

# **ANNUAL REPORT 2013-14**

# CONTENTS

## ANNUAL REPORT 2013-14

	Page no.
<b>1.0 INTRODUCTION</b>	1
1.2 Mission statement	1
1.3 Education system	1
1.4 New Initiatives	1
<b>2.0 AN OVERVIEW</b>	1
2.1 Historical background	1
2.2 Location	1
2.3 Campus	1
2.4 Administration	1
2.5 Academic programme	2
2.6 Courses offered	2
2.7 Admission procedure	3
2.8 Students	3
2.9 Examination & Evaluation	4
2.10 Placement	4
2.11 Games and Sports	4
2.12 Staff position	4
2.13 Notable Achievements	5
<b>3.0 THE STAFF</b>	8
3.1 Academic Staff (Teaching)	8
3.2 Non-Academic Staff (Non – Teaching Staff)	16
3.3 Placement of Staff for academic excellence	21
<b>4.0 TEACHING PROGRAMMES</b>	22
4.1 Courses offered	22
4.2 Courses-wise enrolment with Sex, Caste, Break-up	24
4.3 Admission Statistics –UG/PG Programmes, Cours-wise	25
4.4 Student's Intake	28
4.5 The Hostels	32
4.6 Scholarships/Assistantships	32
4.7 Games and Sports	33
4.8 Awards	33
4.9 Examination details	33
4.10 Technology Business Incubator (TBI)	34
4.11 Technical Education Quality Improvement Programme	35
<b>5.0 RESEARCH AND DEVELOPMENT ACTIVITIES</b>	35
5.1 Ph. D Programmes-Existing and Proposed	35
5.2 Details of Ph. D Done so far	52
5.3 Proposed plan for research	52
5.4 Institute – Industry Collaboration	55
5.5 Innovations and Technology Transfer	56
<b>6.0 THE COUNCIL, BOG, AND OTHER COMMITTEES</b>	56
6.1 Institute's council	56
6.2 Board of Governors	56
6.3 Finance Committee	57

6.4	Building and Works committee	57
<b>7.0</b>	<b>CONCESSION FOR SC, ST AND HANDICAPPED STUDENTS</b>	<b>57</b>
7.1	Concessions provided for Students	57
7.2	Concessions provided for Staff	57
8.0	FINACIAL STATUS	57
8.1	Analysis of Plan and Non-Plan grants	57
8.2	Expenditure Position for last three years	58
<b>9.0</b>	<b>CENTRAL FACILITIES AND SEVICES</b>	<b>58</b>
9.1	Computing and IT services	58
9.2	Workshop	61
9.3	Educational Technology and Library	62
9.4	Laboratories	64
9.5	Hospital, Post office, Shopping centre	70
9.6	Physical facilities (Games and Sports)	71
9.7	Other facilities	71
<b>10.0</b>	<b>NOTABLE ACHIEVEMENTS</b>	<b>73</b>
10.1	Past achievements	73
10.2	Achievements that took place during the year	76
<b>11.0</b>	<b>ANNEXURES</b>	<b>145</b>
11.1	Institute's Council	145
11.2	Board of Governors	146
11.3	Finance, Building and Works and other Committees	146
11.4	Research projects and Consultation jobs	147
11.5	Faculty Position	153
11.6	Administrative and other Staff	154
11.7	Staff Members deputed/Sponsored for Training, Learning	156
11.8	Scholarships and Awards	158
11.9	The Parent Teacher Association	158
11.10	National Service Scheme	159
11.11	Training & Placement statistics	161

## **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 to 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**

3 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 canteens functioning 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.

## **3.1 ADMINISTRATION**

### **3.1.1 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.

3.1.2 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.

