sup> to 11 <sup>th</sup> January 2015.	9 <sup>th</sup> to 11 <sup>th</sup> January 2015.
2	Dr.A.K.Kasthurba	Preserving the Cultural Identity of Historic Urban Cores: A Case Study of Kuttichira Muslim Settlement in Calicut, Kerala	National Conference on Re-discovering cities for a sustainable living Environment at MM University Ambala and Indian Institute of Architects Chandigarh pp41-47	pp41-47

# b. Community Services:

Providing Technical support to the implementation of PRISM projects to some of the Calicut based schools

# c. Other Academic and Administrative Services

SI. No	Name of Faculty	Academic and Administrative Services	
1.	Dr. P. P. Anilkumar	<ul> <li>HOD</li> <li>Member, IRCC</li> <li>Consultancy Coordinator</li> <li>Thesis Coordinator</li> <li>Staff in Charge- BS Lab</li> <li>Reviewer for a number of International Journals published by UN Scholar One, Elsevier, Taylor and Francis etc.</li> </ul>	
2.	Dr. Kasthurba A.K.	<ul><li>FA to 2014 Batch</li><li>Staff in Charge- CA Lab</li><li>NBA coordinator</li></ul>	
3.	Dr. Naseer M A	<ul> <li>Member BUGS</li> <li>Member In-house Construction Projects</li> <li>Member Department Vigilance Committee</li> <li>Member in Doctoral Committee</li> <li>B Arch Program in charge</li> <li>PhD Coordinator</li> <li>Reviewed research papers for the International Journal "Building and Environment" published by Elsevier</li> <li>Invited to review research paper for the Journal of Institution of Engineers (India)</li> <li>Member of Doctoral Committee at National Institute of Technology Thiruchirappalli</li> </ul>	
4.	Ar.Chithra K.	<ul> <li>FA to 2005 &amp; 2011 Batch</li> <li>Staff in Charge- CAAD Lab</li> <li>Faculty in charge – Literary &amp; Debating Club, NITC</li> <li>Member, Student Guidence Cell, Building works Technical Advisory</li> <li>Committee, Library advisory committee</li> <li>Research Projects &amp; Consultancy coordinator</li> <li>DCC Secretary</li> </ul>	

6	Ar.Bimal P	<ul> <li>Faculty Advisor for 2009 Admission</li> <li>Warden A Hostel</li> <li>Faculty in-charge of IMD Lab</li> <li>Faculty in-charge of Association of Student Architects,</li> <li>Department Time Table in charge</li> <li>ASA Faculty Incharge</li> </ul>
7	Ar.Mohammed Firoz C	<ul> <li>Staff in Charge-Workshop, Department Library</li> <li>Jury Examination Coordinator</li> <li>DSS Representative</li> </ul>
8	Er. Shyni K	<ul> <li>Faculty Advisor for 2013 Admission</li> <li>Exam coordinator</li> <li>DCC Secretary,</li> <li>Class Committee chairperson –S4</li> </ul>

# d. Conferences/Summer/Winter Schools/ Short Term Courses/ Workshops Conducted

SI.No	Name of Faculty	Title	Coordinators	Duration & Period
1.	Dr.P.P.Anilkumar	1 <sup>st</sup> International conference on 'Reinventing Design pedagogy and Contextual Aesthetics,ICDPCA.2015.	secretary	30 <sup>th</sup> to 31 <sup>st</sup> January 2015, at NIT Calicut.
2.	Dr. Anilkumar P P & Ar. Chithra K	FDP on Green Building Technology–Changing Paradigm	Dr. Anilkumar P P Ar. Chithra K	09-14 June 2014

# e. Expert Lectures delivered in Conferences/ Seminars/Workshops

SI. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr.P.P.Anilkumar	Fifth International Conference on the 'Constructed Environment' in Philadelphia USA	from 16 <sup>th</sup> to 18 <sup>th</sup> October 2014.	from 16 <sup>th</sup> to 18 <sup>th</sup> October 2014.
2	Dr.P.P.Anilkumar	1st International conference on 'Reinventing Design pedagogy and Contextual Aesthetics, ICDPCA 2015.	January 30 <sup>th</sup> to 31 <sup>st</sup> , 2015.	Department of Architecture at NIT Calicut
3	Dr. Naseer M A	FDP on Green Building Technology – Changing Paradigm	09-14 June 2014	Department of Architecture, NIT Calicut
4	Ar.Chithra K	1st International conference on 'Reinventing Design pedagogy and Contextual Aesthetics, ICDPCA 2015.	January 30 <sup>th</sup> to 31 <sup>st</sup> , 2015.	Department of Architecture at NIT Calicut
5	Ar.Chithra K	FDP on Green Building Technology – Changing Paradigm	09-14 June 2014	Department of Architecture, NIT Calicut

# f. Details of Faculty, who acquired higherqualification:

# g. Consultancy and Testing

SI. No	Nature of Service	Organization	Revenue earned	Status
1.	Interior and Acoustical Design for the 1000 capacity multipurpose auditorium at a cost of Rs. 3 crores.	the Municipality of Koyilandy in Kerala	11 Lakhs	Completed
2	Architectural and Structural Design for CWRDM, Kozhikode.	CWRDM, Kozhikode	-	Agreement being signed

# h. Patents acquired and filed- Nil

# **DEPARTMENT OF CHEMICAL ENGINEERING**

- a. Publications
- b. Journals

SI. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p.
1	R. Sivashankar, A.B. Sathya, Uma krishnakumar, V. Sivasubramanian	Synthesis of Magnetic Biocomposite for Efficient Adsorption of Azo Dye from Aqueous Solution	Ecotoxicology and Environmental Safety	Accepted
2	B. Deepanraj, V. Sivasubramanian, S. Jayaraj	Kinetic Study on the Effect of Temperature on Biogas Production Using a Lab Scale Batch Reactor	Ecotoxicology and Environmental Safety	Accepted
3	N. Minju, K. Venkat Swaroop, K. Haribabu, V. Sivasubramanian & P. Senthil Kumar	Removal of fluoride from aqueous media by magnesium oxide-coated nanoparticles	Desalination and Water Treatment	53 (2015) 2905– 2914.
4	K.Haribabu and V. Sivasubramanian	"Biodegradation of organic content in wastewater in fluidized bed bioreactor using low-density biosupport	Desalination and Water Treatment	Published online
5	B. Deepanraj, P. Lawrence, R. Sivashankar & V. Sivasubramanian	Analysis of preheated crude palm oil, palm oil methyl ester and its blends as fuel in diesel engine	International Journal of Ambient Energy	published online 2015
6	R. Sivashankar, A.B. Sathya, K.Vasantharaj, V. Sivasubramanian	Magnetic Composite an Environmental Super Adsorbent for Dye Sequestration- A Review	Environmental Nanotechnology Monitoring and Management	Published online 2014
7	V.SivasubramanianM. Velan, K. Haribabu and B. Deepanraj	Holdup Studies in IFBR for Wastewater Treatment	Journal advance engineering reserch	1(1) (2014) 8-15.
8	K.Haribabu, and V. Sivasubramanian	Treatment of Wastewater in Fluidized Bed Bioreactor Using Low Density Biosupport	Energy Procedia	50 (2014) 214 – 221.
9	R. Sivashankar, A. B. Sathya, K. Vasantharaj, and V. Sivasubramanian	Reduction of Azo Dye from Aqueous Solution using Acid Treated Aquatic Macrophytes	Jounal of environement nanotechnology	3(2) (2014) 50-61.
10	Deepanraj,	Biogas Generation through Anaerobic	Research Journal of Chemistry and	18(5) (2014) 80-94.

	B., SivasubramanianV. and Jayaraj, S	Digetsion Process – An Overview	Environment	
11	S. Naveen andV. Sivasubramanian	Dense Gas dispersion Studies using Computational Fluid Dynamics	International Journal of Innovative Science, Engineering	3(3) (2014) 172-177.
12	Naveen S and Sivasubramanian V	3D Similation of a Medium Scale Pool Fire	International J Eng Res Appln.	4(4) (2014) 178-187.
13	S.Bhuvaneshwari and V.Sivasubramania n	Equilibrium, Kinetics and Breakthrough Studies for Adsorption of Cr (VI) on Chitosan	Chem. Eng. Comm	201:6 (2014) 834- 854
14	Najuma Abdul Razack and Lity Alen Varghese	The effect of various hardeners on the mechanical and thermal properties of epoxy resin	International Journal of Engineering Research and Technology	Vol.3 Issue 1,pp 2662 – 2665 (2014)
15	Najuma Abdul Razack and Lity Alen Varghese	Studues on the effect of phenolic resin modifications on the adhesisve properties of epoxy resin	Advances in polymer Science and Technology: An international Journal	Vol 4(4), pp 52 – 59 2014
16	Rangabhashiyam S, N. Selvaraju	Adsorptive remediation of hexavalent chromium from synthetic wastewater by a natural and ZnCl2 activated Sterculia guttata shell	Journal of Molecular Liquids	Vol 207, July 2015, 39-49
17	Raju C Asha, M.A. Vishnuganth, Neelancherry Remya, N. Selvaraju and Mathava Kumar	Livestock Wastewater Treatment in Batch And Continuous Photocatalytic Systems: Performance And Economic Analyses	Water, Air, & Soil Pollution	Vol.226, Issue 5, May 2015, Article 132
18	Anu N, M.S.Giri Nandagopal, Aneesh V and N. Selvaraju	Coupled Receptor- Dispersion Model Evaluation for the assessment of Area Source Emission Rate	Journal of Scientific and industrial Research	Vol.74, May 2015, 296-301
19	M.S.Giri Nandagopal ,Rahul Antony, Nidhin Sreekumar and N. Selvaraju	Experimental exploration on degradation of Orange G 16 an Azo Dye by novel Pseudoalteromonas sp. and its Enzyme Activity	Arabian Journal for Science and Engineering	Volume 40, Issue 4 (2015), Page 1005- 1013
20	M.A. Vishnuganth, S Rangabhashiyam, Neelancherry Remya, Mathava Kumar,and N. Selvaraju	Optimization of GAC supported, TiO <sub>2</sub> photocatal ytic process for competent carbofuran removal from an aqueous system	Journal of Scientific and industrial Research	Vol.74, April 2015, 225-231
21	Anu N , Rangabhashiyam S, Rahul Antony and N. Selvaraju	Evaluation of Optimization Methods for Solving Chemical Mass Balance Receptor Model	Journal of Serbian Chemical Society	Vol. 80, No. 2, p. 253–264 (2015)
22	Rangabhashiyam S, N. Selvaraju	Evaluation of the biosorption potential of a novel Caryota urens inflorescence waste biomass for the removal of hexavalent chromium from aqueous solutions	Journal of the Taiwan Institute of Chemical Engineers	Vol 47, February 2015, 59-70

23	M.S.Giri Nandagopal ,Rahul Antony, Rangabhashiy am S,Nidhin Sreekumar and N. Selvaraju	Overview of Microneedle System- A Third Generation Transdermal Drug Delivery Approach	Microsystem Technologies	Vol 20 , issue 7- July 2014, 1249-1272
24	Rahul Antony, M.S.Giri Nandagopal , Nidhin Sreekumar and N. Selvaraju	Detection principles and development of Microfluidic Sensors in the last decade	Microsystem Technologies	Vol 20 , issue 6- June 2014, 1051- 1061
25	Rahul Antony, M.S.Giri Nandagopal, Nidhin Sreekumar, Rangabhashiyam S, N. Selvaraju	Liquid- liquid slug flow in a microchannel reactor and its mass transfer properties- A review	Bulletin of Chemical Reaction Engineering & Catalysis	9 (3), 2014, 207-223
26	Rahul Antony, M.S.Giri Nandagopal , Rangabhashiyam S, and N. Selvaraju	Probabilistic Neural Network prediction of liquid- liquid two phase flows in a circular microchannel	Journal of Scientific and industrial Research	Vol.73, August 2014, 524-529.
27	Rangabhashiyam S, E.Suganya , N. Selvaraju and Lity Alen Varghese	Significance of exploiting non-living biomaterials for the biosorption of wastewater pollutants	World Journal of Microbiology and Biotechnology	Vol 30 , June 2014, 1669–1689
28	M.S.Giri Nandagopal ,Rahul Antony,Rangabhashiy am S, and N. Selvaraju	Advance approach on environmental assessment and monitoring - A Review	Research Journal of Chemistry and Environment	Vol.18 (7) July (2014) , 78-90
29	Rangabhashiyam S, Anu N , M.S.Giri Nandagopal and N. Selvaraju	A Novel approach of the modified BET Isotherm towards continuous column study	Journal of Scientific and industrial Research	Vol.73, July 2014, 489-494
30	Rangabhashiyam S, Anu N and N. Selvaraju	Equilibrium and kinetic modeling of chromium(VI) removal from aqueous solution by a novel biosorbent	Research Journal of Chemistry and Environment	Vol.18 (4) April (2014), 30-36
31	Rangabhashiyam S, Anu N , M.S.Giri Nandagopal and N. Selvaraju	Relevance of isotherm models in biosorption of pollutants by agricultural byproducts	Journal of Environmental Chemical Engineering	Vol 2, issue 1,2014, 398-414

# ii. International Conferences

SI. No	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Dr. V.Sivasubramanian A.B.Sathya R.Sivashankar	Production and Charecterization of Biopolymer Polyhydro xy Alkanoates byChlorella pyrenoidosa	TCIFES - 2015 CLRI	2015
2	Dr. V.Sivasubramanian M.Jerold	Influence of apical meristem and chemotherapy on production of virus free sugarcane plants	TCIFES - 2015 CLRI	2015
3	Dr.S.Bhuvaneshwari N.Mohan Raj	Removal of color from synthetic dye effluent using packed bed adsorption column	at International Conference on Energy and Environmental Engineering ICEEE2014	2014

				T
4	Dr.S.Bhuvaneshwari N.Mohan Raj	Electrosorption based waste water treatment system using activated carbon	Indo-French Workshop on Sustainable Water Purification Technologies to be held at CSIR- CECRI, Karaikudi	2015
5	Dr. V.Sivasubramanian Naveen S	Heat Transfer studies for LNG vaporization during underwater LNG releases	ICFMHTT 2014 : International Conference on Fluid Mechanics, Heat Transfer,Thermodynamis	December2014, Crowne Plaza Dubai – Deira
6	Dr. V.Sivasubramanian Uma krishnakumar	Stability and Quality Assessment of Biodiesel by Photo Chemiluminescence Method	International Conference on Green Technologies For Environmental Pollution Prevention and Pollution Control, ICGTEPC 2014	September 2014, NIT Trichy, Tamil Nadu
7	Dr. V.Sivasubramanian R.Sivashankar	Synthesis of magnetic bio composite for efficient adsorption of azo dye from aqueous solution	International Conference on Green Technologies For Environmental Pollution Prevention and Pollution Control, ICGTEPC 2014	September 2014, NIT Trichy, Tamil Nadu
8	Dr. V.Sivasubramanian Uma krishnakumar	Kinetic Study on the Effect of Temperature on Biogas Yield Using Modified Gompertz Equation	International Conference on Green Technologies For Environmental Pollution Prevention &Pollution Control, ICGTEPC 2014	September 2014, NIT Trichy, Tamil Nadu
9	Dr.V.Sivasubramanian, K.Haribabu, K.Vasantharaj	Estimation of kinetic parameters for the wastewater treatment in Inverse Fluidized Bed Reactor	International Conference on Green Technologies For Environmental Pollution Prevention and Pollution Control	ICGTEPC 2014, September 2014, NIT Trichy, Tamil Nadu.
10	Dr. V.Sivasubramanian B. Deepanraj	Study on the Effect of pH on Biogas Production from Food Waste by Anaerobic Digestion	The 9th International Green Energy Conference,	May 2014, Tianjin, China
11	Dr. V.Sivasubramanian R.Sivashankar	Recycling of Textile Waste Water: Dye Adsorption using Magnetic Biocomposite	Third International Conference on Recycling and Reuse of Materials (ICRM 2014)	April 2014, MG University, Kottayam, Kerala.
12	Dr. V.Sivasubramanian B. Deepanraj	Solid concentration influence on biogas yield from food waste in an anaerobic batch digester,	2014 International Conference and utility exhibition on green energy for sustainable development	March 19-21 2014, Pattaya - Thailand.
13	Dr. V.Sivasubramanian K.Haribabu	Optimization of Gas Holdup &Hydrodynamic Parameters in IFBR for Wastewater Treatment	International Conference on Chemical and Environmental Research, ICCER 2014	11-12 March 2014, Jamal Mohamed College, Trichy
14	Dr. V.Sivasubramanian	Utilization of algal &fungal exopoly-saccharides for effective treatment of acid mine drainage	International Conference on Chemical and Environmental Research, ICCER 2014	11-12 March 2014, Jamal Mohamed College, Trichy
15	Dr. V.Sivasubramanian	Application of response surface methodology for wastewater remediation	International Symposium on Integrated Water Resources Management, IWRM 2014	February 2014, CWRDM, Calicut, Kerala.
16	Dr. V.Sivasubramanian A.B.Sathya	Renewable utilization of waste for biopolymer production: A review	nternational Conference on Chemical &Environ- mental Research, ICCER 2014	11-12 March 2014, Jamal Mohamed College, Trichy.
17	M.A.Vishnuganth, N.Selvaraju, Mathava Kumar	Continuos-mode Photocatalysis Reactor Operation for livestock Wastewater Treatment	International Symposium on Integrated Water Resources Management (IWRM - 2014)	2014

18	Dr.Shiny Joseph	Bamboo (Bambusoideae), a source for very high surface area activated carbon - An integrative review	Energy and Environmental Engineering" (ICEEE'14)	6th & 7th November 2014
19	M V P Kumar& Anish Mathew,	Dynamics and composition control of a ternary ideal reactive distillation column	International Conference on Advances in Chemical Engineering and Technology, Kollam, India	October 16-18, 2014

# iii. National Conference

SI. No.	Name of the Author	Title of Paper	Name of National Conference	Vol., Year, p.p.
1.	Dr. V.Sivasubramanian R.Sivashankar	Sorption of Hazardous Dyes Using Magnetic Biocomposite	2nd National Conference on Emerging Trends in Engineering - NET 2014	August 2014, GEC, Kozhikode - won the Best Paper Award
2.	Dr. V.Sivasubramanian Uma krishnakumar	Process Optimization of Biodiesel Produced from the Rubber Seed Oil & Performance Analysis of A Diesel Engine Fuelled by the Biodiesel Blends	26th Kerala Science Congress	January 28-31 2014, Wayanad, Kerala
3.	Dr. V.Sivasubramanian Uma krishnakumar	Evaluation of fuel quality parameters of biodiesel derived from rubber seed oil	26th Kerala Science Congress	January 28-31, 2014 Wayanad, Kerala

# b. Community Services : Nil

# c. Other Academic and Administrative Services:

Name of Staff	Academic and Administrative Services		
Dr.Shiny Joseph	HOD, Class committee chairman, Purchase committee member, NBA coordinator till August2014, Faculty Advisor, Faculty In charge – fluid mechanics lab		
Dr.V.Sivasubramanian	Faculty advisor, Chairman, Purchase committee member, Chairman – S8 Project Review committee, Faculty In charge –Environmental Lab, Project guide		
Dr.Lity Alen Varghese	Associate Dean – Academic, Purchase committee member, S7 class committee chairman, Faculty Incharge – Chemical technology Lab, Department students guidance cell coordinator, Project guide, Final year project coordinator Faculty Advisor, HOD till 31-07-2014		
Dr.Aparna K	Faculty advisor, Library Incharge, LAC member, NBA Coordinator, Project guide, Faculty Incharge – PDC Lab, Project guide for B.Tech, Ph.D		
Dr.M.V.Pavankumar  Faculty Advisor, DCC secretary, Department PTA coordinator, Faculty Incha  – Mechanical operations lab, Project guide, Seminar course coordinator			
Dr.N.Selvaraju	Deputy Chairperson – PG Admissions, Ph.D coordinator, Class committee chairman, faculty advisor, faculty Incharge – Mass transfer lab		
Dr.S.Bhuvaneshwari	Faculty Advisor, Class committee chairman, Faculty Incharge – Research Lab, Department Training and placement Incharge, NBA – Member, Ladies Hostel Warden, Project guide, Department Time table Incharge		
Faculty Advisor, Department Library Incharge, Project committee membe Wr.Vineesh Ravi Faculty Incharge - Heat transfer, Project Guide, Department purchase coordinator			
K.Haribabu	Faculty coordinator – DRAV'15 – Students Technical Fest, CHEA, EWB, Faculty Incharge – Students Activities, Chemical reaction Engineering Lab, Faculty Advisor, Project review committee member		

# d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI.No	Title	Coordinators	Duration & Period
	Engineering (FTCFF-14)	Dr. Aparna K Dr. Malladi V Pavan Kumar	29.06.14 to 05.07.14

2		Dr. N. Selvaraju Dr. Shiny Joseph	28.02.15 to 01.03.15
	·	Dr.N.Selvaraju Dr.Shiny Joseph	18.04.15 to 19.04.15
4	II IRAV - Studente Lechnical Fest	Mr.K.Haribabu Dr.Shiny Joseph	21.03.15 to 22.03.15

# e. Expert lecturers delivered in Conferences/Seminar/workshops

SI. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. V. Sivasubramanian	National workshop on Industrial Energy Audit	June 2014	Department of Electrical Engineering, NITC
2	Dr. V. Sivasubramanian	AICTE & MHRD/ TEQIP II Sponsored FDP Programme on "Emerging Trends in Chemical and Environmental Engineering	July 2014	Department of chemical engineering, NITC.
3	Dr. Shiny Joseph	AICTE & MHRD/ TEQIP II Sponsored FDP Programme on "Emerging Trends in Chemical and Environmental Engg.	July 2014	Department of chemical engineering, NITC.
4	Dr. N. Selvaraju	AICTE & MHRD/ TEQIP II Sponsored FDP Programme on "Emerging Trends in Chemical and Environmental Engineering	July 2014	Department of Chemical engineering NIT Calicut
5	Dr. S. Bhuvaneshwari	AICTE & MHRD/ TEQIP II Sponsored FDP Programme on "Emerging Trends in Chemical and Environmental Engineer	July 2014	Department of Chemical engineering NIT Calicut
6	Dr. N. Selvaraju	AICTE Sponsored QIP Short Term Course Programme on "Air Quality Modelling"	November 2014	Department of Civil and Chemical engineering IIT Madras
7	Dr. N. Selvaraju	TEQIP &MoEF Sponsored workshop Programme on "Recent Challeges in atmospheric & Earth Sciences"	December 2014	Department of Civil and Chemical engineering NITK Surathkal
8	Dr. V. Sivasubramanian	Two days National level seminar on recent trends in biofuel technology for sustainable renewable energy system	January 2015	Department of Biotechnology, Selvam College of Technology,Namakk al
9	Dr.N.Selvaraju	Directorate of Technical Education ,Government of Kerala Sponsored short term course on "Microfluidics Fundamentals, Modeling ,Applications	January 2015	Department of mechanical engineering College of Engineering Trivandrum

# **DEPARTMENT OF CIVIL ENGINEERING**

# (b) Publications

SI. No.	Name of the Authors	Title of paper	Name of Journal/conference	Vol., Year, p.p.
1	Rajat Rastogi, Harikrishna M. & Pawanram T. (2014)	"Destination and Image Attributes Influencing Leisure Destination Choice"	Highway Research Journal	Vol 7- No.1, Issue 25, Indian Roads Congress, 42 – 54.
2	A.C Pruthivi Raj, Abdhul Khadhir S.H, Arjun K, K. Joel Johny, Prashant C, Harikrishna M (2014), ,	"Crash Prediction Models for Urban mid- blocks using Regression Analysis"	Proc. National Conference on 'Technological Innovations for Sustainable Infrastructure	(TISI 2015)', NIT Calicut, March 13 – 14, 2015
3	Srijan Mukherjee., Harikrishna M. and Anjaneyulu M V L R , (2014)	"Capacity Estimation of Uncontrolled Intersections"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
4	Surendra Reddy D., Harikrishna M. and Anjaneyulu M V L R , (2014)	"Pedestrian Flow Modelling using Cellular Automata"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
5	Deepa Ratheesh, Harikrishna M. and Anjaneyulu M V L R , (2014)	"Development of Level of Service Criteria for Sidewalks"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
6	D. B Saranya, K.Krishnamurthy and MVLR Anjaneyulu (2014)	"A Comparative Analysis of Hotspot Identification Methods"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
7	Athira. I.C, and K.Krishnamurthy (2014)	"Estimation of Value of Travel Time"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
8	Swathi. N., K.Krishnamurthy and MVLR Anjaneyulu (2014)	"Quantification of Traffic Congestion at Urban Mid-Blocks using Travel Time"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
9	Namitha George, and K.Krishnamurthy (2014)	"Capacity Analysis of Urban Mid-Blocks"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
10	Muneera C.P., and K.Krishnamurthy (2014)	"Understanding and Quantification of Traffic Congestion- An Overview"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
11	Sreelekha M.G., K.Krishnamurthy and MVLR Anjaneyulu (2014)	"GIS Applications in Road Transport System Analysis"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
12	Sreelekha M.G., Krishnamurthy K. & Anjaneyulu M.V.L.R (2014)	"Assessment of Topological Pattern of Urban Road Transport System of Calicut City"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay

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13	Athira I C, Muneera C P, Krishnamurthy K & M.V.L.R Anjaneyulu (2014)	"Estimation of Value of Travel Time for Work Trips"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
14	Sasikala, D., Ameen, M., and Nambudiripad, KBM. (2015)	"Nonsingular Boundary Element Flexural Analysis of Stiffened Plates"	Engineering Analysis with Boundary Elements	52, 2015, pp 81-91
15	Sony K. G., Sivakumar M., AnjaneyuluM. V. L. R. (2014)	"Characterization of Bituminous mixes with Nano-clay"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
16	Gopi Raju B., Sivakumar M., AnjaneyuluM. V. L. R (2014)	"Characterization of Fibre Reinforced Bituminous Concrete Mixes"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
17	Shashibhushan K., N., Sivakumar M., AnjaneyuluM. V. L. R (2014)	"Laboratory Investigation on Bituminous Concrete Mixes with Different Fillers"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
18	Nagulu B., Sivakumar M., AnjaneyuluM. V. L. R (2014)	"Performance Characteristics of Bituminous Concrete Mixes Modified with Nano Silica"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
19	Sivakumar M., AnjaneyuluM. V. L. R (2014)	"Rutting and Fatigue Characteristics of Nano- Clay Modified Bituminous Concrete Mixes"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
20	Pramada S K , Mohan S (2015)	"Stochastic Simulation of Seawater Intrusion into Freshwater Aquifers"	Aquatic procesia	Vol 4, pp 87-94
21	Shamla Rasheed, and K. Sasikumar (2015)	"Modelling Vertical Infiltration in An Unsaturated Porous Media Using Neural Network Architecture"	Proc. Int. Conf. on Water Resources, Coastal And Ocean Engineering	12th–14th March, 2015 at NITK Surathkal, Karnataka.
22	Shamla Rasheed, and K. Sasikumar (2015)	"Modelling Vertical Infiltration in An Unsaturated Porous Media Using Neural Network Architecture"	Aquatic Procedia	4, Elsevier B.V. p. 1008 – 1015
23	Pramada.S.K, Sowmya (2014)	"Surface water groundwater interaction model- A numerical modeling approach"	Proc. I Annual Conf. on Innovations and Developments in Civil Engineering (ACIDIC- 2014) India, NITK, Surathkal, Karnataka	19-20 May 2014. Page No 1062-1069
24	Pramada.S.K, Sowmya (2014)	"A Fuzzy logic and numerical modeling approach to surface water groundwater interaction"	Proc. 19 <sup>th</sup> IAHR-APD Congress 2014,.	Hanoi, Vietnam, ISBN 978604821338-1
25	Aneesha Balaji, Praveen Nagarajan, T M Madhavan Pillai and (2014)	"Simplified Methods for Fire Resistant Design of Concrete Structures"	JI. Of the Indian National group of International Association for Bridge and Structural Engineer	Vol. 44, No. 2, June, pp. 131-141

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26	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"A Critical Evaluation of Indian Codes on Seismic Analysis of Concrete Bridges"	Proc. 2 <sup>nd</sup> International Conference on Innovations in Civil Engineering	SCMS Cochin, May 2014
27	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"Significance of Elastomeric Bearing on Seismic Response Reduction in Bridges"	Proc. 9 <sup>th</sup> Structural Engineering Convention	IIT Delhi, Dec. 2014
28	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"Assessment of Slenderness Ratio for PSC Box-Girder Bridge Piers based on Functional Importance"	Proc. International Conference on Theoretical, Applied, Computational and Experimental Mechanics	ICTACEM, IIT Kharagpur, 278, Dec. 2014
29	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"Seismic Design Recommendations for Skewed Multi-Span Concrete Box-Girder Bridges"	Proc. International Conference on Sustainable Energy and Built Environment	ASCE-ICES, VIT, 18-23, March 2015.
30	Abey E. T., T. P. Somasundaran and A. S. Sajith (2015)	"Influence of Skewness on Global Seismic Response of Multi-Span Box-Girder Bridges"	Proc. National Conference on Technological Innovations for Sustainable Infrastructure	NITC, 358-365, March 2015
31	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"Significance of Elastomeric Bearing on Seismic Response Reduction in Bridges"	Int. JI Advances in Structural Engineering, Springer	DOI 10.1007/978- 81-322-2193-7_103
32	Abey E. T., T. P. Somasundaran and A. S. Sajith (2014)	"A Critical Evaluation of Indian Codes on Seismic Analysis of Concrete Bridges"	International Organization of Scientific Research	
33	Shamla Rasheed, and K. Sasikumar (2015)	"Modelling Vertical Infiltration in An Unsaturated Porous Media Using Neural Network Architecture"	Proc. Int. Conf. on WATER RESOURCES, COASTAL AND OCEAN ENGINEERING	12th–14th MARCH, 2015 at NITK Surathkal, Karnataka
34	Shamla Rasheed, and K. Sasikumar (2015)	"Modelling Vertical Infiltration in An Unsaturated Porous Media Using Neural Network Architecture"	Open access article in Aquatic Procedia 4 (2015)	Elsevier B.V. p. 1008 – 1015
35	N.Ganesan, P.V.Indira and Anjana Santhakumar (2015)	"Effect of Steel Fibres on Shear Strength of Geopolymer Concrete Beams"	Journal of Structural Engineering	Vol.41, No.6, Feb. March 2015, pp.575- 582
36	N.Ganesan, Bharati Raj,J. and A.P.Shashikala (20150	"Evaluation of Stress Block Parameters for Self Compacting Rubberized Concrete Composites"	The Indian Concrete Journal	February2015,Vol.8 9, No.2,pp.24-38
37	N.Ganesan, Ruby Abraham, S.Deepa Raj and Divya Sasi (2015)	"Fracture Properties of Geopolymer Concrete"	Asian Journal of Civil Engineering(BHRC)	Vol. 16, No. 1 , Jan 2015, pp.127-134
38	Ganesan, N., Indira,P.V.and Anjana Santhakumar,(20 14)	"Influence of Steel Fibres on Tension Stiffening and Cracking of Reinforced Geopolymer Concrete"	Magazine of Concrete Research	DO: 10.1680/ macr.13.00273,
39	N.Ganesan,Ruby Abraham,S.Deepa Raj and Divya Sasi (2014)	"Stress-strain Behaviour of Confined Geopolymer Concrete"	Construction and Building Materials, Elsevier	Vol.73, 2014, pp.326-331
40	N.Ganesan,Anjana Santhakumar and P.V.Indira (2014)	"Bond Behaviour of Reinforcing Bars Embedded in Steel Fibre Reinforced Geopolymer Concrete"	Magazine of Concrete Research	DOI:10.1680/ macr.14.00125

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41	N.Ganesan, Ruby Abraham, P.R. Beena and Anisha Thomas (2014)	"Behaviour of Ultra High Performance Concrete Wall Panels under Two-way in-plane Loading"	International Journal of Structural Engineering,	Vol.5, No. 3, 2014
42	N.Ganesan, P.V. Indira and Anjana Santhakumar (2014)	"Strength and Behaviour of Steel Fibre einforced Geopolymer Concrete Wall panels in One way in plane action"	The Indian Concrete Journal	Vol.88, No.5, May 2014,pp. 28-35
43	Chithra, N. R., Thampi, S. G., Surapaneni, S., Nannapaneni, R., Reddy, A. A. K., & Kumar, J. D. (2014)	"Prediction of the likely impact of climate change on monthly mean maximum and minimum temperature in the Chaliyar river basin, India, using ANN-based models"	Theoretical and Applied Climatology	2014, 1-10
44	Chithra, N. R., & Thampi, S. G. (2015)	"Detection and Attribution of Climate Change Signals in Precipitation in the Chaliyar River Basin, Kerala, India"	Aquatic Procedia	4, 755-763
45	Chithra NR, Santosh G Thampi (2014)	"Assessment of the impact of climate change on streamflow of the Chaliyar river basin, India"	Proc. of the 19 <sup>th</sup> IAHR- APD Congress,	2014, Hanoi, Vietnam
46	Chithra NR, Santosh G Thampi (2015)	"Detection and attribution of climate change signals in precipitation in the Chaliyar river basin, Kerala, India"	Proc. Int. Conf. on Water Resources, Coastal and Ocean Engineering	2015, NIT Suratkal
47	Ashika S L, Aswathi Sebha John, Aswathi C K, Basima K P, Febin Mohamed, Chithra N.R (2015).	"Multi-Variate Data Analyses Used for Statistical Downscaling of Monthly Precipitation on a River Basin Scale"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut
48	Dilber Shahul, Upas Unnikrishnan, Sankar Muralidhar, Akhil Rajendran K, Sharath M R and Chithra N R (2015)	"Trend analysis of Climatic Varialbles in India"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut
49	Charanvarma.S, A.P.Shashikala (2014)	"Dynamic Response of Free-span Sub-sea Pipelines under Vortex Induced Vibrations"	Applied Mechanics and Materials	Vol. 567, pp 228-234 Online: 2014-06-06
50	Nasma Noor N V, A.P Shashikala (2014)	"Resonant motion of liquid confined between Floating structures"	Applied Mechanics and Materials	Vol. 567, pp 289-294 Online: 2014-06-06
51	Anilkumar PM, George Joseph, Jestin John, Lijith K P and A P Shashikala (2015)	"Behaviour of Rubberised High Strength Concrete under Impact Loads"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut
52	Anilkumar PM, George Joseph, Jestin John, Lijith K P and A P Shashikala (2015)	"Investigations on Tensile Behaviour of Rubberised High Strength Concrete"	Proc. Int. Conf. on Sustainable Energy and Built Environment	12-13 March, 2015 VIT University, Vellore
53	Sandeep M.S, Praveen Nagarajan, A.P Shashikala, (2015)	"A Review on the Suitability of Waste Tyre Rubber In Concrete Composite"	Proc. Int. Conf. on Sustainable Energy and Built Environment	12-13 March, 2015 VIT University, Vellore

54	Abhijeet Sajjan, A.P.Shashikala (2014)	"Behaviour of Ship Under Sloshing"	Proc. Int. Conf. on Computational and Experimental Marine Hydrodynamics (MARHY	3 - 4 December 2014, IIT Madras, Chennai
55	Charanvarma.S, A.P.Shashikala (2014)	"Dynamic Response of free span sub sea pipelines under vortex induced vibrations"	2014) Proc. 2nd Int. Conf. on Civil, Offshore and Environmental Engineering (ICCOEE2014),	3- 5 June 2014, Kuala Lumpur, Malaysia.
56	Nasma Noor N.V, A.P Shashikala (2014)	"Resonant Motion of Liquid Confined between Floating Structures"	Proc. 2nd Int. Conf. on Civil, Offshore and Environmental Engineering (ICCOEE2014),	3- 5 June 2014, Kuala Lumpur, Malaysia.
57	Amala M. Saji, George K. Varghese (2014)	"Landfill Site Selection Based on Human Health Risk"	Proc. 8th Intercontinental Landfill Research Symposium	October 19- 22, 2014, Crystal River, Florida
58	Avinash P and George.K.Varghese (2015)	"Development of a hypothetical index for ranking the existing landfills based on environmental risks"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut
59	Arya C A and George K. Varghese (2015)	"Studies on Infiltration through Surfaces Paved with Interlocking Tiles"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut
60	Rangaswamy K., Boominathan A. and Rajagopal K. (2014)	"Liquefaction resistance of Gujarat Silty Sands"	Proc. Int. German-Indian Workshop on "All aspects related to Liquefaction, Published in series of Darmstadt Geotechnics 2014	15 <sup>th</sup> to 16 <sup>th</sup> of May, 20-14, TU Darmstadt, Germany.
61	Rangaswamy K., Shashank M., and VinayKumar K. (2015)	"Geotechnical Properties of Recycled Mangalore tiles as a Road sub-base"	Proc. 6 <sup>th</sup> Int. Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental conditions	Chennai, India, January 21-23, 2015, pp. 245- 248
62	Rangaswamy K. and Seetha P. (2015)	"Liquefaction Susceptibility of Ernakulam silty sand deposits"	Proc. 6 <sup>th</sup> Int. Geotechnical Symposium on Disaster Mitigation in Special Geoenvironmental conditions	Chennai, India, January 21-23, 2015, pp. 200- 204
63	Rangaswamy K, and Shabna alungal (2014)	"Hypoplastic modeling on drained response of silty sand"	Proc. National Conference on Recent advancements in geotechnical engg.	Coimbatore, April 22, 2014, pg. 78-82
64	Neema Mohan, and Rangaswamy K. (2015).	"Undrained load response of soft clays reinforced with sand columns"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut, Paper No. T0082. pp. 177- 184
65	Akhila M, and Rangaswamy K. (2015)	"Piled Raft Foundation under Seismic Load"	Proc. Nat. Conf. on Technological Innovations for Sustainable Infrastructure (TISI 2015)	13-14 March 2015, NIT Calicut, Paper No. T0096. pp. 185- 188

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66	Anjana, S. and Anjaneyulu, M.V.L.R, (2014)	"Safety analysis and evaluation of urban single carriageway roads in India"	Journal of Indian Roads Congress (IRC)	April -June 2014, 74(4), pp. 136-145
67	Anjana, S. and Anjaneyulu, M.V.L.R. (2015)	"Development of Safety Performance Measures for Urban Roundabouts in India"	Journal of Transportation Engineering, ASCE	141(1), January 2015.
68	Anjana, S. and Anjaneyulu, M.V.L.R., (2014)	"Safety analysis of urban signalised intersections under mixed traffic"	Journal of Safety Research	Volume 52, February 2015, pp. 9–14
69	Devika Babu & Anjaneyulu M.V.L.R.(2014)	"Activity Participation Modelling for Workers in Calicut City"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
70	Lila P C & Anjaneyulu M.V.L.R (2014)	"Modeling the Impact of ICT on the Activity and Travel Behaviour of Urban Dwellers in Indian Context"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
71	Jesna N. M.& Anjaneyulu M.V.L.R (2014)	"Reliability Analysis of Horizontal Curves on Two Lane Highways"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
72	Remya V., A. Padmarekha, Anjaneyulu M.V.L.R. & MuraliKrishnan J (2014)	"Influence of Post- Processing Methods for Ranking of Fatigue Life"	11th Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC 2014)	10-12, December 2014, Indian Institute of Technology Bombay
73	Aparna P M and Anjaneyulu M V L R (2014)	"Development of activity generation models for students"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
74	Athira I C. and Krishnamurthy. K (2014)	"Estimation of value of travel time"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
75	Devika Babu and Anjaneyulu M.V.L.R.(2014)	"Development of tour based generation models"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
76	Anjana S. and Anjaneyulu M.V.L.R.(2014)	"Hierarchical modeling approach for analysing crashes on urban dual carriageways"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
77	Anitha Jacob and Anjaneyulu M.V.L.R (2014)	"Road traffic crash prediction using fuzzy logic"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
78	Lakshmi Priya C P and Anjaneyulu M.V.L.R.(2014)	"Development of accident prediction models for urban uncontrolled intersections"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014

79	Lila P C and Anjaneyulu, M.V.L.R.(2014)	"Influence of ICT on activity travel behaviour of urban dwellers in an indian context"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
80	Namita George and Krishnamurthy K (2014)	"Capacity analysis of urban mid-blocks"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
81	Remya Varma K, Pugazhenthi A, Anjaneyulu M.V.L.R. and Murali Krishnan J (2014)	"Influence of modified binders on fatigue response of bituminous mixture"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014
82	Sreela P.K., Sheena Melayil and Anjaneyulu M.V.L.R (2014)	"Modeling shopping participation and duration of home makers in Calicut city"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT C May 12-13, 2014
83	Srikanth S and Anjaneyulu M V L R (2014)	"A porous flow approach to modelling heterogeneous traffic in disordered systems"	Proc. Colloquium on Transportation Systems Engineering and Management	Centre of Transportation Research, NIT Calicut, May 12-13, 2014

### Books published:

 Thampi, S. G., & Chithra, N. R. (2015). Uncertainty Analysis of Statistically and Dynamically Downscaled Precipitation Data: A Study of the Chaliyar River Basin, Kerala, India. In *Managing* Water Resources under Climate Uncertainty (pp. 127-142). Springer International Publishing

#### Awards:

• Dr. N Ganesan (2014), Received the Indian Concrete Institute - UltraTech Award for Outstanding Concrete Engineer of Kerala -2014on 15th October 2014

#### MOUs:

- Dr. Anjaneyulu M V L R (2014): Signed MoU with CSIR-Central Road Research Institute, New Delhi
- Dr. Anjaneyulu M V L R (2014): Signed MoU with National Transportation Planning and Research Centre, A Research Institution of Kerala State Council for Science, Technology & Environment, Trivandrum

## (b) Community services

## Dr. Santosh G Thampi:

- Member, Hydrology Data Users Group, Kozhikode Dt.
- Member, Technical Committee on Total Sanitation, Kozhikode Dt.
- Member, TAG on Water Supply and Sanitation, Kozhikode Corporation
- Member, District Level Planning Committee on Irrigation, Kozhikode District
- Resource Person and Expert, Model Solid Waste Disposal Project of the Kozhikode Corporation

Dr. George K Varghese:As NSS coordinator, leads the construction of a house for a desolate cancer patient living near campus

## Dr. M V L R Anjaneyulu:

- Member, Road safety council, Kozhikode district
- Expert advice on "Planning of an efficient and effective city bus transportation system for Calicut urban area", Regional Town & Country Planning Office, Kozhikode
- Expert advice on "Preparation of Trip Generation Manual for Kerala state", Regional Town & Country Planning Office, Kozhikode

## (c) Other Academic and administrative services

Name of Faculty	Academic and administrative services	
Dr. N. Ganesan	<ul> <li>Member in many of the Doctoral Committees</li> <li>Member of Senate of NITC</li> <li>Programme co-ordinator, M.Tech (Structural Engg.), 2013 admission</li> </ul>	

Dr. V Mustafa	<ul> <li>Chairman/Member in many of the Doctoral Committees</li> <li>Member of Senate of NITC</li> </ul>
DI. V IVIUSIAIA	
	Planning and Revision of Curriculum     Chairman Institute Canteen Committee
	Member of Senate of NITC
	<ul> <li>Member of Seriale of NTC</li> <li>Member, Buildings and Works committee, Central University of Kerala,</li> </ul>
Dr. T P Somasundaran	Kasargod, Kerala
Dr. 11 Comasundaran	<ul> <li>Member, Buildings and Works committee, Malayalam University, Tirur, Kerala</li> </ul>
	<ul> <li>Member, Buildings and Works committee, NIT Goa</li> </ul>
	Coordinator of M.Tech programme in Offshore structures
	Dean (Planning and Development), NIT Calicut
	E
	Expert member of TRDM to review water sned projects submitted to Govt. of Kerala
	Member of Senate of NITC
Dr. S. Chandrakaran	Member in many of the Doctoral Committees
	Reviewer of Indian Geotechnical Journal
	<ul> <li>Reviewer of Journal of structural engineering</li> <li>Reviewer of International journal of geotextiles and geomembranes</li> </ul>
Dr. T. Zacharia Marahasa	Faculty adviser for students of B.Tech (Civil) 2013 Admission     Member of Senate of NITC
Dr. T Zacharia Varghese	Member of Senate of NITC      Member of Senate of Senate of NITC      Member of Senate of S
	I/C of strength of materials, concrete and structural engg. Lab.
Dr. J Sudhakumar	Member of Senate of NITC
	Preparation of Time Table & Class Room for the Department
	I/C of Geotechnical Engineering Lab.
	Member of Senate of NITC
Dr. N Sankar	Chairman examination vigilance committee
	Member in many of the Doctoral Committees
	Coordinator of M.Tech programme in Environmental Geotechnology
	I/C of Transportation Engineering Laboratory
	Head, Centre for Transportation Research
	Member of Senate of NITC
	Coordinator of M.Tech programme in Traffic and Transportation planning
	Coordinator, State Technical Agency, Pradhan Mantri Gram Sadak Yojana,
Dr. M.V.I. B. Anjonoviulu	National Rural Roads Development Agency
Dr. M V L R Anjaneyulu	Member, Advisory Committee, Centre of Excellence in Transportation
	Engineering, National Institute of Technology, Trichy
	Member (AICTE Nominee), Board of Governors, Government Engineering
	College Wayanad
	Member, Consultative Committee, Transportation Research Centre, College of
	Engineering, Trivandrum
Cui I/ Casasandana	I/C of Geotechnical Engineering Lab assistant
Sri. K Saseendarn	Department Secretary
	Member of Senate of NITC
<b>D M</b> 1	Member of the Library Advisory Committee of NITC
Dr. Mohammed Ameen	Member in many of the Doctoral Committees
	Faculty Advisor for Civil batch 2010
	Coordinator, Centre for Continuing Education
	Member of Senate of NITC
Dr. P V Indira	Member of Genate of Nation     Member in many of the Doctoral Committees
Z v mana	Faculty adviser for students of B.Tech (Civil) 2011 Admission
	PhD Programme Coordinator of the Department
	Dean (Academic)
	President of Civil Engineering Association     I/C Offebore Engineering Lab
Dr. A P Shashikala	<ul> <li>I/C Offshore Engineering Lab</li> <li>Member of Senate of NITC</li> </ul>
DI. A F SHASHIKAIA	
	PG Programme Coordinator 2014 Admissions     Fourth advisor for students of B Took (Civil) 2010 8 2014 Admission
	Faculty adviser for students of B.Tech (Civil) 2010 & 2014Admission     Marshar in many of the Pasteral Committees, PCC, PRC
	Member in many of the Doctoral Committees, DCC, DPC
	Head, Centre for Bio-Mechanics
	Adviser, (WS & FS, Weaker students & Foreign Students), NITC
Dr. T M Madhavan Pillai	Coordinator SC/ST cell of the Institute, NITC
	Programme co-ordinator, M.Tech (Structural Engg.), 2014 admission
	Member of Senate of NITC
	Departmental information facilitation in-charge for Annual Report etc

	<ul> <li>Faculty Advisor for Civil batch 2011</li> <li>Co ordinator – Department Consultancy projects</li> <li>Member of Building Works Technical Advisory Committee (BWTAC) of the Institute since 25/05/2012</li> </ul>
Dr. Santosh G Thampi	<ul> <li>I/C of water resources engineering lab assistant</li> <li>Department Co ordinator – World Bank Scheme TEQIP Committee</li> <li>Board of Examiners (PG), Water Resources Engineering, Bangalore University</li> <li>Member in many of the Doctoral Committees</li> <li>Reviewer of International Journal for Numerical Methods in Fluids</li> <li>Reviewer of International Journal Special Topics and Reviews in Porous Media</li> </ul>
Dr. K Sasikumar	<ul> <li>Faculty adviser for students of B.Tech (Civil) 2012 admissions</li> <li>I/C of Survey Lab.</li> </ul>
Dr. Sajith A S	<ul> <li>Associate Dean (SW) from December 2013.</li> <li>Faculty Adviser 2012 Admissions (Civil)</li> <li>Lab in charge UG CAD Lab, CED</li> <li>Co-cordinator, Dept. consultancy prijects</li> <li>Convener, Academic Reforms Committee(ARC) of NITC</li> </ul>
Dr. Praveen Nagarajan	<ul> <li>I/C teaching aids/class rooms</li> <li>Faculty adviser for students of B.Tech (Civil) 2012 Admissions</li> <li>Data base preparation of Alumini</li> <li>I/C of Examination</li> </ul>
Dr. George K Varghese	<ul> <li>Faculty adviser for students of B.Tech (Civil) 2011 Admission</li> <li>Programme coordinator, NSS Cell</li> <li>Lab-in charge, Environmental Engineering Lab</li> <li>Warden, A Hostel</li> <li>Member, Anti-Ragging Empowered Committee</li> <li>Secretary, NITC Nursery Managing Committee</li> <li>Faculty Convenor, Tathva-14</li> <li>Member, Spring Valley School Managing Committee</li> </ul>
Dr. Harikrishna M	<ul> <li>Deputy Chairperson, UG Admissions, NITC.</li> <li>Assistance to Faculty i/c in Time table and Room allotment - 01-08-2012 to date</li> <li>Member – Institute level Anti-ragging Empowered Committee, NIT Calicut</li> <li>Faculty Advisor 2012 Admission batch</li> <li>Faculty Co-ordinator - Student Guidance Cell- NIT Calicut – November 26, 2013- till date</li> <li>Staff Editor, Institute Magazine – September 2013 – till date</li> <li>Member, Central Library Advisory Committee</li> <li>Nodal Officer for Equity Action Plan of TEQIP- Phase – II</li> </ul>
Ms.Chitra N R	Warden for Ladies Hostel     I/C of drawing office
Dr. Vinu Palissery	<ul><li>Faculty Adviser, 2013 Admission (Civil)</li><li>Lab-in-charge, Structures/SM/Concrete lab</li></ul>
Dr. K Rangaswamy	<ul> <li>Faculty Advisor – 2010 admission</li> <li>I/C of Geotechnical Engineering Lab</li> </ul>
Executive Engineer (I/C), NIT Calicut ( till August 2014)     Associate Dean (P&D), August 2014- till date     Programme Coordinator, M.Tech Traffic And Transportation Planning, Batch     Faculty Advisor, First Year B.Tech Civil, 2014 batch	
Sri. M Sivakumar	Faculty Advisor for Civil batch 2011
Dr. Mini Ramanan	Faculty Advisor for Civil batch 2012
Dr. D Sathish Kumar	Faculty Advisor for Civil batch 2011     Vice-President of Civil Engineering Association
Dr. Pramada S K	<ul> <li>Faculty Advisor for Civil batch 2012</li> <li>I/C of Seminar Labrary</li> <li>i/c Exam -Second i/c</li> <li>Warden-LH</li> </ul>

# (d) Conferences/Summer/Winter Schools/ Short term Courses/Workshops Conducted:

SI No	Name of Staff	Title of the Programme	Organisation
1	Dr. Harikrishna M Dr. M V L R Anjaneyulu	Short term programme on 'Road Traffic Engineering – Principles and Applications (RTE-P&A)'	Centre for Transportation Research, CED at National Institute of Technology Calicut from December 01 - December 05, 2014
2	Dr. Harikrishna M Dr. M V L R Anjaneyulu	Programme on 'Surveying with Total Station and GPS'	Centre for Transportation research, CED, CED at National Institute of Technology Calicut from April 28 - April 30, 2014
3	Sri. M Sivakumar Dr. M V L R Anjaneyulu	Three day workshop on "Rural Roads: Material Testing & Evaluation"	NIT Calicut, November 13 – 15, 2014
4	Sri. M Sivakumar Dr. M V L R Anjaneyulu	Three day workshop on "Rural Roads: Material Testing & Evaluation"	NIT Calicut, February 23 – 25, 2015
5	Dr. Pramada S K	A three day training programme on "3D Groundwater flow and Contaminant Transport Modeling"	05-07 May 2014, NIT Calicut (sponsored by TEQIP II)
6	Dr. Sajith A S and Dr T.M.Madhavan Pillai	International National Workshop(One Day) on Smart Materials & Structrues.	Novermber 2014 under the aegis of TEQIP, IITM and Science Foundation of Ireland & University College Cork, Ireland
7	Dr. Praveen Nagarajan Dr. A P Shashikala	Analysis and Design of Prestressed Concrete Structures as per IS 1343: 2012 (ADPC),	NIT Calicut, 06-12 July 2014
8	Dr. A P Shashikala	National Conference on Technological Innovations for Sustainable Infrastructure	13-14 March 2015, NIT Calicut
9	Dr. George K Varghese	Short Term Training Programme on 'Environmental Forensics'	Jointly with IIT Delhi during July 6-12, 2014
10	Dr. M V L R Anjaneyulu	2 day training programme on "Alternative Materials & New Technologies for Rural Road Construction"	NIT Calicut, April 10-11, 2015
11	Dr. K. Rangaswamy	MHRD-TEQIP sponsored FDP on "Dynamics of Soils & Foundations" during	26 <sup>th</sup> to 31 <sup>st</sup> May 2014 at NITC.
12	Dr. M V L R Anjaneyulu	One day workshop on "Preparation of DRRP"	May 23, 2014 at NIT Calicut
13	Dr. M V L R Anjaneyulu	Colloquium on "Transportation Systems Engineering & Management"	May 12-13, 2014 at NIT Calicut

# (e) Expert Lectures delivered in Conferences/Seminars/Workshops

SI. No	Name of Staff	Title of the Programme	Organisation
1	Dr. Harikrishna M	"Discrete Choice Methods" in Short term Programme on 'Recent Advances in Traffic Engineering and Transportation Planning (RATE&TP)'	Malnad College of Engineering, Hassan, Karnataka from December 13, 2014
2	Dr. Harikrishna M	"Modelling with Stated and Revealed Preference Information" in Short term Programme on 'Recent Advances in Traffic Engineering and Transportation Planning (RATE&TP)'	Malnad College of Engineering, Hassan, Karnataka from December 13, 2014
3	Dr. Harikrishna M	"Statistical Applications in Traffic Engineering" in Short term Programme on 'Road Traffic Engineering – Principles and Applications'	National Institute of Technology Calicut from December 01 – December 05, 2014
4	Dr. Harikrishna M	"Accident Studies" in Short term Programme on 'Road Traffic Engineering – Principles and Applications'	National Institute of Technology Calicut from December 01 – December 05, 2014
5	Dr. Harikrishna M	"Introduction to Total Station" in Training Programme on 'Surveying with Total Station and GPS'	National Institute of Technology Calicut from April 28 –30, 2014