### **3.2 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
Civil Engineering	CE	Structural Engineering	CE61
		Traffic and Transportation Planning	CE62
		Offshore Structures	CE63
		Environmental Geotechnology	CE64
		Water Resources Engineering	CE65
Computer Science & Engineering	CS	Computer Science and Engineering	CS61
		Computer Science & Engineering (Information Security)	CS62
Electrical Engineering	EE	Instrumentation and Control Systems	EE61
		Power Systems	EE62
		Power Electronics	EE63
		Industrial Power and Automation	EE64
		High Voltage Engineering	EE65
Electronics and Communication Engineering	EC	Electronics Design and Technology	EC61
		Microelectronics and VLSI Design	EC62
		Telecommunication	EC63
		Signal Processing	EC64
Mechanical Engineering	ME	Industrial Engineering and Management	ME61
		Thermal Sciences	ME62
		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:

Sl. No.	Category	Basis of Admission	Sanctioned 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), Gol, 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 sponsored seats 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 Institute'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) 2013-14 was elected and constituted with 64 Branch Councilors and 9 Executive Council Members. The annual Techno-Management Festival Tathva'13 was successfully conducted in October 2013. The event witnessed an all-time-high registration count of 1502 external participation. 'Aavishkaar' was conducted as a social initiative of Tathva'13. The project was to equip 30 houses with a solar panel and lighting system, in the village Chettyalathur of Wayanad district 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 2014 was organized in March 2014. The event marked an all-time record in terms of registration with above 1500 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 2013-14, 112 companies visited the campus for recruitment. 112 firms made a total of 524 offers. The details are shown in **Annexure I**.  
**B.Tech Programme:** 394 out of 642 eligible B.Tech students (61.6%) got placed. The B.Tech placement details are shown in **Annexure I**. The highest salary (CTC) offered for B Tech is 20 lakhs by Amazon.com. The institute average salary is 5.33 L.

Bio Technology students got no offers, out of eligible 8 students  
Civil students got 42 offers, out of the 98 eligible students  
Chemical students got 30 offers, out of the 70 eligible students  
Computer Science students got 98 offers out of the 103 eligible students  
Electronics students got 74 jobs out of the 107 eligible students  
Electrical students got 65 jobs out of the 105 eligible students  
Engineering Physics students got 6 offers out of the 17 eligible students  
Mechanical students got 60 jobs out of the 99 eligible students  
Production students got 19 jobs out of the 35 eligible students

The average salaries for the various branches are as follows.

Bio Technology	No offers
Civil Engineering	3.8 L
Chemical Engg	5.1 L
Computer Science Engineering	8.8 L
Electronics & Communication	6.1 L
Electrical & Electronics	5.0 L
Engineering Physics	4.0 L
Mechanical Engineering	5.3 L
Production Engineering	4.5 L

**B.Arch Programme:** Only 19 students registered for placement, others were not interested. Out of the 19 students 7 got placed. The average salary is 3.3 L.

**M.Tech Programme:** Out of the 265 M.Tech students 89 students got placed. **Overall 35% got placed.**

**MCA Programme:** Out of the 35 students 27 students got placed leading to 77% placement. The average salary is 4.8 L, highest 20 L and the lowest is 3.3L.

## 2.11 GAMES AND SPORTS

### PHYSICAL EDUCATION OBJECTIVES

Unlike the REC days where physical education and sports used to be Voluntary activity and optional in curriculum, the NIT scenario has physical education as a compulsory entity in the curriculum. The OT Credit 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 ran 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. The participation percentage during 2013-14 was also handicapped owing to infrastructure shortage and adverse weather. In the year 2013-14, all the first year students were introduced to Olympic values as part of the Curriculum in one-credit course stressing on character development through sports & event-managerial abilities.

## 2.12 STAFF POSITION

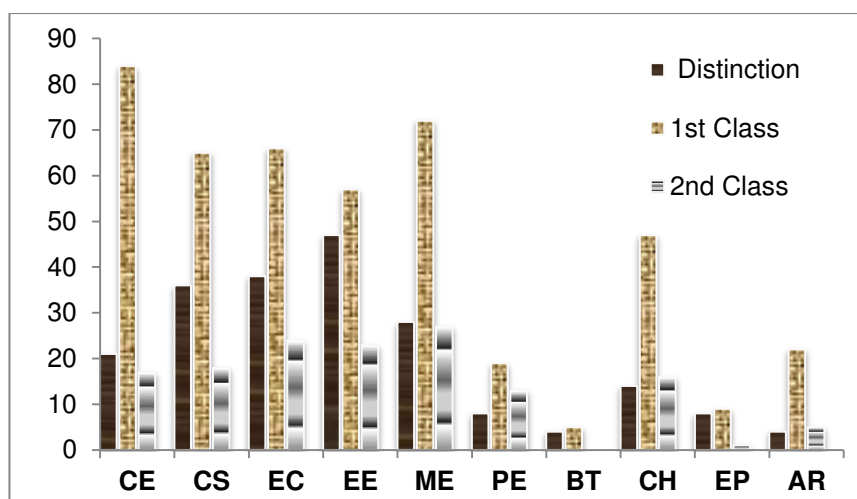
### Teaching Staff

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.

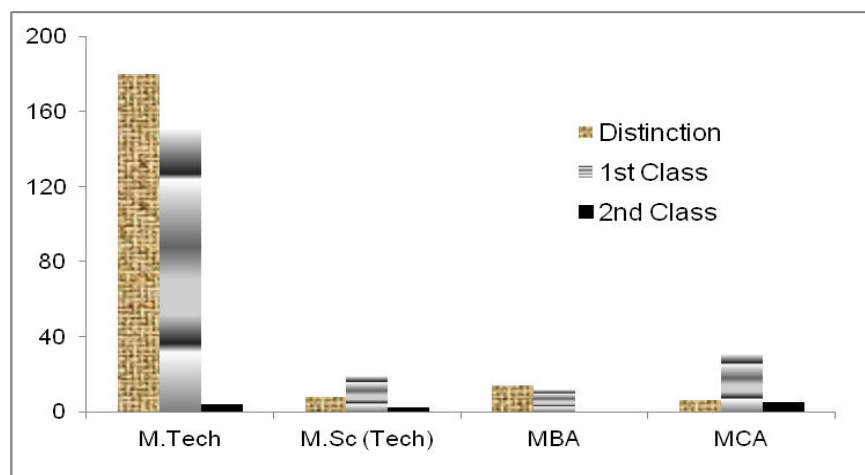
Department	Sanctioned	In position as on 31.03.2014
Architecture	12	7
Chemical Engineering	12	9
Civil Engineering	41	30
Computer Science & Engineering	33	21
Electrical & Electronics Engineering	38	26
Electronics & Communication Engineering	34	24
Mechanical Engineering	52	34
Mathematics	19	15
Physics, 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	---
<b>Total</b>	<b>282</b>	<b>200</b>