		"Factors influencing Road Safety" in		
6	Dr. Harikrishna M	Training Programme on 'Road Safety and Audit'	National Institute of Technology Calicut from March 4 –5, 2014	
7	Dr. K.Krishnamurthy	Short term training Programme on "Road Traffic Engineering Principles and Applications", NIT Calicut	December 01-05, 2014	
8	Dr. K.Krishnamurthy	Faculty Development Programme on "Recent Advances in Civil Engineering", College of Engineering, Vadakara	January 06-10, 2015	
9	Dr. Sajith A S	An expert lecture in various topics in Engineering Mechanics.	Viswajyothi Engineering College, Vazhakkulam	
10	Dr. N Ganesan	Keynote lecture on Shear Wall Structures in the AICTE sponsored short term course on Emerging Trends in Construction and Maintenance of Structures	16 <sup>th</sup> March 2015 at TKM College of Engineering, Kollam	
11	Dr. N Ganesan	Keynote lecture on Design of Ferrocement Structures at the National Seminar on Advances in Structural Engineering	13 <sup>th</sup> January 2015 at Mar Baselios College of Engineering and Technology Trivandrum	
12	Dr. N Ganesan	Talk on Forensic Engineering and Rehabilitation of RCC Structures under Distress in the Faculty Development Programme on Recent Advances in Civil Engineering	6 <sup>th</sup> January 2015 at College of Engineering Vadakara	
13	Dr. George K Varghese	"Total Station Surveying" at Centre of Excellence in Transportation Research in the workshop on Surveying with Total Station and GPS	28 <sup>th</sup> April 2014, Civil Engineering Department, NIT Calicut	
14	Dr. George K Varghese	" MT3DMS" in the workshop on 3D- Groundwater Flow and Contaminant Transport Model	5 <sup>th</sup> May 2014, Civil Engineering Department, NIT Calicut	
15	Dr. George K Varghese	"Environmental Forensics" in the FDP on Emerging Trends in Chemical and Environmental Engineering	5 <sup>th</sup> July 2014, Chemical Engineering Department, NIT Calicut	
16	Dr.George K Varghese	"Environmental Forensic Techniques- An overview" in the STTP on Environmental Forensics	7 <sup>th</sup> July, 2014, Civil Engineering Department, NIT Calicut	
17	Dr.George K Varghese	"Environmental Forensic investigation of contaminated groundwater sites" in the STTP on Environmental Forensics	11 <sup>th</sup> July, 2014, Civil Engineering Department, NIT Calicut	
18	Dr.George K Varghese	"Collection, Conveyance and Distribution of Water" in the training programme on Water Supply and Sanitation	8 <sup>th</sup> October 2014, CWRDM Kozhikode i	
19	Dr.George K Varghese	"Environmental Forensics" in the FDP on Recent Advances in Civil Engg	7 <sup>th</sup> January, 2015, College of Engineering Vadakara	
20	Dr.George K Varghese	"Total Station Survey through Case Studies" in the three day workshop on 'Total Station- Theory and Practise'	28 <sup>th</sup> February, 2015, Jyothi Engineering College, Cheruthuruthy	
21	Dr. K. Rangaswamy	"Soil liquefaction during earthquakes" and "Liquefaction mitigation methods" in FDP on "Recent advances in Civil Engineering"	College of Engineering, Vadakara from 6 <sup>th</sup> to 10 <sup>th</sup> January 2015	
22	Dr. K. Rangaswamy	Chaired a session on "Soil characterization and Instrumentation in Geotechnical Engineering" in the National conference "Innovations and Challenges in Geotechnical Engg.	5 <sup>th</sup> December 2014 at IES College of Engineering, Chittilappilly	
23	Dr. K. Rangaswamy	"Dynamics of Soils & Foundations" during are: (1) Soil Liquefaction (2) Liquefaction mitigation methods (3) Earthquake induced settlements and (4) GRA using proshake software.	26 <sup>th</sup> to 31 <sup>st</sup> May 2014, NITC, Calicut	

24	Dr. MVLR Anjaneyulu	Chaired the Technical Session on "Transportation Engineering", 15 <sup>th</sup> National Conference on Technological Trends	College of Engineering, Trivandrum, August 22-23, 2014
25	Dr. MVLR Anjaneyulu	Delivered an expert lecture on "GPS – An Overview" at "Advanced Surveying using Total Station"	Department of Civil Engineering, Government Engineering College, Kozhikode, September 25-27, 2014
26	Dr. MVLR Anjaneyulu	Chaired the Technical Session on "Pavement" at Transportation Planning and Implementation Methodologies for Developing Countries	TPMDC 2014, IIT Bombay, 10-12 December 2014
27	Dr. MVLR Anjaneyulu	Delivered an expert lecture on "GPS – An Overview" at "Total Station Survey - Theory and Practice"	Department of Civil Engineering, Jyothi Engineering College, Thrissur, February 26 – 28, 2015

# (f) Details of Faculty, who acquired Higher Qualification:

Sri. George K Varghese: Doctor of Phylosophy, Indian Institute of Technology DelhiPost Graduate Diploma in Environmental Law from National law School of India University

# (g) Consultancy and testing

SI. No.	Client/Organisation	Revenue Earned (INR`)	Status
1	The Executive Engineer (PMGSY), PAU, District Panchayath, Kozhikode Civil Station, Kozhikode - 20.	400000	On going
2	GVHSS Thamarassery, Kozhikode-673573.	8427	Completed
3	Uralungal Labour Contract Co-op.Society Ltd., No.10957, Madapally College-PO, Vatakara	11236	Completed
4	Uralungal Labour Contract Co-op.Society Ltd., No.10957, Madapally College-PO, Vatakara	11236	On going
5	Uralungal Labour Contract Co-op.Society Ltd., No.10957, Madapally College-PO, Vatakara	11236	Completed
6	Railway contractor, Moothedath (H), Mannoor	56180	Completed
7	The Guruvayoor Devaswom Managing Committee, Guruvayoor - 680 101	11236	Completed
8	The Secretary Silver Gardens Residents Association, Vengeri PO, Kannadikkal, Kozhikode- 673010	56180	Completed
9	Total amount for consultancy carried out during 2014-2015	5,65,730	
10	Total amount for testing carried out during 2014-2015	7,77,870	Completed
Grand	Total	13,43,600	

# (h) Participation in Conferences/Seminars/Workshops/other Training programmes

SI. No	Name of Faculty	Title of the Programme	Duration and Period	Organisation
1	Dr. Harikrishna M	AICTE sponsored Curriculum Development Workshop on 'Self- Awareness and Higher Goals in Education', organised by the Centre for Continuing Education	June 02 - 06, 2014	Indian Institute Of Technology Madras, Chennai,
2	Dr. K Krishnamurthy	Faculty Development Programme on Advanced Pedagogy Training" for NIT Calicut	December 22-24, 2014	Teaching Learning Centre, IIT Madras
3	Dr. Pramada.S.K	QIP short term course on "Hydro- climatic Modeling and Climate Change Impacts Assesment"	June 30-July 4, 2014	IIT Bombay
4	Dr. Pramada.S.K	TEQIP sponsored Faculty development programme	20-22 <sup>nd</sup> Oct 2014	Teaching Learning Centre, IIT Madras,
5	Dr. Pramada.S.K	Two day workshop on "Introductory SWAT"	26-27 <sup>th</sup> Dec 2014	Department of Civil Engineering IIT Hyderabad
6	Dr. Pramada.S.K	International Conference onModeling Tools for Sustainable Water Resources Management	28-29 December 2014	Department of Civil Engineering, Indian Institute of

				Technology
				Hyderabad
7	Dr. Pramada.S.K	International conference on water resources, coastal and ocean engineering	12-14 March 2015	Department of Civil Engineering, NITK, Surathkal, Karnataka
8	Ms.Chitra N R	19 <sup>th</sup> International Association for Hydro-Environment Engineering and Research	21-24 September 2014	Asian and Pacific regional Division (IAHR-APD) Congress, Hanoi, Vietnam.
9	Ms.Chitra N R	International Conference on Water Resources, Coastal and Ocean Engineering	12 – 14 March 2015	NIT Suratkal
10	Ms.Chitra N R	AICTE sponsored one week QIP short term course on Hydro-climatic modeling and climate change impacts assessment	June 30 – July 4, 2014	IIT Bombay
11	Ms.Chitra N R	MHRD and TEQIP-II sponsored Faculty Development Programme on Dynamics of Soil and Foundations	26 – 31 May, 2014	Department of Civil Engineering, NIT Calicut
12	Dr. A P Shashikala	1 day Workshop on Smart Materials & Structures	28 <sup>th</sup> November	Department of Civil Engineering, National Institute of Technology Calicut
13	Dr. A P Shashikala	Faculty Development Programme	20-22 October 2014	Teaching Learning Centre, IIT Madras
14	Dr. A P Shashikala	Management Development Programme on Academic Leadership	27 February to 1 March 2014	Indian Institute of Management Kozhikode
15	Dr. George K Varghese	'International Perspectives on Quantitative Microbial Risk Assessment'	March 21 <sup>st</sup> 2015 to March 27 <sup>th</sup> , 2015	Indian Institute of Public Health, Hyderabad, India
16	Dr. M.VL.R.Anjaneyulu	Colloquium on "Transportation Systems Engineering & Management"	May 12-13, 2014	Centre for Transportation Research, Civil Engineering Department, NITC
17	Dr. M.VL.R.Anjaneyulu	11 <sup>th</sup> TPMDC (Transportation Planning and Implementation Methodologies for Developing Countries)	10-12 December 2014	IIT Bombay, Mumbai
18	Dr. M.VL.R.Anjaneyulu	75 <sup>th</sup> (Platinum Jubilee) Annual session of Indian Roads Congress	January 18-22, 2015,	IRC, Bhubaneswar

# **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

# a. Publications

# i. Journal

SI No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p.
1	Saleena N, Paleri V	An Improved Algorithm for Redundancy Detection Using Global Value Numbering	Journal of Information Processing Systems	Online version
2.	N. S. Narayanaswamy R. Subashini	Obtaining Matrices with the Consecutive Ones Property by Row Deletions	Algorithmica	Volume 71, Number 3,758- 773, March 2015
3	Lijiya.A, Sudheer.K, Govindan V K	Automation of Identifying Abnormal Chromosomes in M-FISH	International Journal of Computer Trends and Technology",	Vol.13,No.1,July,2 014,pp.42

	Ashu Makkar,	A Re-segmentation Algorithm	International Journal of	
4	Lijiya.A, Govindan V.K	for Improved segmentation and classification	Advanced Information Science and Technology,	Vol.32.No.32,Dec ember, 2014
5	Nithin V R, Pranav,M, Sarath Babu PB, Lijiya A	Predicting Movie Success Based on IMDB Data	International Journal of Data Mining and Applications,	Vol.3,pp 365- 368,June,2014
6	Sreenu Naik Bhukya	Service Broker Algorithm for Cloud-Analyst	(IJCSIT) International Journal of Computer Science and Information Technologies,	Vol. 5 (3) , 2014, 3957-3962
7	Sreenu Naik Bhukya	HP-AODV: An Enhanced AODV Routing Protocol for High Mobility MANETs	International Journal of Computer Applications (0975 – 8887)	
8	Sharma, A, V.K.Govindan	Fractal Image Compression using Locality Sensitive Hashing.	International Journal of Engineering Research & Technology (IJERT); www.ijert.org, IJERTV3IS031896, 2014	Vol. 3 (Issue 3):pp.1898-1901, ISSN:2278-0181.
9	Bhatia, S, V.K.Govindan.	Combined Linear And Nonlinear Image Enhancement.	(IJCSIT) International Journal of Computer Science and Information Technologies.	Vol. 5 (3):3370-337.
10	Bali, R, Govindan.V. K.	An Efficient Block Matching Algorithm for Fast Motion Estimation Using Combined Simple and Efficient Search (SES) and Three Step Search(TSS) Algorithm	International Journal of Engineering Research & Technology (IJERT).	
11	Jose, J, V.K Govindan	Image Reconstruction from Projections using Triangular Linear System of Equations.	International Journal of Engineering Research & Technology (IJERT).	Vol. 3(Issue 1):ISSN:2278-0181.
12	Chouhan, P S, V. K. Govindan.	Localization of License Plate using Characteristics of Alphanumeric Characters. (IJCSIT)	International Journal of Computer Science and Information Technologies.	Vol. 5 (3):3407-3409
13	Bali, R, Govindan.V.K.	Optimising Block Matching Algorithms By Redundancy Removal For Fast Motion Estimation.	International Journal of Engineering Research & Technology (IJERT).	Vol. 3(Issue5): ISSN:2278-0181.
14	P. N.Maddaiah, P .N.Pournami, V.K.Govindan.	Optimization of Image Registration for Medical Image Analysis.	International Journal of Computer Science and Information Technologies (IJCSIT).	Vol. 5 (3):pp.3394- 3398.
15	Behera, M, V.K .Govindan.	Palm print Authentication Using PCA Technique, (IJCSIT)_	International Journal of Computer Science and Information Technologies.	Vol. 5 (3):3638-3640
16	Rejathalal, V, Mandalapu SB, V.K.Govindan.	Sparse Representation Based Classification Of MR Images Of Brain For Alzheimer's Disease Diagnosispp. 741-745, eISSN: 2319-116.	IJRET: International Journal of Research in Engineering and Technology.	pp.741745,e ISSN:2319-116.
17	M.Venkatesh, Govindan.V.K	Super Resolution Image Reconstruction using Geometric Registration.	(IJCSIT) International Journal of Computer Science and Information Technologies.	Vol. 5 (3):3641- 364.
18	Govindan.V.K, Jereesh.A.S.	Two weight matrix model based GNET reconstruction using clonal algorithm	Journal of advanced bioinformatics application and research.	vol 5, ISSN 0976- 2604(2):121-133.
19	B.Sriharsha, P N.Pournami, Govindan V K.	B-spline Non Rigid Image Registration using L-BFGS Optimizer	International Journal of Computer Science and Information Technologies.	Vol. 5 (3) :3813- 381.

# ii. International Conference

SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Nishamol P H and Gopakumar G	Importance of Integrating Polypharmacological Paradigm in Multi-target Drug Design – A Review	14 <sup>th</sup> International Conference on Hybrid Intelligent Systems	Dec 14-16, 2014
2	Nishamol P H and Gopakumar G	Multi-target Drug Discovery Using System Polypharmacology-State of the Art	IEEE International Conferer on Signal Processing, Informatics,Communication and Energy Systems 2015	Feb 19-21, 2015
3	Jimmy Jose, Sourav Das, d Dipanwita Roy Chowdhury	Inapplicability of Fault Attacks against Trivium on a Cellular Automata Based Stream Cipher	ACRI 2014	LNCS 8751, 2014, pp. 427-436
4	Ganesh Babu, Shabeer TP, MadhuKumar S D.	Dynamic Colocation Algorithm For Hadoop,	Informatics (ICACCI-2014). Noida, New Delhi	
5	Anita, BM, Priyabrat P, MadhuKumar SD.	Efficient Information Retrieval using Lucene, LIndex and HIndex in Hadoop,	11th ACS/IEEE Internationa Conference on Computer Systems and Applications (AICCSA' 2014)., Doha	
6	N.S. Narayanaswamy R. Subashini	FPT Algorithms for Consecutive Ones Submatrix Problems	Leturce Notes in Computer Science 8246, Springer 2013, IPEC 2013	295-307, 2013
7	Sreenu Naik Bhukya	HP-AODV: An Enhanced AODV Routing Protocol for High Mobility MANETs	Fourth International Conference On Advanced Computing &Communication Technologies For High Performance Applications	0975 – 8887
8	Shabana K M, AbdulNazeer KA, Meeta Pradhan, Mathew J Palakal	A Computational Method for Drug Repositioning using Publicly Available Gene Expression Data.	4th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS-2014). Florida, USA	
9	Christina, J, AbdulNazeer KA. 2014.	An Improved ICPACA based K-means algorithm with Self determined centroids.	International Conference on Data Science and Engineering (ICDSE). , CUSAT, Kochi	
10	Sreekala, S, AbdulNazeer KA.	A Literature Search Tool for Identifying Disease-associated Genes using Hidden Markov Mod	International Conference on Computational Systems and	
11	Arunanand, TA, Abdul Nazeer K A.	A Nature-inspired Hybrid Fuzzy C-Means Algorithm for Better Clustering of Biological Data Sets.	International Conference on Data Science and Engineering (ICDSE). , CUSAT, Kochi.	
12	Manish Parashar, Umesh Bellur, S.D Madhu Kumar, Priya Chandran, Murali Krishnan, Kamesh Madduri, Sushil K. Prasad, C. Chandra Sekhar, Nanjangud C. Narendra, Carlos Valera, Sanjay Chaudhary, Kavi Arya, Xiaolin Li (Eds.)	Conference Proceedings	Seventh International Conference on Contemporary Computing, {IC3} 2014, Noida, India, August 7-9, 2014. : {IEEE}	
13	Abin J G, Gopakumar G, Pradhan M, AbdulNazeer KA,	A Self Organizing Map-Harmony Search Hybrid Algorithm for Clustering Biological Data.	IEEE International Conference on Signal Processing, Informatics,	

	Palakal M		Control and Energy Systems IEEE SPICES) , Calicut, India, 2015	
14	Nimish J, Gopakumar G, Meeta P, AbdulNazeer KA, Palakal M. 2015	Understanding SNP-Gene Associations in Pancreatic Cance A Systems Biology Approach.	IEEE International Conference on Signal Processing, Informatics, Control and Energy Systems (IEEE SOICES), Calicut, India, 2015	
15	Devasia, J, Chandran P.	Towards an Improved Algorithm for Modeling Information Flow in Biological Networks,	ACCIS 2014. , Kollam, Kerala, India	
16	Jithin, R, Chandran P	Virtual Machine Isolation – A Survey on the Security of Virtual Machines	The Second International Conference on Security in Computer Networks and Distributed Systems (SNDS-2014)., Thiruvananthapuram (Trivandrum), India	

## iii . National Conference

# b. Community Services

- Collaborated with NIRAVU, a Calicut based Residential Forum excelling in the field of Organic farming, for the formation of an Information Technology initiative named IT@NIRAVU. The objective of IT@NIRAVU is to bring the fruits of Information Technology to the door steps of the common man.
- Organized a Workshop on 'Android Applications Development' for the rural youth, in collaboration with NIRAVU.

# c. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services	
Dr. K A Abdul Nazeer	Institute Level:  (i) Associate Dean (Academic)  (ii) Administrative responsibility for CNC/CCC (as HoD, CSED)  (iii) Convener, Screening Committee for Student Research Projects (for the award of financial assistance under TEQIP)  Dept. Level:  (i) Head of the Department  (ii) Faculty in charge, Computational Intelligence Lab  (iii) Faculty in charge, Biocomputing Research Lab  (iv) Faculty Adviser, M. Tech (CSE)	
Dr. Govindan V K	Institute Level:  (i) Dean(Academic) (ii) Member-Senate (iii) BOAC Chairman, (iv) PTA President (v) IEEE SPICES Track Chair  Dept. Level:  Faculty-in charge of Image Processing and Multimedia Lab	
Dr. Vineeth Paleri	Institute Level:  (a) Member, Board of Governors, NIT Calicut.  (b) Secretary, Technology Business Incubator, NIT Calicut.  Dept. Level:  (i) Faculty in charge, NBA Accreditation  (ii) Faculty Adviser, Ph.D.and B.Tech Final Year  (iii) Faculty in charge Examinations  (iv) Programme Co-ordinator Ph.D.	

	(v) In-charge of Faculty research (vi) Faculty in charge of Institute Website and CSED Website
	Programme Co-ordinator, M. Tech(CSE) and M. Tech(CSE(IS)), Member of Senate Chairperson/ Member of several doctoral committees.
	Dept. Level:
Dr Priya Chandran	(i) Faculty Adviser, B.Tech IV th Year  (ii) Faculty in charge, Cloud Computing Lab  (iii) Faculty in charge Secure Computing Lab  (iv) Programme Co-ordinator M.Tech (CS) and CS(IS)  (v) In-charge of Faculty research  (vi) Faculty in charge of Academic calendar Monitor  (vii) IEEE SPICES Track Chair
Dr. S.D Madhu Kumar	Member-Institute Research Committee and PTA SecretaryVice Chair- ACM Trivandrum Professional ChapterIEEE Malabar Subsection- Publications and Web Support ChairACM DEBS 2014- Publicity Co-chairACM SAC 2014 Cloud Computing Track co-chairIEEE International Conference- Recent Advances in Intelligent Computing Systems(RAICS 2013)- Big Data Track co-chairNational Conference on Emerging Trends in computing (NCETIC 13)- Advisery CommitteeADCONS'13 NITK- TPC MemberInternational Workshop on Service- Oriented Architecture and Cloud Computing (SOAC-2013)- Program ChairACM Goa Workshop on software Engineering- TPC memberInternational workshop on Virtualization and Cloud Computing (IWVCC 2014)-TPCMember Organizing Chair, IEEE SPICES Conference-2015.
Dr. Muralikrishnan K	(i) Faculty Adviser, II Year B.Tech. (ii) Faculty in charge, Examinations (iii) B.Tech Programme Coordinator
Dr. Vinod Pathari	Institute Level:  Vice Chairman, Education Technology and Library  Dept. Level:  i. Faculty Adviser, MCA Final Year  ii. Faculty in charge, Student Project Archive  iii. Faculty in charge, Purchase Matters  iv. In-charge of Faculty research  v. Faculty in charge, Technical Report Publishing  vi. Faculty in charge, Software Systems Laboratory
Mr. Saidalavi Kalady	i. Faculty in charge, Examinations ii. Hostel Warden iii. Faculty in charge, Hardware and Embedded Systems Lab iv. Faculty Adviser, M.Tech
Ms. Saleena N	Faculty Adviser, B.Tech III Year     ii. Faculty In-Charge of examinations
Dr. Subashini R	i. IEEE SPICES Track Co-chair ii. Faculty Adviser, I Year B.Tech. iii. Faculty in charge, NITC-TCS Academic Interface Programme iv. Faculty in charge, Dept. Time Table
Ms. Lijiya.A	<ul> <li>i. Faculty Adviser of Final Year B.Tech.</li> <li>ii. Faculty In-Charge of CSEA</li> <li>iii. Faculty In-Charge of Class rooms</li> <li>iv. Placement Committee Representative</li> <li>v. Faculty In-Charge of Short Term Courses</li> </ul>
Ms. Anu Mary Chacko	(i) Faculty Adviser, II Year B.Tech. (ii) Secretary, Department Consultative Committee
Dr. Sudeep K S	<ul> <li>(i) Faculty Adviser, MCA IInd Year</li> <li>(ii) Faculty-in charge of DSS</li> <li>(iii) Programme Co-ordinator MCA</li> <li>(iv) In-charge of Faculty research</li> <li>(v) In-charge of Consultancy</li> </ul>
Mr. Sreenu Naik Bhukya	(i) PG1 Hostel Warden & Faculty Adviser of B.Tech II Year
Ms. Pournami P.N.	(i) Faculty Adviser, MCA II rd Year (ii) Faculty-in charge of Image Processing and Multimedia Lab

Dr. Gopakumar G	<ul> <li>(i) Faculty in Charge, Campus Networking Centre</li> <li>(ii) Faculty Adviser, B.Tech I Year</li> <li>(iii) Faculty-in charge of Bio-Computing Lab</li> <li>(iv) TEQIP Dept. Coordinator</li> <li>(v) Faculty-in charge of CSED LAN</li> <li>(vi) IEEE SPICES Track Co-chair</li> </ul>
Mr. Jayaraj P B	<ul><li>(i) Faculty in Charge of Central Computer Centre</li><li>(ii) Faculty in Charge of Network Systems Lab</li></ul>

#### b. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI. No	Title	Coordinators	Duration & Period
1	IFI)P on Advanced (Ingrating Systems	Dr.V.K Govindan Mr. Saidalavi Kaladi	One week
2	3	Dr.V.K Govindan Ms. Lijiya.A	23-28,June,2014 One week

#### c. Expert lecturers delivered in Conferences/Seminar/workshops

SI. No.	Name of Staff	Title of the Programme	Duration and Period
1	Ms. Lijiya.A	FDP on Pattern Recognition and Machine Learning, NIT Calicut	23-28, June,2014 (Delivered one Lecture)
2	Dr. K. A Abdul Nazeer	FDP on Pattern Recognition     and Machine Learning, NIT Calicut     Talk on "Novel and Enhanced Clustering     Algorithms for Bioinformatics and Data Analysis" at the National Conference on Computational	23-28, June,2014 (Delivered one Lecture)
		Linguistics and Information Retrieval, held at Government Engineering College, Sreekrishnapuram	December 2015
3	Mr. Jimmy Jose	Presented a paper on "Inapplicability of Fault Attacks against Trivium on a Cellular Automata Based Stream Cipher" in the International Conference on Cellular Automata for Research and Industry held at Poland	September 2014
4	Dr S. D. Madhu Kumar	Cloud Computing, Big Data and Cloud Data Bases - Challenges and Opprtunities. Invited Talk for the International Conference on Advances in Computing, Communications and Information Science (ACCIS-14),	June 2014
5	Dr Priya Chandran	Cloud Security. Invited Talk for the International Conference on Advances in Computing, Communications and Information Science (ACCIS-14),	June 2014
6	Mr. Saidalavi Kalady	Talk on 'Advanced Computer Architecture', Govt EngineeringCollege, Kannur     Talk on 'Virtual Machine Monitor' at Unity College Manjeri, Kerala.	July 2014 January 2015
7	Dr. Gopakumar G	An Invited Lecture on 'Classification Techniques in Data Mining' at Govt. Engineering College, Kannur, Kerala.	2015
		An Invited Lecture on Data Mining at RIT, Govt.     Engineering College, Kottayam, Kerala	2015

<sup>(</sup>f) Details of Faculty, who acquired Higher Qualification:-

Ms. Subashini R, Assistant Professor, CSED was awarded PhD from IIT Madras.

- (g) Consultancy and testing: NIL
- (h) Patents acquired and filed: NIL
- (i) Student achievements:

A group of B.Tech students (Mevin M Dominic, Karun Thankachan and Anup Kumar) secured first prize for paper presentation in SAVISHKAR, a Technical fest organized by MANIT, Bhopal.

# **DEPARTMENT OF ELECTRICAL ENGINEERING**

## a. Publications

#### i. Journal

SI. No	Name of the Author	Title of paper	Name of Journal / Int. Conference/ National Conference	Publication Details
1	P. Preethaand Joy Thomas M.	"Life Estimation of Epoxy Nanocomposites"	IEEE Transactions on Dielectrics and Electrical Insulation	Vol 21, No. 3, pp. 1154-1160, June 2014.
2	M K Sajina &P Preetha,	"Analysis of Grid Connected System With Two Interconnected Microgrids"	International Journal of Electrical and Electronic Engineering & Telecommunications	Vol. 3, Issue 4, pp. 1- 13,October 2014.
3	Oliver Faust, AngPengChuan Alvin, Subha D Puthankattil, Paul K Joseph	Depression Diagnosis Support System based on EEG signal entropies	InternationalJournal of Mechanics in Medicine and Biology	vol.14, No.3 (2014) 1450035.
4	Subha D.P., Paul K.Joseph	Analysis of EEG signals using Wavelet entropy and Approximate entropy: A case study on depression patients	International Journal of Medical, Health, Pharmaceutical and Biomedical Engineering	Vol:8 No:7, 2014, pp.414-418.
5	Surya S Nair, Paul Joseph K,	"Chaotic analysis of electroretinographic signal for diagnosis"	Biomed Research International	14(2014).
6	Surya S Nair, Paul Joseph K,	"Wavelet based electroretinographic signal analysis for diagnosis"	BSPC	9(2014)37-44.
7	Ismayil C, Sreeramakumar R, Sindhu T K	Optimal fractional order PID controller for automatic generation control of two area power system	International transactions on electrical energy systems, Wiley	Vol.25, Issue 5, Dec 2014
8	Siny Paul, Sindhu T K	Synthesis and characterisation of Epoxy aluminum nanocomposite for energy storage applications	IEEE transactions on dielectric and electrical applications	Vol. 21, No.5, October 2014
9	M.Pala Prasad JeevmmaJacob,	"Accurate Modeling and Nonlinear Finite Element Analysis of aFlexible-Link Manipulator,"	International Journal of Mechanical, Industrial Science and Engineering,	vol. 8, No. 1,pp. 174– 179, 2014.
10	Sithara M, Mukti Barai,	A Hybrid Model of Switch Mode Converter for Low power AC-DC Voltage Applications",	Proceedings of the 21st IEEE International Conference on Electronics Circuits & Systems, Marseille, France from December 7-10, 2014.	"DOI: 10.1109/ICECS.2014. 7050062, 2014, pp 622 – 625
11	Gugulothamesh T.K.Sunil Kumar,	"Optimal Dispatch of Real Power Generation using Classical Methods"	International Journal of Electronic and Electrical Engineering	Vol.3, No.2, pp.115- 20, April 2015.
12	Suresh K. Damodaran, T. K. Sunil Kumar,	"Optimal Environmental Economic Dispatch Using a Classical Technique,"	International Review of Automatic Control IREACO	Vol. 7, No. 3 (2014)
13	Mary ReenaK.E, Abraham T Mathew, and Lillykutty Jacob.	"Model Prediction Algorithm and Co- Design of Time Delayed Networked Control Systems"	Journal of Unmanned System Technology	UNSYS Digital, Vol. 2, No. 3, December 2014,pp. 125-134.
14	V. Shijoh and M. V. Vaidyan	ANN Approach for State Estimation of Hybrid Systems and Its Experimental Validation.	Journal of Mathematical Problems in Engineering	Volume 2015 (2015), pp. 1-13

15	T. Ananthan and M. V. Vaidyan,	"An FPGA based parallel architecture for online parameter estimation using the RLS identification algorithm"	Journal of Microprocessors and Microsystems(Elsevier)	Volume 38, Issue 5, July 2014, pp.496–508
16	Sujo P. George and Ashok S.	Coordination Issues in Over Current Relays due to Wind Farm Penetration	International Journal of Scientific & Engineering Research	Volume 6, Issue 5, pp. 325-329, May- 2015
17	Rohit Mathew, Ashok S. &Kumaravel S	Analytical Modeling for Assessing the Impact of DG on Distribution system Reliability	International Journal of Energy Research	Volume 6, Issue 5, pp. 507-512, May- 2015.
18	Ajay Babu and Ashok S.	Improved parallel mild hybrids for urban roads	Journal of Applied Energy	Vol 144, no.4, pp. 276-283, March,2015.
19	Subhadeep Paladhi and Ashok S	Power Quality Improvement of Wind Based DG Systems Using Solid State Transformer	International Journal of Scientific and Engineering Research,	Vol-6, Issue-4, pp. 46-52, April 2015
20	Varghese,Math- ew Vaidyan & Ashok S.	Energy Efficient Scheme For DC Motor Drives In Parameter Uncertainities	International Journal of Power and Energy Conversion, Inderscience,	Vol. 88:5 pp567-572, Sept 2014
21	Ashok S. and Kumarvel S.	Optimal Power Management Controller for a Stand-alone Solar PV/Wind/Battery Hybrid Energy System	International Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental effects,T&F	Issue 4, 2015, Volume 37
22	Rajeev T. and Ashok S	Dynamic Load-Shifting Program based on a cloud computing framework to support the integration of Renewable energy sources	Journal of Applied Energy,	Vol 141, pp. 141-149, February 2015.
23	Sujo P. George and Ashok S.	Power system protection issues due to wind generation farms	International Journal of Innovative Research in Science Engineering and Technology,	Vol. 3, Issue 4, June 2014, pp 11361- 11367.
24	Patil Mounica and Dr.Elizabeth P. Cheriyan	Fault tolerant voltage source converter for HVDC transmission system	International Journal of Engineering and Advanced Technology,(IJEAT)	Vol. 4, Issue 5, June 2015
25	M. P. Nandakumar and K. Dheeraj	An Inverse Optimal Control Approach for the Nonlinear System Design Using ANN	International Journal of Computer, Information, Systems and Control Engineering	International Science Index: Vol. 8, No.6, 2014

# II. International conferences

SI. No	Name of the Author	Title of paper	Name of Journal / Int. Conference/ National Conference	Publication Details
1	Surekha Jonnalagadda, SubhaD.Puthan kattil	Frequency regulation in microgrid by wind turbines operating in MPPT and Deloading modes using droop control characteristic"	1 <sup>st</sup> International Congress on Computer, electronics, Electrical &Communication Engineering ICCECC2014	17-18 March 2014, IPCSIT vol.59, (2014), pp.162-167.
2	K. B. Devika, S. Thomas	"Controller Technique for Robust Conflict Free Sequential Flight Mode Control"	2014 IEEE International Conference on Control Applications (CCA) Part of 2014 IEEE Multi- conference on Systems and Control	October 8-10, 2014, Antibes, France, pp. 2066–2071
3	Sanila P and Dr.Jeevamma Jacob,	"Composite fast-slow MPC design for flexible joint manipulator	Proceedings of the International Conference on Advanced trends in Engineering and Technology FORSCHUNG	Vimal Jyothi Engineering College,Chemberi, Kannur pp. 17-22, March 2014

4	Ambili Mohan and Dr.Jeevamma Jacob,	"Robust controller for twin rotor mimo system using quantitative feedback theory",	Proceedings of the International Conference on Advanced trends in Engineering and Technology FORSCHUNG,	Vimal Jyothi Engineering College,Chemberi, Kannur pp.23-29, March 2014
5	Treasa Sebastian and Dr.Jeevamma Jacob,	"Control of HAVE DASH II Bank- to-turn Missile using a Combination of First Order and Dynamic Sliding Mode Technique",	Proceedings of 2014 IEEE International Conference on Advanced communication, control & Computing Technologies (ICACCCT)	Ramanathapuram, pp.104-110, May 2014.
6	Remya P and Dr.Jeevamma Jacob,	"Static Network Access Scheduling and Stabilization of Two inverted pendulums spring couples networked control system"	Proceedings of 2014 IEEE International Conference on Advanced communication, control & Computing Technologies (ICACCCT)	Ramanathapuram, pp.98-103, May 2014
7	Indu K Namboodiri and Dr.Jeevamma Jacob	"Quantitative Feedback Theory Based Control of Light-Weight Flexible Manipulators	International Conference on Emerging Trends in Technology and Applied Sciences (ICETTAS 2015)	April- May2015
8	Sanila.P and Jeevamma. Jacob	,"Simultaneous Tracking and Vibration Control of Flexible Joint Manipulator using Laguerre Network based Composite Fast- Slow MPC",	IEEE International conference on Signal Processing,Informatics,Co mmunication and Energy Systems	NIT Calicut,India Feb 19-21 2015
_	Meenu Nair, Vivek G, Mukti Barai "	Performance Evaluation of Clamping Position Variation On Advanced Bus Clamping Strategies :Experimental Investigation",	Proceedings of the 11 <sup>th</sup> International Conference on Power Electronics and Drive Systems (PEDS 2015)	Sydney, Australia, 9 – 12 June 2015
10	Meenu Nair, Vivek G, Mukti Barai,	Performance Study of Advanced Discontinuous SVPWM Methods with Zero Changing Angle Variation",	"Proceedings of the IEEE International Conference on Signal Processing, Informatics, Communication & Energy Systems (IEEE SPICES) 2015,	NIT Calicut, February 19-21, 2015
11	Aswini Kumar Muthavarapu , Mukti Barai,	"Performance Analysis of Control and Modulation Methods of Z- source Inverter",	Proceedings of the IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES) 2015,	NIT Calicut, February 19-21, 2015
12	Meenu Nair, Vivek G, Anjana K, Mukti Barai,	A Comparative Investigation Of Various Advanced Bus Clamped Space Vector Pulse Width Modulation (SVPWM) Techniques	Proceedings of the IEEE Energy Conversion Congress and Exposition(ECCE 2014)	Pittsburgh, PA, USA in September 14-18, 2014 2014
14	Nithin Raj , Geore saly , Gagadanand G	Open Transistor Fault Detection in Asymmetric Multilevel Inverter	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems. (IEEE SPICES 2015)	NIT Calicut, February 19-21, 2015
15	Pratheesh K J; Jagadanand G; Rijil Ramchand	Reduced Current Harmonics in the NPC Inverter with a Novel Space Vector PWM	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems. (IEEE SPICES 2015)	NIT Calicut, February 19-21, 2015

16	Jagadanandora Lia Dias	ARM Based Induction Motor Fault Detection Using Wavelet and Support Vector Machine	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems. (IEEE SPICES 2015)	NIT Calicut, February 19-21, 2015
17	Deepthi S Nair; Jagadanand G; George Saly	Analysis of Direct Torque Controlled BLDC Motor with Reduced Torque Ripple	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems. (IEEE SPICES 2015)	NIT Calicut, February 19-21, 2015
18	Deodatta Y. Shingare,. Sunil Kumar T. K.	"Stability of DFIG Stator Voltage Oriented Control Design Based on Internal Model Control,"	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems. (IEEE SPICES 2015)	NIT Calicut, February 19-21, 2015
19	Anju K, Priya N, T.K.Sunil Kumar	Order Diminishing Methods for Interval Systems,"	International Conference on Instrumentation and Control	Royal College of Engineering and Technology Thrissur, 26-28 March 2015.
20	Biju K, Rijil Ramchand	Modeling, simulation and implementation of single phase five level inverter fed from renewable energy sources	ISIE 2014	1-4 June 2014, Istanbul, Turkey
21	Naga Surya Prakash, Rijil Ramchand	Constant Switching Frequency DTC for Induction Motor fed from Two-level Voltage Source Inverter	PEDES-2014,	IIT Mumbai, India, December 16-19, 2014
22	Biju K, Rijil Ramchand	Modeling and Simulation of a Novel Solar PV/ Battery Hybrid Energy System with a Single Phase Five-level Inverter	IEEE SPICES 2015	19-21 February 2015, NIT Calicut, India.
23	Joseph Peter, Rijil Ramchand	A Current Error Space Phasor Based Hysteresis Controller for Voltage Source Inverter Fed Induction Motor Drive	IEEE SPICES 2015	19-21 February 2015, NIT Calicut, India.
24	Sreekanth, M., Abraham T. Mathew, and R. Vijayakumar.	"Rise time based characterization of sub-millimeter SMA helical actuator for sensorless displacement estimation."	6th IEEE International Conference on Automation, Robotics and Applications (ICARA),	Massey University, Queenstown, New Zealand,17-19 February 2015,p343- 347
25	Sreekanth, M., Abraham T. Mathew, and R. Vijayakumar	Biomimetic and unconventional robots using sub-millimeter helical NiTi shape memory alloys: Challenges in deployment and control	IEEE International Conference on Signal Processing, Informatics, Communication & Energy Systems (SPICES 2015)	NIT Calicut, India, 19- 21 February 2015.
26	Mary Reena K.E, Abraham T Mathew, and Lillykutty Jacob.	"Decentralized Controllers for Wireless Networked Building Automation System"	IEEE International Conference on Signal Processing, Informatics, Communication & Energy Systems (SPICES 2015),	NIT Calicut, India, 19- 21 February 2015.
27	Sanjoy Paik, M. P. Nandakumar, S. Ashok	Model Development and Adaptive Control Implementation of a 3-Axis platform Stabilization System	2015 International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials, ICTM, May 2015.	ICSTM 6-8 May, 2015

#### iii. National Conference

SI. No	Name of the Author	Title of paper	Name of Journal / Int. Conference/ National Conference	Publication Details
1	Devika K. B., Susy Thomas	"Controller Design and Robustness Validation of Nonlinear Inverse Dynamic	National Conference on Advances in Aerial/Road vehicle and its	July 18-19, 2014, MIT University, Manipal
		Technique for Free Flight System of Aircraft "	application,	

## b. Community Services: Nil

#### c. Other Academic and Administrative services

SI. No	Name of faculty	Academic and Administrative Services
1	Dr. Preetha P	Faculty Incharge of Examination Cell, EED Faculty Advisor 2012 Admission Coordinator M Tech High Voltage Engineering
2	Dr.Subha D.P.	FA coordinator, M.Tech CCC, Dept. Library coordinator
3	Dr. Susy Thomas	Head of EED - 2012 June to 2014 June, Ph.D Co-ordinator
4	Dr. Sindhu T K	TEQIP nodal officer (Finance), Coordinator M Tech High Voltage Engineering, Ph.D Co-ordinator
5	Dr. Mukti Barai	Class Committee Chairperson for Second semester (winter) M.Tech 2014-2015, Programme Co-ordinator M.Tech in Power Electronics, Faculty Advisor for K-batch EEE 2014 admission, Faculty in Charge of PG Power Electronics Lab
6	Dr. Jagadanand G	Warden, F- Hostel; Nodal Officer-TEQIP Phase II; Member UG Admission; Co-Ordinator M-Tech -Power Electronics. Faculty advisor 2013 batch, Faculty in Charge EEA, Faculty in Charge Machine Lab.
7	Dr. T. K. Sunil Kumar	Class Committee Chairperson for S4 Winter semester 2014-2015, Deputy chairperson UG admissions, Faculty Advisor 2012 Admission batch, Faculty in Charge of Electronics Lab.
8	Dr. Jeevamma Jacob	Head ,EED 2014 June – continuing
9	Dr.Abraham T Mathew	Dean(R & C), TEQIP-II Coordinator, Coordinator M Tech Power system,
10	Dr Ashok S	Dept Purchase Coordinator, Faculty in-charge for Simulation lab, Industrial Power Lab, Energy Research Lab, Hostel Office Administrative Warden, Progarmme Coordinator M-Tech-Industrial Power & Automation.
11	Dr. Mija S	Warden (LH), Coordinator M.TechInstrumentation and Control
12	Dr Sunitha R	Coordinator M Tech Power system, Class Committee Chairperson (S6 B. Tech winter semester 2014-15), Department PTA coordinator.
14	Dr Sunitha K	Faculty Advisor 2013-2017 batch, Faculty in Charge- Examination cell, Electrical Measurements Lab, Department Library, Web site Maintenance, B.Tech Major and Mini Projects, Class Committee Chairperson (S8 B. Tech winter semester 2014-15)
15	Dr. Saly George	Chair Person, ETL
16	Sri. P. Ananthakrishnan	Faculty i/c of Electrical Check Measurements, Faculty i/c of Time-Table, Department UG Accreditation Coordinator
17	Dr. Rijil Ramchand	Associate Dean (R&C), Dy. Centre in Charge, NIT Calicut, CCMT 2014, Dy. Centre in Charge, NIT Calicut, NIMCET 2014
18	Dr. M. V. Vaidyan	Senate member, Member of class committees of various research scholars, Faculty in Charge of Electrical Measurements Lab, Faculty in Charge of stores.

## d. Conferences/Summer/Winter School/Short term Courses/Workshops conducted

SI. No	Title	Coordinators	Duration and Period
1	Recent Trends and Applications of High Voltage Engineering	Dr. Sindhu T. K./ Dr. Preetha P	7 days 22-28 <sup>th</sup> June 2014
2	Power System Modeling and Simulation	Dr. Sindhu T. K. & Dr. Sunitha R	4-5 <sup>th</sup> April 2014
3	National Training Programme on "Industrial Energy Auditing-strategies for working professionals"	Dr. Ashok S.	11-12 <sup>th</sup> , Sept 2014
4	"Faculty Development Programme (MHRD-AICTE) (1 week) on "Invitations -Challenges- on Smart Grid Technology",	Dr. Ashok S. and Dr. Kumarvel S.	8-14 <sup>th</sup> , June, 2014
5	One day workshop on "Advanced LateX"	Dr. Ashok S.	14 <sup>th</sup> , March 2015

#### e. Expert lectures delivered in Conferences/ Seminars/ workshops

SI. No.	Name of faculty	Title of the programme	Duration and Period	Organization
1.	Dr. Preetha P	Recent Trends and Applications of High Voltage Engineering	7 days 22 -28 <sup>th</sup> June 2014	NIT Calicut
2.	Dr. Sunitha R	Power System Modeling and Simulation	04-05 <sup>th</sup> April 2014	EED, NIT Calicut
3	Dr. Rijil Ramchand	Recent Trends and Applications of High Voltage Engineering	7 days 22-28 <sup>th</sup> June 2014	NIT Calicut
4	Dr. Rijil Ramchand	Power Electronics Applications and Technology in Present Energy Scenario	3 days 04-06 <sup>th</sup> March 2015	NITK Surathkal
5	Dr. Ashok S.	National Workshop on "Smart Grid Technologies – Vision, Management & Control – 2015" (SGT-VMC-2015)	2 days 4-6 <sup>th</sup> March 2015	PES University Bangaolre
6	Dr. Ashok S.	FDP on Power Quality	5 days 15-20 <sup>th</sup> May 2014	GEC, Barton Hill, Trivandrum
7	Dr. Ashok S.	National Workshop on Power Quality	5 days 15-19 <sup>th</sup> Jan 2014	MVGR College of Engineering Vizianagaram, AP
8	Dr. Sunitha K	Recent Trends and Applications of High Voltage Engineering	7 days 22 -28 <sup>th</sup> June 2014	NIT Calicut
9	Dr. Sindhu T. K.	Recent Trends and Applications of High Voltage Engineering	7 days 22 -28 <sup>th</sup> June 2014	NIT Calicut

## f. Details of Faculty, who acquired Higher Qualification:

SI. No.	Name of faculty	Higher Qualification	Institute	Date
1.	Dr. Mija S. J.	Ph.D.	NIT Calicut	29/08/2014
2.	Dr. Sunitha R.	Ph.D.	NIT Calicut	17/07/2014
3.	Dr. Sunitha K.	Ph.D.	IISc Bangalore	25/07/2014

## g. Consultancy and Testing:

SI. No	Nature of service	Faculty involved	Organization	Revenue earned in Rs(Lakhs)	Status
1	Testing of UPS, Conductors etc	Dr. Ashok S.	KSEB Ltd, L& T ECC, Techser Power Solutions, M J Power.	1.1	Completed
2	Energy Analysis	Dr. Ashok S.	MIMS Hospital	2.0	Completed
3	Energy Integration of Solar Heater	Dr. Ashok S.	Cradle Hospital	0.5	Completed

## h. Patents Acquired &Filed:

SI. No.	Name of faculty	Title of the Patent	Date of Submission	Status
1.	Dr. Ashok S.	Arc Flash Detection Scheme	06-06-2013	Under Review
2.	Dr. Ashok S.	Power line inspection robot	05-05-2015	Under process

# i. Student achievements :

SI. No	Name of Student	Guidance	Field of Study	Nature of Achievement
1	Gaurav Khare (M120190EE)	Dr. Sunitha R. Assistant Professor, EED	M. Tech. Power Systems	POSOCO POWR SYSTEM AWARD (PPSA 2014-15) for his M. Tech. Thesis, "Optimal PMU Placement and Reconstruction of Missing PMU data using ANN".

## **DEPARTMENT OF ELETRONICS & ENGINEERING**

# a. Publication

#### b. Journal

SI No	Name of the Author	Title of the paper	Name of Journal	Vol, Year. PP
1	Elizabeth Elias and Bindiya T .S.	Design of Totally Multiplier-less Sharp Transition Width Tree Structured Filter Banks for Non-uniform Discrete Multitone System	AEUE - Elsevier International Journal of Electronics and Communications	DOI 10.1016/ j.aeue.2014.12.004,
2	Bindiya T .S. and Elizabeth Elias	Design of FRM Based MDFT Filter Banks in the Canonic Signed Digit Space Using Modified Metaheuristic Algorithms,	International Journal of Signal and Imaging Systems Engineering	http://www.inderscienc e.com/info/ingeneral/fo rthcoming.php?jcode=i jsise
3	Nisha Haridas, Aravind Illa and Elizabeth Elias	Multiplier-less Farrow Structure based Linear Phase Low Pass Interpolation Filter	. International Journal of Computer Applications.	95(14):1-6, June <b>2014</b> . Published by Foundation of Computer Science, New York, USA
4	V Sakthivel, Rathlavath Chandru and Elizabeth Elias	Design of Multiplier-Less MDFT Filter Banks with Perfect Reconstruction using ABC Algorithm	. International Journal of Computer Applications.	96(1):13-22, June 2014. Published by Foundation of Computer Science, New York, USA
5	Shaeen K and Elizabeth Elias,	Prototype filter design approaches for near perfect reconstruction cosine modulated filter banks - a review,	Springer - Journal of Signal Processing Systems	doi:10.1007/s11265- <b>014</b> -0929-5.
6	Shaeen K and Elizabeth Elias,	Non uniform cosine modulated filter banks using meta-heuristic algorithms in CSD space.	Elsevier Journal of Advanced Research.	doi:0.1016/j.jare. <b>2014</b> . 06.008.
7	Cibile K.K, S. M. Sameer, and Lillykutty Jacob	Analysis and Modeling of Realistic Compound Channels in Transparent Relay Transmissions	The Scientific World Journal, Hindawi	Vol. 20, No. 14, 2014, Article ID 538578
8	Cibile K.K, S. M. Sameer, and Lillykutty Jacob	Terrain Based System Design and SNR Variability Prediction in Multi-hop Transparent Relay Transmission Systems	Physical Communication, Elsevier	Vol: 13PC, 2014, PP: 120-132
9	Mary Reena, Abraham T Mathew, and Lillykutty Jacob	A Co-design of Networked Control Systems for Unmanned Aerial System	JUST-journal on Unmanned System Technologies, UNSYS Digital publications	Vol.2, No. 3 (2014).
10	Anil Jacob and Lillykutty Jacob	Energy Efficient MAC for QoS Traffic in Wireless Body Area Network	International Journal of Distributed Sensor Networks, Hindawi	vol. 2015, Article ID 404182, 12 pages, doi:10.1155/2015/4041 82

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11	Jalaja M J and Lillykutty Jacob	Delay and Lifetime Performance of Underwater Wireless Sensor Networks with Mobile Element Based Data Collection	International Journal of Distributed Sensor Networks, Hindawi	In Press
12	Anzar S.M. and Sathidevi P.S	Optimal score level fusion combining multi-normalization and separability measures	.Int. J. Applied Pattern Recognition (IJAPR)@ Inderscience	Vol.1,No.2,2014, pp.127-151
13	Sharafudeen Thaha Mohammed Anzar and Puthumangalathu Savithri Sathidevi	On combining multi- normalization and ancillary measures for the optimal score level fusion of fingerprint and voice biometrics	EURASIP Journal on Advances in Signal Processing 2014	2014:10 doi:10.1186/1 687-6180-2014-10
14	Ramesh C R, Smt. Lyala B Das	Online Home Automation & Monitoring Systems	International Journal ofAdvanced Technology in Engineering and Science	Volume No.02, Issue No.12, December 2014 ISSN (online) 2348- 7550, PP No 581-588
15	Ramesh C R, Smt. Lyala B Das	Self Regulated Solar Lighting System	International journal of engineering Research	Volume No.01 ISSN:23196890)(onlin e),2347-5013(print),pp : 22-26,01 jan.2015
16	A. S. Namitha and Sameer S. M.	A Novel Joint Method for Frequency Offset Estimation and Peak-to- Average Power Ratio Reduction in OFDM Systems Using Null Subcarriers	Wireless Personal Communication, Springer	DOI 10.1007/s11277- 015-2396-0, 2015
17	Muneer P. and Sameer S. M.	Pilot-Aided Joint Estimation of Doubly Selective Channel and Carrier Frequency Offsets in OFDMA Uplink with High Mobility Users	IEEE Transactions on Vehicular Technology	vol. 64, no. 1, pp. 411 - 417, Jan. 2015
18	Muneer P. and Sameer S. M.	Joint ML Estimation of CFO and Channel, and a Low Complexity Turbo Equalization Technique for High Mobility OFDMA Uplinks	IEEE Transactions on Wireless Communication	DOI: 10.1109/TWC.2015.24 09180, 2015
19	V.P. Harigovindan, A.V. Babu and Lillykutty Jacob	Proportional Fair Resource Allocation in Vehicle-to-Infrastructure Networks for Drive-Thru Internet Applications	Computer Communications	40,2014, pp. 33–50
20	Sidharth Shelly and A.V. Babu	Analysis of Link Life Time in Vehicular Ad Hoc Networks for Free-Flow Traffic State	Springer Wireless Personal Communications	75, 2014, 75:81–102
21	P.C. Neelakantan and A.V. Babu,	Computation of Minimum Transmit Power for Network Connectivity in Vehicular Ad Hoc Networks formed by Vehicles with Random Communication Range	Wiley International Journal on Communication Systems	27, 2014; 931–955
22	Uvais Valiyaneerilakkal, Amit Singh, Kulwant Singh, C. K. Subash,S.M. Abbas, Rama Komaragiri, Soney Varghese	Ferroelectric characteristics of MFIS structure with P(VDF–TrFE)/BaTiO3 nano-composite as ferroelectric layer	Applied Physics A	July 2014.