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

#### (i) Details of B.Tech & B.Arch students passed out in 2013-2014

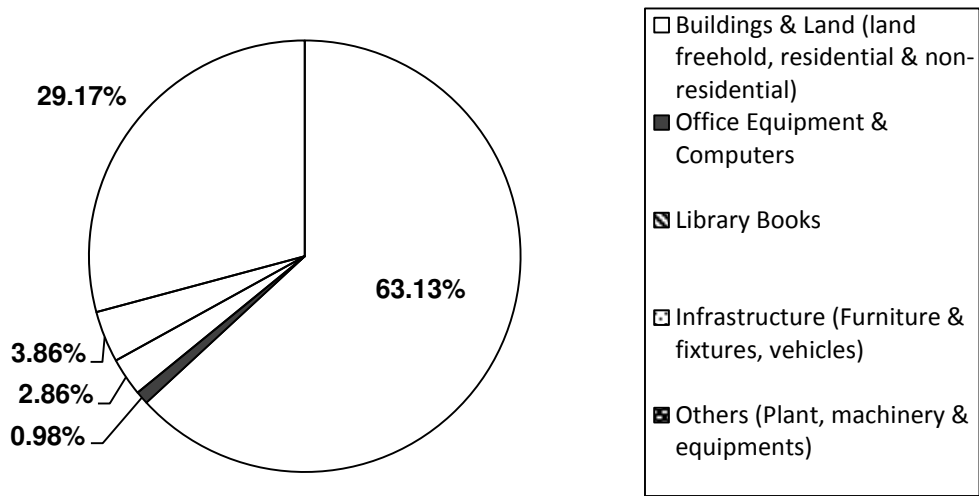


#### (ii) Details of M.Tech., MCA & MSc.Tech. students passed out in 2013-2014

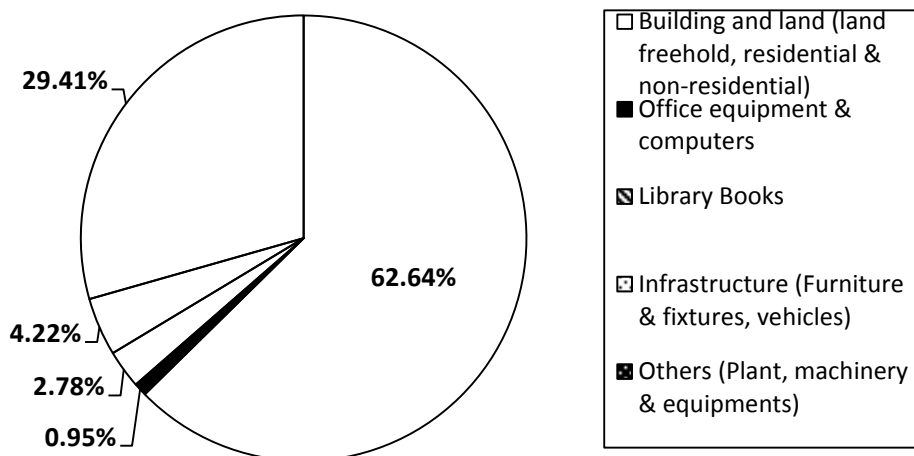




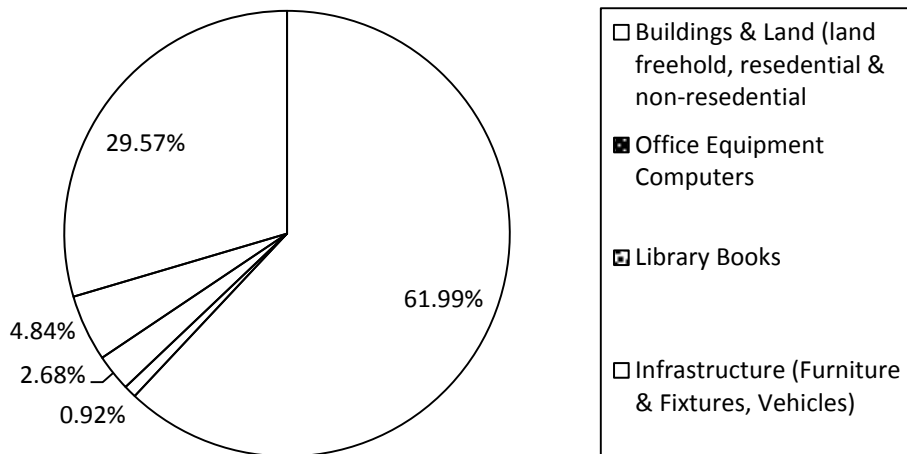
(ii) Details of Assets as on 31.03.2011



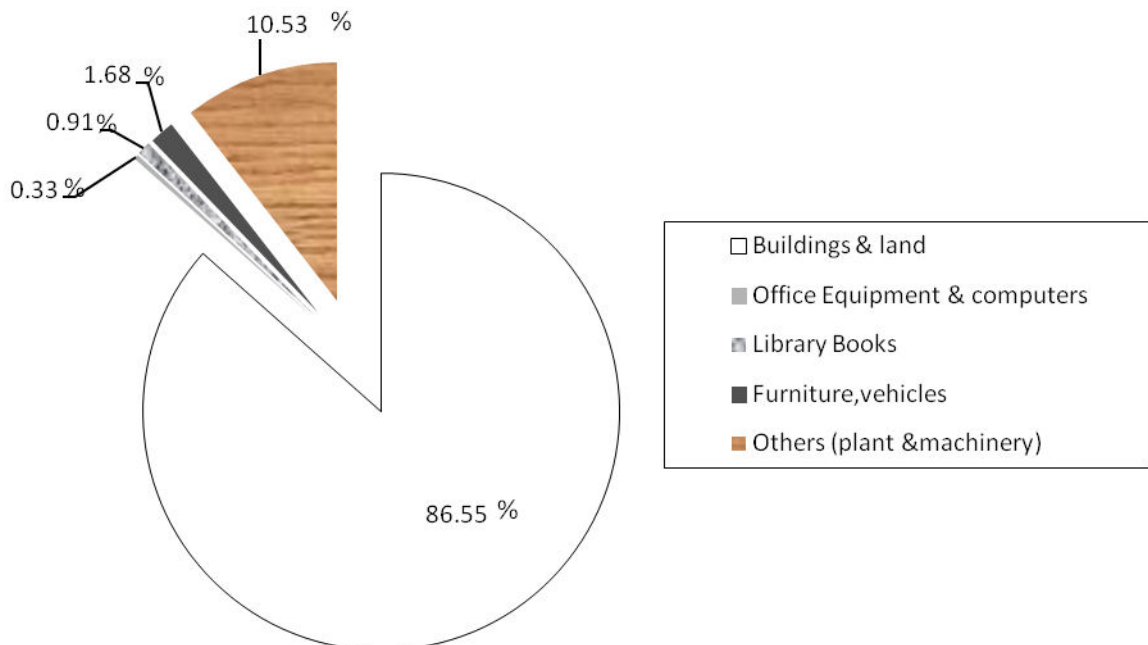
(iii) Details of Assets as on 31.03.2012



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



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



### 3.0. THE STAFF

**DIRECTOR:** Dr. M N Bandyopadhyay

**REGISTRAR:** 1) Dr. Santosh G Thampi (upto 13.09.2013)  
2) Dr. R Vijayakumar (upto 31.03.2014)

#### DEANS

Dr. V K Govindan : Academic  
Dr. V. Mustafa : Planning & Development  
Dr. Jose Mathew : Research and Consultancy  
Dr. R Sridharan : Faculty Welfare  
Dr. M L Joy : Students Welfare

### 3.1 ACADEMIC STAFF (Teaching)

#### DEPARTMENT OF ARCHITECTURE

Sl. 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.	Sri. Mohammed Firoz	Assistant Professor	B. Arch. MURP	Architecture Urban and Regional Planning
5.	Smt.Chithra .K	Assistant Professor	B. Arch M Planning	Architecture Town Planning
6.	Smt. Shyni	Assistant Professor	B. Tech M Planning	Architectural Engg, Housing
7.	Sri. Bimal P	Assistant Professor	B.ArchMCP	Architecture, City Planning
8.	Smt. Alolika Bhunia	Adhoc Lecturer	B.ArchMCP	City Planning
9.	Smt. Deepa S	Adhoc Lecturer	B.ArchMCP	City Planning
10.	Smt. NimaViswanatha	Adhoc Lecturer	B.TechMasters	Urban and Land use Planning
11.	Smt. SamhitaChoudhuri	Adhoc Lecturer	B. ArchM.Sc.	Real Estate Management
12.	Sri. Soumyashanto Mandal	Adhoc Lecturer	B. Arch MPlanning	Urban & Regional Planning
13.	Sri. Sundeep Kumar	Adhoc Lecturer	B. ArchMCP	City Planning

#### DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. Shiny Joseph	Associate Professor	Ph.D	Mass transfer
2	Dr. V. SivaSubramaninan	Associate Professor	Ph.D	Fluidization
3	Dr. Lity Alen Varghese	Associate Professor & Head	Ph.D	Adhesives
4	Dr. Aparna. K	Assistant Professor	Ph.D	Heat transfer
5	Dr. N. Selvaraju	Assistant Professor	Ph.D	Microfluidics
6	Dr.Malladi V Pavan Kumar	Assistant Professor	Ph.D	Process control
7	Dr. S. Bhuvaneshwari	Assistant Professor	Ph.D	Adsorption
8	Sri. Vineesh Ravi	Assistant Professor	M.Tech	Fuel cell
9	Sri. K. Haribabu	Assistant Professor	M. Tech	Fluidisation