23	Sudhish N George Deepthi P P	Multiple chaotic maps based secure measurement matrix generation for compressive sensing	International Journal for Signal and Imaging Systems Engineering, Inderscience	Article in press
24	Sudhish N George, Nishanth Augustine, Deepthi P P	Audio security through compressive sensing and cellular automata	Mutimedia Tools and Applications, Springer	DOI:10.1007/s11042- 014-2172-2
25	Nishanth Augustine, Sudhish N George, Deepthi P P	An audio encryption technique through compressive sensing and Arnold transform	International Journal of Trust Management in Computing and Communications, Inderscience	Article in press
26	Deepthi P.P.and Celine Mary Stuart	A novel low-complexity scheme for improving security of NLFG-based symmetric key cryptosystem using secure concatenated RS-QCLDPC code	Security and Communication Networks, Wiley	DOI: 10.1002/sec.1215
27	Mr. V.Sakthivel, Rathlavath Chandru, Elizabeth Elias	Design of Multiplier-less MDFT filter banks with perfect reconstruction Using ABC algorithm	International Journal of Computer Applications	96(1), June 2014, 13- 22
28	Suja K J & Rama Komaragiri	Computer Aided Modeling for a Miniature Silicon-on-Insulator MEMS Piezoresistive Pressure Sensor	Photonic Sensors (Springer Publications)	DOI: 10.1007/s13320- 015-0239-y.
29	Bindiya, T. S. and Elizabeth Elias	Design of Multiplier-less Sharp Transition Width Non-Uniform Filter Banks Using Gravitational Search Algorithm	Taylor and Francis - International Journal of Electronics	102(1), 2015, 48-70
30	Geethu RS, Krishna Kumar M, Sudhish N George,	Source Separation of Heartbeat Sounds for Effective e-Auscultation	Journal of the Institution of Engineers (India): Series B (Springer),	2015, In press

## ii. International Confrence

SI No	Name of the Author	Title of the paper	Name of International Conference	Vol, Year. PP
1	Nisha Haridas and Elizabeth Elias,	based bank of variable	IEEE International Conference on Signal processing, Informatics, Communication and Energy Systems –	SPICES, 2014, February 19-21, NIT Calicut.)
2	Anil Jacob and Lillykutty Jacob	A discrete time polling protocol for wireless body area network	IEEE International Conference on Advance Computing (IACC 2014)	Feb 21-22, ITM University, Gurgaon
3	Jalaja M J and Lillykutty Jacob	On-Demand Data Collection in Sparse Underwater Acoustic Sensor Networks Using Mobile Elements	The Tenth International Conference on Wireless and Mobile Communications,ICWMC 2014	Sevella, Spain, June 2014
4	Jalaja M J and Lillykutty Jacob	Adaptive Data Collection in Sparse Underwater Sensor Networks Using Mobile Element	The Second International Workshop on Marine Sensors and Systems, 2014	Benidorm, Spain, June 2014
5	Jalaja M J and Lillykutty Jacob	Lifetime Enhancement in Sparse Underwater Acoustic Sensor Networks Using Mobile Elements	SPCOM 2014	Bangalore, India, July 2014
6	Mary Reena, Abraham T Mathew, and Lillykutty Jacob	Decentralized Controllers for Wireless Networked Building Automation System	IEEE SPICES (2015), , Kerala, India 2015	NIT Calicut, Feb 2015

7	Anil Jacob and Lillykutty Jacob	An Investigation Into the Effectiveness of IEEE 802.15.6 MAC Access Methods	IEEE SPICES (2015), , Kerala, India	NIT Calicut, Feb 2015
8	Anil Jacob, Lillykutty Jacob, and Ms. Geethu Kishore	Contention Versus Polling Access in IEEE 802.15.6: Delay and Lifetime Analysis	NCC 2015	IIT Bombay, Feb. 2015
9	Sreelatha G, Aparna Muraleedharan, Parkash Chand, Ravi Philip Rajkumar and P. S. Sathidevi	Automatic Detection of Comets in Silver Stained Comet Assay Images for DNA Damage Analysis	IEEE International Conference on Signal Processing, Communication and Computing (ICSPCC- 2014), Guilin, China,	August 2014
10	Jilna P., Deepthi P.P., Sameer Saheerudeen Mohammed, Sathidevi P.S. and Ms.Vijitha A. P.	FPGA Implementation of an Elliptic Curve Based Integrated System for Encryption and Authentication	IEEE SPICES (2015), , Kerala, India	Feb 19-21, 2015
11	Sreelatha G., Aparna Muraleedharan, Parkash Chand, Ravi Philip Rajkumar, P. S. Sathidevi	An Improved Automatic Detection of True Comets for DNA Damage Analysis	International Conference on Information and Communication Technologies (ICICT 2014),	Elsevier Procedia Computer Science 46 ( 2015 ) 135 – 142
12	.M.S.Lekshmi, P.S. Sathidevi	Unsupervised Speech Segregation Using Pitch Information and Time Frequency Masking	International Conference on Information and Communication Technologies (ICICT 2014),	Elsevier Procedia Computer Science 46 ( 2015 ) 122-126
13	V Meena, G Abhilash	sparse representation and recovery of a class of signals using information theoretic measures	2013 Annual IEEE India conference (INDICON)	IEEE Explore; 978-1-4799-2275- 8/13/\$31.00 ©2013 IEEE INDICON, 2013. DOI:10.1109/INDCON.20 13.6725897
14	Philip C. Jacob, Sachin K. V, Smt. Lyla B. Das	Electronic Bus Travel Companion For The Visually Challenged	International Conference on Mechanical, Electronics and Computer Engineering ICMECE-2014	ISBN: 978-81-930280-5- 6,14TH December, 2014, Raipur
15	K V Shahnaz C K Ali	An efficient sphere decoding algorithm for rank deficient OFDM/SDMA systems	3rd international conference on Advances in computing,Communicatio ns & Informatics	24-27,Sept 2014, Noida, Delhi
16	K V Shahnaz C K Ali	A sphere decoding algorithm for under determined OFDM/SDMA Uplink system with an effective radius selection	3 <sup>rd</sup> international conference on Advances in computing, Communications & Informatics	24-27,Sept 2014, Noida, Delhi
17	Deepak P M C K Ali	Inter carrier interference cancellation technique for single carrier OFDM Communication system	ICECCS	Dec 2014, NIT Suratkal, India.
18	Deepak P M C K Ali	Effective ICI matrix and its compensation in SCFDMA Communication system	COMSNETS	Jan 2015, Bangalore, India.
19	Deepak P M C K Ali	Using firefly algorithm for total ICI cancellation of OFDM communication system	IEEE SPICES (2015), , Kerala, India	Feb, 2015,NIT Calicut

		T		T
20	Thafasalljyas V. P and Sameer S. M.	ML Estimation Using Low Complexity Metaheuristic Algorithms	Proc.IEEE International Conference on Signal Processing and communications (SPCOM 2014), IISc Bangalore, India.	22-25 July 2014
21	Anuradha P., Muneer P.and Sameer S. M.	Two Level Precoding Scheme for Out of Band Radiation Reduction in Multiuser OFDM Based Cognitive Radio	Proc.IEEE International Conference on Signal Processing and Communications (SPCOM 2014), IISc Bangalore, India.	22-25 July 2014
22	Namitha A. S. and Sameer S. M.	An Improved Technique to Reduce Peak to Average Power Ratio in OFDM Systems Using Gold/Hadamard Codes with Selective Mapping	Proc.IEEE International Conference on Signal Processing and Communications (SPCOM 2014), IISc Bangalore, India.	22-25 July 2014
23	Namitha A. S. and Sameer S. M.	Joint PAPR and Sidelobe Reduction in Non- contiguous OFDM Based Cognitive Radio Systems	Proc.2015 IEEE International Conference on Signal Processing, Informatics, Communicati -on and Energy Systems (SPICES), NIT Calicut, India.	19-21 February 2015
24	Jofina J. and Sameer S. M.	A New Unequal Error Protection Technique for Scalable Video Transmission over Multimedia Wireless Networks	Proc.2015 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES), NIT Calicut.	19-21 February 2015
25	Thafasal Ijyas V. P and Sameer S. M.	A Reduced-Complexity Bat Algorithm for Joint CFO Estimation in OFDMA Uplink	Proc.2015 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES), NIT Calicut.	19-21 February 2015
26	K.S.Deepak. and A.V.Babu	Optimal Packet Size for Energy Efficient WBAN Under M-periodic Scheduled Access Mode	IEEE NCC	2014, pp: 1-6
27	K.S. Deepak and A.V. Babu	Energy efficiency of IEEE 802.15.6 based wireless body area networks in scheduled access mode	2013 IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI- 2013).	2013, pp.301 - 307
28	Sidharth Shelly and A.V. Babu,	Probability Distribution of Link Life Time in Vehicular Ad Hoc Networks,	2013 IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI- 2013).	2013 , pp. 1418 - 1423
29	A.V. Babu	Meeting QoS-assured Multi-hop Connectivity Requirements in Vehicular Ad Hoc Networks	2013 IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI- 2013).	2013, pp.1041-1046.
30	Kranthi, N.K. Sithanandam, R.Komaragiri	Recessed MOSFET in 28 nm FDSOI for Better Breakdown Characteristics	VLSI Design (VLSID), 2015 28th International Conference on	vol., no., pp.282, 285, 3-7 Jan. 2015.
31	Merlin Paul, Abhilash Antony,	HVS Dependent Perceptual Quantization	International Conference on Signal & Speech	Conference Proceedings (Elsevier),Kollam, 287-

	Sreelekha G	for HEVC	Processing (ICSSP)	292 (2014)
			IEEE Conference	-= \-+ · ·/
32	Merlin Paul, Abhilash Antony, Sreelekha G	Performance Improvement of HEVC Using Adaptive Quantization	Publications , International Conference on Advances in Computing, Communication & Informatics (ICACCI2014)	1428–1433 (2014)
33	Anoop B N, Sudhish N George, Deepthi P P	Secure video transcoder based on correlation preserving sorting algorithm	IEEE Int. Conf. Control, Instrumentation, Communication and Computational Technologies (ICCICCT- 2014), Tamilnadu, India.	May 2014
34	Nishanth Augustine, Sudhish N George, Deepthi P P,	Compressive Sensing based Audio Watermarking using SVD and DM Quantization	Elsivier Int. Conf. Signal and Speech Processing (ICSSP-14), Kerala, India.	June 2014
35	Stuart, C. M., Deepthi, P. P.	Low Complex System for Physical Layer Security Using NLFG and QCLDPC Code.	Second International Symposium on Security in Computing and Communications, (SSCC 2014), September 24 – 27, 2014, New Delhi	Springer Berlin Heidelberg Proceedings pp. 313-324.
36	Abhishek, Sudhish N George, Deepthi P P	PWLCM based secure measurement matrix generation for secure video compressive sensing	Springer, Second Int. Symposium Security in Computing and Communications (SSCC- 14), New Delhi, India.	September 2014
37	Celine Mary Stuart and Deepthi P. P.	Hardware Efficient Scheme for Generating Error Vector to Enhance the Performance of Secure Channel Code	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES 2015), Feb 19- 21, Kerala, India	February 2015
38	Prakash, Gundabathina, and Mr. K. J. Dhanaraj	A g <sub>m</sub> /I <sub>D</sub> based design of high PSR low dropout regulator for SoC applications	IEEE International Conference on Communication, Information & Computing Technology (ICCICT), 2015,	pp. 1-6., 2015
39	Vijayan, Aravind E., K. T. Beevi, Kevin Jerome, Kartika C. Ravindran, and Mr. K. J. Dhanaraj	High SNR EMG Acquisition System for Biofeedback Applications.	IEEE International Conference on Computational Intelligence & Communication Technology (CICT), 2015	pp. 359-363., 2015
40	Geethu RS, Krishna Kumar M, Sudhish N George,	A Proposal for Source Separation of Ground Borne Vibration Signals and Its FPGA Implementation	IEEE Int. Conf. VLSI Systems, Architecture, Technology and Applications (VLSI-SATA 2015).	January 2015
41	Deepa Nair, Ashok Pattem, Praveen Sankaran	An Effective Surround Filter for Image Dehazing	ICONIAAC '14 - International Conference on Interdisciplinary Advances in Applied Computing, Amritapuri, India.	10/2014
42	Rashmi Manazhi, Praveen Sankaran	Extended Landmark Isomap for Data Classification	Eighth International Conference on Data Mining and Warehousing (ICDMW 2014), Bangalore, India.	07/2014
43	Deepa Nair, Ashok Pattem,	An Image Dehazing Method using Retinex	Eighth International Conference on Image	07/2014

	Praveen Sankaran		and Signal Processing (ICISP 2014), Bangalore.	
44	Hari C. V., Praveen Sankaran	Multi Subspace Analysis with Supervised Separable Clusters for Classification of Smooth Nonlinear Manifolds	Eighth International Conference on Image and Signal Processing (ICISP 2014), Bangalore.	07/2014
45	Ashok Pattem, Praveen Sankaran	Visual Information Fidelity in evaluating Retinex enhancement algorithms	International Conference on Communications and Signal Processing (ICCSP), 2014.	04/2014
46	Hari C.V., Praveen Sankaran	Face Pose Estimation for Driver Distraction Monitoring by Automatic Clustered Linear Discriminant Analysis	IEEE International Conference on Vehicular Electronics and Safety (ICVES 2014)	12/2014
47	Siva Sankar A, Suparna S. Nair, Venu S. Dharan, Praveen Sankaran	Wavelet sub band entropy based feature extraction method for BCI	ICICT, International Conference on Information and Communication Technologies	12/2014

## iii. National Confrence

SI. No	Name of author	Titled of paper	Name of National Confrence	Vol., Year, P.P
1	Rama Komaragiri and Mr. Ajai V Babu,	Visual Programming of Semiconductor Devices	National conference on VLSI, Signal Processing and Communication	April, 2014.

# b. Community Services

SI No	Name of Staff	Service	
1	Dr. Elizabeth Elias	PhD Coordinator, ECED	
'	DI. Elizabetti Elias	Member Grievance committee NITC	
		BOG Member, Sahrdaya College of Engg & Tech., Kodakara, Kerala	
	Dr. P.S. Sathidevi	Reviewed 8 Ph.D Theses.	
		Reviewer of 15 Int. Journals & 3 Int. Conferences	
2		A member of the Jury panel for Yuva Mastermind, the Science and Technology Project Contest organised by Malayala Manorama in technical partnership with the Amal Jyothi College of Engineering, Kanjirappally. On 06/02/2015 at JDT Islam Education Complex at Vellimadukunnnu, Calicut	
		Vice-Chairman, IEEE Kerala Section	
3	Dr. Sameer S. M	MGA Nominee to TAB/PSPB Products and Services Committee of IEEE HQ, USA	
		Member, Board of Governors, Institute of Human Resources Development (IHRD), Kerala.	

## C. Other Academic and Administrative services

SI No.	Name of Staff	Academic and Administrative Services		
Member of the assessment board for promotion of scientists Expert member NBA  Member of BOG, Govt. Engineering College, Kozhikode Member of BOS, Karunya University, Coimbatore Advisory committee, KSR College of Engineering, Erode		Member of BOG, Govt. Engineering College, Kozhikode Member of BOS, Karunya University, Coimbatore		
2	Dr. P. C. Chairnerson/EA of 2014 hatch ECE			
Faculty Advisor & CC Chairperson, B.Tech (2013Batch) Faculty in Charge of Non Teaching Staff Matters, ECED  Member of PG Project Evaluation Committee Chairperson, UG Admissions		Faculty in Charge of Non Teaching Staff Matters, ECED  Member of PG Project Evaluation Committee		
4	Dr. G Abhilash	BTech Project Coordinator Served as Project guide to one BTech Project Serves as Guide to two PhD Students Serves as Doctoral committee member to ECE, EEE, MED, CSED and		

		Mathamatica danartmenta		
		Mathematics departments.		
		Member of Advisory Committee to Central Library  Member of Purchase Committee to Central Library		
5	Dr. C.K.Ali	HOD, ECED		
- 5	DI. C.N.AII			
		Faculty Advisor and CC Chairman, B.Tech 2012 Batch Information and Facilitation Officer ECED		
		ECED Website in Charge		
6	Mr. Suresh R.	Faculty in Charge of SPCOM Laboratory		
0	IVII. Sulesii K.	Member of UG Project Evaluation Committee		
		Publication Chair for IEEE SPICES 2015 Conference		
		Served as Project guide to two PG Projects		
		Senate Nominee to the Board of Governors, NIT Calicut		
		Faculty Advisor, B.Tech (2011-15) batch		
7	Dr. Sameer S. M.	Member of several doctoral scrutiny committees		
<b>'</b>	Dr. Sameer S. W.	Member, M. Tech M.Tech (Telecom) Project Evaluation Committee		
		Purchase Coordinator, ECED		
		Warden Mega Hostel, Boys		
		Faculty Advisor, M.Tech in Microelectronics and VLSI		
		Faculty In-charge, Simulation Lab		
		Faculty In-charge, Simulation Lab Faculty In-charge, NITC ISTE Student Chapter		
8	Dr. Rama	Faculty Member student guidance cell (ECED co-ordinator)		
"	Komaragiri	Reviewer for various conferences		
		Reviewer for various conferences  Reviewer for the journal EPL, MNT,IEE		
		Question paper setter		
		PhD thesis examiner, M.Tech Viva-voce examiner		
		Faculty Advisor, B.Tech (2011 Batch)		
		Faculty -in-Charge of Laboratories:		
		DSP Lab		
9	Dr Sreelekha G	Faculty in Charge of Staff Amenities		
		Member of PG Project Evaluation Committee		
		Procurement Nodal Officer – TEQIP - II		
		Associate dean (FW)		
		TEQIP II Core Committee Member		
10	Dr. Deepthi P.P.	Department Time Table in Charge		
10	Di. Deepiii F.F.	Department Time Table in Charge  Department PG Program Coordinator (Signal Processing)		
		Department Lab in charge of IC Lab		
		Instructor EC2021 Electronics Circuits 1		
		EC2014 Solid State Devices		
		Micro Electronics Lab 1		
11	Mr. Jaikumar M G	Micro Electronics Lab 2		
		Electronics Circuits Lab (2 batches)		
		Lab in charge VLSI Lab		
		Lab In charge (Psoc Lab)		
		Member of M. Tech Major Project evaluation committee (Microelectronics and		
		VLSI)		
12	Mr. K. J. Dhanaraj	Registration Chair for IEEE SPICES 2015 Conference		
12	IX. J. Dilalialaj	Served as guide for five M. Tech major projects, one B Tech Major project		
		Mentored two projects submitted for Texas Instruments Innovation Challenge India		
		Analog Design Contest 2015		
		Member in UG project evaluation committee		
		Faculty Advisor (B.T ech ECE 2013 batch)		
		Faculty-in-charge of Electronic Circuits Lab		
13	Mr. V.Sakthivel	Member in Annual Stock Verification (May 2014)		
13	ivii. v.Galtalivei	Member in vigilance committee of ECE Department		
		Course Coordinator for Basic Electrical Sciences(Electronics part)		
		Department (ECE) First Year Coordinator		
-		Faculty advisor of 2013-2017 ECE B. Tech Batch		
		Member of ECED Time Table Committee		
14	Dr. Bindiya T. S.	Member, B Tech mini project evaluation committee		
'	Di. Diliulya 1. O.	Member, SMDP III		
		IEEE SPICES 2015, VLSI Signal Processing – Session Co-Chair		
15	Dr. Ameer P M	Warden, A hostel		
10	טו. Allieel P IVI	Faculty in charge – Electronics workshop		
16	Mr. Javakumar F.D.			
16	Mr. Jayakumar E.P.	Member – (M Tech EDT) Project Evaluation committee		
-	Dr. Sudhish N	Member – Exam vigilance committee (ECE)  M.Tech Project Guidance (4 Nos.)		
17		Stock Verification (EED)		
L	George	Otock verilleation (EED)		

Anti-ragging duty Faculty Advisor B. Tech. 2012 Batch Exam coordinator, ECED PG project Evaluation (ECB)
DCC Secretary
B.Tech. Major Project (3 Nos.)

(d). Conferences/Summer/Winter School/Short term Courses/Workshops conducted

SI. No.	Title	Coordinators	Duration and Period
1.	Electromagnetics in VLSI", In FDP on Electromagnetics in VLSI	Dr. Rama Komaragiri, Dr. P.C. Subramaniam	5 Days; 16 <sup>th</sup> -21 <sup>st</sup> June 2014.
2.	2015 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES), NIT Calicut	Dr. Sameer S. M., Dr. Rijil Ramchand	3 Days, 19-21 February 2015
3.	FDP on Estimation and Coding for Multimedia Processing (ECMP)	Dr. Sameer S.M., Dr. Sreelekha G., Dr. Deepthi P.P.	1 week. June 30- July 5, 2014
4	Three day workshop on "Research Frontiers in Cryptography"	Dr. Deepthi P.P., Dr. Sameer S.M., Dr. Sathidevi P.S.	3 days, January 23-25, 2015
5	2-day Hands on training on Cadence® Design Suite	Dr. Rama Komaragiri	2 days (27th and 28th February 2015)

(e). Expert lectures delivered in Conferences/ Seminars/ workshops

	(e). Expert lectures delivered in Conferences/ Seminars/ workshops				
SI. No.	Name of Staff	Title of the Programme	Duration & Period	Organization	
	Dr. P.S.Sathidevi	FDP On Estimation and Coding For Multimedia Processing (ECMP)	1 Week. June 30- July 5, 2014	National Institute of Technology Calicut	
1		Short term training program on 'SPEECH COMPRESSION' - Keynote address on 22/04/2014.	22/04/2014 to 26/04/2014	Department of ECE College of Engg Cherthala under IHRD	
		National Workshop on Paradigm Change in Community Policing, Trivandrum	13-14 November, 2014	Kerala State Police BPR &D Dept.	
2	Smt. Lyla B.Das	NASM Programming	One Day ,,Jan 20 ,2015	Perumon Engineering College,Kollam	
		Intel Galileo	One Day ,Feb 6,2015	IIITM ,Trivandrum	
	Dr. Sameer S. M.	TEQIP II Sponsored Faculty Development Programme on Stochastic Methods in Analysis and Processing Of Digital Images	4-7 June 2014	College of Engineering Karunagappally, Kollam, Kerala	
3		FDP on Estimation and Coding for Multimedia Processing (ECMP), NIT Calicut	30 June – 05 July 2014	NIT Calicut	
		National Seminar on Emerging Wireless Communication Technologies 2015(NSEWCT2015)	12-13, March 2015	Mar Baselios College of Engineering and Technology, Trivandrum	
		AICTE Sponsored FDP onSignal Processing and Image Analysis (SPIA'15)	16-28 March 2015	Sree Buddha College of Engg for Women, Pathanamthitta, Kerala.	

	4 Dr. Rama Komaragiri	National Seminar on New Materials and Nanotechnology, "Nanotechnology: Nanoelectronic materials in Information Technology	16th and 17th January 2015	Department of Science and Department of Electronics and Communication Engineering Heera College of Engineering, Nedumangad, Kerala
		Multi-gate MOSFET devices", In Research Trends in Semiconductor Device Modeling & Fabrication	8th -12th December 2014	Organized by Department Of Electronics Engineering, College of Engineering Cherthala
4		MOS Device in Analog Design	26 <sup>th</sup> -28 <sup>th</sup> November 2014	", In FDP on Advances in Analog Design, organized by Government Engineering College Kannur
		A two day lectures and hands on training on "Introduction to CMOS Digital Circuit Design" In IEEE International Symposium on Education, Technology and Entrepreneurship (ISEE) 2014	26 <sup>th</sup> and 27 <sup>th</sup> July 2014	Organized by IEEE Student Branch, Amrita VishwaVidyapeetham, Amritapuri Campus, Amritapuri, Kollam, Kerala.
		Lecture series on "Electromagnetics in VLSI", In FDP on Electromagnetics in VLSI	16 <sup>th</sup> -21 <sup>st</sup> June 2014.	Organized by Department of ECE, NIT Calicut
5	Dr.Sreelekha G	FDP on Estimation and Coding for Multimedia Processing (ECMP)	1 Week June 30- July 5, 2014	National Institute of Technology Calicut
6	Dr. Deepthi P.P.	FDP on Estimation and Coding for Multimedia Processing (ECMP)	6 Hours	NITC

(f). Details of Faculty, who acquired Higher Qualification

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SI. No.	Name	Qualification	Area of Specialization	Scheme (QIP/ PT/ FT)		
1	Bindiya T S	Ph.D NIT Calicut	Multirate Signal Processing,	PT		
2	Ameer P M	Ph.D NIT Calicut	Wireless Networking	PT		
3	Sudhish N George	Ph.D NIT Calicut	Multimedia Security	PT		

(g) Consultancy and Testing: NIL (h) Participation in Conferences/Seminars/Workshops/other Training programmes

SI. No	Name of Staff	Title	Year
1	Dr.Lillykutty Jacob	TEQIP- II Learning Forum - Good Governance, Leadership and Management:	4th -5th May 2015
2	Dr.C.K.Ali	Academic Leadership Training at IIM Kozhikode	June, 2014
3	Dr. Rama S Komaragiri	Faculty Development Programme on Teaching Methodology	October 2014
4	Dr. RamaS Komaragiri	Faculty Development Programme on Pedagogical Teaching Methodology	January 2015
5	Dr.Sreelekha G	SPICES 2015 Conference	Co Chair Signal Processing Track
6	Mr. Dhanaraj K.J.	Advanced Pedagogy Training	(22 - 24 Dec 2014)
7	Dr.Ameer P M	National Workshop on Application of Wireless Sensor Networks and Robotics in Agriculture and Rural Development	2015

## **DEPARTMENT OF MECHANICAL ENGINEERING**

#### a. Publications

i. Journals

SI. No	Name of the Authors	Title of paper	Journal name	Vol., Page Nos., Year of publication
1	G. Jilani, and Ciby Thomas	Effect of thermo- geometric parameters on entropy generation in absorber plate fin of a solar flat plate collector	Energy	70 (2014), 35-42
2	Rakesh Hari, Tom Jolly, C Muraleedharan	Comparison of boiling and condensation characteristics in the porous wick of a flat heat pipe in vertical and horizontal orientation.	Journal of Applied Mechanics and Materials (Trans Tech Publications, Switzerland)	2014; Vols. 592-594: 1461-1465.
3	Issac Thankachan, Rupesh S, C Muraleedharan,	CFD Modelling of Biomass Gasification in Fluidized-Bed Reactor Using the Eulerian- Eulerian Approach,	Journal of Applied Mechanics and Materials (Trans Tech Publications, Switzerland)	2014; Vols. 592-594: pp 1903-1908.
4	Rupesh S, C. Muraleedharan and Arun Palatel,	Analysis of Hydrogen Generation through Thermo-chemical Gasification of Coconut Shell Using Thermodynamic Equilibrium Model Considering Char &Tar,	International scholarly research notices	Volume 2014 (2014), Article ID 654946, 9 pages
5	Rohinikumar B, C Muraleedharan,	Systematic Design, fabrication and experimental studies on Solar thermal water pump,	International Journal of Advance Research In Science And Engineering	IJARSE, Vol. No.4, Issue No.01, January 2015
6	Sajith KG, C Muraleedharan,	Economic analysis of a hybridphotovoltaic thermal solar dryer for drying amla,	International journal of engineering research and technology,	vol 3, Issue 8, August 2014
7	M. Mohanraj, S. Jayaraj, C. Muraleedharan,	Applications of artificial neural networks for thermal analysis of heat exchangers - A review	International Journal of Thermal Sciences,	90 (2015) 150-172
8	Anil M, Rupesh S, Muraleedharan C, Arun P.	Analysis on the Effect of Turbulence in the Modelling of Fluidized Bed Reactors Using CFD,	International Journal of Applied Engineering Research (IJAER),	Vol. 10, 2015, pp.7926-7930.
9	Arun K. Mohandas, Rupesh S, C. Muraleedharan, P. Arun,	Simulation of Air-Steam Gasification of Rice Husk Using Aspen Plus,	International Journal of Advances In Production and Mechanical Engineering,	Vol.1, 2015, pp. 22-26.
10	C.C. Sreejith, Navaneeth Haridasan, C. Muraleedharan and P . Arun	Allothermal air–steam gasification of biomass with CO2 (carbon dioxide) sorption: Performance prediction based on a chemical kinetic model	Energy,	2014, vol. 69, issue C, pages 399-408
11	C.C. Sreejith, C. Muraleedharan and P . Arun	Air–steam gasification of biomass in fluidized bed with CO <sub>2</sub> absorption: A kinetic model for performance prediction	Fuel Processing Technology	Volume 130, 2014

	Sekar, K. Allesu, K	Effect of T6 heat treatment in the microstructure and mechanical properties of	International Journal of Procedia	Vol. 5. pp. 444 – 453.,
12	and Joseph, M.A	A356 alloy reinforced with Al2O3 particles by combination effect of stir and squeeze casting.	Materials(Elsevier),	2014,
13	Sekar, K. Allesu, K and Joseph, M.A	Comparison Study of as-cast and T6 Condition of Microstructure, Bending Strength and Double Shear Strength of A356 Alloy by Gravity, Vacuum and Squeeze Casting,	International Journal of Applied Mechanics and Materials	Vol 592-594, pp. 102-105. 2014,,
14	Sekar, K. Allesu, K and Joseph, M.A	Mechanical and wear properties of Al-Al <sub>2</sub> O <sub>3</sub> metal matrix composites fabricated by the combined effect of stir and squeeze casting method	Transactions of The Indian Institute of Metals	In Press
15	K.Pratheesh, M.Ravi, Allesu Kanjirathikal, M.A.Joseph, P.Karuppaswamy	Effect of Mg and Sr additions on the microstructure, mechanical properties&reciprocating wear characteristics of hypereutectic Al- 14Si alloy	Applied Mechanics and Materials	Vols. 592-594 (2014) pp 1296-1299
16	S. Rani, M.L. Joy, K. Prabhakaran Nair	Evaluation of physiochemical and tribological properties of rice bran oil – biodegradable and potential base stoke for industrial lubricants	Industrial Crops and Products	Volume 65, March 2015, Pages 328–333
17	S. Rani, M.L. Joy, K. Prabhakaran Nair	A comparative study of polymeric additives as biodegradable viscosity boosters for biolubricant formulations	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	February 22, 2015
18	S.S.L. Rao, A. Shaija and S. Jayaraj	Optimization of operating parameters to maximize the current density without flooding at thecathode membra ne interface of a PEM fuel cell using Taguchi method and genetic algorithm".,	International Journal of Energy and Envoronment	Volume 5, 2014
19	Salumuri S. Lingeswara Rao, A. Shaija and S. Jayaraj. ",	Theoretical prediction of the performance of a PEM Fuel Cell with consideration of the ageing effect on catalytic activity and conductivity of the membrane	International Journal of latest trends in Engineering and Technology	Volume 4(1). 2014
20	M. Mubarak, A. Shaija, T.V.Suchithra	A review on the extraction of lipid from microalgae for biodiesel production,	Algal Research	Vol 7, pp 117-125,

21	Ajeet P S and Shaija A,	Design and development of a solar desalination system	Applied mechanics and Materials	Vol 592-594 (2014) pp 2350-2354
22	Kuriachen, B., Alwin Verghese, Somashekar, K.P.,Panda, S., Jose Mathew,	3D Numerical Simulation of Micro Electric Discharge machining of Ti-6Al-4V	International Journal of Advanced Manufacturing Technology	DOI:10.1007/s00170- 015-6794-y, 2014
23	Kuriachen, B., Mathew, J.	Experimental Investigations into the Effects of Micro Electric Discharge Milling Process Parameters on Ti-6Al4V	Journal of Materials and Manufacturing Processes	DOI: 10.1080/10426914. 2014.984206, 2014
24	Kuriachen, B., Mathew, J.	Numerical Simulation Of Single Resistance- Capacitance Pulse Discharge In Micro Electric Discharge Machining Of Ti-6AL-4V	International Journal of Precision Technology	4, 176-191, 2014
25	B. Kuriachen, K.P.Somashekhar, Jose Mathew	Multiresponse Optimization of Micro- Wire Electrical Discharge Machining Process	International Journal of Advanced Manufacturing Technology	76(1-4),91-104,2015
26	K.P.Somashekhar, S. Panda, J. Mathew, N. Ramachandran	Numerical Simulation of Micro-EDM Model With Multi-Spark	International Journal of Advanced Manufacturing Technology	76(1-4), 83-90,2015
27	Kuriachen, B., Mathew, J.	Effect of Powder Mixed Dielectric on Material Removal and Surface Modification in Micro Electric Discharge Machining of Ti-6Al-4V	Journal of Materials and Manufacturing Processes	DOI:10.1080/10426914. 2015.1004705, 2014
28	Shiyas C R and Madhusudanan Pillai V,	A mathematical programming model for manufacturing cell formation to develop multiple configurations.	Journal of Manufacturing Systems	Vol. 33, Issue 1, pp. 149– 158, 2014
29	V. Madhusudanan Pillai, K. Lavanya and T. Chinna Pamulety	Bullwhip effect analysis using supply chain role play game and ranking of supply chains.	Int. J. Procurement Management,	Vol. 7, No. 3, 299-315, 2014
30	Joby George, and V. Madhusudanan Pillai	Supply chain performance evaluation using spreadsheet simulation.	Applied Mechanics and Materials	Vols. 592-594 (2014), pp 2699-2703
31	Shiyas C. R., and V. Madhusudanan Pillai	An algorithm for intra- cell machine sequence identification for manufacturing cells.	Procedia Materials Science	Vol. 5 (2014), 2427–2433
32	Vanchipura, R., Sridharan, R. and Subash Babu A	Improvement of constructive heuristics using variable neighbourhood descent for scheduling a flow shop with sequence dependent setup time,	Journal of Manufacturing Systems	Vol. 33, No. 1, pp. 65-75. 2014
33	Vanchipura, R. and Sridharan, R.,	Development and analysis of hybrid genetic algorithms for flow shop scheduling with sequence dependent setup time	International Journal of Services and Operations Management	Vol. 17, No. 2, pp. 168- 193, 2014

## ii. International and National Conference

SI. No	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	T. K. Favas, and G. Jilani	Entropy generation minimization in a rectangular plate with volumetric energy generation	Proc. of the Int. Conf. on Industrial, Mechanical and Production Engineering: Advancements and Current Trends	November 27-29, 2014, VolII, pp.411- 416, Department of Mechanical Engineering, MANIT Bhopal, India
2	Ojus Mohan, Rupesh S, C. Muraleedharan, P. Arun,	Steady State Model for Fluidized Bed Biomass Gasification,	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE),	March 2015, NIT Warangal.
3	Anil M, Rupesh S, Muraleedharan C, Arun P.	Analysis on the effect of turbulence in the modelling of fluidized bed reactors using CFD,	Second International Conference on Engineering Technology and Science,	March 2015, Tamilnadu.
4	Anoop P, S Rupesh, C Muraleedharan, Arun P,	Energy and Exergy Analysis of Thermo- Chemical Gasification of Sawdust Using Thermodynamic Equilibrium Model,	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES 2015) at NIT Calicut	February 19-21, 2015
5	Ojus Mohan, S. Rupesh, C. Muraleedharan, P. Arun,	Design of Fluidized Bed Reactor for Conversion of Biomass Energy in to Concentrated Gaseous Fuel,	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES 2015) at NIT Calicut	February 19-21, 2015
6	Vijayakrishnan V, Nithin Thambi, Vinay Wilson, Tony Augustine, Kevin Joseph John, Navin Gopalakrishnan, C. Muraleedharan,	Theoretical Modeling of Biomass Energy Conversion through Gasification,	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES 2015)	at NIT Calicut to be held during February 19-21, 2015
7	Eldhose Joy, Jilse Sebastian, Chandrasekharan Muraleedharan,	Studies on acid value reduction of rubber seed oil and biodiesel production, International conference on Environment and energy,	Jawaharlal Nehru Technological University Hyderabad,	15-17 December 2014
8	Rohinikumar Bandaru, C. Muraleedharan,	Performance Analysis of Solar Thermal Water Pump using Artificial Neural Networks,	International conference on Environment and energy, Jawaharlal Nehru Technological University	Hyderabad, 15-17 December 2014
9	Rohinikumar Bandaru, Chandrasekharan Muraleedharan,	Experimental Analysis of Solar Thermal Water Pump	Proceedings of International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS/E3COS)-	2014, 30 September-02 October 2014, Vijayawada
10	Arun K. Mohandas, Rupesh S, C. Muraleedharan, P. Arun	Simulation of air steam gasification of rice husk using ASPEN PLUS,	Proceeding of International Conference on Mechanical, Electronics and Computer Engineering (ICMECE- 2014),	14th December, 2014, Raipur, pp. 12-16

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11	Eldhose K Joy, Jilse Sebastian, C. Muraleedharan,	Studies on acid value reduction of rubber seed oil and biodiesel production,	International Conference on Environment and Energy (ICEE-2014)	15-17 December, 2014
12	Sajith KG, C Muraleedharan,	Performance improvement of photovoltaic systems by extracting thermal energy-An experimental study,	International conference on energy, environment, materials and safety,	Kochi, December 2014.
13	Baiju V, C Muraleedharan,	Experimental study on adsorption –desorption characteristics of adsorbent bed in a solar adsorption refrigeration system,	International conference on advances in chemical engineering and technology,	Kollam, October 2014.
14	Rupesh S, C Muraleedharan, Arun P,	Thermodynamic equilibrium modeling of air gasification of rice husk in fluidized bed gasifier,	International conference on advances in chemical engineering and technology,	Kollam, October 2014.
15	S. Rupesh, C. Muraleedharan, P. Arun,	Thermodynamic equilibrium model for biomass gasification with tar and char conversion,	International conference on recycling and reuse of materials,	Kottayam, April 2014.
16	Rakesh Hari, Tom Jolly, C. Muraleedharan.	Comparison of boiling and condensation characteristics in the porous wick of a flat heat pipe in vertical and horizontal orientation.	International Mechanical Engineering Congress (IMEC 2014)	NIT Trichy in June 2014.
17	Binyam P.K, Sudheer A.P	Fabrication And Pose Control Of 2t2r-Based Parallel Manipulator For Drilling Operation	5th International & 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014)	December 12th–14th, 2014, IIT Guwahati, Assam, India, pp.321-1 to 321-5
18	IndurajR ,Sudheer A. P	Fabrication And Control Of Vision Based Wall Mounted Robotic Arm For Pose Identification And Manipulation	5th International & 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2014)	December 12th–14th, 2014, IIT Guwahati, Assam, India, pp.355-1 to 355-5
19	Anjana K, Sudheer A. P, Mija S. J	Optimal Trajectory Tracking and Control of 2 DOF Robotic Manipulator	2 <sup>nd</sup> International Conference on Emerging Trends in Technology and Applied Sciences	30 <sup>th</sup> April, 1 <sup>st</sup> , 2 <sup>nd</sup> May 2015, SAINTGITS College of Engineering, Kottayam, Kerala, India, pp. 83-86
20	Vijayan,A.E.; John,A. and Sudheer A. P	Surface Electromyography Based Finger Flexion Recognition	2015 IEEE International Conference on Computational Intelligence & Communication Technology (CICT)	, DOI:10.1109/CICT.2015.2 5 ,pp 592- 596,Ghaziabad,UP,India
21	Vijayan, A.E. ; Sen, D. ; Sudheer, A.P.		2015 IEEE International Conference on Computational Intelligence & Communication Technology (CICT)	DOI: 10.1109/CICT.2015.24, pp 587 - 591 Ghaziabad,UP,India
22	Ayjuk J. R., Panicker, V.V., Sridharan R., and Pillai V. M.,	Aircraft maintenance routing with onward flight breakage rule for single fleet airlines	Second International Conference on Business Analytics and Intelligence (ICBAI 2014), IISc Bangalore	2014
23	Jabir, E., Panicker, V.V., and Sridharan R.,	Environmental Analysis for a Multi-Depot Capacitated Vehicle Routing Problem	Second International Conference on Business Analytics and Intelligence (ICBAI 2014), IISc Bangalore	2014

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24	Sreeram K. Y. and Panicker, V. V.,	Decision making in multi-objective production-distribution systems	Second International Conference on Business Analytics and Intelligence (ICBAI 2014), IISc Bangalore	2014
25	Jabir, E., Panicker, V.V., and Sridharan R.,	Multi-Objective Optimization Model for a Green Vehicle Routing Problem	XVIII Annual International Conference of the Society of Operations Management (SOM 2014), IIT Roorkee	2014
26	Sreeram K. Y. and Panicker, V.V.,	Clonal Selection Algorithm approach for multi-objective optimization of Production Distribution System	XVIII Annual International Conference of the Society of Operations Management (SOM 2014), IIT Roorkee	2014
27	Sekar, K. Allesu, K and Joseph, M.A	Evaluation of mechanical and tribological properties of A356 aluminum alloy reinforced with Al <sub>2</sub> O <sub>3</sub> particles with and without T6 heat treatment	International Colloquium on Materials, Manufacturing and Metrology, IITM	pp 79-80. 2014
28	Sekar, K. Allesu, K and Joseph, M.A	Effects of T6 heat treatment in mechanical and tribological properties of A356 aluminum alloy fabricated by gravity, vacuum and squeeze casting	23 International Conference on Processing and Fabrication of Advanced Materials, Department of Mechanical and Industrial Engineering , (PFAM XXII-), IITR	pp 1136-1145., 2014
29	Sekar, K. Allesu, K and Joseph, M.A	Microstructure, mechanical and tribological properties of A356-Al <sub>2</sub> O <sub>3</sub> metal matrix composites by combination effect of stir and squeeze casting method	International Conference on Advances in Tribology(ICAT14), NIT Calicut	pp 265-270., 2014
30	Sekar, K. Allesu, K and Joseph, M.A	Mechanical and wear properties of Al-Al <sub>2</sub> O <sub>3</sub> metal matrix composites fabricated by the combined effect of stir and squeeze casting method	International Symposium for Research Scholars on Metallurgy, Material Science and Engineering, (ISRS- 2014),IITM	pp 73-75., 2014
31	Sekar, K. Allesu, K and Joseph, M.A	Fabrication, construction &performance analysis of a gravity machine	International Conference on Advances in Tribology (ICAT14), NIT Calicut	pp 280-284. 2014
32	Sekar, K. Allesu, K and Joseph, M.A	Comparative study of surface roughness, energy dispersive spectroscopy, microstructure and bending strength of A356 aluminum alloy fabricated by gravity, vacuum and squeeze casting method	International Conference on Advances in Tribology (ICAT14), NIT Calicut	pp 275-279., 2014

33	Sukesha ,Rajeev Ranjan, G Nagesh, K Sekar	Fabrication and study on mechanical and tribological properties of nano Al <sub>203</sub> and micro B <sub>4</sub> c particles-reinforced A356hybrid composites.	All India Manufacturing Technology, Design and Conference (AIMTDR 2014 IIT Guwahati, Assam, India	pp 203-206., 2014
34	Rajeev Ranjan, Sukesha V ,G.Nagesh ,K Sekar	Influence of Nano- Al2O3 and Micro- ZrO2 Particles on Mechanical Property of A356 Based Composite Fabricated by Combination Effect of Stir and Squeeze Casting	All India Manufacturing Technology, Design and Research Conference(AIMTDR2014 IIT Guwahati, Assam, India	pp 341-346., 2014,
35	G.Nagesh, Sukesha.V, Rajeev Ranjan, K.Sekar	Investigations of mechanical and tribological properties of A356/Al2O3/graphite by stir with squeeze casting method	All India Manufacturing Technology, Design and Research Conference(AIMTDR2014 IIT Guwahati, Assam, India	pp 346-352., 2014
36	Sekar, K. Allesu, K and Joseph, M.A	Evaluation of Mechanical and Tribological properties of A356 alloy reinforced with(Nano+SiCp) Hybrid composites by stir and squeeze casting Method.	Recent Advances in Manufacturing (RAM- 2014),S.V.NIT,Surat, Gujarat.	PP 37-42.,2014
37	Sekar, K. Allesu, K and Joseph, M.A	Mechanical properties of A356 alloy reinforced with(Al2O3Nano+MoS2 micro) Hybrid composites by stir and squeeze castingMethod	Recent Advances in Manufacturing (RAM- 2014),S.V.NIT,Surat, Gujarat.	PP 101-105.,2014
38	K. Prabhakaran Nair	Static and Dynamics analyses of thermohydraulic dynamic journal bearing operating under nanolubricants	41 <sup>st</sup> Leeds symposium n Tribology, UK	Sept. 21-24, 2014
39	M. Mubarak, A. Shaija, T.V.Suchithra	Comparative study on pretreatment methods for extracting lipid from Chlorella pyrenoidosa for biodiesel production	International Symposium on Green and Sustainable Technology (ISGST- 2014), UTAR Perak Campus, Malaysia, 30th Sep- 3rd Oct- 2014.	
40	M. Mubarak, A. Shaija, T.V.Suchithra	Synthesis and Characterisation of methyl ester of oil from waste Avocado for biodiesel exploration in India	International Conference on Energy and Environment (ICEE-2014), JNTU Hyderabad, 15th Dec -17th-2014.	
41	S. Rajesh Kana, A. Shaija	Synthesis and Characterisation of methyl ester of oil from waste Avocado for biodiesel exploration in India	International Conference on Energy and Environment (ICEE-2014), JNTU Hyderabad, 15th Dec -17th-2014	
42	Sreenesh Narayanan, A.Shaija	Design and fabrication of a solar parabolic trough collector for pasteurization of milk in a dairy industry,	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering(INCEEE- 2015) NIT Warangal, 20- 21 March, 2015	Proceedings, page no.211-12

43	Priyank Gupta, M.Mu barak, A.Shaija,	Production of bioethanol from Salvinia molesta u sing combined pretreatment and hydrolysis with acids and distilled water	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering(INCEEE- 2015), NIT Warangal, 20- 21 March, 2015	Proceedings, page no.101-2
44	Gurpreet Singh, A Shaija	Comparison of experimental and CFD analysis of a double pipe heat exchanger	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering(INCEEE- 2015), NIT Warangal, 20- 21 March, 2015	Proceedings, page no.113-14
45	Alwin V., Kuriachen B., Satyananda P., Mathew, J.	Experiments and Simulation of Three Dimensional Micro EDM with Single and Multiple Discharges	AIMTDR, Guwahati	1, 327:1-6, 2014
46	Kuriachen, B, Patil, D., Mathew, J.	Thermal Stress Modeling of Micro- Electrodischarge Machining on Titanium Alloy	ICMMS, Chennai	2014
47	Mithun, S. N., Kuriachen, B., Vijayakumar, R, Mathew, J.	Modelling Of Micro Electric Discharge Machining Using FEM	AIMTDR, Guwahati	1, 333:1-6, 2014
48	Dinesh, B. P., Deepak, G. D., Somashekhar, K.P., Allesu K., Mathew, J.	Numerical Modeling and Multi-Objective Optimization of Micro- Wire EDM Process	AIMTDR, Guwahati	1,332:1-6, 2014
49	Vipin, V., Kuriachen, B., Manu. R., Mathew, J.	Experimental and Finite Element Based Investigations on Powder Mixed Micro- Electrical Discharge Machining Of Ti-6Al-4V Alloy	AIMTDR, Guwahati	1, 334:1-6, 2014
50	Vignesh, S. N., Vipin, D. K., Manu, R., and Mathew, J.	Experimental Study on Varying Electromagnetic Field Assisted Die Sinking EDM	AIMTDR, Guwahati	1, 339:1-6, 2014
51	Kuriachen B., and Mathew, J.	Spark Radius Modelling Of Micro Electric Discharge Machining Of Ti-6Al-4V	AIMTDR, Guwahati	1, 342:1-6, 2014
52	Jayakumar, K., Mathew, J., and Joseph, M. A.	Synthesis and machinability studies of A356 alloy-15% SiC composite	AIMTDR, Guwahati	1, 550:1-6, 2014
53	Sooraj, H., and Mathew, J.	Multi Objective Optimization of Cutting Parameters in Micro- milling of Ti-6Al-4V Alloy	AIMTDR, Guwahati	1, 132:1-6, 2014
54	Kuriachen, B., Mathew, J.	Modeling And Multi- Response Prediction Of Micro Edm Drilling On Inconel 718	AIMTDR, Guwahati	1, 341:1-6, 2014
55	Syamlal, T., Kuriachen, B., Jayadas, N.H., Sajesh, M.,and Mathew, J.	Parametric Optimization and Statistical Study of Wire Electrical Discharge	IMEC	2014

56	Arun K.G, <b>T.J.S.</b> <b>Jothi</b> , S. Kumaravel	Theoretical and Experimental Study of Magneto Hydrodynamic Propelled (MHD) Ship	National Conference on Latest Trends In Mechanical Engineering (NCLTME-2014),	NSS College of Engineering, Palakkad, March 25-27, 2014.
57	G Gopi and <b>T</b> .J.S. Jothi	Monte Carlo Simulation of Paterned Luminescent Solar Concentrator	National Conference on Renewable Energy Innovations for Rural Development (NCREIRD 2014)	Rural Energy Centre, Gandhigram Rural Institute,19 March 2014.
58	Ashutosh Sonawane, Ashok S, Sarvoththama Jothi T.J	Optimum Configuration of Busbar	Proceedings of International Conference on Advances in Engineering and Technology - ICAET 2014	Roorkee Institute of Technology, DOI: 10.15224/ 978-1-63248- 028-6-03-98, 2014, Page(s):492 – 496
59	CM Shone and TJS Jothi	Preparation of Gasification Feedstock from Leafy Biomass	International Conference on Environment and Energy (ICEE14), December 15-17, 2014	Jawaharlal Nehru Technological University, Hyderabad 500 085, India. Page: 68
60	Joby George, Nimmy J.S., and V. Madhusudanan Pillai	Collaborative inventory distribution management in a supply chain: A simulation perspective.	2014 IEEE International Conference on Industrial Engineering and Engineering Management	December 2014 at Malaysia
61	Ajyuk J. Raj, Vinay V. Panicker, R. Sridharan, and V. Madhusudanan Pillai	Aircraft maintenance routing with onward flight breakage rule for single fleet airlines	Second International Conference on Business Analytics and Intelligence (ICBAI),	December 18-20, 2014 at IISC, Bangalore, India.
62	Abdul Nazar K. P., and V. Madhusudanan Pillai	Mixed model production sequencing problem: A genetic algorithm based approach.	International Conference on Materials Mechanics and Management	December 17-19, 2014 at College of Engineering, Trivandrum, Kerala
63	Shiyas C. R. and V. Madhusudanan Pillai	Cell heterogeneity- based manufacturing cell design considering operation sequence	Proceeding of Second International Conference on Advances in Industrial Engineering Application (ICAIE 2014)	6-8 January, pp. 131 – 139, Anna University, Chennai, India
64	Jaimini Bhattacharyya, Abdul Nazar K.P., V. Madhusudanan Pillai	Pull production control policies: Literature review and classification	Proceeding of Second International Conference on Advances in Industrial Engineering Application (ICAIE 2014)	6-8 January, pp. 212 – 223, Anna University, Chennai, India
65	Abdul Nazar K. P., Jaimini Bhattacharyya, V. Madhusudanan Pillai	Analysis of mixed model production sequencing on the system performance using simulation	Proceeding of Second International Conference on Advances in Industrial Engineering Application (ICAIE 2014)	6-8 January, pp. 256 – 261, Anna University, Chennai, India
66	Joby George and V. Madhusudanan Pillai	Spread sheet simulation of inventory position-based periodic review policies in a serial supply chain	Proceeding of Second International Conference on Advances in Industrial Engineering Application (ICAIE 2014)	6-8 January, pp. 67 – 75, Anna University, Chennai, India
67	Nimmy J. S. and V. Madhusudanan Pillai	Comparative analysis of performance measures of general supply chain models and supply chain operation reference model (SCOR)	Proceeding of Second International Conference on Advances in Industrial Engineering Application (ICAIE 2014)	6-8 January, pp. 181 – 187, Anna University, Chennai, India

# b. **Community Services**:

SI No	Name	Nature of Service	Organization
1	L.G. Kiran Kumar	Children education	NSS

2	A. Shaija	<ol> <li>Sponsoring a 3rd year B.Tech student for studies</li> <li>Contributing for Pain &amp; Pallitive care</li> <li>Contributing for Bal Sadanam kids</li> <li>Contributing for building houses for poor and needy persons</li> </ol>	
3	A. Shaija	Executive Member, CIIS	

#### c. Other Academic and Administrative Service

SL. No	Name of Staff	Academic and Administrative Services	
1	Allesu K	<ul> <li>Head of the Mechanical Engineering Department</li> <li>Secretary, CREC Silver Jubilee Endowment Trust</li> </ul>	
2	M. L. Joy	<ul> <li>Professor MED, Lab in charge,</li> <li>Faculty Advisor,</li> <li>Class committee Chair</li> <li>Dean, Students Welfare</li> </ul>	
3	P.K. Rajendra Kumar	<ul> <li>Chairperson PG Admissions (Till 1st November, 2013)</li> <li>Faculty-in-Charge, NITC Music Club</li> <li>Co-ordinator, M.Tech. (Machine Design)</li> </ul>	
4	C. Muraleedharan	<ul> <li>Dean, Students Welfare; April 2013-October 2013</li> <li>Programme Coordinator, MTech Energy Engg &amp; Management</li> </ul>	
5	G. Varaprasad	<ul><li>Faculty Advisor</li><li>MED computer Incharge</li></ul>	
6	T.J.S. Jothi	<ul> <li>Mechanical Engineering Association Faculty Incharge</li> <li>Club Unwired - Aero Faculty Incharge</li> </ul>	
7	K. Sekar	<ul><li>Faculty Advisor</li><li>Material Science Lab Incharge</li></ul>	
8	A. Shaija	<ul> <li>Faculty-In Charge, Thermal Science Laboratory</li> <li>Main Warden, Ladies Hostel</li> <li>Class Committee Chairman Final year Production</li> <li>Member, Quarters allotment Committee - Institute level</li> <li>Project Evaluation Committee - M.Tech in Energy management</li> <li>Executive member - Combustion Institute (Indian Section) 2013 onwards</li> </ul>	
9	Jose Mathew	<ul> <li>Dean (R&amp;C), NIT Calicut (Till Nov 2014)</li> <li>Chairman, TBI NIT Calicut (Till Nov 2014)</li> <li>Institute Coordinator, NBA Accreditation</li> <li>Chairman, S7-8 Mechanical</li> <li>Professor in Charge, Advanced Manufacturing Centre,</li> <li>Sophisticated Instruments Centre and CAD/CAM Centre</li> <li>Members of various academic and evaluation committees</li> <li>Ph.D. Examiner to NIT/IIT Students</li> <li>Reviewer to many international and national journals/conferences</li> <li>National Advisory Committee (NAC) member of AIMTDR, COPEN, etc.</li> </ul>	
10	M.A. Joseph	MED Time Table In-charge     Course Coordinator of M.Tech- Materials Science and Technology	
11	Vinay V Panicker	<ul> <li>Deputy Chairperson Post Graduate Admissions         (November 2013 – till date)</li> <li>Purchase Coordinator (TEQIP II) for Dept. of Mech. Engg.         (October 2013 – till date)</li> <li>Secretary – Department of Mechanical Engineering         (October 2013 – till date)</li> <li>Faculty-in-charge of Adventure Club         (July 2010 onwards – till date)</li> </ul>	

12	R. Sridharan	<ul> <li>Dean – Faculty Welfare from 05-02-2014 to till date</li> <li>HoD, MED from 26-10-2011 to 25-10-2013</li> </ul>	
13	Dr. Ghulam Jilani	<ul> <li>Coordinator, B. Tech. Projects Evaluation Committee</li> <li>Faculty Advisor, Fourth Semester B. Tech. Students</li> </ul>	
14	M. Srinivas	<ul><li>Faculty adviser</li><li>Warden- Mega hostel</li></ul>	
15	Dr. C Muraleedharan	<ul> <li>Programme Coordinator, MTech Energy Engg &amp; Management</li> <li>Faculty-in Charge, MED Library</li> <li>Course Coordinator, ZZ1002, Engg. Graphics</li> </ul>	
16	L.G. Kiran Kumar	<ul><li>NSS program officer</li><li>Warden</li></ul>	
17	A.P. Sudheer	<ul> <li>Faculty Advisor S12 PE</li> <li>Warden –IH &amp; Mega boys hostel.</li> <li>Webmaster-MED</li> <li>M.Tech project Evaluation Committee member –MMT</li> <li>NSS programe officer –MED</li> <li>Mechatronics/Robotics laboratory in Charge</li> <li>Faculty in Charge-RIGNITC.</li> </ul>	
18	P.V. Manu	<ul> <li>M.Tech Evaluation committee member</li> <li>Heat Engine Lab Incharge</li> <li>Faculty Advisor</li> </ul>	
19	Dr. S. Jayaraj	M.Tech Thermal Science Coordinator	

# d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI. No	Title	Coordinators	Duration & Period
1	Training in Advanced Pedagogy	Sreelekha G.	22-24 Dec 2014, NIT Calicut and Teaching Learning Centre, IIT Madras

# e. Expert lecturers delivered in Conferences/Seminar/workshops

SI. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. Madhusudanan Pillai V	FDP	07/03/2015	Adishankara institute of engg. and technology
2	Dr. Madhusudanan Pillai V	FDP	22/09/2014	GCE kannur
3	Dr. Madhusudanan Pillai V	FDP	Feb 2015	GCE kannur
4	C. Muraleedharan.	FDP	20/09/2014	NSS College of Engg. Palakkad
5	L.G. Kiran Kumar	FDP	11/06/2014	NIT Calicut
6	L.G. Kiran Kumar	FDP	30/08/2014	GEC Calicut
7	Dhanish P.B	FDP	31/01/2015	SNS College of technology
8	Dhanish P.B	FDP	17/07/2014	GCE KANNUR
9	Vinay V Panicker	FDP	09 May 2014	Department of Management Studies & Research Centre, B.M.S. College of Engineering, Bangalore
10	Vinay V Panicker	FDP	19 January 2015	Department of Mechanical Engineering, Adi Shankara Institute of Engg. & Technology Kalady
11	Arun. P	FDP	February 26-28, 2015	Capacity Building Training Program for ANERT Personnel ANERT

12	Arun. P	FDP	September 11-12 , 2014	National Workshop on Industrial Energy Audit:, NITC
13	Arun. P	FDP	June 29-July 5, 2014	Emerging Trends in Chemical and Environmental Engineering, NITC
14	Arun. P	FDP	April 21-25, 2014	Modern Trends in Energy, Environment and Green Technologies, CUSAT
15	Dr. K. Prabhakaran Nair	FDP	20/03/2015	KPR Institute of engg. Coimbatore
16	Dr. K. Prabhakaran Nair	FDP		Mohammed Sathak Engg. College, Ramanad.
17	Dr. N. Ramachandran	FDP	April/May 2014	GCE KANNUR
18	Dr. N. Ramachandran	FDP	Sep. 2014	GCE KANNUR
19	Dr. S. Jayaraj	STTP	May 2014	GCE KANNUR

# f. Details of Faculty, who acquired Higher Qualification:

SI. No.	Name of Staff	Qualification Acquired	Organization
1	Jayadeep UB	PhD	IISc. Bangalore

## g. Consultancy and testing:

SI. No	Nature of Service	Organization	Revenue earned	Status
1	CAI Training for NTTF Students	NTTF, Tellichery	Rs 42,697	
2	Evaluation of performance, emission and combustion parameters of CI engine fuelled with biodiesel from Calophyllum inophyllum (Punnai) seed and its blends	Government Engineering college, Kozhikode- 673 005	Rs 3000	
3	Calorific value of prepared biodiesel and emission characteristics	Jyothi Engineering College Jyothi Hills, Panjal Road, Vettikattiri, Cheruthuruthy, Trissur- 679 531	Rs 3000.	
4	Production and analysis of biodiesel from chicken waste	Holy Kings college of Engineering, Pampakuda P.O, Ernakulam Dist, Kerala-686 667	Rs 3000	

## i. Participation in Conferences/Seminars/Workshops/other Training programmes

SI. No	Name of Faculty	Title of the Programme	Duration and Period	Organisation
1	Dr. Ghulam Jilani	Faculty Development Programme on 'Advanced Pedagogy'	October 20-22, 2014	Teaching Learning Centre, IIT Madras, India.
2	Dr. UB Jayadeep	International workshop on computational methods in vibration and acoustics	March 16-21, 2015	ISM Dhanbad
3	I A P SHANEER	Faculty Development Programme on 'Advanced Pedagogy'	December 20-22, 2014	NIT Calicut and Teaching Learning Centre, IIT Madras, India
4	Vinay V Panicker	Faculty Development Programme on 'Advanced Pedagogy'	October 20-22, 2014	NIT Calicut and Teaching Learning Centre, IIT Madras, India

5	K sekar	Teqip Sponsored Faculty Development Programme on Modern Pneumatics Control-Theory and Practice	Dec-8-12.,2014	Department of Mechanical Engg. NIT Calicut	
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## i. Patents acquired and filed

SI. No	No	Name of Staff	Title	Year
1	application number: 2136/CHE/2015	A.P. Sudheer, Ajin Baby, Hariram Shankar, , Murali Gopal M.,Thomas Joseph	DEPLOYABLE / RETRACTABLE PREFABRICATED BUILDING STRUCTURE	The Government of India, Patent office has allotted the following request number: 3838/RQ-CHE/2015
2	patent application number 6094/CHE/2014	A.P. Sudheer, Jibin Rajan Varghese	Radial robotic friction gripper	The Government of India, Patent office

# j. Books published:

• Dr. K. Prabhakaran Nair and P. Dhanraj, Finite Element Methods, Oxford University, (In press)

## **DEPARTMENT OF MATHEMATICS**

#### a. Publications

#### i. Journals

SI No.	Name of the Author	Title of Paper	Name of Journal	National/ International
1	P.K. Sanjay and S. Thangavelu	Dimension free bounded ness of Riesz transforms for the Grushin operator	Proceedings of the American Mathematical Society	142 (2014), 3839 - 3851
2	Jyothis Thomas, Sunil Jacob John	On Soft \mu- compact soft Generalized Topological Spaces	Journal of Uncertainity in Mathematical Sciences	Vol.2014,(2014), 01-09.
3	Shinoj TK, Anagha Baby, Sunil Jacob John	Some algebraic s tructures of fuzzy multisets	Annals of Fuzzy Mathematics and Informatics	Vol 9(1) (2015) 77-90.
4	BaijuT, S unil Jacob John	On Submeta compactnes in fuzzy topological spaces	Annals of Fuzzy Mathematics and Informatics	Vol 9(4) (2015) 593-600
5	Deepak D, Sunil Jacob John	Homomorphisms of Hesitant Fuzzy Subgroups	International Journal of Scientific & Engineering Research	Volume 5, Issue 9, September-2014 , 9-14.
6	Gayathri Varma, Sunil Jacob John	Multi-fuzzy rough sets	International Journal of Scientific & Engineering Research	Volume 5, Issue 9, September-2014 , 15- 19.
7	Shijina .V, Sunil Jacob John	Aggregation Operations on Multiple Sets	International Journal of Scientific & Engineering Research	Volume 5, Issue 9, September-2014, 39-42.
8	Babitha K V , Sunil Jacob John,	Studies on Soft Topological Spaces	Journal of Intelligent and Fuzzy Systems	Vol. <u>28(4)</u> : 1713- 1722 (2015)
9	P.Shanas Babu and A.V. Chithra	Some results on Acyclic chromatic number of mth power of paths	Indian Journal of Applied Research	Volume 5, Jan. 2015 5-6
10	P.Shanas Babu and A.V. Chithra	A note on Acyclic Edge Colouring of Star Graph Families	American Journal of Computational Mathematics (AJCM)	Accepted
11	Shinoy George, Sushama C.M	Evaluation of Efficiency in DEA Models using a common set of weights	International Journal of Innovati research in Science Engineerin and Technology	Vol.3 Special Issue 5 July 2014
12	K.C. Siju and M. Kumar	Reliability measures and cost analysis of parallel systems with time dependent failure rates	International Journal of Statistics and Reliability Engineering	To appear

		in the presence of repair	I	1
		dependence function		
13	S.Panda, M. Sellier, M C S Fernando and M K Abeyratne	Process Parameter Identification in Thin Film Flows Driven by a Stretching Surface,	International Journal of Engineering Mathematics	Volume 2014 (2014), 12 pages, Article ID 485431,2014, doi:10.1155/2014/48543 (Published in July 2014)
14	A Nayak, S. Panda and D K Phukan	Soret and Dufour effects on mixed convection unsteady MHD boundary layer flow over stretching sheet in porous medium with chemically reactive species	Applied Mathematics and Mechanics	(Eng. Ed.) 35(7), 849- 862(2014) DOI: 10.1007/s10483-014-1830 (Published in June 2014)
15	B Kuriachen, A Verghese, K P Somashekar, S. Panda and Jose Mathew	Three Dimensional Numerical Simulation of Micro Electric Discharge Machining of Ti-6Al-4V"	The International Journal of Advanced Manufacturing Technology	2015DOI 10.1007/s00170-015- 6794-y, Feb. 2015
16	K B Basant and S Panda	Some applications of first approachable Sunya and derivation of other approachable Sunyas	Indian Journal of History of Science	49(3), 311-336, 2014 (Published October 2014
17	Minirani S and Sunil Mathew	Fractals in Partial Metric Spaces	Fractals, Wavelets and its Applications(Springer)	Vol.99, 2014, pp: 203- 215
18	Darshan Lal M Nair, Sunil Mathew	Some strong adjacency problems in weighted graphs	Journal of Uncertainty Mathematics Science	Vol.14, 2014, pp: 1-7
19	Minirani, Sunil Mathew	On the Convergence of sequence of attractors in Fractal space	International Journal of Advanced Computer and Mathematical Sciences	Vol.5, 2014,pp:69-73
20	Sunil Mathew, M S Sunitha, Anjali N	Some connectivity concepts in bipolar fuzzy graphs	Annals of pure and applied mathematics	Vol.7, 2014,pp:98-108
21	Dhanyamol M V, Sunil Mathew	Distances in weighted graphs	Annals of pure and applied mathematics	Vol.8, 2014,pp:1-9
22	Jill K Mathew, Sunil Mathew	Some extremal problems in weighted graphs	Annals of pure and applied mathematics	Vol.8,2014,pp:27-37
23	Jill K Mathew, Sunil Mathew	Some distances and sequences in a weighted graph	IOSR journal of Mathematics	Vol.7, 2014,pp:1-7
24	Sunil Mathew, Jicy N	Connectivity analysis of a network by levels	Annals of pure and applied mathematics	Vol.8, 2014,pp:57-63
25	Jill K Mathew, Sunil Mathew	Sequences in a weighted graph and characterization of partial trees	International Journal of Scientific eng.and research	Vol.5, 2014,pp:20-22
26	Jicy N,Sunil Mathew	Connectivity analysis of cyclically balanced fuzzy graphs	Fuzzy information and Engineering(Elsevier)	Vol.7,2015,pp:1-11
27	Anjali N, Sunil Mathew	On blocks and stars in fuzzy graphs	Journal of Intelligent and fuzzy systems	Vol.28,2015,pp:1659- 1665
28	Jill K mathew, Sunil mathew	A characterization of fuzzy self centered graphs	Annals of fuzzy mathematics and Informatics	Accepted
29	Jill K Mathew, Sunil Mathew	On strong extremal problems in fuzzy graphs	Journal of intelligent and fuzzy systems	Accepted
30	Anjali N, Sunil Mathew	Critical blocks in fuzzy graphs	The journal of fuzzy mathematics	Accepted
31	M S Sunitha, Anjaly	Strong Chromatic Number of fuzzy graph	Annals of Pure and Applied Mathematics	Vol. 7, No. 2, 2014, 52- 60
32	M S Sunitha , Mini Tom	Sum Distance in Fuzzy Graphs,	Annals of Pure and Applied Mathematics	Vol. 7, No. 2, 2014, 73-89

-00	M S Sunitha	Total Domination in Fuzzy		Vol. 9, No. 1, 2014, 23-
33	Manjusha	Graphs Using Strong Arcs	Applied Mathematics	33,
34	M S Sunitha	Fuzzy Set-Valuation on	Gen. Math. Notes,	Vol. 25, No. 1,
34	Shahida	Graphs		November 2014,pp50-61
	M S Sunitha	On the Metric Dimension	Journal of Scientific & Engineer	Volume 5, Issue 9,
35	Shahida	Joins of Two Graphs,	Research,	September-2014 33
		International		ISSN 2229-5518
	M S Sunitha	Characterization for	Advances and Applications in	Volume 15, Number 1,
36	Shahida	Topologically Set	Discrete Mathematics	2015, Pages 1-8
		graceful Stars & Paths,		
	M S Sunitha,	Strong chromatic	International Journal of	6(2), 2015, 149-155
37	Anjaly	number of resultant of	Mathematical Archive	
		fuzzy graphs,		
	M S Sunitha Sande	Eccentric Connectivity	Annals of Pure and Applied	Vol. 9, No. 2, 2015, 233-
38	Narayan	Index and Detour	Mathematics	239- ISSN: 2279-087X
50		Eccentric Connectivity		(P), 2279-0888(online)
		Index – A Comparison,		

## ii. International Conference

II.	International Conference				
SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.	
1	Dr.Jessy John C Co-authered with Rubell Marion Lincy G.	Daily Stock Trend Forecasting using Fuzzy Rule-based Reinforcement Learning Agent and Portfolio Management	34 <sup>th</sup> International Symposium on Forecasting (IFS2014) organized by Erasmus School of Economics, Rotterdam, Netherland, during 29June to 02 July 2014	29 June to02 July 2014	
2	P.Naveen and A.V.Chithra	Some properties of Cayleyg raphs on Dihedral Group	Advances in Applied probabilities, Graph Theory and Fuzzy Mathematics (ICAPGF 2014)	ISBN 978-93-5174- 243-2 Nov.2014, 198-201	
3		Traffic Assignment with Fuzzy Travel Time	International conference on Advances in Applied Probability, Graph Theory and Fuzzy Mathematics	11-14 Jan 2014	
4	Shinoy George, Sushama C.M	Evaluation of Efficiency in DEA Models using a common set of weights	International conference on Innovations and Advances in Science Engineering and Technology	1-8 July 2014	
5	M. Kumar and P.N. Bajeel	Design of Optimal Reliability Test Plans for a Series System in the Presence of Covariates	International Conference on Advances in Applied Probability, Graph Theory and Fuzzy Mathematics (ICAPGF-2014).	ISBN 978-93-5174-243-2, 2014, 51-61.	
6	K. C. Siju and M. Kumar	The Effect of the Dependence Classes of Repair Dependence Function onthe Availability &Reliability of a Component Parallel System	,	ISBN 978-93-5174-243-2, 2014, 1-12.	
7	Ashish Awasthi and Jinesh P Joseph	A Study on Parameter FreeNumerical Method for Singularly Perturbed Linear Convection Diffusion Problems	International Conference on MathematicalSciences 2014, Department of Mathematics, Madurai Kamaraj University Madurai, Tamilnadu, August 21-23, 2014.	Mathematical Sciencesinternational research journals vol 3, 2014, pp-619-623	
8	MayurBonkile, Ashish Awasthi and Simon Jayaraj	A Numerical Simulation Based on Modified Keller Box Scheme for Fluid Flot The Unsteady Viscous Burgers' Equation	International Conference on Recent Trends in Mathematical Analysis and Its Applications, IIT Roorkee	December 21-23, 2014	

	MayurBonkile, Ashish Awasthi and Simon Jayaraj	A Numerical Implementation of Fourth Order Time Integration Formula via MOL on the Unsteady Burgers' Equation	59 <sup>th</sup> Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2015), Alliance University Bangalore	December 17-20,2014, ref:59-istam- fm-fp-164
10	Lakshmi C and Ashish Awasthi	A cubic B-spline approach to solve Burgers' Equation	59th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM- 2015), Alliance University Bangalore	December 17-20, 2014, ref: 59-istam- nm-fp-245
	Vijitha Mukundan and Ashish Awasthi	A comparative study of Three level explicit and Implicit numerical scheme for convection diffusion equation	International conference on Mathematical sciences and computational sciences (ICMACS-2015), Don Bosco College, Kannur, Kerala, Jan. 22-24, 2015	Mathematical and computational sciences, 1 pp. 58-64, 2015, Narosa publishing house, New Delhi

#### iii. National Conference

SI. No.	Name of the Author	Title of Paper	Name of National conference	Vol., Year, p.p.
1	K.C. Siju and M. Kumar	Multistate system reliability, availability estimation and cost analysis in the presence of repair dependence function	3rd national conference on frontiers in applied sciences and computer technology (FACT 15)	Vol 3, March 6-7, 2015.
2	M. Kumar and P.C. Ramyamol	Reliability acceptance sampling plan for exponential distribution based on time between successive failures",	3rd national conference on frontiers in applied sciences and computer technology (FACT 15)	Vol 3, March 6-7, 2015.
3	M. Kumar and P.N. Bajeel	A component reliability test plans for a parallel system with failure rates as the exponential function of covariates	national conference on Recent trends&developments in statistics (NCRTDS) during Feb 21-23, 2015, M.D. University,Rohtak, India	To appear in proceedings
4	M. Kumar and K.C. Siju	Reliability, availability estimation and cost analysis of parallel systems with time dependent failure rates in the presence of repair dependent function	national conference on Recent trends and developments in statistics (NCRTDS) during Feb 21- 23, 2015, M.D. University, Rohtak, India	To appear in proceedings
5	Ashish Awasthi and Anjali Anand	Numerical methodologies for higher index differential- algebraic equations	Mathematical modelling & soft computing, Department of Mathematics, college of engineering, Vatakara. September 25-26, 2014	IJSER,Volume 5,Issue 9 , September- 2014, pp1-4
6	Vijitha Mukundan and Ashish Awasthi	Numerical Implementation of BDF2 via Method of Lines for Time Dependent Nonlinear Burgers Equation	Mathematical modeling & soft computing, Department Mathematics, college of engineering, Vatakara. September 25-26, 2014	IJSER, Vol.5,Issue9, 2014, pp 53-57
7	Jill K Mathew, Sunil Mathew	Weighted distance in graphs	National Conference on Mathematical Soft Computing	Vol.1, 2014,pp:129-132

# **b. Community Services**

SI. No.	Name of Staff	Academic and administrative Services
1	Dr. Chithra.A.V.	1. HOD(Jan 2015 onwards)
		NSS Programme Officer
		3. Guided three M.SC. Mathematics Final Project and one M.Sc.(Tech.) final
2	Dr. Sunil Jacob John	<ol> <li>Course Coordinator, MA1001- Mathematics I, offered by MAT during</li> </ol>
		Monsoon Semester 2014-15
3	Dr. Jessy John C	<ol> <li>Course Coordinator, MA2001- Mathematics III, offered by MAT during</li> </ol>
		Monsoon Semester 2014-15
		<ol><li>Course Faculty for (i) MA2001 Mathematics III, (ii) MA7203- Statistical</li></ol>
		Methods and (iii) MA2002 – mathematics IV during the academic year
		2014-15.
		<ol><li>Ph. D Coordinator of MAT (from January 2015 onwards)</li></ol>
		<ol> <li>Guided one M. Sc. Mathematics Final Project and one M. Sc. (Tech) Final project.</li> </ol>
		5. In Charge of Planning and Development of MAT (Jan 2013-Jan 2015)
		6. In Charge of Purchase and Stock of MAT (Jan 2013-Jan 2015)
		7. MAT HOD Nominee to BOAC (Jan 2013 onwards)
		8. General Matters M. Sc Programme (Committee member of MAT)
		· · · · · · · · · · · · · · · · · · ·
		10. In Charge of Seminars of MAT (from January 2015 onwards)
4		Secretary, Alumni,NITC
	Dr. Sunil Mathew	2. Warden, NITC
		3. Vice president, Spring Valley school
		4. PG Admission

#### c. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services		
Dr. Sunil Jacob John	<ol> <li>DC Member of Ph. D Candidates form MAT and other Departments of the Institute.</li> <li>Adjudicated many Ph. D Thesis of other Universities</li> <li>Member of Board of Examiners for other Universities</li> <li>Reviewer of Mathematical Reviews (American Mathematical society) and Many other Journals including Springer and Elsevier</li> </ol>		
Dr. Jessy John C	<ol> <li>Officiated as DC Member of Ph. D Candidates form MAT as well as other Departments of the Institute.</li> <li>Senator of the Institute</li> <li>Valued Ph. D Thesis of other University</li> <li>Question Paper Setter for other University</li> <li>Gives counseling to needy students and colleagues</li> </ol>		
Dr. Satyananda Panda	Member Student Guidance Cell		
Dr. Chithra.A.V.	<ol> <li>DC member of Ph.D candidates from MAT and other Departments of the Institute</li> <li>Member of Board of studies in Mathematics PG Calicut university</li> </ol>		
Dr. Sunil Mathew	<ol> <li>Secretary, Alumni,NITC</li> <li>Warden, NITC</li> <li>Vice president, Spring Valley school</li> <li>PG Admission</li> </ol>		

## d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI. No	Coordinators	Title	Duration & Period
1	Dr.Chithra. A. V and Dr.Sanjay P. K.	TEQIP Sponsored Workshop	Nov 6 – Nov 8, 2014.
	·	on Functional Analysis and	
		Applications	

#### e. Expert lecturers delivered in Conferences/Seminar/workshops

SI. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr.Sanjay P. K.	UGC Sponsored National Seminar on Mathematical Analysis and Applications	25-27 Feb, 2015.	TMG College, Tirur.
2	Dr.Sanjay P. K.	National Seminar on Complex Analysis	6-7 Feb, 2015.	KKTM Govt College, Pullut.
3	Dr. S. Panda	Study Group meeting on Mathematics and statistics for industry	December 2-5, 2014	University of Ruhuna, Matara, Sri Lanka,
4	Dr. S. Panda	International Conference on mathematical Modeling and Computer Simulation	December 8-10, 2014	Department of Mathematics, IIT Madras
5	Dr. S. Panda	International Seminar on applied mathematics and statistics (ISAMS 2015)	January 10, 2015	University of Gujarat, Ahmedabad
	Dr. S. Panda	Indo-European Study Group meeting on Industrial Problems	January 5-9, 2015	M. S. University, Baroda, Gujarat
7	Dr. S. Panda	Modeling Week and Study Group Meeting on Industrial Problems	March 17-21, 2015	M S University, Baroda, Gujarat
8	Dr. S. Panda	Mathematics in Industry Study Group	April 6-10, 2015	UTM center for Industrial and Applied Mathematics, University Technology Malaysia,
9	Dr.Sunil Mathew	National seminar on Mathematics with applications to staistics	August 22-23, 2014	Vimala College Trissur
	Dr.Sunil Mathew	Orientation programme for Higher secondary students	August 8,2014	Nirmala matha central school,Thrissur
	Dr.Sunil Mathew	Orientation programme for faculty	August 6-8,2014	Adi sankara institute of engg.and Tech, Kaladi
12	Dr.Sunil Mathew	National seminar on discrete mathematics and its applications	October 20-21,2014	Government Women's College Kannur
13	Dr.Sunil Mathew	National seminar on "Recent trends in Mathematics	Oct.23-24,2014	NSS Hindu College Changanassery
14	Dr.Sunil Mathew	National seminar on recent advances in applied mathematics	Nov.27-28,2014	TKM College of Engineering Kollam
15	Dr.Sunil Mathew	Mathematics talent search camp	Dec.19-21,2014	SB College Changanassery
16	Dr.Sunil Mathew	INSPIRE2015	January 13-18, 2015	Thevara College Cochin
17	Dr.Sunil Mathew	National Sem.on DM and its applications	Jan 8-10,2015	WMO Arts and Science College Muttil
18	Dr.Sunil Mathew	National seminar on mathematics	17-01-2015	Guruvayoorappan college Calicut
19	Dr.Sunil Mathew	National workshop in mathematics	January 29-30,2015	NPMM S N trust College Shornur
20	Dr.Sunil Mathew	Seminar on the relevance of mathematics in other branches of Science and arts	03-02-2015	Mercy College Palakkad

# f. Details of Faculty, who acquired Higher Qualification:Nil

g. Consultancy and testing: Nil

## h. Participation in Conferences/Seminars/Workshops/other Training programmes

SI. No		Title	Duration and Period	Organized by
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		Faculty Development Programme	20-22 oct.2014	Teaching Learning Centre
1	Dr. Chitha.A.V.	TEQIP-II Advanced Pedagogy Training Programme at IIT Madras		IIT Madras
2	Dr. Sunil Jacob John	Faculty Development Programme-TEQIP-II Advanced Pedagogy Training Programme at NIT Calicut	22 - 24 Dec 2014	Organized by Teaching Learning Centre, IIT Madras
3	Dr Jessy John C	Faculty Development Programme-TEQIP-II Advanced Pedagogy Training Programme at IIT Madras	20-22 Oct 2014	Organized by Teaching Learning Centre, IIT Madras
4	Dr. Mahesh Kumar	Workshop on SPSS and R	1 day, 20 <sup>th</sup> Feb 2015	M.D. University Rohtak, India.
5	Dr. Sanjay P.K	School on Coherent State Transforms, Time- Frequency and Time-Scale Analysis, Applications	2-21 June 2014	International Centre for Theoretical Physics (ICTP), Trieste, Italy
6	Dr. Sushama C.M	Advanced Pedagogy	Oct.20-22, 2014	IIT Madras

k. Student achievements

### **DEPARTMENT OF CHEMISTRY**

### a. Publications

i. Journal

SI. No	Name of the Author	Title of the paper	Name of Journal	Vol.,Year.PP
1	R. Puthiyottil, S. Varghese, U. Gopalakrishna panicker, J.T. Guthrie	Preparation and characterization of complex doped PMMA and PMMA/EVA polymer network	Polymers-plastics technology and engineering,53:11(2014) 1111-1118	June 2014
2	Abhineeshbabu Thottiparambil,a P. R. Anil Kumarb and Lakshmi Chakkumkumarath	Styrylcyanine-based ratiometric and tunable fluorescent pH sensors	RSC Advances RSC Adv., 2014,	4, 56063–56067 September 2014
3	J. Linet Rose, B. V R. Tata, Y.Talmon, V. K. Aswal, P. A. Hassan, Lisa Sreejith	Micellar Solution with pH Responsive Viscoelastic and colour switching Properties	RSC Advances	2015, 5, pp. 11397- 11404
4	Jasila Karayil, Sanjeev Kumar, P. A. Hassan, Y. Talmon, Lisa Sreejith	Microstructural transition of aqueous CTAB micelles in the presence of long chain alcohols	RSC Advances	2015, 5, pp. 12434 – 12441
5	J. Linet Rose, B. V R. Tata, Y.Talmon, V. K. Aswal, P. A. Hassan, Lisa Sreejith	pH-Switchable Structural Evolution in Aqueous Surfactant-Aromatic Dibasic acid System	European Physical Journal E	2015, 38, pp. 4-12
6	J. Linet Rose, B. V R. Tata, Y.Talmon, V. K. Aswal, P. A. Hassan, Lisa Sreejith	Distinctive Effect of Maleic Acid and Fumaric Acid on structural Transitions in Cationic Micellar Solution	Colloid and Polymer Science	2015, 293, pp. 1383-1390
7	M. Sunil Kumar, A.A. Ummu	Chitosan Nanoparticles: A. Systematic Study Based on	Polymers From Renewable Resources	5(4), 167, 2014.

	Habeeba, P.P. Prejina, A. Sujith	Degree of Deacetylation and Molecular Weight		
8	A. Sujith, A. Shebi, P. Sudheesh, M. Sunil Kumar, .Chandrasekharan	'Natural Dye Doped Poly (methyl methacrylate) Micro- Particles for Nonlinear Optics'	IEEE Micro & Nano Letters	9(9), 566, 2014
9	M. Sunil Kumar, A.K. Abdul Gafoor, Abdul Aziz Anas, A.P. Haseena, A. Sujith	Dielectric Properties: a gateway to antibacterial assay-a case study of low- densitypolyethylene/ chitosan films	Nature Polymer Journal	46, 422, 2014.
10	N. Riyasudheen, manu Jose paul A. Sujith	Effect of poly(vinyl pyrolidone) on antifouling of asymmetric poly(ethylene-co-vinyl alcohol) membranes	Chemical Engineering & Technology,	37(6), 1021, 2014.
11	S. J. Devereux, P. M. Keane, S. Vasudevan, I. V. Sazanovich, M. Towrie, Q. Cao, XZ. Sun, M. W. George, C. J. Cardin, N. A. P. Kane-Maguire, J. M. Kelly, S.J.Quinn	Study of picosecond processes of an intercalated dipyridophenazine Cr(III) complex bound to defined sequence DNAs using transient absorption and timeresolved infrared methods	Dalton Trans.,	2014, 43, 17606 – 17609.
12	N. K. Siji Narendran, R. Soman, C. Arunkumar, K. Chandrasekharan	Third-order nonlinear optical investigations of mesotetrakis(2,3,5,6-tetrafluoro-N,N-dimethyl-4-anilinyl)porphyrin and its metal complexes	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	2015, 136, 838-844.
13	F. R. Kooriyaden, S. Sujatha, B. Varghese and C. Arunkumar	Synthesis of electron-deficient fluorinated porphyrins through scrambling: Characterization and quantitative crystal structure analysis	Journal of Fluorine Chemistry	2015, 170, 10-16.
14	S. Sujatha, S. Balasubramanian and C. Arunkumar	Thermal decomposition of Nickel(II) and Cu(II) hexaaza macro tricyclic complexes	Asian Journal of Chemistry	2015, 27, 270-272.
15	S. Sujatha and C. Arunkumar	Synthesis, Crystal Structure and Hirshfeld Surface Analysis of Copper (II) Complex with pentacoordinated N5 ligands [Cu(AEPN)(2PN)](CIO4)2	Asian Journal of Chemistry	<b>2015</b> , 27, 1843-1846.
16	G. Frenking, R. Tonner, S. Klein, N. Takagi, T. Shimizu, A. Krapp, K. K. Pandey, P. Parameswaran	New bonding modes of carbon and heavier group 14 atoms Si–Pb	Chem. Soc. Rev.	2014, 43, 5106-5139.
17	K. C. Mondal, S. Roy, S. De, P. Parameswaran, B. Dittrich, F. Ehret, W. Kaim, H. W. Roesky	Stabilization of a Two-Coordin Mononuclear Cobalt(0) Compound	Chem. Eur. J.	2014,20, 11646-11649.
18	I. Puroshothaman, S. De, P. Parameswaran	CO <sub>2</sub> adducts of Lewis acid–ba pairs (LBCO <sub>2</sub> LA; LB = PMe <sub>3</sub> , NHC and LA = AlH <sub>3</sub> , AlCl <sub>3</sub> , BH – analogous to carboxylic acid and their derivatives	Adv.	2014, 4, 60421-60428.

19	K. Nijesh, V. C. Rojisha, S. De, P. Parameswaran	2-Adamantylidene and its heavier analogues: hyperconjugation versuslone p stab+ility &electrophilicity versus nucleophilicity	Dalton Trans.	2015, 44, 4693-4706.
20	P. P. Samuel, R. Neufeld, K. C. Mondal, H. W. Roesky, R. Herbst-Irmer, D. Stalke, S. Demeshko, F. Meyer, V. C. Rojisha, S. De, P. Parameswaran, A. C. Stückl, W. Kaim, J. H. Christian, J. K. Bindra- N. S. Dalal	Cr(I)Cl as well as Cr <sup>+</sup> are stabilised between two cyclic alkyl amino carbenes	Chem. Sci.	2015, 6, 3148-3153.
21	J. Li , Y. Li , I. Purushothaman , S. De , B. Li <sup>†</sup> , H. Zhu , P.Parameswaran , Q.Ye , W.Liu		Organometallics	DOI:10.1021/om 501288t

### ii. International Conference

SI. No	Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.	
1	C. Arunkumar, R. Soman, S. Sujatha, J. Ramesh and B. Varghese	Non-Covalent Interactions Involving Organic Fluorine: Structural Investigations on Metalloporphyrins	Oral presentation at ICPP-8(International Conference on Porphyrins and Phthalocyanines), Istanbul, Turkey	22-27 June 2014.	
2	Rahul Soman, Subramaniam Sujatha and Chellaiah Arunkumar	Novel Single Crystalline Porphyrinic Semiconductor Materials Formed by Weak Intermolecular Interactions Involving Organic Fluorine	International Conference on Advances in New materials (ICAN 2014), Dept. of Inorganic Chemistry, University of Madras,	20-12 June 2014	
3	Fasalu Rahman Kooriyaden, Subramaniam Sujatha and Chellaiah Arunkumar	Scrambling in Porphyrins: Synthesis, Characterization and Quantitative Crystal Structure Analysis	International Conference on Advances in New materials (ICAN 2014), Dept. of Inorganic Chemistry, University of Madras,	20-12 June 2014	
4	Jagadeesan Ramesh, Subramaniam Sujatha and Chellaiah Arunkumar	trans-porphyrins: synthesis, tructural characterization an fluorescence studies	International Conference on Advances in New materials (ICAN 2014), Dept. of Inorganic Chemistry, University of-Madras,	20-12 June 2014	
5	Dijo Prasannan, Subramaniam Sujatha and Chellaiah Arunkumar	Synthesis and Structural Characterization of Functionalized Water-Solubl BODIPY Derivatives via Clic chemistry	7, -1	20-12 June 2014	
6	Hanna Thamleena A. <b>P</b> . Parameswaran, S. De	A QM/MM Study of the K+-id Transport Mechanism throug Potassium Ion Channel		November 2014 at IISER Mohali	

	I. Purushothaman J. Li, Y.Li,b S. De,	1,2-Dipolar Cyclo Addition Reaction of	Gaussian Workshop	December 2014 at IISER
7	B. Li, H. Zhu, P.Parameswaran, Q. Ye, W. Liu	Dimethylacetylenedicarboxy e (DMAD) with Aryl (phosphoranyl)aminosilane: Role of Substituents at the Silicon Center		Pune
	V. C. Rojisha, K. Nijesh, S. De,	2-Adamantylidene and its heavieranalogues:	Theoretical Chemistry Symposium	December 2014 at
8	P.Parameswaran	hyperconjugation versus lon pair stability and	(TCS) 2014	NCL Pune and II
		electrophilicity <i>versus</i> nucleophilicity		SER Pune
9	K. Nijesh, S. De, P. Parameswaran	Chemical Bonding in Ligand Stabilized Diberyllium and DizincComplexe	Theoretical Chemistry Symposium(TCS) 2014	December 2014 at NCL Pune and IISERPune
	C. Anusha, S. De, P. Parameswaran	Ring Contraction Reaction in Oxidized Metallabenzynes bethe Wolff Type	-	December 2014 at
10		Rearrangement: A	,	NCL Pune
		Comparative Study with the Organic Molecules Acetylen and Benzyne		
	Hanna Thamleena A.P.Parameswaran, S	A Molecular level	Theoretical Chemistry Symposium	December 2014 at
11	De	ofthe K+-ion Transport Mechanism through Potassi Ion Channel: An ONIOM Stu	(TCS) 2014	NCL Pune

### iii. National Conference

SI. No	Name of the Author	Title of Paper	Name of National Conference	Vol., Year, p.p.
1	Jasila K, Lisa sreejtith	Recuuring of phase transitions in CTAb/quaternary salt/alcohol system and role of quaternary ammonium salt as solubilisation site modifier in cationic micellar solution.	Kerala Science Congress Wayanad.	Jan 2014
2	Linet Rose J. Lisa Sreejith	Surfactant Based Micellar Fluid with pH Switchable Properties	Material Chemistry Seminar, Providence Women's College, Calicut.	October 2014
3	Dijo Prasannan, H. Haritha, S. Sujatha and C. Arunkumar	Regioselective Bromination of BODIPYs: Synthesis, Characterization and Photophysical Properties	Poster presented at 27 <sup>th</sup> Kerala Science Congress organized by Kerala State Council for Science, Technology and Environment (KSCSTE) and in association with National Transportation Planning and Research Centre (NATPAC) held at Camelot Convention Centre, Alappuzha	27-29 January 2015
4	Fasalu Rahman Kooriyaden, Subramaniam Sujatha and Chellaiah Arunkumar	Level of Scrambling in Porphyrin-Forming Reactions Using Electron Deficient Dipyrromethanes: Synthesis, Characterization a &Quantitative Crystal Structure Analysis	Poster presented at 17 <sup>th</sup> CRSI National Symposium in Chemistry, CSIR-NCL, Pune	06-08 February 2015
5	Ramesh Jagadeesan,	<i>Trans</i> -porphyrins as chemosensors for Fe <sup>2+</sup> /	Poster presented at 17 <sup>th</sup> CRSI National Symposium	06-08 February 2015

	Subramaniam	Cu <sup>2+</sup> ion detection	in Chemistry, CSIR-NCL,	
	Sujatha and		Pune	
	Chellaiah			
	Arunkumar			
6	Dijo Prasannan,	Synthesis, Structure,	Poster presented at 17 <sup>th</sup>	
	Subramaniam	Spectral and Sensing	CRSI National Symposium	
	Sujatha and	Properties of Alkyne	in Chemistry, CSIR-NCL,	06-08 February 2015
	Chellaiah	Functionalized BODIPYs	Pune	·
	Arunkumar			

### b. Community Services

SI. No	Name of Statt	Details	
1	G. Unnikrishnan	Facuulty co-ordinator, Social Engineering Forum, NITC	
2	Dr. Lisa Sreejith	Developed an ecofriendly solution for plastic waste management	
3	Dr. A. Sujith	Programme Officer, National Service Scheme, NIT Calicut	
4	Sri. Prakash Peter	Member of the integrated socio economic survey of Chathamangalam Grama panchayath conducted by NSS unit of NITC	
		Volunteer, pain and Paliative Care Society, Medical College, Calicut	

### c. Other Academic and Administrative Services

SI. No.	Name of Staff	Academic and Administrative Services
1	Dr. G. Unnikrishnan	
		Faculty –in –charge-instrumentation, Chief Warden, NITC Hostels
2	Dr. Lakshmi C.	Exam cell in charge, NBA Accreditation
3	Dr. Lisa Sreejith	HOD Chemistry
		Stores & purchase -in-charge,
4	Dr. A. Sujith	Programme Officer, National Service Scheme,
		Associate Dean (R&C)
		Faculty-in-charge of Dept. Library, Central library advisory Committee Member
5	Dr. Suni Vasudevan	Time table in charge
		Faculty –in –charge- Instrument maintenance
6	Dr. C. Arunkumar	First year B.Tech Theory coordinator, Warden of G hostel,
		Training and Placement in-charge, Member of Stores and Purchase
7	Dr.Parameswaran P	Computer centre in charge, Dept. of Chemistry, First year B.Tech Lab coordinator

### d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI. No	Title	Coordinators	Duration & Period
1	Better Engineering	Dr. G. Unnikrishnan,	09-13 June 2014
	Skills through better	Dr. C. Arunkumar	
	chemistry protocols		

### **DEPARTMENT OF PHYSICS**

### a. **Publications**

i. Journal

SI. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p
1	K jayakrishnan,	Synthesis, Z-Scan and	OPTICAL MATERIALS	45(2015) 171-180
	SijiNarendran,	Degenerate Four Wave Mixing		
	P Sreejith,	Characterization of Certain		
	Antony Joseph,	Functionalized Photosensitive		
	E.Purushothaman,	Polyesters containing ortho-		
	K.Chandrasekharan	hydroxyazo chromophores		
2	Siji Narendran,	Third order nonlinear optical	SpectochemicaActaPart A	136(2015)838-844
	Rahul Soman,	investigation of Meso-tetrakis		
	CArunkumarK.	(2,3,5,6-tetrafluoro –N,N-dimethyl -4		
	Chandrasekharan	aniliny)prophyrin and its metal		
		complexes		
3	N. Smijesh,	Time of flight emission		116, 013301 (2014)
	K. Chandrasekharan,	spectroscopy of laser produced	Journal of Applied Physics	` ´ ´

	Jagdish C. Joshi,	nickel plasma: Short-pulse and		
4	Reji Philip P.Predeep	ultrafast excitations Impedance spectroscopic studies on natural rubber-TiO2 nanocomposite	Advanced Materials Researc	938, 2014,204
5	P.Predeep	Nanocomposites based on high- Tc superconducting ceramic 2212 BSCCO and their properties	Advanced Materials Researc	938, 2014, 214
6	P.Predeep	Organic field effect transistor with silica nanoparticles on gate Dielectric(2014) Asian Journal of Applied Sciences, 7 (8), pp. 696-70	Asian Journal of Applied Sciences	7 (8), 2014, 696
7	P.Predeep	Influence of plasma treatment on Indium Tin Oxide electrodes	Microelectronic Engineering	131, 2015, 8
8	M Yoosuf Ameen, S Pradhan, M Remyth Suresh and V S Reddy,	MoO3 anode buffer layer for efficient and stable small molecular organic solar cells	Optical Materials	Vol. 39, 2015, pp.134–139

### (ii). International Conference

SI. No.	Name of the Author	Title of Paper	Name of International Conference	Vol., Year, p.p
1	P.Predeep	Influence of Gate Dielectrics, Electrodes and Channel Width on OFET Characteristics	2 <sup>nd</sup> International Conference on Emerging Trends in Engineering and Technology (ICETET'2014 )London May 30-31, 2014	1620 (1), 2014,596
2	P.Predeep	Green Synthesis and Characterization Of Silver Nanoparticles Using Aloe	International conference on light (OPTICS-14) NIT Calicut March 19-21, 2014	1620,2014 ,592.
3	P.Predeep	Study of Optical Properties of Erbium Doped Tellurite Glass – Polymer Composite	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014, 565
4	P.Predeep	Enhanced Optical and Electrical Properties of PEDOT :PSS/Gold Nanocomposite System	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014,587.
5	P.Predeep	Elastomeric Organic Material for Switching Application	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620(206), 2014,206
6	P.Predeep	Development of Au-Ag Nanowire Mesh Fabrication by UV-Induced Approach	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014,499
7	P.Predeep	Reinforced Fluropolymer nanocomposites with High- Temperature Superconducting Bi2Sr2Ca2Cu3Oy	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620,2014,
8	P.Predeep	Electrical and Optical Properties of Nitrile Rubber Modified by Ion Implantation	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014,344
9	P.Predeep	Optical Characterization of Semiconducting Nylon 6 Films	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014,213
10	P.Predeep	Effect of source drain electrodes on the performance parameters of P3HT based OFET,	International conference on light (OPTICS-14) NIT CalicutMarch 19-21, 2014	1620, 2014,596
11	Yoosuf Ameen M, Shamjid P and V S Reddy,	Tris(acetylacetonato)ruthenium (III) as Cathode Buffer Layer in CuPc/PTCDI-C8 Based Small Molecular Organic Solar Cells	International Conference on Energy Harvesting Storage an Conversion (IC-EEE), CUSAT Cochin, India.	2015, p. 59.
12	Shamjid P, Lakshmi Rajan, Yoosuf Ameer M andV S Reddy,	Effect of Substrate Temperature on Organic Solar Cell Characterist	International Conference on Energy Harvesting Storage and Conversion(IC-EEE), CUSAT Cochin, India.	2015, p. 71

### (iii). National Conference

SI. No	Name of the Author	Title of Paper	Name of National Conference	Vol., Year, p.p
1	T Praveen, K Shiju, Jayan Manuel and P. Predeep	A low cost flexible organic Schottky diode based on charge transfer complexes of semiconduction natural rubber	An innovative and futuristic approach Science and Technology-iFAST 2015	
2	Jayan Manuvel, T Praveen K Shiju, and P Predeep	Development of cost effective green organic semicounductors from natural rubberCis-1,4 polyisoprene)	An innovative and futuristic approach Science and Technology-iFAST 2015	
3	T Praveen, K Shiju, Jayan Manuel and P. Predeep	Green and sustainable organic field effect transistors (OFET)from natural rubber	An innovative and futuristic approach Science and Technology-iFAST 2015	
4	Liyana V P, Amina K, Shiju and P Predeep	DNA based OFET towards sustainable electronics	An innovative and futuristic approach Science and Technology-iFAST 2015	
5	P. Predeep,	Enhancement of Optoelectronic Properties of Transparent Conducting Polymer , PEDOT: PSS by Silver Nanostructuring	26th Kerala Science Congress	2014,2019
6	P.Predeep,	Natural Rubber in Electronics: Organic Transistors with Natural Rubber	26th Kerala Science Congress,	2014, 1820–1826,
7	P. Predeep,	A Viability study of natural rubber based schottky diodes in electronic applications	24thSwadeshi Science Congress,	2014,585

### b. Community Service

- Chairman UG Admissions, at NIT Sikkim for CCB (AIEEE-2011)
- Member of the Institure Research and Consultancy Committee of NIT Calicut
- · Reviwer of Project reports for Department of Science and Technology, New Delhi
- Reviewer of peer-reviewed journal articles for Optic Express, Optics Letters, Aerosol Science and Technology, Environmental Science and Technology
- Joint Coordinator, "INSPIRE-2011", a winter science camp organized for 11<sup>th</sup> standard students at NITC during 18 – 22 December, 2011
- Co-convenor, "OPTICS'11 A Conference on Optics" held in NIT Calicut, May 23 –25, 2011
- Member of Air & Waste Management Association, American Association for Aerosol Research, American Geophysical Union, Optical Society of AmeriDr. P.K. Madhavan Unni

### C. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services	
Dr Chandrasekharan K	Chairperson PG admission	
Dr. Vari Sivaji Reddy	Department Examination In-charge	
	Training and Placement Representative of the Department	
	PTA Coordinator of the Department	
	S7 B. Tech (EP) Faculty Advisor & Class Committee chairman	

Dr. P. K. MADHAVAN UNNI	1. Teaching:
	PH1001 :Physics (S1, S2 BTech), also First Year Course CoordinatorPH7213 :Atomic& Molecular Phy, S3 M.Sc. PH3006 : Experimental Techniques in Physics , S5 BTech (EP)PH2091 : Physics Lab-II (General Physics), S3 BTech (EP)PH6296 : Electromagnetics Lab, S2 M. Sc. PH8152: Phase Transition and Critical Phenomena, Ph.D. Course  2. Administrative/coordinatorship/others
	Faculty Advisor, 2014 B.Tech(EP) Batch
	First year course coordinator for PH1001
	Physics Dept. representative for NBA Accreditation
	Member, Evaluation Committee for student projects under TEQIP
	Member, Institute Level Anti Ragging Committee
	Coordinator M.Sc. Physics Entrance Examination 2015
	Coordinator First Year Supplementary Examination 2015
	Coordinator PH1002 (Introduction to Engineering Physics Profession)

### (d). Conferences/Summer/Winter School/Short term courses/Workshops conducted

SI. No.	Title	Coordinators	Duration & Period
1.	International Conference on light – OPTICS 14	P.Predeep, A. Sujith	March 19 to March 21, 2014

### (e). Expert lectures delivered in Conferences/Seminar/Workshops:

SI. No.	Name of Staff	Title of the programme	Duration & Period	Organization
1	Dr.Chandrasekharan K	National Conference on Condensed Matter Physics and Applications during 27- 28, March (PHOTONIC CRYSTALS FOR OPTICAL SWITCHES)	28-3-2015	MIT Manipal
1	Dr.P.Predeep	Expert Lecture on Organic Solar cells	2014 May	IMN, University of Nantes
2	Dr.P.Predeep	Invited for talk at the Indian Science Congress, Physical Sciences division as well as Materials Sciences sections,	2014, January	Indian Science Congress association
3	Dr.P.Predeep	National Conference on Nanotechnology and Renewable Energy	28 April 2014	Jamila MilliaUniversity, New Delhi
4	Dr.P.Predeep	National Seminar on Materials for Energy and Environment 2015	2 Feb, 2015	Vimala College, Trissur
5	Dr.P.Predeep	Scientist –Student Interaction programme	15, Oct. 2014	Swadesi Science movement at College of Agriculture, Kasargode
6	Dr.P.Predeep	Photonics Seminar Series at	27 Feb., 2015	Nirmalagiri College, Kannur,

### (f). Details of faculty, who acquired higher qualification: NIL

(g). Consultancy & Testing: NIL

### PHYSICAL EDUCATION SECTION

### a. Publications

i. Journal

ii.International Conference: NILiii.National Conference: NILb. Community Services:NIL

c. Other Academic and Administrative Services:NIL

### d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted:

SI. No	Title	Coordinators	Duration & Period
1.	International day of yoga	Dept. of Physical Education	21-06-2015

### e. Expert lecturers delivered in Conferences/Seminar/workshops:

SI. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1.	Dr. A M NAJEEB	Inter NIT work shop at NIT jaipur	122-06-15 to 22-06-15	INTER NIT CONSORTIUM Jaipur

### SCHOOL OF NANO SCIENCE & TECHNOLOGY

### a. Publications

### i. Journal

SI.	No. 10 Call			
No	Name of the Authors	Title of the paper	Name of Journal	Vol., Year, PP.
1	Gibin George, R. Krishna Sabareesh, Shijo Thomas, V. Sajith, T.Hanas, Sumitesh Das, &C. B. Sobhan	Experimental Investigation of Material Surface Erosion Caused by TiO <sub>2</sub> Nanofluid Impingement	Journal of Nanofluids (American Scientific Publishers)	3, 97-107 (2014)
2	G. Keerthi Soujanya, T Hanas, V. Yogeshwar Chakrapani, B. Ratna Sunil, T.S.Sampathkumar,	Electrospun nanofibrous polymer coated magnesium alloy for biodegradable implant applications", International Conference on Advanc in Manufacturing and Materials Engineering,	(ICAMME 2014), NIT Surathkal, Karnataka	27-29th March 2014
3	Abdul Rasheed P,N.Sandhyarani	Synthesis of Luminescent MgO Nanocrystals and Their Application i Bioimaging,	Advanced Science, Engineering and Medicine,	2014, 6(3), 283-289
4	Abdul Rasheed &PN.Sandhyarani,	Femtomolar level detection of BRCA1 gene using gold nanoparticle labeled sandwich type DNA sensor,	Colloids and Surfaces B : Biointerfaces,	2014 , <i>117</i> , 7-13
5	Kulwant Singh, Sanjeev Kumar, Robin Joyce, Rajesh Saha, Soney Varghese, and Jamil Akhtar	Influence of grains and surface roughness in boron and phosphorus implanted LPCVD polycrystalline silicon thin film	Microsystem T echnologies	2014, 1-8
6	Uvais Valiyaneerilakkal, Amit Singh, Kulwant Singh, C. K. Subash, S. M. Abbas, Rama Komaragiri &Soney Varghese	Ferroelectric characteristics of MFIS structure with P(VDF– TrFE)/BaTiO3 nanocomposite as ferroelectric layer	Applied Physics A	2014
7	Obulapathi Eggedi, Uvais valiyaneerilakka M.R Darla and Soney Varghese,	Nanoindentation and thermal characterization of poly(vinylidene fluoride)/ MWCNT nanocomposites	AIP Advances	Vol. 4, pp. 7102, (2014)
8	Robin Joyce, Kulwant Singh, Himani Sharma, Soney Varghese, and J. Akhtar	Low cost anodic bonding for MEMS packaging applications	Microsystem Technologies	20, pp 1153-1158, 2014

9	Kulwant Singh, Robin Joyce, Soney Varghese, and J. Akhtar	A new method for fast anodic bonding in microsystem technology	Microsystem Technologies	20, pp 1345-1349, 2014
10	Mallikharjuna Rao Darla, Sriharsha Hegde and Soney Varghese	Effect of BaTiO3 Nanoparticle on Electro-Optical Properties of Polyme Dispersed Liquid Crystal Displays	Journal of Crystallization Process and Technology	4, pp 60-63, <b>2014</b>
11	Binoy Baby and C. B. Sobhan	Numerical and Experimental Investigations on Forced Convection in Meso- Channels with Irregular Geometry of Cross Section	Elsevier	Vol. 70, pp. 276-288, 2014.