**DEPARTMENT OF CIVIL ENGINEERING**

<b>Sl. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Qualification</b>	<b>Specialisation</b>
1	Dr. N.Ganesan	Professor	M.E, Ph.D	Structural Engg.
2	Dr. S.Chandrakaran	Professor	M.E., Ph.D	Geotechnical Engg
3	Dr. V.Mustafa	Professor	M.Tech., Ph.D	Structural Engg.
4	Dr. T.P.Somasundaran	Professor &Head	M.Tech., Ph.D	Structural Engg
5	Dr. J.Sudhakumar	Professor	M.Tech., Ph.D	Building Technology
6	Dr. Mohammed Ameen	Professor	M.E., Ph.D	Structural Engg.
7	Dr. M.V.L.R. Anjaneyulu	Professor	M.Tech, Ph.D	Transportation Engg.
8	Dr. T.ZachariahVarghese	Professor	M.E, Ph.D	Structural Engg.
9	Dr. N.Sankar	Professor	M.Tech. Ph.D	Geotechnical Engg
10	Dr. A.P.Shashikala	Professor	M.Sc (Engg), Ph.D	Structural Engg.
11	Dr. P.V.Indira	Professor	M.Tech, Ph. D	Structural Engg.
12	Dr. T.M.Madhavan Pillai	Professor	M.Tech., Ph.D	Structural Engg.
13	Dr Santosh.G. Thampi	Professor	M.Tech., Ph.D	Hydraulics
14	Dr. K Sasikumar	Associate Professor	M.Tech., Ph.D	Water Resources Engg.
15	Sri.K.Saseendran	Associate Professor	B.Sc.(Geo.), M.Tech.	Geology
16	Dr. Arun C	Associate Professor	M.Tech., Ph.D	Building Technology
17	Dr. K. Krishna Murthy	Associate Professor	M.Tech., Ph.D	Transportation Engg.
18	Dr. Praveen Nagarajan	Associate Professor	M.Tech., Ph.D	Structural Engg.
19	Dr. Sajith A S	Assistant Professor	M.Tech	Structural Engg.
20	Dr. Harikrishna M	Asst. Professor	M.Tech	Transportation Engg.
21	Dr. George K Varghese	Asst. Professor	M.Tech	Environment Engg.
22	Smt. Reesha Bharath K (Pursuing Ph. D under QIP)	Asst. Professor	M.Tech	Construction Technology
23	Smt. Chitra N R	Asst. Professor	M.Tech	Hydraulics & Water Resources Engg
24	Dr. Pramada S K	Asst. Professor	M.Tech	Water Resources Engg
25	Dr. Mini Remanan	Asst. Professor	M.Tech., Ph.D	Structural Engg.
26	Dr. Vinu Palissery	Asst. Professor	M.S., Ph.D	Structural Engg.
27	Dr. Kodi Ranga Swamy	Asst. Professor	M.Tech., Ph.D	Geotechnical Engg
28	Dr. Mathava Kumar S	Asst. Professor	M.Tech., Ph.D	Environment Engg.
29	Dr. Sathish Kumar D	Asst. Professor	M.Tech	Remote Sensing & GIS
30	Sri. Siva Kumar M	Asst. Professor	M.Tech	Transportation Engg.