### ii. International conference:

SI. No	Name of the Authors	Title of the paper	Name of Journal	Vol., Year, PP.
1	G. Keerthi Soujanya, T Hanas, V. Yogeshwar Chakrapani.	Electrospun nanofibrous polymer coated magnesium alloy for biodegradable implant applications", International Conference on Advance		27-29th March 2014
	B. Ratna Sunil, T.S.Sampathkumar,	in Manufacturing and Materials Engineering,		

iii. National Conference: Nil B.Community Service: NIL

### c. Other academic and administrative services:

Name of Staff	Academic and Administrative Services
N. Sandhyarani	Head, SNST
14. Carranyaram	Time table in charge
C. B. Sobhan	Ph.D co-ordinator
1. Co -ordinator, Nanotechnology Research Lab 2.Member, Purchase Committee, SNST Sajith V. 3. Faculty Advisor, SAE Collegiate Club, NITC 4. Lab-in-Charge, Optical Measurement Laboratory 5.Associate Dean (Planning & Development)	
Soney Varghese SEM and SPM Manager	
Shijo Thomas	M.Tech co-ordinater,warden-hostels

### d. Conferences/Summer/Winter school/short term courses/workshop conducted: Nil

- e. Expert lecturers delivered in Conferences/Seminar/workshops
- f. Details of Faculty, who acquired Higher Qualification

### **SCHOOL OF MANAGEMENT STUDIES**

### a. Publications

### i. journals

SI. No.	Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
1	Dr. Muhammad Shafi	Developing Quality Management Measures In Print and VisualMedia: Challenges Ahead	Global Journal of Business and Social Science Review	GJBSSR, Vol. 1 (2), January-March 2015: 454-461

### ii. International Conference

SI. No	Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
1	Dr. Muhammad Shafi	Developing Quality Management Measures In Print and VisualMedia:	Global Conference on Business and Social Science during 15-17 Dec 2014 at	GJBSSR, Vol. 1 (2), January-March 2015: 454-461
		Challenges Ahead	Kualalumpur, Malasiya	TOT-TO 1

- iii. National Conference: Nil b. Community Services: Nil
- c. Other Academic and Administrative Services: Nil

### d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

SI. No	Title	Coordinators	Duration & Period
1	J	Dr. Muhammad Shafi Dr. S. Sunitha	June-2-7- 2014

### f. Expert lecturers delivered in Conferences/Seminar/workshops

SI. No	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr.S Sunitha	Delivered a lecture on FDP	4 hr	NITC
2	Dr. Muhammad Shafi	Delivered a lecture on FDP	2 Hr	NITC

g. Details of Faculty, who acquired Higher Qualification: Nil

h. Consultancy and testing: Nili. Student achievement: Nil

### SCHOOL OF BIOTECHNOLOGY

### a. Publications

i.Journals

SI. No.	Name of the Authors	Title of the paper	Name of journal	Vol., Year, p.p.
1	Jaya Prakash S, Santhiagu A, and Jasemine S.	Preparation, Characterization& In Vitro Evaluation of Novel Gellan Gum-Raloxifene HCl Nanoparticles	Journal of Pharmaceutical And Biosciences.	Vol-2, 2014, p- 63-7
2	Jaya Prakash S, Santhiagu A and Jasemine S.	Optimization of Process Variables for the Preparation of Gellan Gum-Raloxifene Nanoparticles Using Statistical Design.	American Journal of Pharmacy and Health Research.	Vol-2, 2014, p- 34- 49.
3	Sreejith M, Kannappan N, Santhiagu A, Ajith PM	Analgesic and anti- inflammatory activities of aerial parts of Flacourtia sepiaria.	Asian Journal of Research and Pharmaceutical Sciences	5(1): 2015, 12-17

### ii.International Conference

SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	S Vidhuna and A Santhiagu.	Partitioning of ribonuclease from Bacillus sp VS184 by polyethylene glycol/sodium sulphate aqueous two phase systems	Bioprocessing India	Dec, 2014
2	K Joji and A Santhiagu	Screening, isolation and characterization of a novel fibrinolytic enzyme from marine Bacillus SKA2712	Avidadham 2015 International conference on contemporary research trends in diagnostics and therapeutics	Feb, 2015
3	A Divya and A Santhiagu	Partitioning of alkaline phosphatase from recombinant Escherichia coli BL21(DE3) using aqueous two phase systems	Avidadham 2015 International conference on contemporary research trends in diagnostics and therapeutics	Feb, 2015

Ī	4	S Nisha and A	Isolation and Identification of	Avidadham 2015	Feb, 2015
		Santhiagu	methioninase producing fungi	International conference on	
			from soil	contemporary research	
				trends in diagnostics and	
				therapeutics	

### iii.Other Academic and administrative services

Name of Staff	Academic and Administrative Services
Dr. Aswati Nair.R	<ul> <li>(i) Laboratory in charge of Plant Biotechnology and Enzyme kinetics laboratory (BT3093) conduct of B.Tech practicals (Microbiology laboratory; Plant Biotech and Enzyme kinetics laboratory);</li> <li>(ii). Courses handled: 4 courses: Plant Biotechnology (BT 3006); BT3093; BT4099, Project (BT-VIII); BT3095, Miniproject (BT-VI);</li> <li>(iii). Question paper setter to: University of Kerala (08.604-Proteomics and Protein Engineering; AUBB251: Microbial Metabolism, Genetics and Diseases);</li> <li>(iv). Guided three B.tech Dissertation; (v). One Ph.D submission;</li> <li>(vi). Three students currently pursuing Ph.D under my guidance;</li> <li>(vii). Reviewer of research papers in International journals viz., PLoS One, Journal of Plant Research (Springer) and Comptes rendus Biologies (Elsevier).Administrative Services: (i). Departmental Purchase Committee Member; (ii). Library Purchase Committee member;</li> <li>(iii). Convocation committee member in Hospitality committee; (iv). PTA Coordinator of SBT</li> </ul>
Dr. Premraj Pushpakaran	(i). International Committee Board Member, Global Conference on Agriculture Economoics and Environment Research (2014 GCAEER) September, 2014., Okinawa, Japan (ii). International Committee Board Member, Global Conference on Engineering and Applied Science (2015 GCEAS) July 6-8, 2015., Hong Kong (ii).International Conference Committee Board member, First International Workshop on Computer-aided Mechanical Design and Implementation. December 16-19, 2015, Jeju National University International Center, Jeju Island, Korea.

### 11.0 ANNEXURES

### 11.1INSTITUTE'S SENATE

- 1) Dr. M N Bandyopadhyay, Director & Chairman Ex-Officio
- 2) Dr. V K Govindan, Dean (Academic)
- 3) Dr. V Mustafa, Dean (P & D)
- 4) Dr. R. Sreedharan, Dean (FW)
- 5) Dr. Jose Mathew, Dean (R&C)
- 6) Dr. M.L Joy, Dean (SW)
- 7) Dr. Y. R. Sood External member
- 8) Dr. A. S. Singha External Member
- 9) Dr. Malathi Doreswamy External Member
- 10) Dr. K Prabhakaran Nair, Professor, MED
- 11) Dr. S. Jayaraj, Professor, MED
- 12) Dr. M. J. Jacob, Professor, Maths
- 13) Dr. T P Somasundaran, Professor& Head, CED
- 14) Dr. N. Ganesan, Professor, CED
- 15) Dr. S Chandrakaran, Professor, CED
- 16) Dr. V. Narayanan, Head, Mathematics,
- 17) Dr. A M Muhammed Ameen, Professor, CED
- 18) Dr. MVLR Anjaneyalu, Professor, CED
- 19) Dr. A P Shasikala, Professor, CED
- 20) Dr. N Sankar, Professor, CED
- 21) Dr. Zacharia Varghese, Professor, CED
- 22) Dr. J Sudhakumar, Professor, CED
- 23) Dr. P V Indira, Professor, CED
- 24) Dr. T M MadhavanPillai, Professor, CED
- 25) Dr. Priya Chandran, Professor, CSED
- 26) Dr. P Vineeth Kumar, Professor, CSED
- 27) Dr. Paul Joseph, Professor, EED

- 28) Dr. Abraham T Mathew, Professor, EED
- 29) Dr. C. K. Ali, Head, ECED, Invitee
- 30) Dr. Susy Thomas Professor & Head, EED
- 31) Dr. Jeevamma Jacob, Professor, EED
- 32) Dr. Dr. K S Sivanandan, Professor, EED
- 33) Dr. M V Vaidyan, Professor, EED
- 34) Dr. Ashok S, Professor, EED
- 35) Dr. P S Sathidevi, Professor, ECED
- 36) Dr. Elizabath Elias, Professor, ECED
- 37) Dr. T K Suresh Babu, Professor, T & P
- 38) Dr. M. K. Ravi Varma, Head, Physics
- 39) Dr. P Predeep, Professor, Physics
- 40) Dr. Jessy John, Professor, Maths
- 41) Dr. K. Allesu, Professor& Head, MED
- 42) Dr. Lillykutty Jacob, Professor, ECED
- 43) Dr. C. Muraleedharan, Professor. MED
- 44) Dr. N Ramachandran, Professor, MED
- 45) Dr. P K Rajendrakumar, Professor, MED
- 46) Dr. Lity Alen Varghese. Head, ChED
- 47) Dr.P. P. Anil Kumar, Head, Arch.,
- 48) Dr. G Unnikrishnan, Professor. Chemistry
- 49) Dr. Lisa Sreejith, Head, Chemistry,
- 50) Dr. Rajanikant G. K., Head, SoBT
- 51) Dr. C B Sobhan, Prot'essor, SNST
- 52) Dr. P C Subramaniam, Professor, ECED
- 53) Dr. N. Sudarsan, Professor & Head, SOMS
- 54) Dr. S. D Madhukumar, Head, CSED
- 55) Dr. M. A. Joseph, Professor. MED
- 56) Dr.Ghulam Jilani, Professor, MED
- 57) Dr.K.Chandrasekharan, Professor, Physics
- 58) Dr.M.P.Nandakumar, Prossor, EED
- 59) Dr.Saly George, Professor, EED
- 60) Dr. Santosh., G. Thampi; Professor, CED

### 11.2 BOARD OF GOVERNORS

	Dr. C.G. Krishnadas Nair, Hony. President , Society of indian
Chairman	Aerospace Technologies & Industrie,s AeSI Building, Suranjandas
	Road, Off:Old Madras Road, Bangalore - 560075(Karnataka)
Ex Officia Mambar	Dr. M N Bandyopadhyay, Director, National Institute of Technology,
Ex. Officio Member	Calicut (Kerala)
	Special Secretary or Additional Secretary or Joint Secretary dealing
Member	with Technical Education, Department of Higher Education, Ministry of
	Human Resource Development, New Delhi
Marahar	Financial Advisor, Department of Higher Education, Ministry of Human
wember	Resource Development, New Delhi
	Prof. M Vijayan, Distinguished Professor and Homi Bhaba Chair,
Member	Molecular Bio Physics Unit, Indian Institute of Science, Bangalore -
	560012(Karnataka)
	Smt. Uma Pillai, IAS Former Secretary, Ministry of Tourism and
Member	Former Secretary, Department of Defence Production & Supplies,
	Government of India
Member	Dr. P.Vineeth Kumar, Professor ( CSED), NIT Calicut.
Member	Dr.Sameer S.M., Associate Professor (ECED), NIT Calicut.
Member	Adv.P.M.Suresh Babu, Nominee of the Govt. of Kerala
Member	Dr.K.Shoukkath Ali, Nominee of the Govt. of Kerala
Secretary	Registrar, National Institute of Technology, Calicut (Kerala).
	Member  Member  Member  Member  Member  Member  Member  Member  Member

### 11.3 FINANCE, BUILDING AND WORKS AND OTHER COMMITTEES

### MEMBERS OF THE FINANCE COMMITTEE

1	Chairman, BOG	Dr. C.G. Krishnadas Nair, Hony. President , Society of indian Aerospace Technologies & Industrie,s AeSI Building, Suranjandas Road, Off:Old Madras Road, Bangalore - 560075(Karnataka)
2	Member	Dr. M N Bandyopadhyay, Director, National Institute of Technology, Calicut (Kerala)

3	Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical Education, Department of Higher Education, Ministry of Human Resource Development, New Delhi
4	Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource Development, New Delhi
5	Member	Smt. Uma Pillai, IAS Former Secretary, Ministry of Tourism and Former Secretary, Department of Defence Production & Supplies, Government of India
6	Member	Dr. P.Vineeth Kumar, Professor ( CSED), NIT Calicut.
7	Secretary, BOG	Registrar, National Institute of Technology, Calicut (Kerala).

### MEMBERS OF BUILDINGS AND WORKS COMMITTEE

SI. No	Name	Address
1	Dr.M.N.Bandyopadhyay	Director, National Institute of Technology, Calicut, NIT Campus PO, Calicut 673 601
3	Registrar	Secretary (BWC), NIT Calicut.
4	Dr. K.Krishnamurthy	Executive Engineer, NIT Calicut.
5	Dr.V.Mustafa	Dean, Planning & Development
6	Dr. S M Sameer	Associate Professor, ECED, NIT Calicut - Nominee of BOG
7	Sri.M Raveendran	Executive Engineer,CPWD,Calicut Central Division (Electrical), Kendriya Bhavan,Kallai, Calicut – 673003
8	Sri.K.Sundaran,	Project Director, Kerala State Transport Project (KSTP), TC/339/Jagad Buildings,Keston Road, Nandancode, Kawadiar P O Thiruvananthapuram – 03
9	Sri.R Srinivasan	Director(TC) M.H.R.D, Technical Section, Shastri Bhavan, New Delhi, 110 115
10	Dr.T.M Madhavan Pillai	Professor, CED

### 11.4 RESEARCH PROJECTS AND CONSULTATION JOBS

### **DEPARTMENT OF CHEMICAL ENGINEERING**

SI. No.	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1.	Investigation Over the Experimental and Mathematical modeling of Novel plant based Bio sorbents for the sequestration of Hexavalent Chromium	Dr.N.Selvaraju	KSCSTE	2014	5,64,200	Ongoing

### DEPARTMENT OF CIVIL ENGINEERING

SI. No.	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1		Dr. Praveen Nagarajan, Dr. A P Shashikala	KSCSTE, Kerala	2011	9.9 lakhs	completed
2	Development of an Interoperable Spatial Database of Road Network for Calicut District	Dr. M.VL.R.Anjaneyulu	NRDMS DST, Govt. of India	2008	16.81 lakhs	On going
3	Development of Activity based Models for Forecasting of Travel Demand, in collaboration with Centre of Excellence in Urban Transport	Dr. M.VL.R.Anjaneyulu	Indian Institute of Technology Madras, sponsored by Ministry of Urban Development		9.99 lakhs	On going
4	Development of A Toolbox for Evaluation and Identification of Urban Road Safety Improvement	Dr. M.VL.R.Anjaneyulu	Indian Institute of Technology Madras, sponsored by	2010	15.00 lakhs	On going

	Measures, in collaboration with Centre of Excellence in Urban Transport		Ministry of Urban Development			
5	Use of Coir Pith for Airport Soft Ground Arrester System	Dr. MVLR Anjaneyulu; Dr. S. Chandrakaran, Dr. A.P. Shashikala, Dr. K. Rangaswamy and Sri. Sajith A.S.	Coir Board, MMSME, GOI, Kochi, Kerala.	2011	113.124 lakhs	On going
6	Study of Long Term Performance Of Pavements Reinforced With Coir Geotextiles	Dr. MVLR Anjaneyulu	Coir Board, MMSME, GOI, Kochi, Kerala	2011	268.114 lakhs	On going
7	Behaviour of bituminous mixture under moisture and adverseTemperature conditions	Sri. M Sivakumar	NITC, FRG	2013	4.80	On going
8	Assessment of Effectiveness of NH-47 Bye-pass Road in Coimbatore in Congestion Relief and Level-of-Service (LOS) Improvement in Traffic Flow on NH-47 in Coimbatore City using Microscopic Simulation Technique (SERC/ET-0108/2010)	Dr. K Krishnamurthy	SERC Division, DST, India	2013	6.24	On going
9	Coordinator, Centre for Transportation Research, a Centre of Excellence, under Establishment of 50 Centres of Excellence for Training and Research in Frontier Areas of Science & Technology (FAST)	Dr. M.VL.R.Anjaneyulu	MHRD, Govt. of Indis	2014	Rs. 1.00 crore (Annual Grant).	On going

### **DEPARTMENT OF ELECTRICAL ENGINEERING**

SI. No	Title of the Project	Investigators	Sponsoring Agency	Year of Starting	Amount (Lakhs)	Status
1	Nonlinear analysis of EEG signals of patients with Alzheimer's diseases	Dr. Subha D. P.	DST	2012	17.95	Ongoing
2	Development of nanocomposite insulator for high energy storage applications	Dr. Sindhu T K	DST	2012	24	On-going
3	Applications of Neural Networks and Fuzzy Logic in Modern Control systems sponsored by MHRD.	Dr. Jeevamma Jacob	MHRD,		10	Completed
4	DSP based Implementation of Modern Control Algorithms for Non-linear systems	Dr. Abraham T. Mathew and Dr. Jeevamma Jacob	MHRD,		6	Completed
5	A Closed Loop Control Strategy for Selective Harmonic Detection and Elimination for Generic Multilevel Inverter Configuration	Dr.Mukti Barai	FRG-NITC	2010	5	Final Stage of completion
6	Micro Grid	Dr. Kumaravel S.	FRG	2010	5	Final stage of completion
7	Development of Centre for Distributed Energy Research	Dr. Ashok S.	DST-FIST		100	
8	Development of intelligent robot for fault diagnosis of power lines	Dr. Ashok S.	KSCSTE, Govt. of Kerala	2012	11	

9	Development of Highway wind Mill, Intelligent Road Stud	Dr Ashok S.	CTR, GOI		12	
10	Investigation of Distributed Generation System Integration Strategies on a Laboratory Scale Microgrid	Dr. Elizabeth P. Cheriyan and Dr. Subha D. P.	DRDO	2010	7	Completed
11	To Strengthen the Research and post graduate in area of power quality and Energy Research in EED	Dr Ashok S.	DST	2008	100	

### **DEPARTMENT OF ELECTRONICS & ENGINEERING**

SI. No.	Title of the Project	Investigators	Sponsoring Agency	Year of Starting	Amount (Lakhs)	Status
1	Design & Implementation of Protocol Stack for Underwater Acoustic Sensor Networks	Dr. A V Babu and Dr. Lillykutty Jacob	Naval Research Board (DRDO)	2013	Rs.30 Lakhs	Ongoing
2	Design and Implementation of a Secure Communication System for Reduced Complexity	Dr. Deepthi P. P., Dr. Sameer S. M. & Dr. Sathidevi P. S.	Deity, Govt. of India	2013	Rs. 38.88 Lakhs	Ongoing
3	MEMS Design Center, NPMASS	Dr. Rama S. Komaragiri	ADA	2010	Support through software	Completed
4	Design and simulation of pressure sensor for ocean depth measurement NITC/DEAN(R&C)/FRG/AD V/2013	Smt Suja K J	FRG	2013	Rs.5 Lakhs Spent Rs. 4, 32,500	ongoing
5	VLSI Architecture for DSP Application	Mr.Jayakumar E.P.	NITC	2010	5,00,000	Ongoing
6	Encryption and authentication of multimedia data	Dr. Sudhish N George	NITC	2010	Rs. 4, 50000/-	ongoing

### DEPARTMENT OF MECHANICAL ENGINEERING

SI. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Investigation on Bio- hydrogen Production by thermo-chemical method in fluidized bed gasifier under catalytic support and its utilization	Dr. C. Muraleedharan, Dr. P Arun	MNRE	2 years 6 months	Rs. 35 Lakhs (approxima tely)	Ongoing
2	Production of Bio-diesel from Chlorella Vulgaris and Salvinia Molesta and investigation on its use in single cylinder diesel engine	A. Shaija-Pl	KSCSTE	2014-17	11 lakhs	Ongoing
3	Experimental study on heat transfer enhancement for double pipe heat exchanger fitted with porous media'	A. Shaija-Pl	KSCSTE	PG stud. project		
4	Design and fabrication of Tubular photobioreactor	A. Shaija-PI	TEQIP-II	2015	5. 8 lakhs	Ongoing
5	Design and fabrication of anechoic test facility and characteristics of acoustic emissions from airfoils In flow field	Dr. T.J. Sarvoththama Jothi	DST-SERB	2014-2017	22.54 lakhs	Ongoing

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6	Development and analysis of model for green operations in supply chain management	Dr.V Madhusudanan Pillai	KSCSTE.		9.3 Lakhs	Ongoing
7	Development of Tools and Techniques for Modelling and Analysis of World-Class Manufacturing Systems	Dr.V Madhusudanan Pillai	AICTE		Rs 25 Lakhs	Ongoing
8	Productivity Monitoring and Wage Analysis tool for NREG works in Kerala	Dr.V Madhusudanan Pillai	Ministry of Rural Development (MGNREGA division), Gol		Rs 16.78 Lakhs	Ongoing
	Development of rates for the Mahatma Gandhi National Rural Employment Guarantee Scheme (NREGS) – Time and Motion Study – Phase 2	Dr.V Madhusudanan Pillai	Local Self Government Department, Kerala		Rs 3 Lakhs	Ongoing
10	Computer Aided Enterprise Integration Using MRP II	Dr.V Madhusudanan Pillai	Faculty Resea rch Project U nder Centre o f Excellence Scheme, REC, Calicut.		Rs. 15000/-	Completed
11	Direct Expansion Solar assisted heat pump	Prof. A. Caltayu (Kazhagistan) Dr. S. Jayaraj and Prof. T. Ooi (NTU)	Kazhagistan	2015-2017	Rs. 1.5 Crores	Ongoing

### **DEPARTMENT OF PHYSICS**

SI. No.	Title of the project	Investigators	Sponsoring Agency	Year of starting	Amount (Lakhs)	Status
1.	Development of Organic Solar Cells Based on Transition Metal Oxide Anode Buffer Layers	Dr Vari Sivaji Reddy (PI) Dr A Sujith (Co-PI)	Kerala State Council for Science, Technology and Environment (KSCSTE)	2014	28.75 Lakhs	Ongoing
2.	Development of Bistable Memory Devices Based on Organic Semiconductors	Dr Vari Sivaji Reddy (PI)	Department of Science &Technology (DST), Govt. Of India	2013	21.84 Lakhs	Ongoing
3	Electronic Structure Studies of Adsorption of Unsaturated Hydrocarbons on Metal Catalysts	Dr. Raghu Chatanathodi	CSIR	2012	Rs. 19 Lakhs	to be completed in 2015
4	High Energy Density Photochemical Fuels Based on Nanomaterial Hybrids	Dr. Aji Anappara (PI), Dr. Lakshmi C, Dr. Raghu Chatanathodi, Dr. Parameswaran P. (co-PIs)	DST- Nanomission	2013	Rs. 44.25 lakhs	Ongoing
5	"Transparent, flexible and conducting electrodes based on graphene nanometal hybrids"	PI: Dr. Aji A Anappara	DST and Fast Track Scheme	2013	11.10 Lakhs	Ongoing

### **DEPARTMENT OF CHEMISTRY**

SI. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status	
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	T	1	1	1	1	1
1	Development and characterization hierarchical zeolites for fine chemical synthesis	Dr. G. Unnikrishnan	DST	2012	50.09	Ongoing
2	Development of nanocomposites from EVA, chitin, Fibres	Dr. G. Unnikrishnan	British Council	2009	1 lakhs+ GBP	Dissemination activities continues
3	Development of Pro- fluorophore scaffolds to study peptide aggregation anf conformational transitions	Dr. Lakshmi C	DST	2011	20.7	Ongoing
4	Biodegradability enhancement of polyethylene by using biopolymer nanoparticles	Dr. A. Sujith	DST	2012	25.5	Ongoing
5	Lowdensity polyethylene/nanochitosan biodegradable films for food packaging applications	Dr. A. Sujith	KSCSTE	2012	11.6	Ongoing
6	Poly(3,4- ethylenedioxythiophene)/Poly (methyl methacrylate) core- shell nanospheres for the fabrication of transparent and conductive thin films	Dr. A. Sujith	CSIR	2012	23.25	ongoing
7	Ruthenium(II), Osmium(II) and Gold(III) Alkaloids: Active Targets for DNA Intercalation Interactions	Dr. Suni Vasudevan	DST	2013	26	Ongoing
8	Structural characterization and catalytic properties of $meso$ -phenyl and $\beta$ -pyrrole functionalized porphyrin metal organic frameworks	Dr. C. Arunkumar	Faculty Research Grant, NIT Calicut	2010	5 Lakhs	Completed
9	Novel Functionalized Porphyrinic Coordination Arrays, Polymers and Frameworks: Synthesis and Properties	Dr. C. Arunkumar	DST	2012	21.8 lakhs	Ongoing
10	Rational Design and Synthesis of Metalloporphyrin-Lanthanoid Hybrid Materials for Photophysical and DNA Binding/Cleavage Studies	Dr. C. Arunkumar	DST	2013	43.66 lakhs	Ongoing
11	Novel triazole bridged metalloporphyrins formed via	Dr. Sujatha (PI), Dr. C. Arunkumar (Scientist Mentor)	DST	2012	23.6 lakhs	Ongoing
12	A theoretical study on the enzymatic catalysis by methane mono-oxygenase: Designing of biomimetic catalyst for the conversion of methane to methanol"	Dr. Susmita De (PI) Dr. C. Arunkumar (Project Coordinator)	DST	2012	25.5	Ongoing
13	Activation of Inert Molecules and Oligomerization Reactions of Alkynes by Uranium Complexes: A Quantum Mechanical Investigation	Dr. Parameswaran P.	Faculty Research Grant, NIT Calicut	2010	5	Ongoing

14	Design of Uranium Based Catalyst for Activation and Functionalization of N <sub>2</sub> and CO: A Computational Quantum Mechanical Study	Dr. Parameswaran P.	DST	2012	25.5	Ongoing
15	High Energy-density Photochemical Fuels Based on Nanomaterial Hybrids	Aji A. Anappara, Raghu C, Parameswaran P and Lakshmi C	(DST, Nano Mission)	2013	44.25	Ongoing
16	Photo switchable K <sup>+</sup> ion channel blockers: A computational quantum mechanical investigation of blocking action and design of efficient channel blockers	Dr. Susmita De	DST-INSA	2013	35	Ongoing

### **DEPARTMENT OF ARCHITECTURE**

SI. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	The Hudco funded research project titled 'Development of a Model framework for Land use based Estimation and Prediction of Solid waste generation in small/medium scale towns in India', under HSMI/HUDCO R&D Plan at a grant of Rs 20.16 lakhs – Ongoing.	Dr.P.P.Anilkumar and Chithra.K	Hudco	2013	20.16 Lakhs	Nearing completion

### SCHOOL OF NANO SCIENCE & TECHNOLOGY

SI. No	Title of the project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs.)	Status
1	"Investigations on the Application of Catalytic Nanoparticles as Diesel and Bio Diesel Additives",	V.Sajith, C.B.Sobhan N.Sandhyarani Hanas.T	Hindustan Petroleum Corporation Limited (HPCL)	2010	120 Lakhs	Ongoing
2	Ultrasensitive rapid and low cost detection of cancer biomarkers	N.Sandhyarani	Council of Scientific and industrial research	2014	6 Lakhs	Ongoing
3	Flexible Nanomaterial Doped Polymer Dispersed Liquid Crystal (PDLC)Devices for Switchable Window Applications	Nimmy John N. Sandhyarani (mentor)	KSCSTE	2013	15 Lakhs	Ongoing

### SCHOOL OF BIOTECHNOLOGY

SI No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Transcript profiling of differentially expressed gene(s) involved in the downstream step(s) leading to artemisinin biosynthesis on GA3 induction		KSCSTE	2012	16.00 lakhs	Ongoing
2	Molecular cloning and characterization of terpene synthase involved in zerumbone biosynthesis from Zingiber zerumbet		DST (Department of Science and Technology)	2010	15.82 lakhs	Completed in 2014

### 11.5 FACULTY POSITION (As on 31.03.2015)

	ION (As on 31.03.2015)  Professor	Asso. Professor	Asst.Professor	Total
Architecture				
Sanctioned	1	4	7	12
In Position	0	3	4	7
Vacant	1	1	3	5
Chemical				
Sanctioned	2	3	7	12
In Position	0	4	11	28
Vacant	2	8	12	13
Civil		12	22	41
Sanctioned	6	12	23	41
In Position	13	5	12	30
Vacant	-7	7	11	11
Sanctioned In Position Vacant	5 3 2	9 5 4	19 13 6	33 21 12
Electrical Engin Sanctioned	eering 5		22	38
In Position	9	5	11	25
Vacant	-4	<u> </u>	11	13
Electronics & Co	ommunication			
Sanctioned	5	10	19	34
In Position	4	10	10	24
Vacant	1	0	9	10
Mathematics				
Sanctioned	3	5	11	19
In Position	2	6	07	15
Vacant	1	-1	04	4
Mechanical				
Sanctioned	10	14	28	<i>52</i>
In Position	11	5	15	31
Vacant	-1	9	13	21

### Science & Humanities

Sanctioned	2	5	11	18
In Position	3	4	7	14
Vacant	-2	1	0	-2
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### School of Bio Technology

Sanctioned				
In Position	0	3	4	7
Vacant	0	0	0	0

School of Management Studies

Sanctioned				
In Position	1	0	3	4
Vacant	0	0	0	0

### School of Nano Science and

Technology

Sanctioned				
In Position	1	1	4	6
Vacant	0	0	0	0

### Training & Placement & Physical Education

Sanctioned	1	1	2	4
In Position	1	1	1	3
Vacant	0	0	1	1

### Total

Sanctioned	40	74	149	263
Additional Sanctioned	3	6	10	19
Grand Total	43	80	159	282
In Position	48	50	96	194
Vacant	-5	30	63	88

### 11.6 ADMINISTRATIVE AND OTHER STAFF (Pre-NIT Pattern)

### **ADMINISTRATIVE STAFF-OFFICERS**

SI. No.	Designation	Name			
INSTITUTE OFFICE					
1	Registrar	1. Dr. Santosh G Thampi (01.04.2014 to 15.07.2014)) 2. Dr.B. Sukumar(15.07.2014 to 31.03.2015)			
2	Dy Registrar (Admn)	1.Sri. P M Krishnan (Sr Audit Officer on deputation from AG's Office)(upto 30.11.2014) 2. Sri.P.T.Jose, Sr.Audit Officer on deputation from AG's Office (01.12.2014 to 31.03.2015)			
3	Dy Registrar (Finance)	1.Sri. Unnikrishnan. C, Sr. Audit Officer on deputation from AG's Office (16.12.2014) 2. Sri. B.Sabarinathan (17.12.2014 to 31.03.2015)			
4	OSD (S&P)	1. Dr. Raghunadhan. T (up to 29.07.2014) 2.Sri .P.T. Jose (30.07.2014 to 31.03.2015)			
5	Dy Registrar (Academic)	1.Sri. Raghunadhan. T (26.03.2014 to 26.12.2014) 2. Dr. A. Santhiagu (27.12.2014 to 31.03.2015)			

6	Internal Audit Officer	Sri. V Muraleedharan (Sr. Audit Officer, on deputation from AG's office)
7	Asst. Registrar	Vacant
8	Financial Assistant	Vacant
9	Senior Superintendent	Smt. Devaki.P.P
10	Senior Superintendent	Smt. Rugmini.C.P
LIBRAR	Υ	
11	Librarian	Vacant
12	Librarian (Gr.II)	Vacant
HOSPIT	AL	
13	Lady Medical Officer	Vacant
14	Resident Medical Officer	Dr. (Smt.) A.A. Celine
ENGINE	ERING UNIT	
15	Asst. Exe. Engineer	Vacant
	Divisional Accountant	Balan. A
HOSTE	_ OFFICE	
16	Hostel Manager	Venugopal A (in-charge)
TPL		

### NON TEACHING STAFF STRENGTH

SI. No	Designation	Sanctioned
COLLE	GE & DEPARTMENTAL OFFICES	
1	Junior Superintendent	6
2	P.A. to Director	1
3	U.D. Clerk	20
4	L.D. Clerk	19
5	Fair Copy Superintendent	1
6	Typist/Data Entry Operator	5
7	Confidential Assistant	9
8	Duplicating Machine Operator	1
9	Store Keeper	4
10	Duffedar	1
11	Peon	18
ENGIN	EERING UNIT	
1	Assistant Executive Engineer	Vacant
2	Assistant Engineer (Electrical)	1
3	Assistant Engineer (Civil)	2
4	Overseer Gr.I /Sr. Mechanic	2
5	Draftsman Gr. I.	1
6	Overseer Grade III	2
7	Mechanic (Water supply), Plumber/ Mason Trade	6
8	Mechanic (EMU)	5
9	Senior Mechanic (Engg. Unit)	9
10	Senior Mechanic (EMU)	5
i. LIB	RARY	
1	Librarian Gr. III	1
2	Librarian Gr. IV	9
3	Attender, Library	6
4	Bookbinder	1
5	Graphic Artist	1
6	Offset Machine Operator	1
7	Digital Library Technician	1
ii. HO	SPITAL	
1	Staff nurse	2
2	Pharmacist	1
3	Attender Hospital	1
iii. HC	OSTEL	
1	Stewards	5

2	Matron-Ladies Hostel	1
iv. Gl	JEST HOUSE	
1	Guest House Manager	1
2	Cook-cum-butler	1
3	Bearers-cum-Room boy	2
v. CO	LLEGE VEHICLES SECTION	
1	Driver	4
2	Vehicle Cleaner	2
vi. W	ATCH AND WARD STAFF	
1	Sergeant	1
2	Watchmen	6
3	Watchman-cum-Gardener	16
4	Gardener	1
vii. S	ANITATION	
1	Sanitation worker	16
2	Sweeper-cum-Sanitation worker	6
3	Part-time Sweeper	25

### NON-TEACHING STAFF (ACADEMIC)

	DEPARTMENT OF CIVIL ENGINEE	RING
1	Instructor	1
2	Senior Mechanic,Lab Techinician	9
3	Mechanic	4
DEPAR	TMENT OF ARCHITECTURE	
1	Senior Mechanic	2
2	Draftsman Gr. II	1
DEPAR	TMENT OF ELECTRICAL ENGINEER	ING
1	Instructor	1
2	Senior Mechanic	11
3	Mechanic	2
DEPAR	TMENT OF ELECTRONICS & COMM	UNICATION ENGINEERING
1	Instructor	1
2	Senior Mechanic, Lab Techinician	4
3	Mechanic	3
DEPAR	TMENT OF COMPUTER SCIENCE EN	NGINEERING
1	System Analyst	1
2	System Programmer	1
3	Computer Operator	1
4	Computer Technician	1
5	Senior Mechanic	1
6	Mechanic	5
DEPAR	TMENT OF MECHANICAL ENGINEE	RING
1	Draughtsman Gr. I	1
2	Foreman	1
3	Supervisor	2
4	Instructors	2
5	Senior Mechanic	25
6	Mechanic	7
	R FOR BIO-MECHANICS	
1	Senior Mechanic	1
2	Mechanic	1
DEPAR	TMENT OF SCIENCES & HUMANITIE	S S
1	Lab Assistant	4
TRAINI	NG AND PLACEMENT CELL	
1	Marker	2

### 11.7 STAFF MEMBERS DEPUTED/SPONSORED FOR TRAINING, LEARNING

Staff members deputed/sponsored for Training, Learning

Name of the Staff	Title of the Programme	Duration and Period	Organization
1. Anil Kumar P 2.Anandan P 3. Abhilash A	Gas Tungsten arc welding on Aluminium	16.06.2014 to 20.06.2014	ATI Mumbai
1. Nandakumar.K 2.V.R. Ajayachandran 3.AnilKumar. P 4. Pradeep Kumar.E 5. K.K. Pradeep Kumar 6. Rajendran. MK 7.Asoka Kumar. PT 8. Abdul Sathar. VM 9. Praveen H Babu 10. Velayudhankutty. NP 11. Abhilash A	Windows Networking and Security	05.01.2015 to 09.01.2015	ATI Hyderabad
1. Praveen Kumar. P 2. Unnikrishnan.K	Materials Mangement & Purchase Policy, Procedure E- Procurement in Govt. Depts., Autonomous bodies & PSUs	12.03.2015 to 14.03.2015	Centre for training &Social Research, New Delhi

### 11.8. SCHOLARSHIPS & AWARDS

CREC Silver Jubilee Endowment Trust Scholarships

CREC Silver Jubilee Endowment Trust (SJET) of the Institute, a registered body with the Director as Chairman, Deans& Heads of Departments as ex-officio and other nominated members as Trustees, currently awards 93 scholarships worth Rs. 5000 to 10000/- each per annum to the students. The number and the value of the scholarships for a year will vary depending on the availability of funds and the sponsors. The SJET will invite applications from the students and Heads of the departments/ a subcommittee will scrutinize the applications, and verifies the data with the students and others. The scholarships are awarded to the deserving students based on their academic merits, economic backwardness and other performance parameters. The SJET scholarships include.

SI.No.	SCHOLARSHIPS
1.	Prof. A. O. Kunjipaulo Endowment Scholarship
2.	Class of 1992 Computer Engineering Alumni Scholarship
3.	RECCAA, Singapore Scholarship
4.	RECCAA, USA Scholarship
5.	RECCAA, Bahrain Scholarship
6.	REC 1st Batch Scholarship
7.	RECCAA, Mumbai Scholarships (2 Nos.)
8.	CSAI (Class of 2000) Scholarships (4 Nos.)
9.	REC 76 – 81 Batch Scholarships (2 Nos.)
10.	10 years of XXXII <sup>nd</sup> Batch (CREC 96) Scholarship
11.	REC Calicut 1982 Batch Scholarship
12.	NITC (REC) 1983 Batch Scholarship
13.	REC Calicut, Class of '84 Trust Scholarship
14.	CREC 80-85 Batch Scholarship
15.	Padmanabhan Scholarship in Memory of All Departed Souls of 77 Batch, CREC
16.	Capt. Mohammed Memorial Endowment Scholarship
17.	Nitin Sharma Memorial Scholarship
18.	1997 – 2001 CSE B. Tech. Batch Scholarship
19.	Joseephus M T, John Sebastian & Luthufi K T Memorial Scholarship 2004-08 Batch
20.	Mariveetil Raghunath Memorial Endowment Scholarship

### 21. 1984-88 Batch of REC/NITC Scholarship

In addition to the above scholarships, **PTA** awarded scholarships worth 2 lakh to 27 students and **NITC Hostels** awarded 21 scholarships ((1.05 lakh), both these scholarships were processed through SJET.

### 11.9 THE PARENT TEACHER ASSOCIATION

CREC Parent –Teacher Association had originated as a charitable society keeping the objective of developing the educational, cultural, and training activities of students of CREC (presently NIT Calicut (NITC)) on a no-profit no-loss basis. Dr. Govindan V K, Dean Academic and Professor, Computer Science Engineering Department, Dr. S.D Madhu Kumar, Associate Professor, Department of Computer Science & Engineering Department, and Dr. Arun P, Asst. Professor Mechanical Engineering Department are in the positions of President, Secretary, and Joint Secretary cum Treasurer, of CREC-PTA, respectively.

During the year 2013-14, PTA organized several meetings and had given financial assistance to many students of NITC. Some of the major activities are listed below.

- Cash awards (Rs.5,000/ each) were given to all the branch toppers (37 students) during the Convocation day of the Institute held on December 16, 2013. An amount of Rs.1,85,000/- was utilized for this activity.
- 2. The PTA provided Rupees Two lakhs as interim relief to the student Mr. M.Venkataswaralu who passed away due to an unfortunate accident that took place in the campus.
- The PTA gave financial support to several needy students for paying their tuition fees, hostel fees
  mess bills and for medical assistance, for those students whose cases were recommended by the
  Dean Students Welfare, HODs and the Chief Warden. An amount of Rs. 96,285/- was spent for this
  purpose.
- 4. A financial support of Rs. 1,50,000/- was given to Ragam 2014, the major annual cultural festival hosted by the students of NITC.
- 5. Scholarships were given to financially needy students under SJET Trust scholarship scheme. An amount of Rs. 200000/- was utilized for this purpose.
- 6. Travel fellowships were given to several students for presenting papers in international conferences held in India. Total amount of Rs. 175000 was awarded as PTA Travel Fellowship.
- 7. Ten cots, beds and side tables were purchased for the NITC Health Centre by the PTA. A water cooler has also been provided to the Health Centre through PTA. The Annual General Body meeting held was held on 11-01-2014 and the meeting was well attended and served as a platform for useful discussion between parents and the faculty members. Department level meetings were also conducted on the same day in the respective Departments.

Departments received many constructive suggestions and feedback from the parents.

### 11.10 NATIONAL SERVICE SCHEME

The NSS Cell at NIT Calicut has four Units working under it. Participation in NSS activities is mandatory for the completion of B Tech. credit requirements in NIT Calicut. All students enrolled for the B Tech. programme of the Institute shall register for and complete the course requirements of NSS before they enter their third year of study, normally. The course requirement includes completion of minimum 15 hours of socially relevant activities in a semester. This, they are allowed to undertake within the campus, surrounding area of the campus or even near their home-town. The registered students keep an 'NSS Diary' along with them in which these activities are recorded and got endorsed by authorized persons. At the end of the registration period, grades are awarded after the evaluation of the diary. Apart from this mandatory component, there are a lot of voluntary activities from students even after their period of registration in NSS.

### NSS Activities for the year 2013-14

Within the campus, a few activities are identified for the involvements of NSS volunteers. The major one is the weekly classes for under privileged students of nearby schools held in the campus. Volunteers of NSS engaged regular classes during weekends for higher secondary students of nearby schools in science subjects and mathematics. The classes are engaged in such a way that it is also a coaching for the entrance examinations for higher studies. A lot of economically underprivileged students living in the vicinity of NIT Calicut campus made use of it.

The Institute has allotted vacant lands to NSS for carrying out farming activities. Volunteers have planted tapioca, plantain, vegetables, etc. in these lands. Volunteers had also taken up gardening activity for beautification of the campus.

NSS cell of NITC has taken lead in donating a 500 Sq ft. house for a poor and desolate lady living near our campus. Our volunteers have mobilized funds from various sources, including our own alumni and the construction works are nearing completion.

The Blood Donors Forum working under the auspices of NSS Cell conducted blood group determination camp on 27.9.2013 with the help of PG students of Calicut Medical College to update its data bank. Our volunteers have donated more than 100 units of blood in 2013-14.

The NSS units conduct the annual special camps at places that are socially backward and undertake activities to improve the lives of people there. The special camp of 2013-14 was conducted at Vadakkanad School Noolpuzha Panchayath from 8<sup>th</sup> to 14<sup>th</sup> December 2013 where in 2<sup>nd</sup>, 3rd and final year students from our college took part. The works undertaken include revamping of a pond to be used as swimming pool for students, vegetable plantation in the School, cleaning the area around School, organizing cultural program and activities for school students, visit to tribal village and survey, teaching tribal to write their name and address, etc.

### 11.11 Training & Placement Statistics

### **PLACEMENT 2014 - 15**

NO	Date	COMPANY	TOTAL UG	AR	MCA	PG	TOTAL	Effective Total
1	26.07.14 27.07.14	Bajaj 7.7L	4				4	4
2	31.07.14	C Dot 9L	2				2	6
3	31.07.14	Dell 8L	4				4	10
4	31.07.14	KLA Tencor 10L	-			1	1	11
5	31.07.14	Aravind 8L	3				3	14
6	31.07.14	Texas 12L	1				1	15
7	05.08.14	Amazon 25/27L	3			1	4	19
8	06.08.14/0 7.08.14	E bay 17L	1				1	20
9	07.08.14/0 8.08.14	Morgan Stanly14L	2			1	3	23
10	09.08.14/1 0.08.14	GS 13L	6				6	29
11	11.08.14	DE Shaw 18L	1			2	3	32
12	12.08.14/1 3.08.14	NetApp 11L	3				3	35
13	13.08.14/1 4.08.14	Cavium 8.2L	3			5	8	43
14	15.08.14	Service Now 14.5L	2				2	45
15	16.08.14	Oracle ST12L	4			1	5	50
16	16.08.14	Oracle App12L	9			1	10	60
#	18.08.14	Cavium 8.2L	2				2	62
17	18.08.14	Sandvine 9L	3				3	65
18	19.08.14/2 0.08.14	ZS 6.5L	9				9	74
19	21.08.14	McAfee 9.5L	3				3	77
20	21.08.14	J P moran 8L	4				4	81
21	22.08.14	Deloitte 6.6L	16		6		22	103
22	23.08.14	Oracle FSS7L	3				3	106
23	24.08.14/2 5.08.14	Mu sigma 6L	40				40	146
24	26.08.14	Wooqer 13-17L	1				1	147

25	26.08.14	Essab 4.5L	1 1			1	148
26	27.08.14	Exl 5.25L	7			7	155
27	28.08.14	Pepsi 6L	2			2	157
28	30.08.14/3 1.08.14	Future First 9L	1			1	158
29	29.08.14/0 1.09.14	SAP 8.25L	10			10	168
30	30/31/01/0 2.09.14	Honda R&D 7.1L	2			2	170
31	03.09.14	Latent Analyt 4.5L	9			9	179
32	04.09.14	Oracle GCC 9L	4		1	5	184
33	09.09.14/1 0.09.14	L&T Const 5.2/5.6L	21			21	205
34	12.09.14	CISCO 9L	1			1	206
35	11.09.14/1 6.09.14	GE 8L			4	4	210
36	17.09.14	UTC 5.5L	3			3	213
#	17.09.14	Aravind 8L	1			1	214
37	18.09.14/1 9.09.14	L&T H Engg 5L	10			10	224
38	19.09.14	Vizury 11.5	1			1	225
39	23.09.14/2 4.09.14	Philips 6L	5			5	230
40	25.09.14	Polaries 5L	11			11	241
41	29.09.14	Navy 8.5L				-	241
42	30.09.14	Temenos 6.4L	8			8	249
43	06.10.14	Altisource 11L	3	3		6	255
44	06.10.14/0 7.10.14	Premium 4.5L	1			1	256
45	01.10.14/0 8.10.14	Comviva 5.5L	4			4	260
46	09.10.14	Siemens5L	3			3	263
47	10.10.14/1 1.10.14	Alkatel 6L	3			3	266
48	12.10.14	Nest 3L	8	4		12	278
49	13.10.14	L&T HE 6L					
50	13.10.14	ThermoFisher7L	3		1	4	282
#	17.10.14	Vizury 11.5	1			1	283
51	20.10.14	Heromoto 7	2			2	285
52	24.10.14/2 5.10.14	ZOHO 6L	1		2	3	288
53	26.10.14	Suntec 4L	3			3	291
54	26.10.14/2 7.10.14	Ingersoll Rand 4.5/6L	2		3	5	296
#	27.10.14	Alkatel 6L	1			1	297
55	28.10.14	TCE 4.5/5	11		1	12	309
56	29.10.14	Hond2wheeler6.8L	2			2	311
#	13.10.14/2 9.10.14	L&T HE 6L			1	1	312
57	30.10.14	HP 9L	0			0	312
58	03.11.14	Ess Enery 8L	1 1		1	1	313
59	03.11.14	KITCO 3L					-
60	09.08.14/0 6.11.14	Maruthi 6L	4			4	317
61	06.11.14	Infoteils 4/4.5L	5	2	1	8	325
62	06.11.14	JP Morg 8L					-

00	07.44.44	F4	1 4				200
63	07.11.14	FosterWhee ler4.2L	4			4	329
64	08.11.14	S P Jain Inst					
65	10.11.14	Intergraph 4.5L	2			2	331
66	11.11.14	Reliance Jio 5L	9			9	340
67	11.11.14/1	KalkiComm	1			1	341
07	2.11.14	4.5L	'				
68	12.11.14	IBM-ISL 11L			2	2	343
69	13.11.14/1	Mahindra	3			3	346
	7.11.14	5.5L					0.0
70	14.11.14/1	Saipem 3L	29			29	375
74	5.11.14	•	4				204
71	18.11.14 19.11.14/2	Virtusa5/3.3 Reliance	4	2		6	381
72	0.11.14	5.5L	29			29	410
	21.11.14/2	Tata Motors					
73	4.11.14	6L	9			9	419
74	25.11.14	Quest Glob3.5/3.8L	5		5	10	429
75	25.11.14	Nokia6.5/7L	2		2	4	433
	25.11.14/2					0	
76	6.11.14	Bosch	3			3	436
#	26.11.14	L&T ECC			4	4	440
77	27.11.14/2	TCS 3.2/3.4	24	3	25	52	492
	8.11.14		24	<u> </u>	23	32	
78	03.12.14	MRF 4.7L				-	492
79	03.12.14	Hospiro 7.5				0	492
80	04.12.14	Bullfinh 6L	1	2	_	3	495
#	12.12.14	KITCO	0		2	2	497
81	18.12.14	L&T Ramboll 4.6	1		1	1	498
82	04.01.15	DRDO 9L				-	498
83	07.01.15 08.01.15/1	Bridge & Roof 9L				-	498
84	2.01.15	Idea	3			3	501
	09.01.15/1						
85	2.01.15	TCS-M T 5.5L			3	3	504
	15.01.15/1	0 1 01 01					500
86	6.01.15	Sudersan Chem 3L	2			2	506
87	16.01.15	ARMY				-	506
88	21.01.15/1	TIME 6L	4			4	510
00	7.02.15		4			4	
89	22.01.15	RetailOn 4L	0			0	510
90	29.01.15	BPCL 11L	10			10	520
#	28.01.15	Musigma6L	3			3	523
91	28.01.15	Tavant 4L	4		1	5	528
92	29.01.15	Tata Hitachi 7L	0			0	528
93	29.01.15	Rel Jio IKYA 4.5				4	-
# 94	04.02.15 05.02.15	MRF4.7L Avanti 3.5L	2		1	2	529 531
	18.02.15	AbbnMba5L			1	0	
95 96	21.02.15	Samsung H Engg 5.5L			<del> </del>	U	531 -
97	21.02.15	Cont auto 4.5L			1	1	532
98	24.02.15	SIB 5.5L			+ '-	0	532
99	25.02.15	Finisar 8L	3		1	3	535
#	28.02.15	DRDO	2			2	537
100	28.02.15	Dorf Chem	3		1	3	540
101	28.02.15	Army	1		1	1	541
#	09.03.15	Latent Analyt 4.5L	1		1	1	542
102	11.03.15	Petronet10l	1			1	543
	13.03.15	Honywell	2		A	e	
103	19.03.15	5.5/6L			4	6	549
104	19.03.15	Freescale9l	1			1	550
105	23.03.15	Vigan University6I			6	6	556
#	Intern	Infoteils4L		3		3	559
#	04.00 :=:-	Bridge & Roof 9L	4		ļ	4	563
106	21.03.15/2	C&V const	2			2	565

	7.03.15	3L						
107	01.04.15/0 2.04.15	Siemens4 L	3+2				5	570
108	02.04.15	ITD Cem 3L	9				9	579
109	20.04.15	GPREC3.6L				3	3	582
#	27.04.15	MRF 4.5L	2				2	584
110	29.04.15/3 0.04.15	Capitalvia 4.1L				3	3	587
111	20.05.15	EPCOs 4L	0			1	1	588
#		Rel jio	4				4	592
112		Broadcom12				1		593
		PRDC						-
113		Intel 12L				3	3	596
		Mamooth						-
			477	0	25	94	596	596

# AUDIT Certificate & AUDIT REPORT 2014 - 15

## Separate Audit Report of the Comptroller & Audit General of India On the Accounts of National Institute of Technology, Calicut For the year ended 31 March 2015

- 1. We have audited the attached Balance Sheet of National Institute of Technology, Calicut as at 31 March 2015 and the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date, under section 19(2) of the comptroller & Auditor General's (Duties, Powers & conditions of service) Act, 1971 read with Section 22 (2) of the National Institutes of Technology Act 2007. These finical statements are the responsibility of the institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.
- 2. This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and regularity and efficiency cum performance aspects, etc., if any are reported through inspection Reports/ CAG's Audit Reports separately.
- 3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion

### 4. Based on our audit, we report that:

- i. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
- ii. The Balance Sheet, Income & Expenditure Account and Receipts & Payments Account dealt with by this report have been drawn up in the format approved by the Ministry of Human Resource Development of India.
- iii. In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Calicut as required under Section 22 of National Institute of Technology Act 2007 relating to the establishment of NIT, Calicut in so far as it appears from our examination of such books.
- iv. We further report that:

### A. BALANCE SHEET

### I. Sources of Funds

### Current Liabilities & Provisions – Rs 57.43 Crore (Schedule 3)

- a) This is understated by Rs. 114.39 lakh due to non provision of the amount payable to the contractor and salary for Junior Engineers for the month of March 2015. The above claim along with details of measurement of work done certified by the consultant was submitted before 31.03.2015. This has resulted in corresponding understatement of Expenditure.
- b) This is understated by Rs. 81.59 lakh due to non provision of the liability for the value of equipment procured during 2014 – 15 period and payments made after 31 March with corresponding understatement of Fixed Assets (Equipment)
- c) This is understated by Rs. 21.65 lakh due to non provision of the amount refundable to the contractor excess amount deducted under Sales Tax and paid during April 2015. This has resulted in corresponding understatement of Expenditure.
- d) This is understated by Rs. 11.24 lakh due to non provision of the amount deducted from the contractor and not remitted to the government before 31.03.2015. This has resulted in corresponding understatement of expenditure.
- e) This is understated by Rs. 140.22 lakh due to non provision of liability for the various items of revenue expenditure related to 2014 15 period whereas payments made after 31 March 2015. This has resulted in corresponding understatement of Expenditure.
- f) This is understated by Rs. 3.75 lakh due to non provision of amount under salary for the amount payable to other institution towards Leave Salary & Pension Contributions. The institute has paid during the period from 4/15 to 12/15 towards leave salary & Pension contribution for the period from 01.04.2014 to 31.03.2015 in respect of five officials on deputation to this institute. This has resulted in corresponding understatement of Expenditure.

### B. Income and Expenditure Account.

### I. Income

### Other Income - Rs. 3.05 crore (Schedule - 13).

This is overstated by Rs. 137.58 lakh being proportionate share of electricity and water charges recovered from the employees. The proportionate share of electricity and water charges recovered from the employees is not income of the institute and it should have been adjusted against the actual expenditure incurred.

This has resulted in corresponding overstatement of Administrative & General Expenditure.

### II. Expenditure

### i) Depreciation Rs. 1563.61 lakh (Schedule 4)

- a) This is understated by Rs. 21 lakh due to non provision of depreciation with corresponding overstatement of fixed Assets in respect of purchases of equipment costing Rs. 81.59 lakh made prior to 31 March 2015 and payment made to suppliers during April, May and June 2015. As per Significant Accounting Polices this Institute charges 50% of the original rate of depreciation for the assets acquired and put to use for less than six months for the year
- b) This is understated by Rs. 39.84 lakh with corresponding overstatement of Fixed Asset on wrong accounting of purchase of computers of Rs. 796.72 lakh under equipment and short application of depreciation @15% instead of 20%

### C. General

- 1. No liability of unutilized grant of Rs. 63.27 crore was made in accounts
- 2. No provision for retirement benefit Pension was made in accounts
- 3. Bank Accounts & Term Deposit shown in Annexure C were not included in the books of Accounts. The details are as under.

	Rs. in lakh
Savings Accounts – SBI	29.68
Current Accounts – SBI, UCO	0.24
Project Accounts	9.73
Term Deposits	29.06
Total	68.71

The above accounts of savings Bank/Current Account/Project Account/Term Deposit should be included in the Accounts. Non inclusion resulted in understatement of those accounts by Rs. 68.71 lakh.

### D. Grant- in Aid

The Institute received a grant-in-aid of Rs. 6975 lakh (Plan Rs. 975 lakh and Non-Plan Fund of Rs. 6000 lakh) from the Government of India during 2014-15, and internal source generated was Rs. 3951.53 lakh (Plan Rs. 159.41 lakh and Non-Plan Rs. 3792.12 lakh). Out of the total grant of Rs. 16539.24 lakh (including unspent balance carry forward from previous year Rs. 5612.71 lakh (Plan Rs. 1651.71 lakh & Non-Plan Rs. 3961 lakh), the Institute utilized an amount of Rs. 10211.71 lakh (Plan Rs. 2649.10 lakh + Non-Plan Rs. 7562.61 lakh) leaving Rs.

6327.53 lakh (Plan Rs. 137.02 lakh & Non-Plan Rs. 6190.51 lakh) as unspent grant-in aid.

v. Subject to our observations in the preceding paragraphs, we report that the Balance sheet, Income & Expenditure Account and Receipt & Payment Account dealt with by this report are in agreement with the books of accounts.

vi. In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matters stated above and other matters mentioned in Annexure 1 to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India.

- a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Calicut as at 31 March 2015 and
- b. In so far as it relates to Income & Expenditure Account of the surplus for the year ended on that date.

For and on behalf of the C & AG of India

Sd/-

Principal Director of Audit (Central), Chennai

Place : Chennai Date : 4 July 2016

### **Annexure 1**

### 1. Adequacy of Internal Audit System:

The Internal Audit system is inadequate as the Ministry has not conducted the audit of the Institute so far. Though an Internal Audit wing is functioning under an Internal Audit Officer, internal audit of the accounts of the Institute is not being conducted. The Institute has not prepared a Manual for Internal Audit and accounting procedures for effective implementation of the internal audit.

### 2. Adequacy of Internal Control System:

Internal control system is inadequate. The Institute is operating about 115 bank accounts. Though reconciliation of bank figures with that of cash book for the major accounts for the year 2014-15 has been conducted recompilation prior to 2014 -15 is still pending in respect of all accounts and bank accounts not included in accounts. NIT has not prepared Accounting Manual also & no internal audit was conducted.

### 3. System of Physical Verification of assets:

Annual Physical Verification of assets has been concluded up to 2014-15

### 4. System of physical verification of Inventory:

Since the Institute is an Educational Institution, no inventory items are available for physical verification.

### 5. Regularity in payment of statutory dues:

The NIT is not regular in payment of statutory dues as Rs. 11.24 lakh due for remittance to government account towards sales tax prior to 31.03.2015 was remitted only during April 2015.

S/d-

Dy. Director (DT) II

# ANNUAL ACCOUNTS 2014 - 2015

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

# BALANCE SHEET AS AT 31.03.2015

			(Amount in Rupees)
SOURCES OF FUNDS	Schedule	Current Year	Previous Year
CAPITAL FUND	1	4,710,088,935.00	4,196,000,800.00
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	2	941,908,548.00	847,695,644.00
CURRENT LIABILITIES & PROVISIONS	3	574,309,617.00	601,823,734.00
RESERVES AND SURPLUS		769,000.00	769,000.00
TOTAL		4 007 074 100 00	5 / 4 / 000 170 00
TOTAL		6,227,076,100.00	5,646,289,178.00
APPLICATION OF FUNDS			
FIXED ASSETS			
Tangible Assets		2,010,845,488.00	1,026,431,252.00
Intangible Assets	4	-	-
Capital Work-In-Progress		1,326,960,186.00	2,295,823,796.00
INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS			
Long Term	5	5,000,000.00	-
Short term		783,538,693.00	-
INVESTMENTS- OTHERS	6	-	-
CURRENT ASSETS	7	1,630,938,585.00	2,200,193,347.00
LOANS, ADVANCES & DEPOSITS	8	469,793,148.00	123,840,783.00
TOTAL		6,227,076,100.00	5,646,289,178.00
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

### **INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2015**

			(Amount in Rupees)
PARTICULARS	Schedule	Current Year	Previous Year
INCOME			
Academic Receipts	9	347,151,923.00	237,389,913.00
Grants/Donations/Subsidies	10	600,000,000.00	702,368,923.00
Income from investments	11	24,860,265.00	1,484,179.00
Interest earned	12	8,165,318.00	2,426,925.00
Incomes	13	30,511,646.00	23,890,103.00
Prior Period Income	14	172,057,553.00	7,042,486.00
TOTAL (A)		1,182,746,705.00	974,602,529.00
EXPENDITURE			
Staff Payments & Benefits (Establishment expenses)	15	548,415,150.00	515,248,803.00
Academic Expenses	16	135,660,608.00	121,185,487.00
Administrative and General Expenses	17	63,548,645.00	61,319,168.00
Transportation Expenses	18	1,438,662.00	766,980.00
Repairs & Maintenance	19	7,118,172.00	6,551,907.00
Finance costs	20	80,370.00	13,709.00
Depreciation/Amortization	4	156,361,272.00	95,377,747.00
Other Expenses	21	55,066,073.00	-
Prior Period Expenses	22	194,092,215.00	-
TOTAL (B)		1,161,781,167.00	800,463,801.00
Balance being excess of Income over Expenditure (A-B)		20,965,538.00	174,138,728.00
Less/(Add): Unitilised Non Plan Grant transferred to			
Liabilities/			
(Assets)	3C	(377,836,872.00)	-
Add:Transfers from Capital Grants		1,204,335,414.00	-
Balance Being Surplus / (Deficit) Carried to Capital Fund		1,603,137,824.00	174,138,728.00
SIGNIFICANT ACCOUNTING POLICIES	23		
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS	24		

### SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2015

# **SCHEDULE -1 CAPITAL FUND**

Particulars	Current Year	Previous Year
Balance at the beginning of the year	4,196,000,800.00	3,859,716,912.00
Add: Contributions towards Capital Fund	-	-
Add: Grants from UGC, GOI & State Govt. to the extent utilized for capital		
expenditure	97,500,000.00	137,500,000.00
Add: Assets purchased out of earmarked funds	-	-
Add: Assets purchased out of Sponsored Projects, where ownership vests		
in the		
institution	-	-
Add: Assets donated/Gifts received	-	-
Add: Interest on Term Deposits and Savings account	15,757,551.00	24,645,160.00
Less: Bank charges	(139,969.00)	-
Add/(Less): Excess/(Deficit) of Income over Expenditure transferred from		
Income and Expenditure account	1,603,137,824.00	174,138,728.00
Total	5,912,256,206.00	4,196,000,800.00
Less/ (Add): Unspent Plan Fund transferred to Liabilites	(2,168,143.00)	-
Less: Transfers from Capital Fund	1,204,335,414.00	-
Balance at the year end	4,710,088,935.00	4,196,000,800.00

#### SCHEDULE 2 – DESIGNATED/EARMARKED/ENDOWMENT FUNDS

											TOT	mount in Rupees)
Particulars	TEQIP	TEQIP-II	GPF	CPF	FBS	GROWTH FUND	STUDENTS FUND	ТВІ	H.W.D	Endowment	Current Year	Previous Year
A.												
a) Opening balance of the funds	2,283,737.00	52,113,131.00	148,319,269.00	9,806,186.00	99,758.00	609,254,411.00	13,476,653.00	9,402,092.00	2,992,879.00	-	847,748,116.00	666,704,099.00
b) Additions during the year	-	22,876.00	40,793,056.00	29,044,686.00	631.00	9,184,500.00	8,760,199.00	6,270,829.00	284,719.00	-	94,361,496.00	213,370,692.00
c) Income from investments made out of funds	-	-	13,509,290.00	665,477.00	-	27,480,273.00	3,569.00	253,115.00	-	-	41,911,724.00	63,926,530.00
d) Accrued interest on investments/Advances	-	-	14,238,769.00	26,351.00	-	25,128,942.00	-	8,384.00	-	-	39,402,446.00	-
e) Interest on Savings Bank A/c	-	2,010,809.00	526,944.00	103,793.00	2,929.00	1,607,493.00	-	369,124.00	-	-	4,621,092.00	16,828,606.00
f) Other additions	-	8,867,268.00	-	1	-	142,705.00	15,198,065.00	63,875.00	-	-	24,271,913.00	4,751,232.00
Total(A)	2,283,737.00	63,014,084.00	217,387,328.00	39,646,493.00	103,318.00	672,798,324.00	37,438,486.00	16,367,419.00	3,277,598.00	-	1,052,316,787.00	965,581,159.00
B. Utilisation/Expenditure towards objectives funds												
i) Capital Expenditure	-	2,401,306.00	-	-	-	-	4,200,000.00	-	-	-	6,601,306.00	75,865.00
ii) Revenue Expenditure	-	20,625,297.00	28,860,709.00	30,301,305.00	7,320.00	5,035,536.00	9,626,861.00	9,069,517.00	280,388.00	-	103,806,933.00	117,809,650.00
Total(B)	-	23,026,603.00	28,860,709.00	30,301,305.00	7,320.00	5,035,536.00	13,826,861.00	9,069,517.00	280,388.00	-	110,408,239.00	117,885,515.00
Closing balance at the year end (A-B)	2,283,737.00	39,987,481.00	188,526,619.00	9,345,188.00	95,998.00	667,762,788.00	23,611,625.00	7,297,902.00	2,997,210.00	-	941,908,548.00	847,695,644.00

# SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS

Particulars		Current Year	Previous Year
A. CURRENT LIABILITIES			
1. Deposits from staff		-	-
2. Deposits from students		14,635,464.00	12,092,964.00
3. Sundry Creditors			
a) For Goods & Services		32,668.00	-
b) Others		622,321.00	-
<ol><li>Deposits - Others (including EMD, Security Deposit)</li></ol>		19,790,641.50	12,237,698.00
<ol><li>Statutory Liabilities (GPF,TDS,WC TAX,CPF,GIS,NPS):</li></ol>			
a) Overdue		-	-
b) Others		3,148,178.00	-
6. Other current Liabilities			
a) Salaries		39,415,199.00	-
b) Receipts against sponsored projects		55,907,681.00	-
c) Receipts against sponsored fellowships & scholarships		33,733,211.00	193,354,731.00
d) Unutilised Grants		-	-
e) Grants in advance		-	-
f) Tuition fee		4,862,810.53	-
g) Other liabilities		176,775,025.10	84,604,059.00
	Total (A)	348,923,199.13	302,289,452.00
B. PROVISIONS			
1. For Taxation		-	-
2. Gratuity		124,279,332.00	77,128,000.00
3. Superannuation/Pension		8,324,532.00	19,857,946.00
4. Accumulated Leave Encashment		89,652,729.00	2,658,391.00
5. Expenses payable		3,129,825.00	140,291,120.00
6. Trade Warranties/Claims		-	-
7. Others		-	<u> </u>
	Total (B)	225,386,418.00	239,935,457.00
Total (A+B)		574,309,617.00	542,224,909.00

#### SCHEDULE 3A- SPONSORED PROJECTS

		0	n Dalamaa	T		ı		g Balance	
1.SI.	2 Name of the Draiget	Opening	g Balance	5. Receipts	6. Total	7. Expenditure	CIOSITIC	Ванапсе	
No	2. Name of the Project	3. Credit	4. Debit	during the year	0. TOTAL	during the year	8. Credit	9. Debit	
1	Linear & Non Linear Optical (Dst)	6,435.00	-	697.00	7,132.00	150.00	6,982.00	-	
2	Stable Isotopic Investigation	198,524.00	-	-	198,524.00	-	198,524.00	-	
3	Experimental Investigation	260,895.00	-	-	260,895.00	-	260,895.00	-	
	Development Of Transparent Conducting Polymer Films For	·					·		
	Electrode	301,228.00	-	553.00	301,781.00	-	301,781.00	-	
5	Information Security Education	509,237.00	-	-	509,237.00	-	509,237.00	-	
	Multifunctional Plasmonic Nanoparticles - Nano Composites	·					·		
	- Targeted Drug Delivery	90,731.00	-	3,389.00	94,120.00	-	94,120.00	-	
	Strengthen The Research Facilities In Networking And								
7	Security Area	333,419.00	-	22,519.00	355,938.00	355,838.00	100.00	-	
	Enhancement Of The Sensivity Of Peptide Nanotube Based	·							
8	Biosensors	57,920.00	-	1,553.00	59,473.00	40.00	59,433.00	-	
	Strengthen The Post Graduate Teaching And Reaserch In	·		·			·		
9	Eced	4,121.00	-	1,944.00	6,065.00	6,065.00	-	-	
	Developmemt Of An Interoperable Spatial Database Of	·				·			
10	Road Network For Clt	1,327,197.00	-	52,728.00	1,379,925.00	40.00	1,379,885.00	-	
	Fast Development Of Chitosan Reinforced Polymer								
11	Nanocomposites	7,900.00	-	313.00	8,213.00	60.00	8,153.00	-	
	Development Of Tools & Techniques For Modeling &	·					·		
	Analysis	2,779,962.00	-	110,396.00	2,890,358.00	100.00	2,890,258.00	-	
	Strengthen The Research And Post Graduate In Area Power								
	Quality	2,606,143.00	-	34,202.00	2,640,345.00	712,688.00	1,927,657.00	_	
	Thermo Responsive Ion Track Membrance	2,168.00	-	-	2,168.00	-	2,168.00	_	
	Clustering Using Fuzzy Graphics	-	-	=	=	-	-	-	
	Fast Track Project Treatment Of Effrluent Using								
	Biomembran Techniques	25,291.00	-	1,189.00	26,480.00	970.00	25,510.00	-	
	Synthesis And Grafting Of Thermo Responsive Hydrogels On								
	Nano Porous Memberanes- Iradication-Drug								
17	·	319,385.00	-	12,295.00	331,680.00	222,200.00	109,480.00	-	
	Design Development And Optimization Of Miniature And								
	Micro	514,936.00	-	-	514,936.00	-	514,936.00	-	
	Fast Track Development Of An Extractive Fermentation								
	Process For Enhanced Alkline Phosphatase								
19	·	9,793.00	-	384.00	10,177.00	300.00	9,877.00	-	
	Molecular And Functional Charactarization Of Putative-								
	Zingiber Zerumbt-Ginger	83,936.00	-	3,335.00	87,271.00	-	87,271.00	-	
	Regulation Of L- Sorbose Utilization In Human Fungal								
	Pathogen Candida Albicans	1,166,075.00	-	-	1,166,075.00	-	1,166,075.00	-	
	Molecular Cloning And Characterization Of Terpene Synthas-								
	Zingiber Zerumbet	100,990.00	-	-	100,990.00	-	100,990.00	-	
23	Simulation Of Solid Rocket Exhaust Plumes	164,352.00	-	20,306.00	184,658.00	200.00	184,458.00	-	

	DevImpt. Of Activity Based Models For Forecasting Of			I				
24	Travel Demand	297,802.00	_	11,909.00	309,711.00	100,000.00	209,711.00	_
	Developmet Of A Toolbox For Evaluation And Identification	277,002.00		11,707.00	307,711.00	100,000.00	207,711.00	
	Of Urban Road Safty Improvement Measures							
25	or orban Road Sarty Improvement Weasures	315,423.00		12,775.00	328,198.00	11,150.00	317,048.00	
	Investigation Of Distributed Generation Stm. Integration	313,423.00	-	12,775.00	320,190.00	11,150.00	317,046.00	-
	investigation of distributed Generation still. Integration	21 071 00		114 401 00	14/ 2/2 00	14/ 122 00	220.00	
26	Identification And Characterization Of Dhytachersicals France	31,871.00	-	114,491.00	146,362.00	146,133.00	229.00	-
	Identification And Characterization Of Phytochemicals From Indian Medicinal Herbs	002 222 00		15.077.00	010 000 00	010 000 00		
21	indian iviedicinal herbs	902,223.00	-	15,867.00	918,090.00	918,090.00	-	-
	Design & Devlp. Of Electro-Magnatically Driven Miniature-	4 400 77 / 00		07 700 00	4 477 407 00	4 500 700 00		007.000.00
28	Ir Sensor Array Phase I	1,138,776.00	-	37,720.00	1,176,496.00	1,503,799.00	-	327,303.00
	Development Of Pro-Flurophore Scaffolds To Probe Peptide							
	Aggregation And-Transition	834,010.00	-	304,131.00	1,138,141.00	20,607.00	1,117,534.00	-
	Study On Long Term Performance Pavements With Coir							
	Geotextiles	1,809,135.00	-	71,876.00	1,881,011.00	39,309.00	1,841,702.00	-
	Use Of Coir Pith For Airport Soft Ground Arrestor System							
31		4,196,407.00	-	171,102.00	4,367,509.00	734,162.00	3,633,347.00	-
	Pufa Therapy Ameliorates Cognitive Impairment And							
	Miochodrial Dysfunction In Caeno	84,328.00	-	2,780.00	87,108.00	35,058.00	52,050.00	=
	Productivity Monitoring And Wage Analysis For Nreg Works							
33		41,629.00	-	1,345.00	42,974.00	55,223.00	-	12,249.00
34	Production Management System	319,751.00	-	61,560.00	381,311.00	-	381,311.00	-
35	Establishment Of Bif - Btbi	5,813.00	-	700,988.00	706,801.00	27.00	706,774.00	-
	Electron C Structure Studies Of Adsorption Of Unsatured	·		·	·		·	
	Hydrocarbons	157,817.00	-	37,580.00	195,397.00	20,000.00	175,397.00	-
	Combination Of Therapy In Ischmic	23,731.00	-	2,932.00	26,663.00	-	26,663.00	-
	Cavity - Enhanced Absorbtion Spectroscopy For Trace Gas	,		,	,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
38	Pollutant Monitoring	913,627.00	_	126,869.00	1,040,496.00	933,569.00	106,927.00	_
	Novel Functionalized Porphyrinic Coordination	710,027.00		120,007.00	1,010,170.00	700,007.00	100,727.00	
	Arrays, Polymers And Frameworks	1,118,790.00	_	225,626.00	1,344,416.00	275,148.00	1,069,268.00	_
	Tunable Hierarchical Zeolities Using Polymer Macro-	3,767,448.00		125,981.00	3,893,429.00	737,982.00	3,155,447.00	
40	Theoreatical Study Onysis By Methane Mono-Oxygenase	3,707,440.00	-	123,701.00	3,073,427.00	737,702.00	3,133,447.00	
//1	The Enzymatic Castal	884,130.00		93,402.00	977,532.00	706,804.00	270,728.00	
	Noval Triazole Vridged Metalloporphyrins Formed Via Click	004,130.00	-	73,402.00	711,032.00	700,004.00	210,120.00	-
	Chem.		130,320.00	737,778.00	607,458.00	635,890.00		28,432.00
	Nonlinear Analysis Of Eeg Signals Of Patients With	-+	130,320.00	131,110.00	007,436.00	033,070.00	-	20,432.00
		1 520 227 02		07.024.00	1 420 0/0 00	200 220 00	1 410 700 00	
	Alzheimers Disease	1,530,226.00	-	97,834.00	1,628,060.00	209,338.00	1,418,722.00	-
	Design Uranium Based Catalist For Activation And	000 (40 00		470 (04 00	540.044.00	200 700 20	000 544 00	
	Functionaliation A Computational Quantum	390,640.00	-	172,604.00	563,244.00	333,733.00	229,511.00	-
	Design And In Vitro Evaluation - Hif Prolyil Hydroxilase							
45		1,938,013.00	-	66,721.00	2,004,734.00	200,135.00	1,804,599.00	-
	Oleamide As Novel Neuroprotectant Against Ischemic Stroke							
46		-	8,334.00	349,242.00	340,908.00	150.00	340,758.00	-
	Assessment Of Effectiveness Of Nh-47 Gye Pass Road In							
	Coimbatore (Los)	373,458.00		14,836.00	388,294.00	221,100.00	167,194.00	<u>-</u>
	Biodegradability Enhancement Of Low Density Polyethylene							
48	By Using Biopolymet Nano-	1,557,906.00	-	71,082.00	1,628,988.00	610,930.00	1,018,058.00	-
_								

	Nrb Project - Design And Development Of A Protocol Stack							
	For Underwater.	928,339.00	_	1,220.00	929,559.00	336,182.00	593,377.00	_
	Project Antibiotics Removal From Waste Water	1,454,084.00	_	1,371,835.00	2,825,919.00	1,535,422.00	1,290,497.00	_
	A Genetic Approach Towards Understanding	221,745.00	_	201,919.00	423,664.00	204,327.00	219,337.00	-
	Fast Track Project	2,213,040.00	-	84,745.00	2,297,785.00	1,818,893.00	478,892.00	-
	Poly (3,4Ethylenedioxthiophene ) Poly(Methyl Methacrylate)			21,712.00	=,=::,::::::	.,,	,	
53	, , , , , , , , , , , , , , , , , , , ,	539,414.00	-	78,494.00	617,908.00	439,954.00	177,954.00	_
	Investigation On Bio-Hydrogen Production By Thermo-	·		·	·	·	·	
54	Chemical Method	1,713,021.00	-	83,996.00	1,797,017.00	284,697.00	1,512,320.00	-
55	Cenre For Transportation Research	-	542,603.00	476,520.00	(66,083.00)	2,475,833.00	-	2,541,916.00
	Development Of Bistable Memory Devices Based On							
56	Organic Semi-Conductors	1,456,401.00	-	389,987.00	1,846,388.00	1,018,411.00	827,977.00	-
	Rational Design And Synthesis Of Metalloprophyrin-							
57	Lanthanoid Hybrid Material For Dna Binding	-	322,612.00	720,633.00	398,021.00	1,520,382.00	-	1,122,361.00
58	Photo Switchable K Ion Channel Blockers	909,250.00	-	1,744,206.00	2,653,456.00	1,296,412.00	1,357,044.00	-
	Experimental And Deterministic Model Studies In							
	Regeneration Of Microbial Biosorbents After Heavy Metal							
	Desorption	185,205.00	-	91,263.00	276,468.00	258,506.00	17,962.00	-
	Devt Of Low Cost Elastomeric Fullerene Derivatives Using							
	Electron And Gamma Irradiation For Organic Electronic							
	Applications	1,350,768.00	-	851,851.00	2,202,619.00	885,082.00	1,317,537.00	-
	Design And Implementation Of Secure Communication							
	System	-	148,548.00	299,705.00	151,157.00	2,611,950.00	-	2,460,793.00
	Inhibiation Of Mitochondrial Dynamin Relates Protein One							
62		-	-	77,037.00	77,037.00	200,000.00	-	122,963.00
	High Energy Density Photochemical Fules Based On							
63	Nanomaterial Hybrids	-	100,000.00	148,537.00	48,537.00	426,930.00	-	378,393.00
	Transparent Flexible And Conducting Electrodes Based On							
	Graphene- Nanometal Hybrids		124,000.00	45,107.00	(78,893.00)	483,115.00	-	562,008.00
	Ruthenium (11) Osmium (11) And Gold (111) Alkaloids:							
	Active Targets For Dna Intercalation Interactions	4 075 000 00		005 050 00		54440500		
65		1,875,000.00	-	305,058.00	2,180,058.00	546,625.00	1,633,433.00	-
	Investigation Of Optical Nonlinearity By Defect State In One			4 0 / 4 704 00	4 0 / 4 7 0 4 0 0	040 770 00		
	Dimensional Photonic Crystals	-	-	1,964,701.00	1,964,701.00	319,779.00	1,644,922.00	-
	Characterizing The Interactons Of Chlorpromazine With The			2 217 007 00	2 247 007 00	2/452200	2.052.274.00	
	Mitotic Kinesin Eg5 And Tublin	-	-	2,317,896.00	2,317,896.00	264,532.00	2,053,364.00	-
	Design And Fabrication Of Anechoic Test Facility And Characterization Of Acoustic Emission From Airfoils In Flow							
				1 0/ / 1/ 5 00	1 0/4 1/5 00		1 0/ / 1/ 5 00	
80	Field	-	-	1,964,165.00	1,964,165.00	-	1,964,165.00	-
40	Ultrasensitive,Rapid & Low Cost Detection Of Cancer Biomakers		l	125 215 00	125 215 00	124 105 00	1 120 00	
	Development Of Nanocomposites Ethylene	735,958.00	-	125,315.00	125,315.00	124,185.00	1,130.00	-
	Investigation-Scrap Tyre Shreds -Cement Concrete	117,354.00	-	28,047.00 8,383.00	764,005.00 125,737.00	64,700.00	764,005.00 61,037.00	-
	Investigation-scrap Tyre shreds -cement concrete Investigation Of Performance	73,062.00		-,	125,737.00	64,700.00	137,908.00	-
	Development Of Attached Media-Treatment Of Domestic -	13,062.00	-	64,846.00	137,908.00	-	137,908.00	-
	Coir Geotextiles.	61,301.00			61,301.00		61,301.00	
73	COIL GEOLEXUIES.	01,301.00	-	-	01,301.00	-	01,301.00	

	Studies On Ground Water Pollution By Heavy Metal Disch &							
74	* *	90,882.00	-	-	90,882.00	-	90,882.00	-
75	Investigation On Power Quality Issues Of Drives	60,575.00	-	2,407.00	62,982.00	-	62,982.00	-
	Mesophase Formation And Characterisation Of Organised							
	Assemblies	11,776.00	-	468.00	12,244.00	-	12,244.00	-
	Simpilified Models For Torsional Mode Prediction Of Tall							
77	Buildings Under Earthquake	-	887.00	887.00	-	-	-	-
78	Stand. Of Engi. Properties	172,175.00	-	6,840.00	179,015.00	-	179,015.00	-
	Implementation Of Multy.	398,311.00	-	-	398,311.00	-	398,311.00	-
	Seismic Evaluation Of Existing Multy - Storey Buildings In							
	Kozhikode Dist.	579,821.00	-	8,603.00	588,424.00	247,483.00	340,941.00	-
	Development Of Risk Management Tool In Green							
	Construction Sites	249,920.00	-	3,156.00	253,076.00	255,708.00	-	2,632.00
	Transcript Profiling Of Differentially Expr.	280,480.00	-	5,361.00	285,841.00	270,872.00	14,969.00	-
	Experimental Investigation For Potential Use Of Coir Path In							
	Making Value Added Products	85,174.00	-	2,811.00	87,985.00	62,131.00	25,854.00	-
	Development Of Intelligent Robot For Fault Diagnosis Of							
84	Power	59,027.00	-	165,656.00	224,683.00	183,190.00	41,493.00	-
	Low Density Polythylene / Nanochitosan Biodegradable							
	Films For Food-	217,486.00	-	24,514.00	242,000.00	64,700.00	177,300.00	-
	Development Of Low Cost Polymer Electrolyte Membranes							
86		1,241,391.00	-	33,934.00	1,275,325.00	213,836.00	1,061,489.00	-
	Investigation On Absorption Of Flouride From Water Using							
	Nano Material	257,062.00	-	534,989.00	792,051.00	225,914.00	566,137.00	-
	Comprehensive Computational Analisys Of Anti- Diabetic	1 221 000 00		45 500 00	1 2// 500 00	1 050 000 00	21/ 500 00	
88	Phytotherapeutics Flexible Nanomaterial Doped Polymer Dispersed Liquid	1,321,000.00	-	45,588.00	1,366,588.00	1,050,000.00	316,588.00	-
	Crystal (Pdic) Devices For Switchable Window Applications							
89	crystal (Pdic) Devices For Switchable Window Applications		125 000 00	242 457 00	110 457 00	40E 224 00		404 770 00
	Devt And Analysis Of Model For Green Operations In Supply	-	125,000.00	243,457.00	118,457.00	605,236.00	-	486,779.00
90	Chain Management			624,048.00	624,048.00	190,201.00	433,847.00	
70	Enhancement Of Third-Order Optical Nonlinearity In	-	-	024,040.00	024,040.00	170,201.00	433,047.00	-
	Photonic Crystalcavity For Optical Switching	_	_	27,870.00	27,870.00	185,271.00	_	157,401.00
	Development Of Organic Solar Cells Based On Transition			21,010.00	27,070.00	100,271.00		107,401.00
	Metal Oxide Anode Buffer Layers	_	_	2,598,912.00	2,598,912.00	261,590.00	2,337,322.00	_
	Porosity Studies Alu	145,040.00	_	4,721.00	149,761.00	149,761.00	-	_
	Temperature Dependant Optical Switch From Organized	1.375.000		.,, 2	,	1.77.01.00		
94	Assemblies	1,489.00	-	58.00	1,547.00	90.00	1,457.00	_
	Investigation On The Application Of Catalitic Nanoparticles	,			,		,	
	As Diesel	5,329,812.00	-	189,811.00	5,519,623.00	1,099,951.00	4,419,672.00	-
	Devt Of A Model Framework For Land Use Based Estimation							
	And Prediction Of Solid Waste Generation							
96		511,813.00		13,096.00	524,909.00	395,841.00	129,068.00	
	Implimentation Of Habitat Devt. Prgrme. Of Three Oorus In							
97	Attapadi	1,248,057.00		49,583.00	1,297,640.00	100.00	1,297,540.00	<u> </u>
	Total	59,598,825.00	1,502,304.00	21,927,070.00	80,023,591.00	32,324,780.00	55,902,041.00	8,203,230.00

### SCHEDULE 3B- SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

		0					ount in Rupees	
1.SI.	2. Name of Sponsor		alance as on 1/2014	Transactions	during the year	Closing Balance as on 31/3/2015		
No	2. Name of Sportson	3. Credit	4. Debit	5. Credit	6. Debit	7. Credit	8. Debit	
1	University Grants Commission	1,059,031.00	-	2,960,561.00	3,166,891.00	852,701.00	-	
	Ministry (Central Govt.)							
2	Director of College Education	-	4,000.00	-	-	-	4,000.00	
3	Cultural Scholarship	1,510,161.00	-	67,800.00	135,841.00	1,442,120.00	1	
4	NCERT	23,013.00	-	-	-	23,013.00	-	
5	SC/ST Scholarship	526,744.00	-	-	17,400.00	509,344.00	-	
6	NIMCET	16,483.00	=	-	113,540.00	-	97,057.00	
7	Summer Course	1,886,955.00	-	620,000.00	-	2,506,955.00	1	
8	Zonasa 2003	48,991.00	-	10,560.00	48,991.00	10,560.00	-	
9	Minority Scholarship	670,487.00	-	-	-	670,487.00	-	
10	Top Class Education Scholarship for SC Students	1,168,942.00	-	3,476,174.00	2,941,499.00	1,703,617.00	-	
	Merit Cum Means Scholarship for				, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,		
11	Minorities	_	62,978.00	2,069,233.00	2,352,722.00	-	346,467.00	
12	NBHM Fellowship	116,000.00	-	317,600.00	306,885.00	126,715.00	-	
13	SPDC Scholarship	-	-	15,558,004.00	11,426,160.00	4,131,844.00	-	
14	Inspire Fellowship	-	-	279,200.00	235,265.00	43,935.00	-	
15	AIEE-CCB	-	-	140,000.00	140,000.00	-	-	
	Kerala Government		-					
16	KSCSTE Fellowship	545,383.00	-	976,935.00	457,335.00	1,064,983.00	-	
17	E- Grants (For Backward Castes)	4,715,942.00	-	41,811,527.00	27,461,116.00	19,066,353.00	-	
18	Minorties Scholarship	-	41,657.00	18.00	-	-	41,639.00	
	Other State Governments							
19	Andhra Pradesh	-	34,692.00	-	-	-	34,692.00	
20	Bihar	86,550.00	-	805,142.00	672,260.00	219,432.00	-	
21	Karnataka	1,080.00	-	76,555.00	-	77,635.00	-	
22	Lakshadweep	0.00	-	112,000.00	42,000.00	70,000.00	-	
23	Madhya Pradesh	55,375.00	-	28,510.00	28,510.00	55,375.00	-	
24	Maharashtra	0.00	-	425,826.00	389,926.00	35,900.00	1	
25	Tamil Nadu	1,000.00	-	41,200.00	-	42,200.00	-	
	Others							
	E- Remittance (other States)	657,037.00	-	1,893,130.00	1,470,125.00	1,080,042.00	-	
27	ONGC Scholarship	-	-	240,000.00	240,000.00	-	-	
	Total	13,089,174.00	143,327.00	71,909,975.00	51,646,466.00	33,733,211.00	523,855.00	

# SCHEDULE -3C UNUTILISED GRANTS FROM UGC, GOVT. OF INDIA AND STATE GOVERNMENTS

Particulars	Current Year	Previous Year
C. Non Plan: Government of India		
Balance B/F	(221,575,265.00)	(218,489,211.00)
Add: Receipts during the year	600,000,000.00	702,000,000.00
To	tal (e) 378,424,735.00	483,510,789.00
Less: Refunds	-	-
Less: Utilized for Revenue Expenditure	756,261,607.00	705,086,054.00
Less: Utilized for Capital Expenditure	-	-
To	otal (f) 756,261,607.00	705,086,054.00
(Deficit)/Unitilized carried forward (e-f)	(377,836,872.00)	(221,575,265.00)
D. Non Plan: UGC grants		
Balance B/F	-	_
Add: Receipts during the year	-	-
To	tal (g) -	-
Less: Refunds	-	-
Less: Utilized for Revenue Expenditure	-	-
Less: Utilized for Capital Expenditure	-	-
To	tal (h) -	-
Unitilized carried forward (g-h)	-	-
Grand Total (A+B+C+D)	(380,005,015.00)	(56,333,447.00)

#### SCHEDULE 4 –FIXED ASSETS

	DESCRIPTION		GROSS I	BLOCK		DEPRECIATION					NET BLOCK		
SI. No	TANGIBLE ASSETS	Opening Balance 01/04/2014	Additions during the year	Deductions during the year	Closing Balance	Depr ates	Depreciation Opening Balance	Depreciation for the year	Deductions/ Adjustment	Total Depreciation	31/03/2015	31/3/2014	
1	Land:												
	a) Freehold	769,000.00	-	-	769,000.00	Nil	-	-	-	-	769,000.00	769,000.00	
	b) Leasehold	-	-	-	-		-	-	-	-	-	-	
2	Buildings:												
	a) On Freehold Land				-		-	-	-	-	-	-	
	iResidential	569,615,876.00	1,031,266,167.00	=	1,600,882,043.00	5%	148,193,609.00	68,714,889.00	78,390,661.00	295,299,159.00	1,305,582,884.00	421,422,267.00	
	ii.Non Residential	835,774,193.00	53,696,531.00	-	889,470,724.00	10%	369,928,561.00	49,627,017.00	18,403,218.00	437,958,796.00	451,511,928.00	465,845,632.00	
	b) On Leasehold Land	-	-	-	-		-	-	-	-	-	-	
	c) Ownership Flats/ Premises	-	-	-	-		-	-	-	-	-	-	
	d) Superstructures on Land not belonging to educational												
3	Tube wells & water supply		_				_		_	_	_		
4	Sewerage & Drainage		_	-			_		_	_	_	_	
5	Furniture & fixtures	67,111,591.00	9,081,797.00	-	76,193,388.00	10%	32,357,693.00	4,264,162.20	9,515.00	36,631,370.20	39,562,017.80	34,753,898.00	
6	Electrical Installations	36,348,254.00	5,001,737.00	-	36,348,254.00		24.087.169.00			20,276,685.80	16,071,568.20		
Ŭ	Plants, machinery &	00,010,201.00			00,010,201.00	1070	21,007,100.00	1,700,720.00	(0,000,210.00)	20,270,000.00	10,071,000.20		
7	equipment	414,086,216.00	136,791,288.00	-	550,877,504.00	15%	323,455,885.00	30,661,149.00	2,059,003.00	356,176,037.00	194,701,467.00	102,891,416.00	
8	Office Equipment	4,520,049.00	-	-	4,520,049.00	15%	4,462,595.00	32,558.00	(268,121.00)	4,227,032.00	293,017.00	57,454.00	
9	Computer & Peripherals	9,510,633.00	-	-	9,510,633.00	60%	9,135,221.00	225,247.00	-	9,360,468.00	150,165.00	375,412.00	
10	Vehicles	4,624,976.00	-	-	4,624,976.00	15%	4,308,803.00	47,426.00	-	4,356,229.00	268,747.00	316,173.00	
11	Library books	39,046,543.00	2,937,788.00	-	41,984,331.00	60%	39,046,543.00	1,003,094.00	-	40,049,637.00	1,934,694.00	-	
	,	, ,	, ,		, ,		, ,		•	, ,			
	Total (A)	1,981,407,331.00	1,233,773,571.00	-	3,215,180,902.00		954,976,079.00	156,361,272.00	92,998,063.00	1,204,335,414.00	2,010,845,488.00	1,026,431,252.00	
12	Capital Work-in-progress (B)	2,295,823,796.00	93,432,170.00	1,062,295,780.00	1,326,960,186.00					0.00	1,326,960,186.00	2,295,823,796.00	
SI. No	INTANGIBLE ASSETS	Opening Balance 01/04/2014	Additions during the year	Deductions during the year	Closing Balance		Depreciation/ Amortizations Opening Balance	Depreciation/ Amortizations for the year	Deductions/Adju st ment	Total Depreciation	31/03/2015	31/3/2014	
13	Computer Software	-	-	-	-		-	-	-	-	-	-	
14	E-journals	-	_	-	1		-	-	-	-	-	<u>-</u>	
15	Patents and Copyrights	-	-	=	-		-	-	-	-	-	-	
	Total (C]	-	-	=	-		-	-	-	-	-	-	
	` •						•	•		•			
	Grand Total (A+B+C)	4,277,231,127.00	1,327,205,741.00	1,062,295,780.00	4,542,141,088.00		954,976,079.00	156,361,272.00	92,998,063.00	1,204,335,414.00	3,337,805,674.00	3,322,255,048.00	

# SCHEDULE 5 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

Particulars		Current Year	Previous Year
Long term		Current real	r revious real
1. In Central Government Securities		1	-
2. In State Government Securities		-	-
3. Other approved Securities		-	-
4. Shares		-	-
5. Debentures and Bonds		-	-
6. Term Deposits with Banks		5,000,000.00	-
7. Others		-	1
	Total (A)	5,000,000.00	ı
Short term			
1. In Central Government Securities		-	-
2. In State Government Securities		-	-
3. Other approved Securities		-	-
4. Shares		-	-
5. Debentures and Bonds		-	<u>-</u>
6. Term Deposits with Banks		779,053,693.00	-
7. Others (Letter of Credit)		4,485,000.00	-
	Total (B)	783,538,693.00	-
Grand Total (A+B)		788,538,693.00	-

### SCHEDULE 6 - INVESTMENTS OTHERS

Particulars	Current Year	Previous Year
1. In Central Government Securities	-	-
2. In State Government Securities	-	-
3. Other approved Securities	-	-
4. Shares	-	-
5. Debentures and Bonds	-	-
6. Others (to be specified)	-	-
Total	-	-

#### ANNEXURE A

### Certified balances of Bank Accounts and Fixed Deposits shown in the Institute's books of accounts

(i) Savings Accounts

(Amount in Rupees)

SI. No	Bank & Branch Details	A/c No	Amount
1	PNB, LINK RD, CALICUT	1423000105436300	32,654,497.50
2	HDFC, CALICUT	12551450000070	178,024.00
3	UCO, CALICUT	1470100010215	633,690.00
4	ICICI, KUNNAMANGALAM	44401001277	54,458,489.00
5	SBI, NIT	10401159314	85,868,378.23
6	SBI, NIT	10401160454	5,722,775.73
7	SBI, NIT	10401160578	44,323,681.40
8	SBI, NIT	10401159303	2,176,005.55
9	SBI, NIT	10401159325	73,326.47
10	SBI, NIT	10401159530	20,920,226.41
11	SBI, NIT	10401159802	95,370,895.05
12	SBI, NIT	31994129466	41,514,915.00
13	SBI, NIT	30261390339	206,201,738.58
14	SBI, NIT	31317481538	92,877.00
15	SBI, NIT	30583579511	84,235.00
16	SBI, NIT	30971545390	1,797,153.00
17	SBI, NIT	31444243085	248,620.00
18	SBI, NIT	31064842240	474.00
19	SBI, NIT	31098052035	1,960,581.00
20	SBI, NIT	30705794534	180,038.00
	Tot	al	594,460,620.92

The Earmarked/Designated funds are shown in Bold Italics letters and Bank certified total of the Earmarked/Designated funds as on 31st March 2015 is

Rs. 35,54,23,634.38 and other Savings Bank accounts are Rs. 23,90,36,986.54

(ii) Current Accounts

(Amount in Rupees)

1	SBT, KUNNAMANGALAM	67102704404	162,049.01
2	SBI, NIT	10401158082	442,111,013.82
3	SBI, NIT	10401158106	7,670.46
4	SBT, KUNNAMANGALAM	67089770093	69,516.00
5	SBI, NIT	30846292747	17,414,009.00
	Total		459,764,258.29

(iii) Term Deposits

2       \$BI,NIT       34807350901       \$50,452,546.0         3       \$BI,NIT       34807746096       23,028,670.0         4       \$BI,NIT       34807978764       25,853,650.0         5       \$BI,NIT       34808508695       2,791,992.0         6       \$BI,NIT       34810974425       6,936,244.0         7       \$BI,NIT       32529686489       23,748,788.0         8       \$BI,NIT       34811258913       89,573,035.0         9       \$BI,NIT       34796881013       43,626,501.0         10       \$BI,NIT       34796881013       43,626,501.0         11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34800890320       57,029,139.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580510       7,122,378.0         18       \$BI,NIT       32808580510       5,972,503.0         20       \$BI,NIT       32808580510       5,972,				(Amount in Rupees)
2       \$BI,NIT       34807350901       \$50,452,546.0         3       \$BI,NIT       34807746096       23,028,670.0         4       \$BI,NIT       34807978764       25,853,650.0         5       \$BI,NIT       34808508695       2,791,992.0         6       \$BI,NIT       34810974425       6,936,244.0         7       \$BI,NIT       32529686489       23,748,788.0         8       \$BI,NIT       3479681013       89,573,035.0         9       \$BI,NIT       3479681013       43,626,501.0         10       \$BI,NIT       34797215177       57,187,125.0         11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34800890320       57,029,139.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580510       7,122,378.0         18       \$BI,NIT       32808580510       5972,503.0         20       \$BI,NIT       32808580510       5972,503.	SI. No	Bank & Branch Details	A/c No	Amount
3       SBI,NIT       34807746096       23,028,670.0         4       SBI,NIT       34807978764       25,853,650.0         5       SBI,NIT       34808508695       2,791,992.0         6       SBI,NIT       34810974425       6,936,244.0         7       SBI,NIT       32529686489       23,748,788.0         8       SBI,NIT       34797881013       89,573,035.0         9       SBI,NIT       34797881013       43,626,501.0         10       SBI,NIT       34800618673       22,874,941.0         11       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34800831262       2,797,828.0         15       SBI,NIT       34800831262       2,797,828.0         15       SBI,NIT       34810972428       2,104,179.0         16       SBI,NIT       32808580510       7,122,378.0         17       SBI,NIT       32808580510       5,972,503.0         19       SBI,NIT       32808580510       5,972,503.0         20       SBI,NIT       32775802085       7,064,983.0         21       SBI,NIT       32775802085       7,064,98	1	SBI,NIT	34804928546	75,844,526.00
4       SBI,NIT       34807978764       25,853,650.0         5       SBI,NIT       34808508695       2,791,992.0         6       SBI,NIT       34810974425       6,936,244.0         7       SBI,NIT       32529686489       23,748,788.0         8       SBI,NIT       34811258913       89,573,035.0         9       SBI,NIT       34796881013       43,626,501.0         10       SBI,NIT       34800618673       22,874,941.0         12       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34800831262       2,797,828.0         14       SBI,NIT       34800831262       2,797,828.0         15       SBI,NIT       32808580510       7,123,918.0         16       SBI,NIT       32808580510       7,123,918.0         17       SBI,NIT       32808580270       7,722,378.0         18       SBI,NIT       32808580101       5,972,503.0         20       SBI,NIT       32775802085       7,064,983.0         21       SBI,NIT       3277580900       8,304,859.0         22       SBI,NIT       3277580900       8,304,859.0         22       SBI,NIT       3277580900       7,502,316.0<	2	SBI,NIT	34807350901	50,452,546.00
5       SBI,NIT       34808508695       2,791,992.0         6       SBI,NIT       34810974425       6,936,244.0         7       SBI,NIT       32529686489       23,748,788.0         8       SBI,NIT       34811258913       89,573,035.0         9       SBI,NIT       34796881013       43,626,501.0         10       SBI,NIT       34797215177       57,187,125.0         11       SBI,NIT       34800618673       22,874,941.0         12       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34797339758       34,303,318.0         14       SBI,NIT       34800831262       2,797,828.0         15       SBI,NIT       34810972428       2,104,179.0         16       SBI,NIT       32808580510       7,123,788.0         17       SBI,NIT       32808580270       7,122,378.0         18       SBI,NIT       32808580101       5,972,503.0         20       SBI,NIT       32775802085       7,064,983.0         21       SBI,NIT       3277589690       8,304,859.0         22       SBI,NIT       3277589422       7,139,490.0         23       SBI,NIT       32775684133       7,502,316	3	SBI,NIT	34807746096	23,028,670.00
6       \$BI,NIT       34810974425       6,936,244.0         7       \$BI,NIT       32529686489       23,748,788.0         8       \$BI,NIT       34811258913       89,573,035.0         9       \$BI,NIT       34796881013       43,626,501.0         10       \$BI,NIT       34797215177       57,187,125.0         11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         20       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       327758090       8,304,859.0         22       \$BI,NIT       327758090       8,304,859.0         23       \$BI,NIT       32797684133       7,502,316.	4	SBI,NIT	34807978764	25,853,650.00
7       \$BI,NIT       32529686489       23,748,788.0         8       \$BI,NIT       34811258913       89,573,035.0         9       \$BI,NIT       34796881013       43,626,501.0         10       \$BI,NIT       34797215177       57,187,125.0         11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       3277578690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,	5	SBI,NIT	34808508695	2,791,992.00
8       SBI,NIT       34811258913       89,573,035.0         9       SBI,NIT       34796881013       43,626,501.0         10       SBI,NIT       34797215177       57,187,125.0         11       SBI,NIT       34800618673       22,874,941.0         12       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34800831262       2,797,828.0         14       SBI,NIT       34810972428       2,104,179.0         15       SBI,NIT       32808580510       7,123,918.0         17       SBI,NIT       32808580270       7,122,378.0         18       SBI,NIT       32642319757       5,943,298.0         19       SBI,NIT       32808580101       5,972,503.0         20       SBI,NIT       32775802085       7,064,983.0         21       SBI,NIT       3277589690       8,304,859.0         22       SBI,NIT       32775839242       7,139,490.0         23       SBI,NIT       32807109890       7,502,316.0         24       SBI,NIT       32807109890       7,502,316.0	6	SBI,NIT	34810974425	6,936,244.00
8       SBI,NIT       34811258913       89,573,035.0         9       SBI,NIT       34796881013       43,626,501.0         10       SBI,NIT       34797215177       57,187,125.0         11       SBI,NIT       34800618673       22,874,941.0         12       SBI,NIT       34800890320       57,029,139.0         13       SBI,NIT       34800831262       2,797,828.0         14       SBI,NIT       34810972428       2,104,179.0         15       SBI,NIT       32808580510       7,123,918.0         17       SBI,NIT       32808580270       7,122,378.0         18       SBI,NIT       32642319757       5,943,298.0         19       SBI,NIT       32808580101       5,972,503.0         20       SBI,NIT       32775802085       7,064,983.0         21       SBI,NIT       3277589690       8,304,859.0         22       SBI,NIT       32775839242       7,139,490.0         23       SBI,NIT       32807109890       7,502,316.0         24       SBI,NIT       32807109890       7,502,316.0	7	SBI,NIT	32529686489	23,748,788.00
9       \$BI,NIT       34796881013       43,626,501.0         10       \$BI,NIT       34797215177       57,187,125.0         11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	8	SBI,NIT	34811258913	89,573,035.00
11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775839242       7,139,490.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	9	SBI,NIT	34796881013	43,626,501.00
11       \$BI,NIT       34800618673       22,874,941.0         12       \$BI,NIT       34800890320       57,029,139.0         13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775839242       7,139,490.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	10	SBI,NIT	34797215177	57,187,125.00
13       \$BI,NIT       34797339758       34,303,318.0         14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	11	SBI,NIT	34800618673	22,874,941.00
14       \$BI,NIT       34800831262       2,797,828.0         15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	12	SBI,NIT	34800890320	57,029,139.00
15       \$BI,NIT       34810972428       2,104,179.0         16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	13	SBI,NIT	34797339758	34,303,318.00
16       \$BI,NIT       32808580510       7,123,918.0         17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	14	SBI,NIT	34800831262	2,797,828.00
17       \$BI,NIT       32808580270       7,122,378.0         18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	15	SBI,NIT	34810972428	2,104,179.00
18       \$BI,NIT       32642319757       5,943,298.0         19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	16	SBI,NIT	32808580510	7,123,918.00
19       \$BI,NIT       32808580101       5,972,503.0         20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	17	SBI,NIT	32808580270	7,122,378.00
20       \$BI,NIT       32775802085       7,064,983.0         21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	18	SBI,NIT	32642319757	5,943,298.00
21       \$BI,NIT       32775798690       8,304,859.0         22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	19	SBI,NIT	32808580101	5,972,503.00
22       \$BI,NIT       32775839242       7,139,490.0         23       \$BI,NIT       32797684133       7,502,316.0         24       \$BI,NIT       32807109890       7,502,316.0	20	SBI,NIT	32775802085	7,064,983.00
23       SBI,NIT       32797684133       7,502,316.0         24       SBI,NIT       32807109890       7,502,316.0	21	SBI,NIT	32775798690	8,304,859.00
24 SBI,NIT 32807109890 7,502,316.0	22	SBI,NIT	32775839242	7,139,490.00
24 SBI,NIT 32807109890 7,502,316.0	23	SBI,NIT	32797684133	7,502,316.00
25 SRI NIT 32807204047 7 502 316 0	24	SBI,NIT	32807109890	7,502,316.00
20 001/111	25	SBI,NIT	32807204047	7,502,316.00

26	SBI,NIT	32457042738	6,848,334.00
27	SBI,NIT	32457050590	6,848,334.00
28	SBI,NIT	32457035312	6,276,523.00
29	SBI,NIT	32457041881	6,848,334.00
30	SBI,NIT	32793896072	30,075,931.00
31	SBI,NIT	33985724337	5,000,000.00
32	SBI,NIT	34317143675	1,908,655.00
33	SBI,NIT	32678399787	1,230,828.00
34	SBI,NIT	32556149973	303,455.00
35	SBI,NIT	32455555516	88,707.00
36	SBI,CALICUT	32457363478	6,677,464.00
37	SBI,CALICUT	32457358254	6,677,464.00
38	SBI,CALICUT	34015173408	1,529,000.00
39	SBI,CALICUT	34428256808	812,000.00
40	SBI,CALICUT	34764007175	571,000.00
41	SBI,CALICUT	34799587314	1,573,000.00
42	UCO,CALICUT	1470310027097	11,286,408.00
43	UCO,CALICUT	1470310027080	22,572,818.00
44	UCO,CALICUT	1470310027073	22,572,818.00
45	UCO,CALICUT	1470310020418	40,141,412.00
46	UCO,CALICUT	1470310020753	14,482,352.00
47	UCO,CALICUT	1470310020746	12,532,851.00
48	UCO,CALICUT	1470310014943	41,022,112.00
49	UCO,CALICUT	1470310023891	15,781,873.00
50	UCO,CALICUT	1470310027066	71,833,844.00
51	PNB,LINK RD, CALICUT	142300GR00000036	21,414,194.00
52	PNB,LINK RD, CALICUT	142300GR00000045	29,303,313.00
53	PNB,LINK RD, CALICUT	142300PR00014704	12,445,547.00
54	PNB,LINK RD, CALICUT	142300GR00000027	13,998,593.00
55	SBT, KUNNAMANGALAM	67198551512	6,112,670.00
56	SBT, KUNNAMANGALAM	67198551635	8,528,856.00
57	SBT, KUNNAMANGALAM	67196737554	6,113,880.00
58	SBT, KUNNAMANGALAM	67200572280	66,003,956.00
59	SBT, KUNNAMANGALAM	67196737383	6,113,880.00
60	SBT, KUNNAMANGALAM	67284982405	59,938,343.00
	Tota		1,154,799,608.00

### ANNEXURE B

# Bank Accounts for Projects shown in Books of Accounts

S. No	Bank & Branch Details	A/c No	Amount
1	SBI, NIT	30216829032	18,135.00
2	SBI, NIT	30428104525	40,625.00
3	SBI, NIT	30506640444	2,890,258.00
4	SBI, NIT	30572255397	88,691.00
5	SBI, NIT	30747256440	28,150.00
6	SBI, NIT	30834401604	1,297,540.00
7	SBI, NIT	31130641093	3,535,962.00
8	SBI, NIT	31673486797	229.00
9	SBI, NIT	31789869063	-
10	SBI, NIT	31806184719	-
11	SBI, NIT	31915181691	107,340.00
12	SBI, NIT	32337312896	-
13	SBI, NIT	30428621431	734,005.00
14	SBI, NIT	31915181067	351,423.00
15	SBI, NIT	31762778358	17,697.00
16	SBI, NIT	31789866710	1,841,702.00
17	SBI, NIT	31539428116	184,458.00
18	SBI, NIT	31587876874	316,898.00
19	SBI, NIT	30458848311	1,379,885.00
20	SBI, NIT	31587877641	211,661.00
21	SBI, NIT	31789868139	3,633,008.00
22	SBI, NIT	30751833900	8,153.00
23	SBI, NIT	30948538288	1,457.00
24	SBI, NIT	30908477650	96,580.00
25	SBI, NIT	30948537262	9,877.00
26	SBI, NIT	31091558694	87,271.00
27	SBI, NIT	32085790207	52,050.00
28	SBI, NIT	32101535934	1,481.00
29	SBI, NIT	32015957716	381,311.00
30	SBI, NIT	31735759406	17,412.00
31	SBI, NIT	32181724122	175,397.00
32	SBI, NIT	31735764063	36,609.00
33	SBI, NIT	32246641696	351,055.00

34	SBI, NIT	32450375729	390,723.00
35	SBI, NIT	32459780819	336,620.00
36	SBI, NIT	32563036529	12,360.00
37	SBI, NIT	32563027683	583,541.00
38	SBI, NIT	32522570991	229,511.00
39	SBI, NIT	32579164962	1,501,594.00
40	SBI, NIT	32624434091	192,487.00
41	SBI, NIT	32785878304	267,194.00
42	SBI, NIT	32785641568	187,712.00
43	SBI, NIT	32378958932	197,956.00
44	SBI, NIT	32797599031	6,648.00
45	SBI, NIT	32671991931	101.00
46	SBI, NIT	32624434319	626,289.00
47	SBI, NIT	32436799747	478,892.00
48	SBI, NIT	32920483063	566,137.00
49	SBI, NIT	33049806044	177,954.00
50	SBI, NIT	32954434797	1,512,320.00
51	SBI, NIT	33015477472	129,068.00
52	SBI, NIT	33067690208	4,999,677.00
53	SBI, NIT	33077197833	286,911.00
54	SBI, NIT	33175087386	1,359,537.00
55	SBI, NIT	33175086199	17,962.00
56	SBI, NIT	33807577465	421,747.00
57	SBI, NIT	32312778967	16,149.00
58	SBI, NIT	32276182737	41,493.00
59	SBI, NIT	33627227608	60,106.00
60	SBI, NIT	33869260955	421,703.00
61	SBI, NIT	33368730296	266,744.00
62	SBI, NIT	33301926627	402,888.00
63	SBI, NIT	30808033649	12,244.00
64	SBI, NIT	33187581587	1,357,044.00
65	SBI, NIT	34129367406	164,175.00
66	SBI, NIT	34055770847	1,964,165.00
67	SBI, NIT	34024537434	2,053,364.00
68	SBI, NIT	33368719830	466,053.00
69	SBI, NIT	33368722037	194,650.00
70	SBI, NIT	34059815913	2,337,322.00
71	SBI, NIT	33368731461	129,724.00