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

Sl. No.	Name	Designation	Qualification	Specialisation
1	Dr. V K Govindan	Professor	Ph. D	Image Processing, Medical Imaging, Agent Technology, Pattern Recognition, Document Imaging, Operating Systems, Biometrics based authentication, Segmentation
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 and Head	Ph. D	Database Systems, Bioinformatics, Computational Intelligence
6	Dr. Murali Krishnan K	Associate Professor	Ph. D	Complexity theory, Algorithms, coding theory, Cryptography
7	Dr. Vinod P	Assistant Professor	Ph. D	Theoretical Computer Science, Information Security
8	Sri. Saidalavi Kalady	Assistant Professor	M. E	Intelligent Agents, Hardware Systems
9	Smt. Saleena N	Assistant Professor	M. Tech.	Program Analysis , Compilers
10	Smt. Subhasree M (On leave under QIP for Ph. D)	Assistant Professor	M. E	Mathematical Logic, Verification
11	Dr. Subashini R	Assistant Professor	Ph. D	Algorithm, Computer Architecture , Data Structures, Design and Analysis of Algorithms
12	Sri. Sumesh T A (On leave under QIP for Ph. D)	Assistant Professor	M. Tech.	Computer 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 Algorithm Smt.
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	M.Phil, PhD	Systems, Network security, Algorithms, Cloud computing

#### DEPARTMENT OF ELECTRICAL ENGINEERING

Sl 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	Ph.D.(IIT Bombay)	Control Systems
4	Dr. M P Nandakumar	Professor	Ph.D.(IIT Kanpur)	Control Systems
5	Dr. Paul K Joseph	Professor	Ph.D.(IIT Madras)	Biomedical Instrumentation
6	Dr. Saly George	Professor	Ph.D. (REC Calicut)	Power Electronics
7	Dr. R Sreeram Kumar	Professor	Ph.D. (IISc Bangalore)	Power Systems
8	Dr. K S Sivanandan	Professor	Ph.D.(IIT Roorkee)	Instrumentation
9	Dr. Susy Thomas	Professor & Head	Ph.D.(IIT Bombay)	Control Systems
10	Dr. M V Vaidyan	Professor	Ph.D.(University of Calicut)	Control Systems
11	Sri. P.Ananthkrishnan	Asso. Professor	M.Tech. (IIT Madras)	Electrical Energy Systems
12	Dr. Elizabeth P Cheriyan	Asso. Professor	Ph.D.(IIT Bombay)	Power Systems
13	Dr. Preetha.P	Asso. Professor	Ph.D. (IISc Bangalore)	High Vol.tage Engg.
14	Dr. Rijil Ramchand	Asso. Professor	Ph.D. (IISc, Bangalore)	Power Electronics
15	Sri. K S Suresh Kumar	Asso. Professor	M.Tech. (IIT Madras)	Power Electronics
16	Smt. Hema Rani.P	Asst. Professor	M.Tech (IIT Kanpur)	Power Electronics
17	Dr. Jagadanand G	Asst. Professor	Ph.D. (NIT Calicut)	Signal Processing
18	Dr. Kumaravel S	Asst. Professor	Ph.D. (NIT Calicut)	Power Systems
19	Smt. Mija S J	Asst. Professor	M.Tech (CET TVM)	Control Systems
20	Dr. Mukti Barai	Asst. Professor	Ph.D. (IIT Kharagpur)	Power Electronics
21	Dr. Sindhu T K	Asst. Professor	Ph.D. (IIT Madras)	Power Systems & High Vol.tage Engg.
22	Dr. Subha. D.P	Asst. Professor	Ph.D(NIT Calicut)	Biomedical Engineering
23	Sri. Subhash K.M.	Asst. Professor	M.Tech (NIT Calicut)	Instrumentation & Control
24	Dr. T K Sunil Kumar	Asst. Professor	Ph.D. (IIT Kharagpur)	Power Systems
25	Smt. Sunitha K	Asst. Professor	Ph.D (IISc, Bangalore)	High Vol.tage Engg.
26	Smt. Sunitha. R	Asst. Professor	PhD(NIT Calicut)	Power Systems