72	SBI, NIT	33301927326	2,207,642.00
73	SBI, NIT	33301926004	316,588.00
74	SBI, NIT	33190628157	30,273.00
75	SBI, NIT	30034861796	179,024.00
76	SBI, NIT	30244427204	-
77	SBI, NIT	30347104843	14,486.00
78	SBI, NIT	30296022852	75,964.00
79	SBI, NIT	30157073056	-
80	SBI, NIT	30308738672	62,981.00
81	SBI, NIT	30411043412	-
82	SBI, NIT	31764985964	85,867.50
83	SBI, NIT	30660026003	524,444.00
84	SBI, NIT (Current Account)	32817071488	602,157.00
	Total		46,366,511.50

ANNEXURE C
List of Bank accounts and Fixed Deposits not shown in the Institutes books of accounts

List of Bank accounts and Fixed Deposits not shown in the Institutes books of accounts (Amount in Rupees) SI. No Bank & Branch Details A/c No Amount Savings Accounts SBI, NIT 32399109132 1,055,769.00 SBI, NIT 31776249920 2 SBI, NIT 33588035836 SBI, NIT 33413466990 1,913,182.00 2,968,951.00 Total (ii) **Current Accounts** UCO, CALICUT 1470210001233 3,173.00 SBI, CALICUT 31039642229 10,447.00 33950524246 SBI, NIT 10,633.00 3 SBI, NIT 33874384690 (157.00) SBI, NIT 33862473948 (157.00) SBI, NIT (157.00) 33852003246 Total 23,782.00 (iii) **Project Accounts** SBI, NIT 31725977448 391.00 SBI, NIT 31734425395 31,674.00 31965694999 3 SBI, NIT 4 SBI, NIT 32385609903 53,730.00 3341334437 5 SBI, NIT 6 SBI, NIT 33592585625 126,150.00 SBI, NIT 33605148992 20.00 SBI, NIT 33605150581 8 SBI, NIT 33914240690 SBI, NIT 33927320184 10 SBI, NIT 34743361812 332,975.00 11 34781526032 SBI, NIT 428,200.00 SBI, NIT 13 33888023137 Total 973,140.00 (iv) TERM DEPOSITS SBI,CLT 34759441951 552,000.00 SBI,CLT 34803124830 638,000.00 SBI,CLT 34803403596 693,000.00 1,023,348.00 SBT, KUNNAMANGALAM 67178725585 2,906,348.00 Total

# SCHEDULE 7 – CURRENT ASSETS

Particulars	Current Year	Previous Year
1. Stock:		
a) Stores and Spares		
b) Loose Tools		
c) Publications	2,690,029.00	1,901,021.00
d) Laboratory chemicals, consumables and glass ware		
e) Stationary		
2. Sundry Debtors:		
<ul> <li>a) Debts Outstanding for a period exceeding six months</li> </ul>	-	-
b) Others	-	-
3. Cash in hand	300,624.78	451,528.00
4. Cash in Bank		
a) With Scheduled Banks:		
In Current Accounts	568,050,074.97	329,869,245.00
In Term deposit Accounts	366,260,915.00	1,354,106,533.00
In Savings Accounts	690,137,864.13	510,365,943.00
b) With non-Scheduled Banks:		
In Term deposit Accounts	-	-
In Savings Accounts	-	-
5. Post Office- Savings Accounts	-	-
6.Cash in Treasury	3,499,077.00	3,499,077.00
Total	1,630,938,585.00	2,200,193,347.00

#### SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS

		(Amount in Rupees
Particulars	Current Year	Previous Year
1. Advances to employees: (Interest bearing)		
a) Salary	-	
b) Festival	(84,535.00)	(1,188,160.00)
c) LTC	286,178.00	-
d) Medical Advance	-	-
e) Travelling advance	146,332.00	-
f) Computer advance	(172,989.00)	(166,389.00)
g) Marriage advance	(66,184.00)	(66,184.00)
h) Other (Plan & Dept. advances)	15,951,241.00	31,327,650.00
2. Long Term Advances to employees: (Interest bearing)		
a) Vehicle Ioan	548,370.00	691,724.00
b) Home loan	(690,647.00)	186,562.00
c) Others (to be specified)	-	-
3. Advances and other amounts recoverable in cash or in		
kind or		
for value to be received:		
a) On Capital Account	-	-
b) To suppliers	59,808.00	-
c) Deficit Balance of Grants (Excess of expenditure)	380,005,015.00	-
4. Prepaid Expenses		
a) Insurance	-	-
b) Other expenses	-	-
5. Deposits		
a) Telephone	-	-
b) Lease Rent	-	-
c) Electricity	2,239,604.00	1,461,887.00
d) AICTE, if applicable	91,389.00	91,389.00
e) MCI, if applicable	-	-
f) Others (to be specified)	-	-
6. Income Accrued:		
a) On Investments from Earmarked/ Endowment Funds	39,402,446.00	-
b) On Investments- Term Deposits	11,451,408.00	-
c) On Security Deposit with KSEB	184,616.00	-
d) Others	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
(includes income due unrealized-Rs)	-	-
7. Other - Current assets receivable from UGC/sponsored		
projects/Govt. grants		
a) Debit balances in Sponsored Projects	8,203,230.00	1,502,304.00
b) Debit balances in Sponsored Fellowships &	0,200,200.00	1,002,001.00
Scholarships	523,855.00	-
c) Grants Receivable	11,714,011.00	90,000,000.00
d) Other receivables from UGC	-	-
8. Claims Receivable	-	-
Total	469,793,148.00	123,840,783.00
iotai	403,133,140.00	123,040,763.00

### SCHEDULE 9 – ACADEMIC RECEIPTS

Particulars	Current Year	(Amount in Rupees) Previous Year
FEES FROM STUDENTS		
Academic		
1. Tuition fee	333,906,736.75	226,354,450.00
2. Admission fee	472,300.00	336,400.00
3. Enrolment Fee	-	-
4. Library Admission fee	2,634,466.00	1,681,000.00
5. Laboratory fee	-	-
6. Art & Craft fee	-	-
7. Registration fee	2,365,150.00	2,229,700.00
8. Syllabus fee	-	-
Total (A)	339,378,652.75	230,601,550.00
Examinations		
1. Admission test fee	-	-
2. Annual Examination fee	4,551,260.00	3,911,450.00
3. Mark sheet, certificate fee	238,360.00	477,040.00
4. Entrance examination fee	-	-
Total (B)	4,789,620.00	4,388,490.00
Other fees		
1. Identity card fee	16,200.00	207,973.00
2. Fine/Miscellaneous fee	1,421,250.00	1,032,600.00
3. Medical fee	-	-
4. Transportation fee	-	-
5. Convocation fee	508,100.00	-
Total (C)	1,945,550.00	1,240,573.00
Sale of publications		
1. Sale of Admission forms	1,038,100.00	1,159,300.00
2. Sale of syllabus and Question Paper, etc.	-	-
3. Sale of prospectus	-	-
Total (D)	1,038,100.00	1,159,300.00
Other Academic Receipts		
1. Registration fees for workshops, programmes	-	-
2. Registration fees (Academic Staff College)	-	-
Total (E)	-	-
GRAND TOTAL (A+B+C+D+E)	347,151,923.00	237,389,913.00

#### SCHEDULE 10 – GRANTS/DONATIONS/SUBSIDIES

	Plan						
		UGC			Non Plan Govt. of		
Particulars			Specific	Total Plan	India	Current Year Total	Previous Year Total
	Govt. of India	Plan	Schemes				
Balance B/F	165,241,818.00	-	-	165,241,818.00	(221,575,265.00)	(56,333,447.00)	(8,267,941.00)
Add: Receipts during the year	97,500,000.00	-	-	97,500,000.00	600,000,000.00	697,500,000.00	839,500,000.00
Total	262,741,818.00	-	-	262,741,818.00	378,424,735.00	641,166,553.00	831,232,059.00
Less: Refund	-	-	-	-	-	•	-
Balance	262,741,818.00	-	-	262,741,818.00	378,424,735.00	641,166,553.00	831,232,059.00
Less: Utilised for Capital Expenditure	264,909,961.00	-	-	264,909,961.00	-	264,909,961.00	182,479,452.00
Balance	(2,168,143.00)	-	-	(2,168,143.00)	378,424,735.00	376,256,592.00	648,752,607.00
Less: Utilised for Revenue Expenditure	-	-	-	-	756,261,607.00	756,261,607.00	705,086,054.00
Balance C/F	(2,168,143.00)	-	-	(2,168,143.00)	(377,836,872.00)	(380,005,015.00)	(56,333,447.00)

# SCHEDULE 11 - INCOME FROM INVESTMENTS

				( a	
Particulars	Earmarked/ Ei	ndowment Funds	Other investments		
	Current Year	Previous Year	Current Year	Previous Year	
1) Interest					
a) On Govt. Securities	-	-	-	-	
b) Other Bonds/Debentures	-	-	-	-	
2) Interest on Term Deposits	41,911,724.00	-	20,024,493.00	1,484,179.00	
3) Income accrued but not due on Term Deposits/					
Interest bearing advances to employees	39,402,446.00	_	4,651,156.00	-	
	0.7.5=75.5		.,,		
4) Interest on Savings Banks Accounts	4,621,092.00	-	-	-	
,	, ,				
5) Others	-	-	184,616.00	-	
Total	85,935,262.00	-	24,860,265.00	1,484,179.00	
Transferred to Earmarked/Endowment Funds	85,935,262.00	-		-	
Balance	-	-	24,860,265.00	1,484,179.00	

# SCHEDULE 12 – INTEREST EARNED

Particulars	Current Year	Previous Year
On Savings account with scheduled Banks	8,165,318.00	2,426,925.00
2. On Loans a. Employees/Staff b. Others	-	- -
3. On Debtors and other receivables	-	-
Total	8,165,318.00	2,426,925.00

### SCHEDULE 13- OTHER INCOME

A. Income from Land & Building  1. Hostel Room Rent 2. License fee 3.5,95,056.00 3. Hire Charges of Auditorium/Play ground/Convention Centre, etc 4. Electricity charges recovered 5. Water charges recovered 5. Water charges recovered 7. Total 7. Sale of Institute's publications 7. C. Income from holding events 7. Gross Receipts from annual function/ sports carnival 7. Gross Receipts from annual function/ sports carnival 7. Gross Receipts from fetes 7. Gross Receipts from fetes 7. Gross Receipts for educational tours 8. Gross Receipts for educational tours 8. Gross Receipts for educational tours 8. Gross Receipts for educational tours 9. Gross Receipts for educational for educational form form consultancy 9. Gross Receipts for educational form form consultancy 9. Gross Receipts form form form form form form form form	Dorticulors	Current Voor	Dravious Voor
1. Hostel Room Rent         5,496,036.00         8,830,685,00           2. License fee         3,592,596.00             3. Hire Charges of Auditorium/Play ground/Convention Centre, etc              4. Electricity charges recovered         13,445,097.00         12,349,402.00         21,180,087.00           5. Water charges recovered         313,538.00         21,180,087.00           B. Sale of Institute's publications             C. Income from holding events             1. Gross Receipts from annual function/ sports carnival             2. Gross Receipts from fetes             1. Gross Receipts from fetes             2. Gross Receipts from fetes             2. Gross Receipts for educational tours             2. Ess: Direct expenditure incurred on the fetes             3. Gross Receipts for educational tours             4. Others (to be specified and separately disclosed)             4. Others (to be specified and separately disclosed)             5. Income from consultancy	Particulars	Current Year	Previous Year
2. License fee 3,592,596.00 3. Hire Charges of Auditorium/Play ground/Convention Centre, etc	<u> </u>	F 40/ 02/ 00	
3. Hire Charges of Auditorium/Play ground/Convention Centre, etc 4. Electricity charges recovered 5. Water charges recovered 7 Total 7 Total 7 22,847,267.00 8. Sale of Institute's publications 7 Total 8. Sale of Institute's publications 7 C. Income from holding events 7 C. Income from holding events 9 Less: Direct expenditure incurred on the annual function/ sports carnival 9 Less: Direct expenditure incurred on the fetes 9 Caross Receipts from detes 1 Less: Direct expenditure incurred on the fetes 9 Caross Receipts for educational tours 1 Less: Direct expenditure incurred on the fetes 1 Less: Direct expenditure incur			8,830,685.00
4. Electricity charges recovered         13,445,097.00           5. Water charges recovered         313,538.00           Total         22,847,267.00         21,180,087.0           B. Sale of Institute's publications         -         -           C. Income from holding events         -         -           1. Gross Receipts from annual function/ sports carnival         -         -           Less: Direct expenditure incurred on the annual function/ sports carnival         -         -           2. Gross Receipts from fetes         -         -         -           2. Gross Receipts from fetes         -         -         -           2. Gross Receipts for educational tours         -         -         -           3. Gross Receipts for educational tours         -         -         -           4. Others (to be specified and separately disclosed)         -         -         -           4. Others (to be specified and separately disclosed)         -         -         -           5. Income from consultancy         465,498.00         522,660.0         522,660.0           2. RTI fees         1,551.00         -         -           3. Income from Royalty         -         -         -           4. Sale of application form (recruitment)         - </td <td></td> <td>3,592,596.00</td> <td></td>		3,592,596.00	
S. Water charges recovered   313.538.00   12,349,402.00		-	-
5. Water charges recovered  Total  Total  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  21,180,087.01  22,847,267.00  24,087,287,287,287,287,287,287,287,287,287,2	2 0		12.349.402.00
B. Sale of Institute's publications  C. Income from holding events  1. Gross Receipts from annual function/ sports carnival  Less: Direct expenditure incurred on the annual function/ sports carnival  2. Gross Receipts from fetes  Less: Direct expenditure incurred on the fetes  3. Gross Receipts for educational tours  Less: Direct expenditure incurred on the fetes  4. Others (to be specified and separately disclosed)  Total  D. Others  1. Income from consultancy  2. RTI fees  3. Income from Royalty  4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form, waste paper, etc.)  6. Profit on Sale/disposal of Assets:  a) Owned assets  a) Owned assets  b) Assets acquired out of grants, or received free of cost  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  7. Grants/Donations from Institutions of Profits of P	<u> </u>	-	
C. Income from holding events  1. Gross Receipts from annual function/ sports carnival  Less: Direct expenditure incurred on the annual function/ sports carnival  2. Gross Receipts from fetes  Less: Direct expenditure incurred on the fetes  3. Gross Receipts for educational tours  Less: Direct expenditure incurred on the fotors  4. Others (to be specified and separately disclosed)  Total  D. Others  1. Income from consultancy  2. RTI fees  3. Income from Royalty  4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form, waste paper, etc.)  6. Profit on Sale/disposal of Assets:  a) Owned assets  5. Crants/Donations from Institutions, Welfare Bodies and International Organizations  8. Others  Total  7,664,379.00  2,710,016.00	Total	22,847,267.00	21,180,087.00
1. Gross Receipts from annual function/ sports carnival  Less: Direct expenditure incurred on the annual function/ sports carnival  2. Gross Receipts from fetes  Less: Direct expenditure incurred on the fetes  3. Gross Receipts for educational tours  Less: Direct expenditure incurred on the fetes  4. Others (to be specified and separately disclosed)  Total  D. Others  1. Income from consultancy  2. RTI fees  3. Income from Royalty  4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form, waste paper, etc.)  6. Profit on Sale/disposal of Assets:  a) Owned assets  b) Assets acquired out of grants, or received free of cost  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  8. Others  Total  7,664,379.00  2,710,016.00	B. Sale of Institute's publications	-	-
Less: Direct expenditure incurred on the annual function/ sports carnival  2. Gross Receipts from fetes  Less: Direct expenditure incurred on the fetes  3. Gross Receipts for educational tours  Less: Direct expenditure incurred on the fours  4. Others (to be specified and separately disclosed)  Total  D. Others  1. Income from consultancy  2. RTI fees  3. Income from Royalty  4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form, waste paper, etc.)  6. Profit on Sale/disposal of Assets:  a) Owned assets  b) Assets acquired out of grants, or received free of cost  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  8. Others  Total  7,664,379.00  2,710,016.00			
2. Gross Receipts from fetes	1. Gross Receipts from annual function/ sports carnival	-	-
Less: Direct expenditure incurred on the fetes       -       -         3. Gross Receipts for educational tours       -       -         Less: Direct expenditure incurred on the tours       -       -         4. Others (to be specified and separately disclosed)       -       -         Total       -       -         D. Others       -       -         1. Income from consultancy       465,498.00       522,660.0         2. RTI fees       1,551.00       -         3. Income from Royalty       -       -         4. Sale of application form (recruitment)       -       -         5. Misc. receipts (Sale of tender form, waste paper, etc.)       6,411,152.00       2,187,356.0         6. Profit on Sale/disposal of Assets:       -       -         a) Owned assets       -       -         b) Assets acquired out of grants, or received free of cost       -       -         7. Grants/Donations from Institutions, Welfare Bodies and International Organizations       786,178.00       -         8. Others       -       -       -         Total       7,664,379.00       2,710,016.0	·	-	-
3. Gross Receipts for educational tours       -       -         Less: Direct expenditure incurred on the tours       -       -         4. Others (to be specified and separately disclosed)       -       -         Total       -       -         D. Others         1. Income from consultancy       465,498.00       522,660.00         2. RTI fees       1,551.00       -         3. Income from Royalty       -       -         4. Sale of application form (recruitment)       -       -         5. Misc. receipts (Sale of tender form, waste paper, etc.)       6,411,152.00       2,187,356.00         6. Profit on Sale/disposal of Assets:       -       -         a) Owned assets       -       -         b) Assets acquired out of grants, or received free of cost       -       -         7. Grants/Donations from Institutions, Welfare Bodies and International Organizations       786,178.00       -         8. Others       -       -       -         Total       7,664,379.00       2,710,016.00	<u>'</u>	-	-
Less: Direct expenditure incurred on the tours       -       -         4. Others (to be specified and separately disclosed)       -       -         Total       -       -         D. Others         1. Income from consultancy       465,498.00       522,660.00         2. RTI fees       1,551.00       -         3. Income from Royalty       -       -         4. Sale of application form (recruitment)       -       -         5. Misc. receipts (Sale of tender form, waste paper, etc.)       6,411,152.00       2,187,356.00         6. Profit on Sale/disposal of Assets:       -       -         a) Owned assets       -       -         b) Assets acquired out of grants, or received free of cost       -       -         7. Grants/Donations from Institutions, Welfare Bodies and International Organizations       786,178.00       -         8. Others       -       -       -         Total       7,664,379.00       2,710,016.00	Less: Direct expenditure incurred on the fetes	-	-
4. Others (to be specified and separately disclosed)  Total  D. Others  1. Income from consultancy 2. RTI fees 3. Income from Royalty 4. Sale of application form (recruitment) 5. Misc. receipts (Sale of tender form, waste paper, etc.) 6. Profit on Sale/disposal of Assets: a) Owned assets b) Assets acquired out of grants, or received free of cost 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 7. Others 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 7. John John John John John John John John	3. Gross Receipts for educational tours	-	-
Total   -   -     -	Less: Direct expenditure incurred on the tours	-	-
D. Others       1. Income from consultancy       465,498.00       522,660.00         2. RTI fees       1,551.00       -         3. Income from Royalty       -       -         4. Sale of application form (recruitment)       -       -         5. Misc. receipts (Sale of tender form, waste paper, etc.)       6,411,152.00       2,187,356.00         6. Profit on Sale/disposal of Assets:       -       -       -         a) Owned assets       -       -       -       -         b) Assets acquired out of grants, or received free of cost       -       -       -       -         7. Grants/Donations from Institutions, Welfare Bodies and International Organizations       786,178.00       -       -         8. Others       -       -       -       -       -         Total       7,664,379.00       2,710,016.00	4. Others (to be specified and separately disclosed)	-	-
1. Income from consultancy       465,498.00       522,660.0         2. RTI fees       1,551.00       -         3. Income from Royalty       -       -         4. Sale of application form (recruitment)       -       -         5. Misc. receipts (Sale of tender form, waste paper, etc.)       6,411,152.00       2,187,356.0         6. Profit on Sale/disposal of Assets:       -       -         a) Owned assets       -       -         b) Assets acquired out of grants, or received free of cost       -       -         7. Grants/Donations from Institutions, Welfare Bodies and International Organizations       786,178.00       -         8. Others       -       -       -         Total       7,664,379.00       2,710,016.00	Total	-	-
2. RTI fees 1,551.00 - 3. Income from Royalty 4. Sale of application form (recruitment) 5. Misc. receipts (Sale of tender form, waste paper, etc.) 6,411,152.00 2,187,356.00 6. Profit on Sale/disposal of Assets: a) Owned assets b) Assets acquired out of grants, or received free of cost 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 786,178.00 8. Others Total 7,664,379.00 2,710,016.00	D. Others		
3. Income from Royalty 4. Sale of application form (recruitment) 5. Misc. receipts (Sale of tender form, waste paper, etc.) 6. Profit on Sale/disposal of Assets: a) Owned assets b) Assets acquired out of grants, or received free of cost 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 7. Org	1. Income from consultancy	465,498.00	522,660.00
4. Sale of application form (recruitment)  5. Misc. receipts (Sale of tender form, waste paper, etc.)  6. Profit on Sale/disposal of Assets:  a) Owned assets  b) Assets acquired out of grants, or received free of cost  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  8. Others  Total	2. RTI fees	1,551.00	-
5. Misc. receipts (Sale of tender form, waste paper, etc.) 6. Profit on Sale/disposal of Assets: a) Owned assets	3. Income from Royalty	-	-
6. Profit on Sale/disposal of Assets:  a) Owned assets  b) Assets acquired out of grants, or received free of cost  7. Grants/Donations from Institutions, Welfare Bodies and International Organizations  8. Others  Total  7,664,379.00  2,710,016.00	4. Sale of application form (recruitment)	-	-
a) Owned assets b) Assets acquired out of grants, or received free of cost 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 786,178.00 - Total 7,664,379.00 2,710,016.00	5. Misc. receipts (Sale of tender form, waste paper, etc.)	6,411,152.00	2,187,356.00
a) Owned assets b) Assets acquired out of grants, or received free of cost 7. Grants/Donations from Institutions, Welfare Bodies and International Organizations 786,178.00 - Total 7,664,379.00 2,710,016.00	6. Profit on Sale/disposal of Assets:		
7. Grants/Donations from Institutions, Welfare Bodies and International       786,178.00       -         8. Others       -       -         Total       7,664,379.00       2,710,016.00	a) Owned assets	-	-
7. Grants/Donations from Institutions, Welfare Bodies and International       786,178.00       -         8. Others       -       -         Total       7,664,379.00       2,710,016.00	b) Assets acquired out of grants, or received free of cost	-	-
Organizations         786,178.00         -           8. Others         -         -           Total         7,664,379.00         2,710,016.00			
8. Others Total 7,664,379.00 2,710,016.00	I	786,178.00	-
Total 7,664,379.00 2,710,016.00	<u> </u>	-	-
GRAND TOTAL (A+B+C+D) 30,511,646.00 23,890,103.00		7,664,379.00	2,710,016.00
	GRAND TOTAL (A+B+C+D)	30,511,646.00	23,890,103.00

# SCHEDULE 14 – PRIOR PERIOD INCOME

Particulars	Current Year	Previous Year
1. Academic Receipts	9,306,868.00	-
2. Income from investments	23,724,976.00	3,428,104.00
3. Interest earned	-	-
4. Other Income	139,025,709.00	3,614,382.00
Total	172,057,553.00	7,042,486.00

# SCHEDULE 15 – STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

		Current Yea	r	Previous Year			
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
a) Salaries and Wages	-	420,974,937.00	420,974,937.00	-	371,037,257.00	371,037,257.00	
b) Allowances and Bonus	-	10,037,753.00	10,037,753.00	-	-	-	
c) Contribution to Provident Fund (CPF)	-	148,991.00	148,991.00	-	17,503,701.00	17,503,701.00	
d) Contribution to Other Fund (Leave Salary &							
Pension contribution)	-	942,406.00	942,406.00	-	623,753.00	623,753.00	
e) Contribution to New Pension Scheme	-	9,862,373.00	9,862,373.00	-	-	-	
f) Staff Welfare Expenses	-	-	-	-	-	-	
g) Retirement and Terminal Benefits	-	91,002,589.00	91,002,589.00	-	113,761,237.00	113,761,237.00	
h) LTC facility	-	5,785,628.00	5,785,628.00	-	3,811,972.00	3,811,972.00	
i) Medical facility	-	1,192,490.00	1,192,490.00	-	1,603,891.00	1,603,891.00	
j) Children Education Allowance	-	3,180,030.00	3,180,030.00	-	2,595,300.00	2,595,300.00	
k) Honorarium	-	1,116,796.00	1,116,796.00	-	2,619,000.00	2,619,000.00	
I) Travelling Allowances	-	3,323,626.00	3,323,626.00	-	1,692,692.00	1,692,692.00	
m) Others (Stipend to Trainees)	-	847,531.00	847,531.00	-	-	-	
Total	-	548,415,150.00	548,415,150.00	-	515,248,803.00	515,248,803.00	

### SCHEDULE 15A – EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

Particulars	Pension	Gratuity	Leave	Total
		·	Encashment	
Opening Balance as on	-	77,128,000.00	2,658,391.00	79,786,391.00
Addition: Capitalised value of Contributions received from other Organisations	-	-	-	-
Total (a)	-	77,128,000.00	2,658,391.00	79,786,391.00
Less: Actual payment during the year (b)	-	8,678,288.00	7,388,484.00	16,066,772.00
Balance available on 31/03/2015 (C)	-	68,449,712.00	(4,730,093.00)	63,719,619.00
Provision required as on 31/03/2015 as per Actuarial Valuation (d)	-	124,279,332.00	89,652,729.00	213,932,061.00
A. Provision to be made in current year (d-c)	-	55,829,620.00	94,382,822.00	150,212,442.00
B. Contribution to Pension scheme	-	-	-	-
C. Medical Reimbursement to Retired Employees	-	-	-	-
D. Travel to Hometown on Retirement	-	-	-	-
E. Deposit Linked Insurance Payment	-	-	-	-
Total ( A+B+C+D+E)	-	55,829,620.00	94,382,822.00	150,212,442.00

#### SCHEDULE 16 – ACADEMIC EXPENSES

	Current Year				Previous Year				
Particulars Particulars Particulars	Plan	Plan Non plan Total F		Plan	Non plan	Total			
a) Laboratory expenses	-	-	-	-	-	-			
b) Field work/Participation in Conferences	-	4,451,654.00	4,451,654.00	-					
c) Expenses on Seminars/Workshops	-	-	1						
d) Payment to visiting faculty	-	i	ı	-		5,130,981.00			
e) Examination	-	-	ì	-	5,130,981.00				
f) Student Welfare expenses	-	-	•	-					
g) Admission expenses	-	1,898,349.00	1,898,349.00	ı					
h) Convocation expenses	-	5,783,791.00	5,783,791.00	-					
i) Publications	-	-	-	-					
j) Stipend/means-cum-merit scholarship	-	95,436,168.00	95,436,168.00	-	98,982,985.00	98,982,985.00			
k) Books, periodicals, journals and e-journals	-	23,642,323.00	23,642,323.00	-	10,531,646.00	10,531,646.00			
I) Others (FDP,R&D,Medals & prizes)	-	4,448,323.00	4,448,323.00	-	6,539,875.00	6,539,875.00			
Total	-	135,660,608.00	135,660,608.00	-	121,185,487.00	121,185,487.00			

#### SCHEDULE 17 – ADMINISTRATIVE AND GENERAL EXPENSES

		Current Year	r	Previous Year			
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
A) Infrastructure							
a) Electricity and power	-	32,692,006.00	32,692,006.00	-	25,519,398.00	25,519,398.00	
b) Water charges	_	_		_	_		
c) Insurance	_	_	_	_	_	_	
d) Rent, Rates and Taxes (including property tax)	_	1,219.00	1,219.00	_	1,219.00	1,219.00	
B) Communication		,	,		,	,	
e) Postage & telegram	_	265,595.00	265,595.00	_	257,604.00	257,604.00	
f) Telephone, Fax and Internet Charges	-	3,449,161.00	3,449,161.00		1,248,037.00	1,248,037.00	
C) Others						· ·	
g) Printing and Stationary	_	1,219,431.00	1,219,431.00	_	854,154.00	854,154.00	
h) Traveling and Conveyance Expenses	-	-	-	-	-	-	
i) Hospitality	-	3,148,943.00	3,148,943.00	-	4,402,922.00	4,402,922.00	
j) Auditors Remuneration	-	11,745.00	11,745.00	-	89,780.00	89,780.00	
k) Professional Charges	-	-	-	-	13,200,966.00	13,200,966.00	
I) Advertisement and Publicity	-	5,146,752.00	5,146,752.00	-	2,367,419.00	2,367,419.00	
m) Magazines & Journals	_	-	-	_	-	-	
n) Legal charges	-	683,376.00	683,376.00	-			
o) Hospital contingencies	-	1,594,738.00	1,594,738.00				
p) Deparment Operating Charges (DOC)	-	14,644,120.00	14,644,120.00		108,755,416.00	108,755,416.00	
q) Others (OE&Misc.,T&P,Hindi translation)	_	691,559.00	691,559.00			. ,	
Total	-	63,548,645.00	63,548,645.00		156,696,915.00	156,696,915.00	

#### SCHEDULE 18 – TRANSPORTATION EXPENSES

(Amount in Rupees)

		Curren	t			, , , , , , , , , , , , , , , , , , , ,	
		Year			Previous Year		
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
1. Vehicles (owned by educational institution)							
a) Running expenses	-	447,012.00	447,012.00	-	454,880.00	454,880.00	
b) Repairs & maintenance	-	237,233.00	237,233.00	-	196,324.00	196,324.00	
c) Insurance expenses	-	102,143.00	102,143.00	-	105,319.00	105,319.00	
2. Vehicles taken on rent/lease							
a) Rent/lease expenses	-	642,484.00	642,484.00	-	-	-	
3. Vehicle (Taxi) hiring expenses	-	9,790.00	9,790.00	-	10,457.00	10,457.00	
Total	-	1,438,662.00	1,438,662.00	-	766,980.00	766,980.00	

#### SCHEDULE 19 - REPAIRS & MAINTENANCE

		Current Y	ear	Previous Year			
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
a) Building							
Institute building	-	622,612.00	622,612.00	-	599,738.00	599,738.00	
2. Guest house	-	451,092.00	451,092.00	-	496,841.00	496,841.00	
3. Hostels	-	149,199.00	149,199.00	-	230,015.00	230,015.00	
4. Pump & filter house	-	589,765.00	589,765.00	-	921,836.00	921,836.00	
5. Quarters	-	476,017.00	476,017.00	-	1,024,709.00	1,024,709.00	
b) Furniture & Fixture	-	-	-	-	-	-	
c) Plant & Machinery (Major)	-	288,436.00	288,436.00	-	15,000.00	15,000.00	
d) Office Equipments	-	150,800.00	150,800.00	-	32,459.00	32,459.00	
e) Computers	-	97,850.00	97,850.00	-	-	-	
f) Laboratory & Scientific equipments (Minor)	-	11,600.00	11,600.00	-	-	-	
g) Cleaning Material & Services	-	-	-	-	-	-	
h) Book binding charges	-	-	-	-	-	-	
i) Gardening	-	-	-	-	-	-	
f) Others							
1. Campus	-	1,818,438.00	1,818,438.00	-	424,628.00	424,628.00	
2. Water supply	-	96,811.00	96,811.00	-	1,366,402.00	1,366,402.00	
3. Electrical installations	-	2,023,008.00	2,023,008.00	-	1,405,904.00	1,405,904.00	
4. Play fields	-	342,544.00	342,544.00	-	34,375.00	34,375.00	
Total	-	7,118,172.00	7,118,172.00	-	6,551,907.00	6,551,907.00	

#### **SCHEDULE 20 - FINANCE COSTS**

(Amount in Rupees)

		Current Year			Previous Year			
Particulars	Plan	Non plan	Total	Plan	Non plan	Total		
a) Bank charges	-	80,370.00	80,370.00	-	13,709.00	13,709.00		
b) Others (specify)	-	-	-	-	-	-		
Total	-	80,370.00	80,370.00	-	13,709.00	13,709.00		

#### **SCHEDULE 21 – OTHER EXPENSES**

Particulars	Current Year			Previous Year			
	Plan	Non plan	Total	Plan	Non plan	Total	
a) Provision for Bad and Doubtful     Debts/Advances							
b) Irrecoverable Balances Written-off	-	-	-	-	-	-	
c) Grants/Subsidies to other	_	-	-	-	-	-	
institutions/organizations	-	-	-	-	-	-	
d) Others-Actuarial Valuation cost components							
i) Interest Costs	-	13,589,323.00	13,589,323.00	-	-	-	
ii) Current Service Costs	-	19,770,058.00	19,770,058.00	-	-	-	
iii) Net Actuarial Loss	-	21,706,692.00	21,706,692.00	-	-	-	
	-	-	-	-	-	-	
Total	-	55,066,073.00	55,066,073.00	-	-	-	

#### **SCHEDULE 22 – PRIOR PERIOD EXPENSES**

		Current Yea	ar	Previous Year		
Particulars	Plan	Non plan	Total	Plan	Non plan	Total
Establishment expenses	-	-	-	-	-	-
2. Academic expenses	-	-	-	-	-	-
3. Administrative expenses	-	-	-	-	-	-
4. Transportation expenses	-	52,472.00	52,472.00	-	-	-
5. Repairs and Maintenance	-	-	-	-	-	-
6. Others	-	194,039,743.00	194,039,743.00	•	-	-
Total	-	194,092,215.00	194,092,215.00	-	-	-

#### Schedule 23

#### Significant Accounting Policies

#### 1. Basis for preparation of accounts

The annual financial statements have been prepared and presented under historical cost convention on accrual basis in accordance with the Indian Generally Accepted Accounting Principles (GAAP), which comprises of Accounting Standards issued by the Institute of Chartered Accountants of India and other guidelines notified by Central Government from time to time. The financial statements for the year ended 31 March 2015 have been prepared and presented in the **Revised Format of Accounts of Central Educational Institutions**, as approved by the Comptroller & Auditor General of India and notified by the Ministry of Human Resource Development, Government of India *vide* letter no. 29-4/2012-IFD dated 17 April 2015. The figures for previous financial year have been regrouped and recast, wherever necessary, for conformity with the revised format.

#### 2. Use of estimates

The preparation of the financial statements in conformity with Indian GAAP requires making estimates and assumptions that affects the reported balances of assets and liabilities and disclosures relating to contingent liabilities as at the date of the financial statements and reported amounts of income and expenses during the period. Examples of such estimates include computation of percentage of completion of Capital Work-in-progress, which requires the Institute to estimate the efforts or costs expended to date as a proportion of the total efforts or costs to be expended, future obligations under employee retirement benefit plans and the useful lives of tangible and intangible assets. Accounting estimates could change over a period of time and actual results could differ from those estimates. Appropriate changes in estimates are made as the management becomes aware of changes in circumstances surrounding the estimates. Changes in estimates are reflected in the financial statements in the period in which changes are made and, if material, their effects are disclosed in the notes to the financial statements.

#### 3. Revenue recognition

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Institute and the revenue can be reliably measured.

Revenue from Plan (Non-recurring) grants is accounted on accrual basis and Plan (Non-recurring) grant is earmarked for the acquisition of the fixed assets and capital works. Income received on these funds by way of interest on Term Deposits and Savings Bank accounts in banks are added to the Capital Fund. Interest received on the Term Deposits held as security for opening Letters of Credit for import of fixed assets is accounted as addition to the respective earmarked funds.

Non-Plan (Recurring) grant received from Government of India is recognized as income on accrual basis.

Fees received from students are accounted on cash basis. Interest on Term Deposits, Savings Bank accounts, income from land and buildings and sale of application forms, tender forms, RTI fees, breakage charges and grants from other bodies are accounted on accrual basis. Interest on advances made to employees are calculated on reducing balances of loan and recognized on accrual basis.

Electricity charges recovered in respect of staff quarters and hostels are accounted as revenue and subsequently adjusted/ netted off against the electricity charges of the Institute as a whole.

#### 4. Government grants-in-aid

The Institute is funded by grants-in-aid received from Ministry of Human Resource Development, Government of India for meeting its annual Plan (Non-recurring) and Non-Plan (Recurring) expenditure. Government grants and other grants are accounted on realization basis. However, where a sanction order for release of grant pertaining to the financial year is received before 31 March and the grant is actually received in the next financial year, the grant is accounted on accrual basis and an equal amount is shown as

grants receivable under Loans, Advances and Deposits in Balance Sheet. Any grant becoming refundable for non-fulfillment of certain conditions for obtaining grants is treated as an Extra-ordinary Item and separately disclosed in financial statements.

Capital grants received from Government, which are related to acquisition of fixed assets, are treated as deferred income and recognized in the Income and Expenditure Account on systematic and rational basis over the useful life of the assets, *i.e.*, Capital grants are allocated to Income over a period and depreciation charged in proportion thereto.

Grants other than Capital grants from Government are treated as income of the Institute.

#### 5. Inventory

Stationery, consumables, stores and spares are valued at cost or net realizable value, whichever is less. Net realizable value is the estimated selling price in the ordinary course of business less estimated cost necessary to make the sale.

#### 6. Tangible assets and Capital Work-in-progress

Fixed assets are stated at historical cost less accumulated depreciation and impairment, if any. The cost comprises cost of acquisition including inward freight, duties and taxes and incidental and direct expenses related to acquisition, installation and commissioning. Security Deposit for performance of warranty services are included in the cost of assets only after the expiry of the warranty period and after a formal claim is made by the respective suppliers to release the security deposit.

Gifted/ donated assets are valued at declared value, where available; if unavailable, the value is estimated based on the present market value adjusted with reference to the physical condition of the asset.

Books received as gifts are valued at the selling price printed on books and where the price is unavailable; the value is based on assessment.

Assets created out of Earmarked funds and funds of sponsored projects, where the ownership of such assets vests in the Institute, are treated as fixed assets of the Institute.

Capital Work-in-progress comprises of the cost of fixed assets that are not yet ready for their intended use at the reporting date. Advances paid to C.P.W.D. towards completion of works/ fixed assets are shown as addition to capital work-in-progress.

Subsequent expenditure related to an item of fixed assets is added to its book value only if it increases the future benefits from the existing asset beyond its previously assessed standard of performance. All other expenses on existing fixed assets, including day-to-day repairs and maintenance and the cost of replacing parts, are charged to revenue for the period during which such expenses are incurred.

#### 7. Intangible assets

Research costs are expensed as incurred. Development costs are expensed as incurred unless the technical and commercial feasibility of the project is demonstrated, future economic benefits are probable, the Institute has an intention and ability to complete the project, use it or sell off the project findings and the costs can be measured reliably. Expenditure incurred on obtaining patents is not shown as Intangible assets and charged to Revenue.

Electronic Journals (e-Journals) are expensed every year considering the value of benefit derived and the cost incurred therefore. The payment for e-Journals towards subscription normally expires in one year and does not qualify as Intangible assets.

Expenditure on acquisition of software is included in the cost of acquisition of computer as a whole at the time of the purchase of computers.

#### 8. Depreciation and amortization

Depreciation on tangible assets is provided on Written Down Value method over the useful life of assets at the rates of depreciation prescribed in the Income Tax Act, 1961. Depreciation is provided for the whole year on additions made to assets during the year. Where the assets are acquired and put to use for less than six months, 50% depreciation is provided for the year. Where an asset is fully depreciated, it will be carried at a residual value of Re.1 and will not be further depreciated.

Security Deposit money released becomes part of the asset after the expiry of warranty period and claim made by the supplier. Depreciation is charged prospectively when it becomes part of the fixed assets. Depreciation is charged on assets created out of funds of sponsored projects and earmarked funds except for TEQIP - II and TBI.

No depreciation is provided on freehold land.

#### 9. Impairment of assets

The Institute does not assess at each balance sheet date whether there is any indication that an asset including any goodwill may be impaired.

#### 10. Leases

Leases, on which the lessor effectively retains substantially all the risks and benefits of ownership of the leased item, are classified as operating leases. Operating lease payments are recognized as an expense in the Statement of Income and Expenditure on Straight Line Method over the lease term.

#### 11. Retirement benefits

#### New Pension Scheme

Employees, who joined the Institute after 2004, are eligible for New Pension Scheme of the Central Government, a defined contribution plan. Matching monthly contribution to the plan, equal to 10% of the covered employee's basic salary, grade pay and dearness allowance, are made by the Institute as well as the employees. The Institute's NPS fund is managed by National Securities Depository Ltd. (NSDL). The Institute has no obligations to the Plan beyond its monthly contributions.

#### General Provident Fund

Eligible employees receive benefits from a provident fund, which is a defined benefit plan as per the AS-15 (Revised) issued by ICAI. The provident fund is managed by the Institute with guarantee of minimum return/ interest as specified by the Government from time to time on similar provident fund schemes. The contribution is made by the employees only. The fund is invested in term deposits with nationalized banks in a manner to yield maximum interest to cover the minimum guaranteed return as notified. Provision for the interest shortfall is provided for in the Income and Expenditure Account.

#### **Contributory Provident Fund**

It is a defined contribution plan. The employee and the Institute each make monthly contribution to the plan equal to 10% of the covered employee's basic salary and grade pay. The Institute maintains CPF fund by investing in approved manner as specified.

Provision for the shortfall in interest payable, if any, is provided in the Income and Expenditure Account.

#### Gratuity

The Institute provides for gratuity, covering eligible employees. Liabilities with regard to the Gratuity Plan are determined by actuarial valuation, performed by an independent actuary, at the Balance Sheet date. The Institute recognizes the net obligation of the gratuity plan in the Balance Sheet as an asset or liability, in accordance with Accounting Standard-15 (Revised) issued by the

Institute of Chartered Accountants of India. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are recognized in the Income and Expenditure Account for the period in which they arise.

#### Leave Encashment

The employees of the Institute are entitled to Leave Encashment. The employees can carry forward a portion of the unutilized accrued leave and utilize it in future periods or receive cash compensation at retirement or termination of employment for the unutilized accrued leave (subject to a maximum of 300 days so earned). The Institute records an obligation for Leave encashment in the period in which the employee renders the services that increases this entitlement. Actuarial valuation is done to ascertain the expected cost of leave encashment as the additional amount that the Institute expects to pay as a result of the unused entitlement that has accumulated at the balance sheet date.

### **Family Benefit Scheme**

The Family Benefit Scheme is a defined contribution plan for eligible employees. The contributions are made by the employees only and the Institute has no obligations for matching contribution other than repayment of employee's contribution with accumulated interest after attainment of 55 years of the age of the employees.

#### 12. Foreign currency transactions

The Institute is exposed to currency fluctuations on foreign currency transactions. The gains or losses resulting from foreign currency denominated monetary assets and liabilities and non-monetary assets and liabilities translated at prevailing exchange rates are not included in the books of account.

Transaction gains or losses realized upon in settlement of foreign currency transactions are not included in determining surplus for the period in which the transaction is settled.

#### 13. Provisions and contingent liabilities

The Institute creates a provision when there is a present obligation as a result of an obligating event that probably requires an outflow of resources and a reliable estimate can be made of the amount of the outflow. A disclosure for a contingent liability is made when there is a possible obligation or a present obligation or a present obligation in respect of which the likelihood of outflow of resources is remote, no provision or disclosure is made.

#### 14. Income tax

The income of the Institute is exempt from Income Tax under Section 10(23c) (vi) of the Income Tax Act, 1961. Therefore, no provision is required to be made in books of accounts towards Income Tax.

#### 15. Earmarked/ Endowment funds

The following long term funds are earmarked for specific purpose, each having a separate bank account. The income from investments is accounted on accrual basis and interests on Savings Bank Accounts are credited to respective funds and not treated as income of the Institute. The assets created out of Earmarked funds where ownership vests in the Institute are merged with the assets of the Institution except TEQIP - II and TBI.

- a. Technical Education Quality Improvement Program (TEQIP)
- b. TEQIP II
- c. Technology Business Incubator (TBI)
- d. General Provident Fund
- e. Contributory Provident Fund
- f. Family Benefit Scheme
- g. Growth Fund (Corpus Fund)
- h. Students Fund
- i. Harijan Welfare Fund

#### 16. Investments

Investments, which are readily realizable and intended to be held for not more than one year from 31 March of the financial year on which such investments are made, are classified as short term investments. All other investments are classified as long term investments. Long term investments are stated at cost less provision for diminution in the value of such investments. Diminution in value is provided for where the Institute is of the opinion that the diminution is of permanent nature. Short term investments are valued at lower of cost and net realizable value.

#### 17. Sponsored projects

In respect of new projects and ongoing projects, the amount received from the sponsors and funding agencies towards the projects are credited to the respective project accounts and the expenses are recorded by debiting the project accounts. The assets purchased for the projects are accounted as fixed assets of the Institute.

## 18. Cash and cash equivalents

Cash and cash equivalents comprise cash and cash on deposit with banks. The Institute considers all highly liquid investments with a remaining maturity at the date of investments of three months or less and that are readily convertible to known amounts of cash to be cash equivalents.

## 19. Cash flow statement

Cash flows are reported using indirect method, whereby surplus is adjusted for the effects of transactions of a non-cash nature and any deferrals or accruals of past or future cash receipts or payments. The cash flows from regular revenue generating, investing and financing activities of the Institute are segregated

#### Schedule 24

#### **Notes to Accounts**

#### 1. RECEIPT OF GOVERNMENT GRANTS

The opening balance of Plan (Non-recurring) grants-in-aid and Non-Plan (Recurring) grants-in-aid shown in the current financial year is adjusted for the internal revenue generated in previous financial years. The internal revenue comprises of tuition fees received, interest received on Fixed Deposits and Savings Bank accounts and other miscellaneous receipts. The internal revenue added to the unutilized balance of grants in previous financial years is not segregated. For Plan grants, the actual expenditure incurred for acquisition of fixed assets and capital work-in-progress is shown as deduction from the total of grants received during the year and the opening balance of grants consists of internal revenue of past financial years. Similar treatment is done for Non-Plan grants by deducting all the items of expenditure in the Income and Expenditure Account except for depreciation.

As mentioned above, the internal generated revenue is included in the utilization certificates submitted by the Institute for financial year 2014-15 to Ministry of HRD, therefore the utilization certificate for the financial year 2014-15 will not agree with the unspent balance of Government grants lying with the Institute as shown in the ledger accounts.

#### 2. CAPITAL FUND

This includes interest on Fixed Deposits and Savings Bank Accounts of Plan funds and interest received on Fixed Deposits created for opening the Letter of Credit during the current financial year. Interest amount of Rs.3,16,399/- accrued on Fixed Deposit Receipt pledged with the Hon'ble Additional Sub-Judge, Kozhikode in respect of a suit filed (see Note No. 35(iii) herein below) made out of Plan funds is also credited to Capital Fund. Bank charges incurred on Plan Fund Savings Bank account is deducted therefrom.

#### 3. CURRENT LIABILITIES AND PROVISIONS

These include:

- a) Deposits from students representing refundable caution deposits.
- b) Payment for stamps worth Rs.32,668/- shown under "Sundry Creditors for goods and services".
- c) Rs. 6,22,321/- represents amount payable to NIT Employees Multipurpose Co-operative Society from financial year 2011-12, for which no claim was preferred by the Co-operative Society as on 31 March 2015 and shown under "Sundry Creditors Others".
- d) Deposits includes Earnest Money Deposit (EMD) of Rs.1,10,13,280/- for financial year 2014-2015 (Rs.1,22,37,698/- for previous year 2013-2014) and Security Deposit of Rs.87,77,362/- for financial year 2014-2015 (Rs.7,288560/- for previous year 2013-2014) towards retention charges for the performance warranty in respect of new fixed assets. Unclaimed amounts, if any, lying as security deposits are not considered as income during the current year.

e) Statutory liabilities payable as on 31 March 2015 are as:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	TDS payable	30,48,922	Nil
2	Sales Tax payable	1,159	519
3	Service Tax payable	98,097	2,82,055
	Total	31,48,178	2,82,574

TDS shown as payable in the current financial year 2014-2015 is because of erroneous accounting entries made through Suspense Accounts in previous financial years, which are shown under "Other Liabilities" and could not be rectified as on the Balance Sheet date.

- f) Receipts against sponsored projects and sponsored fellowships and scholarships are shown in Schedule 3A and 3B. The credit balance at the end of financial year 2014-2015 are shown as "other current liabilities" under Schedule 3- Current Liabilities and Provisions and debit balances are shown as "current assets receivable from sponsored projects and sponsored fellowships and scholarships" under Schedule 8- Loans, Advances & Deposits.
- g) Other Liabilities as shown below:

			(Amount in Rupees)	
SI. No.	Particulars	Remarks	2014-15	2013-14
1	Pension and GPF contribution from		36,92,706	36,92,706
	other Institutions		(2.22.22)	(2.22.22
2	Golden Jubilee		(2,39,853)	(2,39,853
3	Plan Grant- Sikkim		(6,28,377)	10,86,267
4	Medical Exam Fees	Share payable to RMO	1,18,040	98,920
5	Research & Development and Testing fees payable		1,30,12,098	1,19,76,109
6	Time-barred cheques cancelled		2,93,801	2,93,80
7	Advance Money for Centre and Admissions		3,00,000	3,00,000
8	Medical claim for Students		80,50,665	35,25,960
9	AMTID (Advances for Materials and Tec hnique for infrastructure Development		1,17,000	1,17,000
10	MBA Programs and alumni-related activities		(12,14,058)	(10,67,947)

11	International Conference (ICCSP)		3,50,000	3,50,000
12	Refund Account No. IV		77,870	77,870
13	Suspense Account No. II	Includes erroneous	9,38,07,170	10,15,54,062
14	Suspense Account No. 1	Acconting entries	5,93,44,170	6,00,15,360
15	Suspense Account No. 1 (NIT Sikkim)	made in past years,	42,50,877	42,50,877
16	Suspense Account No. II (Tuition Fees)	which could not be rectifiedduring the	11,670	11,670
		reporting period		
17	Transfer (Refunds)		(45,68,754)	(45,68,754)
	Total		17,67,75,025	18,14,74,048

Figures in bracket indicate debit balance, i.e., assets carried over from previous years.

h) Accounts Payable for other expenses for March 2015 as shown below:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Salary payable	3,94,15,199	3,77,69,417
2	Pension payable	83,24,532	1,98,57,946
3	Lease rent payable	48,000	Nil
4	Electricity payable	30,81,825	Nil
	Total	5,08,69,556	5,76,27,363

(Refer Schedule 3- Current Liabilities and Provisions).

#### 4. FIXED ASSETS

i. Some non-residential buildings, 500 Nos. single-bedded ladies hostel and MBA (SOMS) complex were completed during 2005-2006, 2011-2012 and 2013-2014 respectively. However, these were not transferred from Capital Work-in-progress to Fixed Assets until the close of financial year 2013-2014. During the financial year 2014-15, a sum of Rs.3,00,42,167/-, Rs.47,78,51,232/- and Rs.55,34,14,935/- for the completed non-residential buildings, 500 Nos. single-bedded ladies hostel and MBA (SOMS) complex respectively have been transferred from Capital Work-in-progress to Fixed Assets and deprecation for prior period, amounting to Rs.1,84,03,218/-, Rs.1,19,46,281/- and Rs.6,64,44,380/- respectively, on the aforesaid transferred assets has been provided for retrospectively. (Refer Schedule 4- Fixed Assets-Buildings and Schedule 22- Prior Period Expenses).

- ii. Addition to Furniture and Fixtures includes an amount of Rs.95,150/- pertaining to purchase made during 2013-2014. Depreciation on such assets for the prior period, amounting to Rs. 9,515/-, is provided for and accounted as prior period expenses in the financial year 2014-2015.
  - (Refer Schedule 4- Fixed Assets-Furniture and Fixtures and Schedule 22- Prior Period Expenses).
- iii. Till financial year 2013-14, "underground cabling and street lighting" was depicted as "Plant & Machinery", which is eligible for 15% depreciation on Written Down value (W.D.V.) method. However, from the financial year 2014-2015, this asset has been re-classified as "Electrical Installations" and depreciated @ 10%.

The opening balance of Plant, Machinery and Equipment is reduced by an amount of Rs. 3,63,48,254/- and Electrical Installations is debited with an equal amount on account of re-classification of the asset.

The excess depreciation on account of re-classification of the asset works out to Rs.55, 96,213/-, which is conservatively computed @ 5% on W.D.V method from financial year 2005-2006 to 2013-2014, as the original cost of the assets was not known. The excess depreciation provided for in prior period has been written off in the financial year 2014-2015. Had the

Institute continued to use the earlier rate of depreciation without re-classifying the assets, the opening balance of Capital Fund for the current financial year would have been lower by Rs.55,96,213/- & surplus for the financial year would have been lower by Rs.53,433/-.

iv. The following purchases of Plant, Machinery and Equipment were not accounted for during previous financial years:

(Amount in Rupees)

SI. No.	Year	Amount (Rs.)	Prior-period	Particulars
			Depreciation	
1	2010-11	6,94,504	2,99,979	Imported equipments
2	2011-12	12,03,163	4,07,806	Imported equipments
3	2012-13	2,12,417	58,946	Imported equipments
4	2013-14	1,75,85,232	13,23,249	Imported equipments
	Total	1,96,95,316	20,89,980	

The above purchases have since been duly recorded and the prior period depreciation on these assets provided for and transferred to prior period expenses in current financial year.

An amount of Rs. 20,59,003/- shown as deductions/Adjustments of depreciation relates to the prior period depreciation on Plant, Machinery and Equipment. This value is arrived after adjusting excess depreciation of Rs. 30,977/- written off for previous financial years (prior period income) against the total prior period depreciation of Rs. 20,89,980/- as shown in the above table.

- v. The clerical error that occurred in financial year 2013-14 in respect of the closing W.D.V and depreciation computed for that year for Office Equipment is now corrected by writing off the excess depreciation for Rs.2,68,121/- from deprecation reserve and transferring it to prior period income.

  (Refer Schedule 4- Fixed Assets- Office Equipment).
- vi. With effect from financial year 2014-2015, the Institute has changed the depreciation rate on library books from 100% to 60% prospectively. The Institute is of the opinion that the rate of 60% is consistent with the type of assets and it will show better presentation and remaining useful life of the assets. Had the Institute continued with the earlier rate of depreciation, the surplus of financial year 2014-2015 would have been lower by Rs.19,34,694/-.

(Refer Schedule 4- Fixed Assets- Library Books).

- vii. Work on construction of the sports complex/ facilities are on hold and no expenditure was incurred thereof in financial year 2014-2015.
- viii. TEQIP Phase I has been completed but the assets created thereof has not been transferred to the Institute's books as on 31 March 2015.

#### 5. FIXED DEPOSITS

Disclosure for Fixed Deposits with nationalized banks shown in books of accounts is as follows:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Fixed Deposits made out of Earmarked/ Designated	70,72,19,849	67,05,33,910
	Funds ##		
2	Fixed Deposits made out of Plan Funds (includes FD	7,68,33,844	34,98,34,845
	of Rs. 50,00,000 pledged with Hon'ble Additional		
	Sub-Judge, Kozhikode)		
3	Fixed Deposits from Other Funds (Revenue Funds)	36,27,29,270	33,37,37,778
4	Fixed Deposits for Letters of Credit	44,85,000	Not Available
5	Fixed Deposits for Bank Guarantee (in favor of KSEB)	35,31,645	Not Available
	Total	115,47,99,608	135,41,06,533

(Refer Schedule 5 – Investments from Earmarked/Endowment Funds and Schedule 7- Current Assets- Cash in Bank in Term Deposits Accounts).

The details of Fixed Deposits made out of Earmarked/ Designated Funds shown hereinabove is provided below: (Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Growth Fund	49,91,37,974	51,93,83,772
2	General Provident Fund	20,03,87,876	13,91,52,515
3	Contributory Provident Fund	49,02,007	43,74,050
4	Technology Business Incubator (TBI)	27,91,992	25,38,877
5	Students Fund	Nil	50,84,696
	Total	70,72,19,849	67,05,33,910

The fixed deposits created during the financial year 2014-15 are shown in Balance Sheet as at 31 March 2015 at their principal value on date of investment whereas the fixed deposits for past financial years are shown with principal amount of Fixed Deposits, together with accumulated interest accrued thereon for the past financial years.

The principal amount of all fixed deposits in the name of the Institute as on 31/03/2015 amounts to Rs.115,77,05,956/-.

Four fixed deposits amounting to Rs.29,06,348/- have not been included in the books of account as the source/ information on creation of such bank accounts and the relevant particulars for earlier period are not available. The details of such Fixed Deposits are listed in

Annexure C (iv). Rectification of these deposit accounts could not be completed in 2014-2015. Out of the four fixed deposits, three fixed deposits having a value of Rs.18,83,000/- were created for opening Letters of Credit to import equipments. The other fixed deposit having a value of Rs.10,23,348/- was made out of funds available in the Current Account maintained with SBT, Kunnamangalam in 2010-2011.

#### 6. CASH IN BANK

Certificate for confirmation of balances of all its bank accounts held in nationalized banks as on 31 March 2015 has been obtained from the bankers. The Institute has also obtained certificate for the interest amount accrued and received on its bank accounts from the bankers as on 31 March 2015. Reconciliation of all major accounts (except Suspense Accounts) was undertaken and completed for the year 2014-2015.

#### **Current Accounts**

The Institute has shown six current accounts in its books including a current account for a project, as compared to 12 current accounts certified by the banks as on 31 March 2015. The un-reconciled balance of the five disclosed current accounts in the Institute's books of accounts is Rs.56,74,56,697.97 while their certified bank balance as on 31 March 2015 is Rs.45,97,64,258.29/- [Annexure A (ii)]. Another current account in respect of a project has an un-reconciled balance of Rs.5,93,377/- as against the certified balance of Rs.6,02,157/-.

The certified closing balance of remaining six current accounts not shown in the Institute's books of accounts as on 31 March 2015 was Rs. 23,782/- [Annexure C (ii)]. These accounts have not been included in the financial statements as the particulars of transactions therein are not known and no relevant documents/ details other than the bank-certified balance is available with the Institute in respect of the six current accounts.

#### **Savings Bank Accounts**

The Institute held 24 Savings Bank accounts in nationalized banks as on 31 March 2015. Only 20 of these bank accounts are included in the books, 13 of which were made out of Earmarked Funds. The un-reconciled balance for seven Savings Bank accounts and 13 Earmarked Fund accounts, which are disclosed as on 31 March 2015, were Rs.37,31,49,551.13 and Rs.28,54,36,432/- respectively while their certified bank balances were Rs.23,90,36,986.54 and Rs.35,54,23,634.38/-respectively [Annexure A (i)].

The certified bank balance of the remaining four Savings Bank accounts as on 31 March 2015 was Rs.29,68,951/- [Annexure C (i)]. These have not been included in the books due to lack of sufficient information on the source of their creation and the particulars of transactions therein for the past periods.

#### **Project Accounts**

The Institute maintains separate bank accounts for each project funded by various government agencies. A bank certificate has been obtained for 97 project bank accounts which were in operation during the financial year 2014-2015. The certified closing balance of these bank accounts as on 31 March 2015 was Rs.4,73,39,651/- [Annexure B and Annexure C (iii)].

The books of accounts of the Institute shows 100 project bank accounts which are inclusive of both operative and in-operative project accounts. Of these 100 project bank accounts shown in books of accounts, Bank has confirmed the balance as on 31 March 2015 for only 84 project bank accounts. Bank certification for the remaining 16 project accounts shown in the books of accounts was not made available by the respective Bank. The non-reconciled balance as on 31 March 2015 for all project accounts shown in the books of accounts was Rs.3,21,45,258/-. Particulars of bank transactions in respect of 13 projects whose Bank balances are certified, which were undertaken in the past, are not available and hence, not included.

Bank Reconciliation Statement in respect of project accounts has been prepared for 2014-2015. However, the existence of un-reconciled opening balances for several previous financial years renders the reconciliation of some accounts with the bank-certified balances as on 31 March 2015 difficult. Due to lack of sufficient information on some bank accounts, which were opened in the distant past and the transaction details of which are not known (these were not shown in the books of account during the previous years), such accounts have not been included in the current financial year as well. The details of such bank accounts are disclosed in **Annexure C**.

(Refer Schedule 7- Current Assets- Cash in Bank).

#### 7. TREASURY ACCOUNTS

The Institute held three accounts with District Treasury, Kozhikode, *viz.*, TPA No.809, PD Account (419/1-HWD) and PD Account (419/2-NMS). The unreconciled ledger balance of these accounts as on 31 March 2015 was Rs.10,76,413/-, Rs.23,92,814/- and Rs.29,850/- respectively. At present, the Institute operates only two of these accounts (419/1-HWD and 419/2-NMS) for receipt and

disbursement of scholarship amount received from the Government of Kerala. As on 31 March 2015, the closing balance for PD Account (419/1-HWD) was certified by District Treasury as Rs.19,69,540/- while for PD Account (419/2-NMS), the correct certified balance could not be obtained from District Treasury for want of sufficient information on old transactions for previous years (the balance shown in Pass Book was Rs. 37,849/- as of May 2006). No grant/ aid are being received in the other account, *viz.*, TPA No.809 since FY 2003-2004.

As per the guidelines issued by Government of Kerala, the scholarship amount should be distributed to the students at the earliest and unclaimed balance, if any, should be returned to Government of Kerala together with interest earned thereon. The un-reconciled closing balance in treasury accounts as on 31 March 2015 might comprise such unclaimed amounts for previous years.

Government of Kerala has demanded the refund of amount lying in PD Account (419/.2-NMS) vide letter no. C4/626/2015 dated 19 August 2015. However, no liability is recognized in the Balance Sheet as on 31 March 2015 for the demand raised due to non-confirmation of certified balance in the aforesaid Treasury account.

#### 8. INVENTORY

The stock purchased and issued to various departments is shown under the respective departmental operating cost ledger heads.

(Refer Schedule 7- Current Assets- Stock).

Physical verification of fixed assets for the year 2014-2015 has been carried out. Stock-taking of library books is conducted once in three years in accordance with Rule 194 of GFR 2005; the last verification was done in 2012-2013.

#### 9. ADVANCES TO EMPLOYEES

Loans and advances include loans given to staff for various purposes, which are recovered in installments along with interest from the salary of employees. The Institute does not recognize the interest receivable on such loans and advances. The amount recovered for each loan together with interest is credited to the loan account. The advances made during the financial year 2014-2015 are given below:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Festival advance	(84,535)	(11,88,160)
2	Computer advance	(1,72,989)	(1,66,389)
3	Marriage advance	(66,184)	(66,184)
4	House Building Advance	(6, 90,647)	1,86,562
5	Vehicle advance	5,48,370	6,91,724
6	Plan advance	2,11,641	56,397
7	Advance payment A/c No I	65,79,022	2,28,61,906
8	Advance payment A/c No II	71,05,194	83,68,999
9	LTC advance	2,86,178	Nil
10	Travelling allowance advance	1,46,332	Nil
11	Department advances	28,08,377	Nil
12	Other advances	69,720	69,720
	Total	1,67,40,479	3,08,14,575

Figures in bracket indicate credit balance, *i.e.*, liability carried over from previous years.

(Refer Schedule 8- Loans, Advances and Deposits)

#### 10. DIFFERENCES IN BALANCE SHEET FIGURES FOR PREVIOUS PERIOD

In the final accounts of the Institute for 2013-2014, the following amounts were identified as reduced from actual ledger balances:

- a) Consumable Stock: Rs.7,88,517/-
- b) Cash in Bank (Total): Rs.5000/-
- c) Loans and Advances (Employees only): Rs.29,372/-
- d) Stamps consumed during the year for Rs.167/- was added back to the total value of closing stock of the stamp as on 31 March 2014.

The cumulative effect of the above-said transactions resulted in differences in Balance Sheet figures for the financial year 2013-2014 and differences in the opening balances of the ledger accounts for 2014-2015. The differences were adjusted by creating a notional ledger account, *viz.*, "Difference in Balance Sheet 2014-15", which resultantly shows an opening balance of Rs.8,22,713/. The aforesaid amount is included in Advances to employees- Other (Plan and Dept. advances).

No rectification could be done in financial year 2014-15 with respect to above discrepancy because "Cash in Bank" account was altered (reduced by Rs.5000/-) in the final accounts for 2013-2014.

(Refer Schedule 8- Loans, Advances and Deposits).

#### 11. INTEREST ON CASH SECURITY DEPOSIT WITH KERALA STATE ELECTRICITY BOARD (KSEB)

An interest amount of Rs.1,84,616/- accrued on cash security deposit with KSEB as on 31 March 2015 (Rs.1,23,572/- for 2013-2014, which was not recognized in that financial year). The previous year's interest has been adjusted against electricity charges for the current financial year 2014-2015 and shown as prior period income.

(Refer Schedule 14- Prior Period Income and Note No.31 of Notes to Accounts).

#### 12. INTEREST ACCRUED ON FIXED DEPOSITS

The total interest certified as accrued on fixed deposit accounts as on 31 March 2015 was Rs.5,09,30,224/-. Interest on investments shown in books of account is, however, Rs.5,08,53,854/-; the difference being on account of:

- i. Interest on Fixed deposit for opening Letters of Credit with SBI, Calicut Branch: Rs.5,807/-.
- ii. Interest on Fixed deposit with SBT, Kunnamangalam Branch: Rs.70,563/-.

Interest accrued on fixed deposits comprises of interest accrued on Earmarked Funds and interest accrued on other investments. Interests accrued on Plan funds are shown as additions to the Capital Fund. For the financial year 2014-2015, the total interest accrued on Earmarked Funds is Rs.3,94,02,446/-, on Plan funds Rs.68,00,252/- and on other investments is Rs. 46,51,156/-. The comparable data is not available for financial year 2013-2014.

(Refer Schedule 2- Designated/Earmarked/Endowment Funds- Accrued interest on Investments and Schedule 11- Income from Investments).

#### 13. GRANTS RECEIVABLE

Grants receivable represent an installment of Plan Grant for Rs.97,38,000/- receivable from Ministry of HRD, Government of India and the scholarship amount of Rs.19,76,011/- for Scheduled Tribe students receivable from the Government of Kerala, in respect of which Sanction Letters/ Orders were received as on 31 March 2015.

(Refer Schedule 8- Loans, Advances and Deposits- Current Assets receivable from UGC/sponsored projects/Govt. Grants).

#### 14. BANK GUARANTEE WITH KERALA STATE ELECTRICITY BOARD

The Institute executed a Bank Guarantee for Rs.19,08,655/- in favor of KSEB towards security deposit for its HT electric connections, by opening fixed deposit account with SBI, NIT Calicut Branch. The Bank Guarantee was executed in lieu of three other bank guarantees (for Rs.10,35,180/-, Rs.2,56,875/- and Rs.74,635/-) but instructions for revoking the three Bank Guarantees were not given to the bank as at the Balance Sheet date. The interest accrued on aforesaid fixed deposits

for the financial year 2014-2015 has been duly accounted for (accounted as Prior Period Income for previous financial years).

(Refer Schedule 8- Loans, Advances and Deposits- Income accrued on security deposit with KSEB and Schedule 14- Prior Period Income).

#### 15. PREPAID EXPENSES

There are no prepaid expenses for the financial year 2014-2015.

#### 16. TUITION FEES AND OTHER RECEIPTS

The income earned by way of tuition fees and other receipts for the financial year 2014-2015 is Rs.34,71,51,923/- (Rs.23,73,89,913/-for 2013-2014). The tuition fees and other fees remitted by students are transferred to various ledger accounts on the basis of itemized fee structure notified by the Institute from time to time.

The remittance receipt flow directly into four designated bank accounts, *viz.*, A/c No. 10401158082 (Non-Plan Recurring), A/c No. 10401159314 (Refunds), A/c No. 10401159802 (Growth Fund) and A/c No. 10401158106 (Students Fund). The respective tuition fee ledger accounts are credited on the income side and the aforesaid bank accounts are debited on the assets side (after obtaining confirmation from the bank) by the Institute's accounting software (NITC-DSS). The actual tuition fee bank accounts/ ledger accounts, into which the tuition fee is remitted by the students, remain untouched. Because of this, the tuition fees received directly in the bank

accounts are not originally recorded in the books of accounts of the Institute. This has been followed consistently for the past several years.

Till financial year 2013-2014, there was a practice of passing an adjustment entry by debiting the respective tuition fee bank account and crediting bank A/c no. 10401158082 only on receipt of tuition fees though the amount of tuition fees was transferred initially and automatically to four different bank accounts as stated above. This distorts the actual balance of the bank accounts and has been a major reason for the difference noticed in the bank balance certified by the bankers and the bank balance shown in Institute's ledger accounts. Rectification at this stage is a challenging task in view of the number of transactions involved and the need to identify each fee component therefore.

(Refer Schedule 9- Academic Receipts).

#### 17. INCOME FROM INVESTMENTS AND INTEREST EARNED

Income from other investments represents interest on investments made out of Non-Plan Fund, Tuition Fees, Refund (Savings Bank) Account and Fixed Deposits (including those held as security for Bank Guarantee in favor of Kerala State Electricity Board) with nationalized banks. Interest earned represents interest received on Savings Bank accounts except for the Bank accounts held for Earmarked/Designated fund and Plan Fund.

(Refer Schedule 11- Income from investments and Schedule 12- Interest Earned).

#### 18. LICENSE FEES RECEIPT

Disclosure relating to license fees for financial year 2014-2015 is as under:

## (Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Staff Quarters	23,85,203	25,36,342
2	SBI building	8,19,664	19,53,029
3	Punjab National Bank ATM room	24,765	22,629
4	Guest House	34,450	18,500
5	Service charges for the above structures	3,28,514	2,07,973
	Total	35,92,596	47,38,473

(Refer Schedule 13- Other Income- Income from Land and Buildings- License fee).

#### 19. INCOME FROM CONSULTANCY

Income from consultancy services represents the Institute's share of income received by its various departments for rendering services to external parties.

## (Refer Schedule 13- Other Income- Others). 20. ACCOUNTING OF INCOME WRONGLY TREATED AS LIABILITIES

Certain items of income were wrongly treated as Liabilities in the books of account for past several financial years. During the financial year 2014-2015, those were transferred to appropriate heads of account under Income and Expenditure Account. The following table depicts the particulars of such items.

SI. No.	Particulars	Current year Income	Opening Balance as on 01.04.2014
1	Library fees	24,65,910	63,34,000
2	Convocation fees	5,08,100	21,30,834
3	Matriculation and Recognition fees	2,46,150	77,84,000
4	Continuing educational program	Nil	8,42,034
5	Interest on Refund Accounts	Nil	4,60,00,410
6	Service Charges (Guest House)	Nil	3,351
	Total	32,20,160	6,30,94,629

The opening balances lying in the ledger accounts shown above have since been transferred to Prior Period Income Account during the financial year 2014-2015. (Refer Schedule 9- Academic Receipts and Schedule 14- Prior Period Income).

#### 21. MISCELLANEOUS RECEIPTS

The miscellaneous receipts during the financial year are shown below:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Sale of tender/ registration forms	14,77,849	8,25,312
2	Breakage Charges	25,140	30,826
3	Conveyance receipts	1,55,150	141,150
4	Overhead Charges (Project Share)	19,02,985	1,01,552
5	Other Miscellaneous receipts	28,50,028	10,88,516
	Total	64,11,152	21,87,356

(Refer Schedule 13- Other Income- Others- Misc. Receipts).

#### 22. OTHER GRANTS

Other Grants include apprenticeship training grant of Rs.3,99,232/- and AICTE grant of Rs.42,46,089/- for Ph.D. students, which is shown net of disbursements. The AICTE grant disbursements during the financial year 2014-15 were Rs.38,50,143/-.

(Refer Schedule 13- Other Income- Others- Grants/Donations from Institutions, Welfare bodies and International Organizations).

#### 23. CONTRIBUTION TO VARIOUS FUNDS

The Institute's contribution towards leave salary, Provident Fund and New Pension Scheme is shown below:

SI. No.	Particulars	2014-15	2013-14
1	Contributory Provident Fund (for one employee only)	1,48,991	72,048
2	Contribution to New Pension Scheme (105 employees)	98,62,373	82,68,884
3	Leave Salary & Pension Contribution	9,42,406	6,23,753
	Total	1,09,53,770	89,64,685

Previous year's corresponding figures for above contributions were wrongly classified, which has now been re-grouped and appropriately disclosed as stated above. (Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

#### 24. RETIREMENT AND TERMINAL BENEFITS

This includes pension, pension commutation and Death-cum-Retirement-Gratuity (DCRG) paid to employees, who retired from the service. The details for the financial year 2014-2015 are as follows:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Pension	9,63,90,079	9,92,70,071
	Less: (Provision created in F.Y. 2013-14)	(1,98,57,946)	
2	Death-cum-Retirement-Gratuity (DCRG)	86,78,288	77,49,544
3	Pension Commutation	57,92,168	67,41,622
	Total	9,10,02,589	11,37,61,237

(Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

#### 25. PROVISION FOR EMPLOYEE BENEFITS

#### Defined Benefit Plan

The employees of the Institute are entitled to Pension, Gratuity and Leave Encashment benefits on their retirement/ separation in accordance with the applicable Central Government rules. Actuarial valuation for employee benefits has been done for the first time in respect of Gratuity and Leave Encashment and disclosed as per AS-15 (Revised) issued by Institute of Chartered Accountants of India. Separate disclosure has been made for teaching staff and non-teaching staff owing to differences in their retirement age,

attrition rate and leave encashment regulations. The actuarial valuation for leave encashment benefit has been built upon the data available for the calendar year 2014 (1 January 2014 to 31 December 2014). Actuarial valuation has not been done for pension benefits and no provision is recognized in the Income and Expenditure Account for the financial year 2014-2015.

(Refer Schedule 15A-Employees Retirement and Terminal Benefits).

The following tables provide an abstract of the expenses recognized and the provision made for 2014-2015 based on actuarial valuation.

#### I. Teaching Staff

a) Expenses recognized in Income and Expenditure Account during financial year 2014-2015.

SI. No.	Particulars	Gratuity	Leave Encashment
1	Current Service Cost	65,63,774	80,86,047
2	Interest Cost	40,21,924	29,30,776

3	Expected Return on Assets	Nil	Nil
4	Curtailment Costs	Nil	Nil
5	Settlement Costs	Nil	Nil
6	Past Service Costs	Nil	Nil
7	Net Actuarial (Gain)/Loss	45,18,433	30,79,377
8	Others	Nil	Nil
9	Employee expense recognized in Income and Expenditure Account	1,51,04,132	1,40,96,200

b) Amount recognized in Balance Sheet as at 31 March 2015

(Amount in Rupees)

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Present Value of Defined Benefit Obligation	6,60,37,550	5,03,90,600
2	Fair Value of Plan Assets	Nil	Nil
3	Funded Status [ Surplus/ (Deficit)]	(6,60,37,550)	(5,03,90,600)
4	Unrecognized Past Service Costs	Nil	Nil
5	Net Assets/ (Liability) recognized in Balance Sheet	(6,60,37,550)	(5,03,90,600)
6	Present Value of Encashment Obligation	Not Applicable	4,66,89,223
7	Present Value of Availment Obligation	Not Applicable	37,01,377

c) Changes in present value of defined benefit obligations during the financial year 2014-2015.

SI. No.	Particulars	Gratuity	Leave Encashment
1	Present value of Defined Benefit Obligations	5,32,61,517	3,96,32,433

	(Opening)		
2	Current Service Cost	65,63,774	80,86,047
3	Interest Cost	40,21,924	29,30,776
4	Plan Amendments	Nil	Nil
5	Prior Service Costs	Nil	Nil
6	Curtailments	Nil	Nil
7	Settlements	Nil	Nil
8	Actuarial (Gains)/Loss	45,18,433	30,79,377
9	Benefits Paid	(23,28,099)	(33,38,033)
10	Acquisition/ Divestures	Nil	Nil
11	Present Value of Defined Benefit Obligation (Closing)	6,60,37,550	5,03,90,600

d) Reconciliation of opening and closing value of Plan assets for the financial year 2014-2015.

SI. No.	Particulars Particulars	Gratuity	Leave
1	Fair value of Plan Assets (Opening)	Nil	Nil
2	Expected return on Assets	Nil	Nil
3	Employer contribution	23,28,099	33,38,033
4	Plan participant's contribution	Nil	Nil
5	Settlements by Fund Manager	Nil	Nil
6	Benefit payouts	(23,28,099	(33,38,033)
7	Actuarial Gains/(Loss)	Nil	Nil
8	Fair Value of Assets at the End	Nil	Nil
9	Actual return on Plan Assets	Nil	Nil

e) Reconciliation of Net Assets/ (Liabilities) recognized in Balance Sheet as at 31 March 2015.

(Amount in Rupees)

SI. No.	Particulars	Gratuity	Leave Encashment
	Net Asset/ (Liability) recognized at the		
1	beginning of the period	(5,32,61,57)	
2	Employer expense	(1,51,04,132)	(1,40,96,200)
3	Employer Contribution	23,28,099	33,38,03
4	Acquisition/ Divestures	Nil	Nil
5	Effect of the Limit in Para 59(b)	Nil	Nil
	Net Asset/ (Liability) recognized at the end of		
6	the period	(6,60,37,550)	(5,03,90,600)

f) Components of the experience adjustments for financial year 2014-2015.

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Actuarial (Gains)/ Losses on Obligations	45,18,433/-	30,79,377/-
2	Actuarial (Gains)/ Losses on Plan Assets	Nil	Nil
3	Total Gains/ Losses for the year	45,18,433/-	30,79,377/-
4	Actuarial (Gains)/ Losses recognized in the year	45,18,433/-	30,79,377/-

## II. Non-Teaching Staff

g) Expenses recognized in Income and Expenditure Account during current financial year 2014-2015.

(Amount in Rupees)

SI. No.	Particulars	Gratuity	Leave Encashment
2	Current Service Cost Interest Cost	28,42,674 42,56,871	22,77,563 23,79,752
3	Expected Return on Assets	Nil	Nil
4	Curtailment Costs	Nil	Nil
5	Settlement Costs	Nil	Nil
6	Past Service Costs	Nil	Nil
7	Net Actuarial (Gain)/Loss	77,94,157	63,14,725
8	Others	Nil	Nil
9	Employee expense recognized in Income and Expenditure Account	1,48,93,702	1,09,72,040

h) Amount recognized in Balance Sheet as at 31 March 2015

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Present Value of Defined Benefit Obligation	5,82,41,783	3,92,62,129
2	Fair Value of Plan Assets	Nil	Nil
3	Funded Status [Surplus/ (Deficit)]	(5,82,41,783)	(3,92,62,129)
4	Unrecognized Past Service Costs	Nil	Nil
5	Net Assets/ (Liability) recognized in Balance Sheet	(5,82,41,783)	(3,92,62,129)
6	Present Value of Encashment Obligation	Not Applicable	3,68,14,515
7	Present Value of Availment Obligation	Not Applicable	24,47,614

i) Changes in present value of defined benefit obligations during the financial year 2014-2015.

(Amount in Rupees)

SI. No.	Particulars	Gratuity	Leave Encashment
1	Present value of Defined Benefit Obligations (Opening)	4,96,98,270	3,23,40,540
2	Current Service Cost	28,42,674	22,77,563
3	Interest Cost	42,56,871	23,79,752
4	Plan Amendments	Nil	Nil
5	Prior Service Costs	Nil	Nil
6	Curtailments	Nil	Nil
7	Settlements	Nil	Nil
8	Actuarial (Gains)/Loss	77,94,157	63,14,725
9	Benefits Paid	(63,50,189)	(40,50,451)
10	Acquisition/ Divestures	Nil	Nil
11	Present Value of Defined Benefit Obligation (Closing)	5,82,41,783	3,92,62,129

j) Reconciliation of opening and closing value of Plan assets for the financial year 2014-2015.

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Fair value of Plan Assets (Opening)	Nil	Nil
2	Expected return on Assets	Nil	Nil
3	Employer contribution	63,50,189	40,50,451
4	Plan participants contribution	Nil	Nil

5	Settlement by Fund Manager	Nil	Nil
6	Benefit payouts	(63,50,189)	(40,50,451)
7	Actuarial Gains/(Loss)	Nil	Nil
8	Fair Value of Assets at the End	Nil	Nil
9	Actual return on Plan Assets	Nil	Nil

k) Reconciliation of Net Assets/ (Liabilities) recognized in Balance Sheet as at 31 March 2015.

(Amount in Rupees)

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Net Asset/ (Liability) recognized at the beginning of the period	(4,96,98,270)	(3,23,40,540)
2	Employer expense	(1,48,93,702)	(1,09,72,040)
3	Employer Contribution	63,50,189	40,50,451
4	Acquisition/ Divestures	Nil	Nil
5	Effect of the Limit in Para 59(b)	Nil	Nil
6	Net Asset/ (Liability) recognized at the end of the period	(5,82,41,783)	(3,92,62,129)

I) Components of the experience adjustments for the financial year 2014-2015

SI. No.	Particulars	Gratuity	Leave
			Encashment
1	Actuarial (Gains)/ Losses on Obligations	77,94,157	63,14,725
2	Actuarial (Gains) and Losses on Plan Assets	Nil	Nil
3	Total (Gains)/ and Losses for the year	77,94,157	63,14,725
4	Actuarial (Gains) / Losses recognized in the year	77,94,157	63,14,725

#### m) Actuarial Assumptions

Principal assumptions made for Actuarial valuation are:

SI. No.		Grat	Gratuity		ashment
	Particulars	ars Teaching Non-		Teaching	Non-
			Teaching		Teaching
1	Method Used		Projected Unit	Credit Method	
2	Discount rate	7.72%	7.85%	7.72%	7.85%
3	Expected Return on Assets	0.00%	0.00%	0.00%	0.00%
4	Salary Escalation	6.00%	6.00%	6.00%	6.00%
5	Attrition Rate	3.00%	5.00%	3.00%	5.00%
	Demographic Assumptions:				
	a) Mortality	Indian a	assured lives Mor	tality (2006-08)	Ultimate
	b) Disability		5% of Mortality rates		
	c) Withdrawal	3.00%	5.00%	3.00%	5.00%
	d) Retirement age	65	60	65	60

#### **Defined Contribution Plan**

Employer's (Institute's) contribution to New Pension Scheme and Contributory Provident Fund has been recognized as an expense for the financial year 2014-2015.

#### **General Provident Fund**

The Fund balance as on 31 March 2015 amounts to Rs.9,02,97,338/- with an investment yield of Rs. 9,82,29,636/-. The Institute has obligation to pay the dues along with the interest notified by the Government of India from time to time (the interest rate as on the Balance Sheet date and for the year 2014-2015 was 8.7%). The aforesaid amount is sufficient to cover any interest shortfall during the current financial year; hence, no provision is made for interest difference, if any, in the current year's financial statements.

#### **26. HONORARIUM**

Honorarium paid to experts' /faculty/ staff during the financial year 2014-2015 is as follows:

SI. No.	Particulars	2014-15	2013-14
1	Faculty Recruitment	3,34,000	
2	Thesis Evaluation	7,76,296	26,19,000

3	Others	6,500	
	Total	11,16,796	26,19,000

(Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

#### 27. E-JOURNALS

The Institute spent Rs.2,15,65,966/- (Rs.1,10,99,717/- for 2013-2014) on subscription of e-journals in the financial year. As per Accounting Standard 26 issued by the Institute of Chartered Accountants of India, intangible assets on which the benefit extends beyond one year can be capitalized else the expenditure should be expensed in the year in which the benefits are derived. As the subscriptions to e-journals made in 2014-2015 are valid for one year, the whole amount is written off as an expense in the current year 2014-2015.

(Refer Schedule 16- Academic Expenses).

#### 28. EPARTMENTS OPERATING COST

The details of operating cost (DOC) for different departments are as follows:

SI. No.	Particulars (DOC)	2014-15	2013-14
1	Architecture	1,38,381	1,38,822
2	Civil Engineering	12,08,171	7,58,589
3	Computer Science & Engineering	6,93,490	14,39,040
4	Electronics & Communication Engineering	8,21,459	7,11,107
5	Electrical & Electronics Engineering	9,63,266	5,65,921
6	Hospital	86,116	1,22,589
7	Library	2,56,745	5,58,978
8	Mathematics	1,49,939	1,16,553
9	Mechanical Engineering	34,14,334	19,50,186
10	Physical Education	Nil	4,46,535
11	Chemical Engineering	7,97,533	4,28,465
12	Physics	10,60,058	4,13,125
13	Bio-Technology	12,39,692	7,28,823
14	Nano-technology	6,30,171	4,99,832

15	School of Management Studies	5,40,805	31,476
16	Chemistry	18,75,285	9,80,384
17	Campus Networking Centre	1,49,550	Nil
18	Main Computer Centre	3,12,065	Nil
19	General	3,07,060	2,26,521
	Total	1,46,44,120	98,71,768

(Refer Schedule 17- Administrative and General Expenses).

Operating cost ledger accounts for Campus Networking Centre and Main Computer Centre were created in financial year 2014-2015 and expenses are shown as incurred under different expenses' ledgers for financial year 2013-2014 for comparison purpose.

#### 29. EXPENDITURE IN FOREIGN CURRENCY

The expenditure incurred in foreign currency during 2014-2015 is as follows:

- a) Travel Nil
- b) Import of Equipments- Rs. 69,04,136/-.
- Subscription to e-Journals- Rs.3,29,524/-

#### **30. OPERATING LEASE**

The details with regard to operating lease are given below:

a) Future Lease Rental payments:

SI. No.	Particulars	2014-15	2013-14
1	Not later than one year	4,32,000	4,98,484
2	Later than one year and not later than five years	Nil	Nil
3	Later than five years	Nil	Nil

- b) Operating lease payment recognized in Income and Expenditure Account during the financial year 2014-2015 is Rs. 6,42,484/-, out of which Rs. 1,44,000/- pertains to a new lease agreement.
- c) General description of operating lease:
  - i. Institute has leased an ambulance from the month of January 2015 after cancelling the earlier lease.
  - ii. There is neither an escalation clause in the lease agreement nor any restriction imposed by the lease arrangement; there are no sub-leases.
  - iii. The lease will expire after one year in December 2015.

#### 31. EX-GRATIA PAYMENT

During the financial year 2014-2015 a compensation of Rs. 42,00,000/- was paid to the legal heirs of a student, who died accidentally in the Institute campus (Rs. 5,00,000/- was paid during the previous financial year 2013-14 for the same purpose). The payments are made out of fund Earmarked for students. This payment is shown as Capital Expenditure from Students Fund.

(Refer Schedule 2- Designated/Earmarked/Endowment Funds- Students Fund).

#### 32. PRIOR PERIOD INCOME

Disclosure for prior period income during financial year 2014-2015 is as follows:

(Amount in Rupees)

Amo	Remarks	Particulars	SI. No.
1,23,	Note No. 11	Interest on cash security deposit with KSEB	1
2,36,01,	Sub-Note 32(i)	Interest on Fixed Deposits	2
58,95,	-	Excess Depreciation written off	3
6,19,	Sub-Note 32(ii)	Excess electricity expenses written back	4
21,30,	0_(.)	Convocation Fee	5
4,60,00,		Interest on Refund Bank (Savings Bank) Account	6
3,	Sub-Note	Service Charges (Guest House)	7
8,42,	32(iii)	Continuing Educational Program fees	8
63,34,0		Library Fees	9
7,78,		Matriculation and Recognition fees	10
8,53,82,	Sub-Note 32(iv)	Provision for expenses not required	11
3,46,	Note No. 14	Interest on Fixed Deposits (Bank Guarantee with	12
		KSEB)	
17,20,57,		Total	

(Refer Schedule 14-Prior Period Income).

- **32 (i)** Till FY 2013-2014, interest on fixed deposits with banks was recognized in the books only at the time of closure of the deposits. Interest accrued was not recognized at the year-end or on renewal of the deposits. The total amount of interest credited to prior period income represents the interest accrued till 31 March 2014 on all fixed deposits that existed as on 1 April 2014.
- **32 (ii)** Excess electricity expenses written back represents cash security deposit with KSEB for Rs.6,19,733 paid in F.Y 2013-2014 and accounted as electricity charges, which is now written back and rectified in the financial year 2014-2015.
- **32 (iii)** Income received by the Institute in previous financial years, which were wrongly accounted as liability till 2013-2014, has been written back and added to Income and Expenditure Account by transferring the amount to prior period income. (Refer Note no. 20 of Notes to Accounts)
- **32 (iv)** Provision for expenses not required denotes provision created for salary, pension and other expenses in 2010-2011, 2011-2012 and 2013-2014, which were not written off against the actual expenditure incurred in the subsequent financial years.

#### 33. PRIOR PERIOD EXPENSES

Disclosure for prior period expenses for financial year 2014-2015 is as under:

(Amount in Rupees)

SI. No.	Particulars	2014-15	2013-14
1	Ambulance Rent	52,472	Nil
2	Depreciation	9,88,93,374	Nil
3	Shortfall in opening provision for Gratuity and Leave Encashment as per Actuarial Valuation	9,51,46,369	Nil
	Total	19,40,92,215	

(Refer Schedule 22-Prior Period Expenses).

### 34. TRANSFERS FROM CAPITAL GRANT (PLAN FUND)

As per the Income Approach of AS-12 issued by the Institute of Chartered Accountants of India, an amount equal to the proportion of the current year's depreciation on fixed assets that were purchased using Government grants has to be transferred from the Capital Grant account to Income and Expenditure Account every year. The Institute did not follow this practice till 2013-2014.

All fixed assets of the Institute were purchased using Government grants; hence, an amount equal to the proportion of depreciation (including prior period depreciation) charged thereon till 2014-2015 is now transferred from Capital Grant account to Income and Expenditure account as shown below:

SI. No.	Particulars	Capital Grant created exclusively for Capital Assets from financial year 2012-13*	Capital Grant created for General purpose before financial year 2011-12*
1	Current year depreciation	15,63,61,272	Not applicable
2	Prior period depreciation	22,80,21,423	81,99,52,719
	Total	38,43,82,695	81,99,52,719

\*Till 2011-2012, Govt. grants-in-aid were received towards Plan expenditure under one Object Head (Annual Plan Non-recurring) and depreciation accordingly accounted for.

(Refer Schedule 1- Capital Fund and Schedule 4- Fixed Assets-Total Depreciation).

#### 35. CONTINGENT LIABILITIES AND CONTINGENT ASSETS

Institute's annual accounts.

- . Institute had Letters of credit as per the Bank certificate for Rs. 63,68,000/- which were outstanding for import of assets as on 31<sup>st</sup> March 2015.
- ii. The value of contracts remaining to be executed on Capital account and not provided for is Rs. 28,59,65,819/- (Previous year Rs. 2,12,49,000)
- iii. In respect of Central Academic Block constructed in 2013-2014, the contractor has filed a suit in the court of law (Case number O.S. 611/2011), which is sub judice; therefore, no quantification of the claim, if any, is made as on Balance Sheet date.
- iv. In respect of Central Library Building, the contractor has filed three suits in the court of law. The first case (No. OS.839/2009) is towards claiming of extra rate
- for TMT steel used in construction of the building while the second suit (No. OS 805/2011) relates to revoking of penalty imposed by the Institute and the third case (No. OS.659/2012) pertains to termination of the construction contract at the risk and cost of the contractor. The amount in dispute is approx.
- Rs.2,50,00,000, which is pending adjudication before Hon'ble Sub Court, Kozhikode. The Institute has not made any provision towards the possible liability that may arise on this account. The contractor has also filed two Writ Petitions (WP(C) 33865/2014 and WP(C) 12347/2015) for undertaking the balance construction work at the prevailing rate; the petitions are pending before the Hon'ble High Court of Kerala at Ernakulam.
- v. The Institute has filed an appeal (RFA No. 435 of 2014) against the judgment in Case No. OS 259/2010 in connection with the construction of building for Chemical Engineering Department and pledged a Fixed Deposit Receipt for Rs.50,00,000/- made out of Plan Fund towards additional security before the Hon'ble First Additional Sub-Judge, Kozhikode. No provision has been made in the accounts.
- vi. As on 31 March 2015, some court cases filed against the Institute by contractors, employees, etc., are sub judice in various courts of law. The quantum of the claims is not ascertainable at that date and hence, no liability is recognized in the Balance Sheet.
- **36.** Schedules 1 to 24 herein above are annexed to and form an integral part of the Balance Sheet as at 31 March 2015 and the Income and Expenditure Account for the year ended on that date.
- 37. Schedules 25 to 42 annexed forms an integral part of the Receipts and Payments account for the year ended on that date.
- 38. The General Provident Fund account is owned by the members of the fund and not by the Institute. As such, this account is disclosed separately from the Institute's accounts from 1 April 2014. A Receipt and Payment Account, an Income and Expenditure Account (on accrual basis) and a Balance Sheet of the Provident Fund account for the financial year 2014-2015 have been appended to the
- **39.** All subscribers of New Pension Scheme (NPS) are allotted with PRA numbers and the Institute does not maintain data regarding their subscriptions and matching contributions. Therefore, separate set of accounts are not required for NPS.

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT Cash Flow Statement for the year ended 31.03.2015

Cash Flow from Operating Activities:	Amount(Rs.)
Surplus/(deficit) for the year	1,603,137,824.00
Adjustments for the non-operating incomes/expenses	
Depreciation	156,361,272.00
Write offs	
Interest expenses on loans	-
(Interest Income)	(33,025,583.00)
(Dividend Income)	
(Grants relating to assets to the extent recognised as	(1,204,335,414.00)
income in the Income & Expenditure Account)	(1,204,333,414.00)
Unitilised Non Plan Grant transferred to Assets	(377,836,872.00)
Prior period Items	22,034,662.00
Surplus /(deficit) before changes in the Working Capital	166,335,889.00
Adjustments for Current Assets & Current Liabilities	
(Increase)/Decrease in Current Assets	33,830,903.00
Increase/(Decrease) in Current Liabilities	18,810,650.00
Net Cash from Operating Activities	218,977,442.00
Cash Flow from Investing Activities:	
(Purchase)/Sale of fixed assets	(264,909,961.00)
(Purchase)/Sale of investments	(788,538,693.00)
Interest received	57,096,956.00
Dividend received	-
Net Cash from Investing Activities	(996,351,698.00)

Contd..

Cash Flow from Financing Activities:	Amount (Rs.)
Additions to general fund during the year	113,117,582.00
Grants/funds in nature of founders'/promoters'	
contribution	_
Grants/funds related to assets not requiring	
fulfillment of any obligation	
Endowment fund (principal sum)	94,212,904.00
Proceeds from long term borrowings	-
(Repayment of long-term borrowings)	-
Interest paid on loans	-
Net Cash Flow From Financing Activities	207,330,486.00
Net Increase /(Decrease) in Cash equivalents	(570,043,770.00)
Cash and Cash equivalent at the beginning of the period	2,198,292,326.00
Cash and Cash equivalent at the end of the period	1,628,248,556.00

Cash and Cash equivalent represented by:-	Amount (Rs.)
Cash in Hand	300,624.78
Cash in Bank	
- In Current Accounts	568,050,074.97
- In Savings Accounts	690,137,864.13
- In Term Deposits	366,260,915.00
Cash in Treasury	3,499,077.00
Total	1,628,248,556.00

## NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR 2014-15

RECEIPTS	Sch No.	Current Year	Previous Year	PAYMENTS	Sch No.	Current Year	Previous Year
I. Opening Balances a) Cash in hand @ b) Cash in Bank		450,861.00	352,446.00	Expenses     a) Establishment expenses     b) Academic expenses	37 38	560,477,456.00 145,021,876.00	495,550,565.00 125,678,574.00
i. In Current accounts # ii. In Savings accounts iii. In Deposit accounts		840,240,188.00 1,354,106,533.00		c) Administrative expenses d) Transportation expenses e) Repairs and Maintenance f) Finance Costs	39 40 41	62,424,407.00 1,390,662.00 7,736,476.00	64,427,450.00 766,980.00 6,132,478.00
Treasury		3,499,077.00	3,499,077.00	g) Prior period expenses		220,339.00	13,709.00
II. Grants received a) From GOI b) From State Govt.	25	777,762,000.00 -	749,500,000.00		34	110,721,334.00	87,745,830.00
c) From Other sources		-	368,923.00				
III. Academic Receipts	9	347,151,922.75	237,389,913.00	III. Payment against sponsored Projects/Schemes	3A	32,324,780.00	30,192,157.00
IV. Receipts against Earmarked Endowment Funds	26	104,567,168.00	192,337,242.00	V. Payment against sponsored Fellowships/Scholarships	3B	51,646,466.00	40,200,860.00
V. Receipts against Sponsored Projects/Schemes	3A	21,927,070.00	28,393,214.00	V. Investments and Deposits made a) Out of Earmarked/ Endowment funds b) Out of own funds		-	- -
VI. Receipts against Sponsored Fellowships and Scholarships	3B	71,909,975.00	38,040,161.00	VI. Term Deposits with Scheduled Banks		-	-
VII. Income on Investments from a) Earmarked/Endowment funds b) Other investments	27	41,911,724.00 -	78,880,063.00 -	VII. Expenditure on fixed Assets and Capital Works-in-Progress a) Fixed Assets b) Capital Work-in-Progress		172,465,237.00 92,444,724.00	34,666,318.00 147,813,134.00

VIII. Interest received on				VIII. Other payments including Statutory payments	42	70,408,158.15	45,294,931.00
a) Bank Deposits b) Loans and Advances	28	27,505,132.00	24,825,964.00		12	70,100,100.10	10,271,701.00
c) Savings Bank Accounts	29	14,263,070.00	3,730,300.00				
IX. Investments encashed		-	-	IX. Refund of Grants			
X. Term Deposits with Scheduled Banks							
encashed		-	-	X. Deposits and Advances repaid	35	13,090,156.00	8,452,586.00
XI. Other income (Including Prior Period							
Income)	30	54,583,019.00	30,932,589.00	XI. Deposits made (Cash Security Deposit with KSE	B)	157,984.00	-
XII. Deposits and Advances Received	31	15,897,040.00	19,726,814.50	XIII. Loans and Advances given	36	27,317,613.00	31,854,624.00
XIII. Loans and Advances given repaid	32	41,391,709.00	32,507,433.00	XII. Closing balances			
XIV.Miscellaneous Receipts including Statutory							
receipts	33	47,468,428.00	68,252,919.50	a) Cash in Hand		300,624.50	219,343.00
XV. Any other receipts		-	-	b) Bank balances			
				i) In Current accounts	7	568,050,074.97	840,235,188.00
				ii) In Savings accounts	,	690,137,864.13	010,230,100.00
				iii) In Deposit accounts		1,154,799,608.00	1,354,106,533.00
				c) Treasury		3,499,077.00	3,499,077.00
TOTAL		2 744 424 017 75	2 214 050 227 00	TOTAL		2 744 424 017 75	2 214 050 227 00
TOTAL		3,764,634,916.75	3,316,850,337.00	TOTAL		3,764,634,916.75	3,316,850,337.00

@	(Rs)		(Rs)
Opening Balance of cash in hand as per			
audited Receipt & Payment Account of 2013-		Opening Balance of cash in bank as per audited	
14	219,343.0	Receipt & Payment Account of 2013-14	840,235,188.00
Add: Opening Balance of Imprest Account	231,519.0	Add: Adjustments as per Notes to Accounts No:10	5,000.00
	450,862.0	0	840,240,188.00
Less: Opening Balance of stamp in stock	667.0		<del></del>
	450,195.0	0	
Less: Opening Balance of stamp in stock			

## NATIONAL INSTITUTE OF TECHNOLOGY CALICUT SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2014-2015

## 25. GRANTS RECEIVED

(Amount in Rupees)

Particulars Particulars	Current Year	Previous Year
1. Plan	97,500,000.00	137,500,000.00
2. Non Plan	600,000,000.00	702,000,000.00
	697,500,000.00	839,500,000.00
Less: Current year Grants Receivable		
Plan	9,738,000.00	-
Non Plan	-	90,000,000.00
Add: Previous year Grants receivded		
Plan	-	-
Non Plan	90,000,000.00	-
Net Receipt	777,762,000.00	749,500,000.00

## 26. RECEIPTS AGAINST EARMARKED ENDOWMENT FUNDS

Particulars	Current Year	Previous Year
1. TEQIP I		704,912.00
2. TEQIP II	8,890,144.00	51,173,069.00
3. GPF	40,793,056.00	35,735,288.00
4. CPF	29,044,686.00	17,503,701.00
5. FBS	631.00	1,737.00
6. Growth Fund	9,327,205.00	67,081,908.00
7. Students Fund	9,892,023.00	7,906,676.00
8. TBI	6,334,704.00	12,229,951.00
9. HWD	284,719.00	-
Net Receipt	104,567,168.00	192,337,242.00

## 27. INCOME ON INVESTMENTS EARMARKED FUNDS

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. TEQIP I	-	-
2. TEQIP II	-	1,222,138.00
3. GPF	27,748,059.00	15,155,508.00
4. CPF	691,828.00	762,734.00
5. FBS	-	1,733.00
6. Growth Fund	52,609,215.00	60,446,452.00
7. Students Fund	3,569.00	814,065.00
8. TBI	261,499.00	477,433.00
9. HWD	-	-
	81,314,170.00	78,880,063.00
Less: Interest accrued not yet received	39,402,446.00	-
Net Receipt	41,911,724.00	78,880,063.00

## 28. INTEREST ON BANK DEPOSITS

Particulars	Current Year	Previous Year
Interest on fixed deposit of Plan Fund	14,280,891.00	23,341,785.00
2. Interest on other Fixed Deposits	24,675,649.00	1,484,179.00
	38,956,540.00	24,825,964.00
Less: Interest accrued not yet received	11,451,408.00	_
Net Receipt	27,505,132.00	24,825,964.00

## 29. INTEREST ON SAVINGS BANK DEPOSITS

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Interest on SB A/c of Plan Fund	1,476,660.00	1,303,375.00
2. Interest on other SB Accounts	8,165,318.00	2,426,925.00
3. Interest on SB Accounts of Earmarked Funds	4,621,092.00	-
	14,263,070.00	3,730,300.00
Less: Interest accrued not yet received	-	-
Net Receipt	14,263,070.00	3,730,300.00

## 30. OTHER INCOME INCLUDING PRIOR PERIOD INCOME

Particulars	Current Year	Previous Year
1. Prior period Income	172,057,553.00	7,042,486.00
2. Other Income	30,511,646.00	23,890,103.00
3. Interest on cash security deposit with KSEB	184,616.00	-
	202,753,815.00	30,932,589.00
Less: Non Cash Items	148,170,796.00	-
Net Receipt	54,583,019.00	30,932,589.00

## 31. DEPOSITS AND ADVANCES RECEIVED

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. EMD	10,515,151.00	16,690,981.50
2. Security Deposit	2,839,389.00	1,401,833.00
3. Caution Deposit	2,542,500.00	1,634,000.00
Net Receipt	15,897,040.00	19,726,814.50

## 32. LOANS AND ADVANCES GIVEN RECEIVED BACK

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Advances given to employees	10,148,365.00	1,143,055.00
2. Other Advances	31,243,344.00	31,364,378.00
Net Receipt	41,391,709.00	32,507,433.00

## 33. MISCELLANEOUS RECEIPTS INCLUDING STATUTORY RECEIPTS

		(7 tilloditt ill 1 tapooo)
Particulars	Current Year	Previous Year
1. Statutory Receipts	3,589,459.00	843,196.00
2. Other Miscellaneous receipts	43,878,969.00	67,409,723.50
Net Receipt	47,468,428.00	68,252,919.50

# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2014-2015

## 34. PAYMENTS AGAINST EARMARKED ENDOWMENT FUNDS

(Amount in Rupees)

		(7 timodrit iii Ttapees)
Particulars	Current Year	Previous Year
1. TEQIP I	-	636,000.00
2. TEQIP II	23,026,603.00	20,660,273.00
3. GPF	28,860,709.00	32,035,956.00
4. CPF	30,301,305.00	17,076,328.00
5. FBS	7,320.00	30,890.00
6. Growth Fund	5,035,536.00	1,465,320.00
7. Students Fund	14,139,956.00	7,788,061.00
8. TBI	9,069,517.00	8,053,002.00
9. HWD	280,388.00	
Net Payment	110,721,334.00	87,745,830.00

## **35. DEPOSITS REPAID**

Particulars	Current Year	Previous Year
1. EMD	11,739,569.00	7,332,685.00
2. Security Deposit	1,350,587.00	1,117,901.00
3. Caution Deposit	-	2,000.00
Net Payment	13,090,156.00	8,452,586.00

## **36. LOANS AND ADVANCES GIVEN**

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Advances given to employees	13,465,714.00	708,016.00
2. Other Advances	13,851,899.00	31,146,608.00
Net Payment	27,317,613.00	31,854,624.00

## **37. ESTABLISHMENT EXPENSES**

(Amount in Rupees)

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account	548,415,150.00	515,248,803.00
Less: Establishment expenses payable at the year end	(50,767,494.00)	(62,829,800.00)
Add: Establishment Expenses of previous year paid in the current		
year	62,829,800.00	43,131,562.00
Net Payment	560,477,456.00	495,550,565.00

## **38. ACADEMIC EXPENSES**

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account	135,660,608.00	121,185,487.00
Less: Academic expenses payable at the year end	-	(9,361,268.00)
Add: Academic Expenses of previous year paid in the current year	9,361,268.00	13,854,355.00
Net Payment	145,021,876.00	125,678,574.00

## **39. ADMINISTRATIVE EXPENSES**

(Amount in Rupees)

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account	63,548,645.00	61,319,168.00
Less: Administrative Expenses payable at the year end	(3,081,825.00)	(1,984,994.00)
Add: Academic Expenses of previous year paid in the current year	1,957,587.00	5,093,276.00
Net Payment	62,424,407.00	64,427,450.00

## **40. TRANSPORTATION EXPENSES**

		(Amount in Rupecs)
Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account  Less: Transportation expense payable at the year end  Add: Transportation expense of previous year paid in the current	1,438,662.00 (48,000.00)	
Net Payment	1,390,662.00	766,980.00

## 41. REPAIRS AND MAINTENANCE

(Amount in Rupees)

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account	7,118,172.00	6,551,907.00
Less: Repairs & Maintenance expense payable at the year end	-	(618,304.00)
Add: Repairs & Maintenance expense of previous year paid in the		
current year	618,304.00	198,875.00
Net Payment	7,736,476.00	6,132,478.00

## **42. OTHER PAYMENTS INCLUDING STATUTORY PAYMENTS**

		(Amount in Rupecs)
Particulars	Current Year	Previous Year
1. Statutory Payments	3,751,618.00	561,048.00
2. Other Payments	66,656,541.15	44,733,883.00
Total	70,408,159.15	45,294,931.00

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT PROVIDENT FUND ACCOUNT BALANCE SHEET AS AT MARCH 31,2015

Liabilities	Amount	Amount	Assets	(Amount in Rupees)  Amount
GPF				
Opening Balance	78,364,461.00		Investment	205,289,883.00
			Interest accrued as on	
Add: Subscription in the year	40,793,056.00		31/03/2015	14,265,120.00
Add: Interest credited	-			
Less: Advance/Withdrawal	28,860,179.00			
Add: Subscription for March 2015	-	00 207 228 00		
Closing balance		90,297,338.00		
CPF				
•			Tax recovered from interest on	
Opening Balance	5,673,491.00		Investments	<u>-</u>
Add: Subscription in the year	230,979.00			
			Pending refund from Income	
			Тах	
Add: Interest credited	-		Dept.	-
Less: Advance/Withdrawal	-			
: Other Adjustments	1,350,078.00		Cash at Bank	23,649,631.00
Closing balance		4,554,392.00		
University Contribution (CPF)				
Opening Balance	_			
Add: Subscription in the year	-			
Add: Interest credited	-			
Closing balance	-	-		
Interest Reserve				
Opening Balance	74,087,503.00			
Add: Excess of income over expenditure	74,265,401.00			
Closing Balance		148,352,904.00		
Total		242 204 624 02	Total	242 204 224 00
Total		243,204,634.00	Total	243,204,634.00

# NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT PROVIDENT FUND ACCOUNT INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31/03/2015

Expenditure	Amount	Income	Amount
Interest credited to:		Interest earned on Investment	28,933,104.00
GPF account	-	Add: Tax recovered on interest- Refund to be obtained	-
CPF account	-		
University Contribution (CPF)	-	Prior period Income	45,332,827.00
NPS Tier-II account	-	Excess of Expenditure over Income	-
Bank Charges	530.00		
Excess of Income over Expenditure	74,265,401.00		
Total	74,265,931.00	Total	74,265,931.00

## NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

## PROVIDENT FUND ACCOUNT

## **RECEIPTS AND PAYMENTS ACCOUNTS FOR 2014-15**

Expenditure	Amount	Income	Amount
Opening Balance as on 1/4/14 Savings Bank Accounts Term Deposits	12,205,646.00 191,252,636.00	GPF Adv/Withdrawal CPF Adv/Withdrawal NPS Tier II	28,860,179.00 - -
GPF Subscription CPF Subscription CPF University Contribution NPS Tier II account Investments encashed Interest received Other Receipts	148,032.00 82,947.00 - -	Other Payments  Closing Balance	- 530.00 1,381,468.00 23,649,631.00 205,289,883.00
Total	259,181,691.00	Total	259,181,691.00