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Sl. No	Name	Designation	Qualification	Specialization
1	Dr. Elizabeth Elias	Professor	Ph. D	Multirate Signal Processing
2	Dr. Lillykutty Jacob	Professor	Ph. D	Computer Networks
3	Dr. P. C. Subramaniam	Professor	Ph. D	Optical Communication
4	Dr. P. S. Sathidevi	Professor	Ph. D	Speech and Audio Processing
5	Dr. G. Abhilash	Asso. Professor	Ph. D	Signal Theory
6	Smt. Lyla B. Das	Asso. Professor	M. Tech	Digital Communication
7	Dr. C. K. Ali	Asso. Professor & Head	Ph. D	Communication Engineering
8	Sri. R. Suresh	Asso. Professor	M. Tech	Digital Electronics
9	Dr. S. M. Sameer	Asso. Professor	Ph. D	Wireless Communication
10	Dr. A. V. Babu	Asso. Professor	Ph. D	Communication Engineering
11	Dr. RamaSubrahmanyam Komaragiri	Asso. Professor	Ph. D	VLSI, MEMS and Nanoelectronics
12	Dr. Sreelekha G.	Asso. Professor	Ph. D	Signal Processing
13	Dr. Deepthi P. P.	Asso. Professor	Ph. D	Secure Communication
14	Sri. Jaikumar M. G.	Asso. Professor	M. Tech	Microelectronics
15	Sri. Dhanaraj K. J.	Asst. Professor	M. Tech	Digital Systems and Communication
16	Sri. V. Sakthivel	Asst. Professor	M. Tech	Advanced Communication Systems
17	Sri. Bhuvan B.	Asst. Professor	M. Tech	Electronic Design and Technology
18	Sri. Raghu C. V.	Asst. Professor	M. Tech	Electronic Design and Technology
19	Smt. Suja K. J.	Asst. Professor	M. Tech	Optoelectronics
20	Smt. Bindiya T. S.	Asst. Professor	M. Tech	VLSI Design
21	Sri. Ameer P. M.	Asst. Professor	Ph.D	Telecommunication
22	Sri. Jayakumar E. P.	Asst. Professor	M. Tech	VLSI Design
23	Sri. Sudhish N. George	Asst. Professor	M. Tech	Signal processing
24	Dr. Praveen Sankaran	Asst. Professor	Ph. D	Image Processing/ Pattern Classification

**DEPARTMENT OF MECHANICAL ENGINEERING**

Sl. 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	Sri.Jayadeep U B	Asst. Professor	M. Tech.	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 Jothi T	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

Sl. 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 & Head	M.Sc., Ph.D.	Queuing Theory
4	Dr. Chithra. A.V.	Associate Professor	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	Sri. Lineesh. M.C.	Asst. Professor	M.Sc.	Time Series Modelling
10	Sri. 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**

Sl. 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. Ph.D.	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**

Sl. 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 & Head	M.Sc., Ph.D.	Computational Condensed Matter Physics
4.	Dr. M. K. Ravi Varma	Asso. Professor	M.Sc., Ph.D.	Atmospheric Optics & Instrumentation
5.	Dr. Vari Sivaji Reddy	Asst. Professor	M.Sc., M.Phil, Ph.D.	Condensed Matter Physics Organic and Nano Electron Photonics
6.	Dr. P. K. Madhavan Unni	Asst. 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**

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

**PHYSICAL EDUCATION SECTION**

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

**SCHOOL OF NANO SCIENCE & TECHNOLOGY**

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

**SCHOOL OF MANAGEMENT STUDIES**

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. N Sudarsan	Associate Professor & Head	PhD	Human Resources Management
2	Dr.K Muhammad Shafi	Assistant Professor	PhD	Financial Management
3	Dr. S. Sunitha	Assistant Professor	PhD	Economics
4	Dr. Preeti Navaneeth	Assistant Professor	PhD	English

**SCHOOL OF BIOTECHNOLOGY**

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. Md. AnaulKabir	Associate Professor	Ph.D	Molecular Genetics, GeneticEngineering
2	Dr. Santhiagu. A	Associate Professor	Ph.D	Bioprocess Technology, Recombinant Technology, Enzymology
3	Dr. Rajanikant G.K	Associate Professor & Head	Ph.D	Radiation 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. Madhavan Pillai, 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)**

Sl. No.	Name	Designation	Qualification
1	Dr.Santosh G Thampi	Registrar ( upto 13.09.2013)	Ph.D.
2	Dr. R Vijayakumar	Registrar (14.09.2013 to 31.03.2014)	Ph.D.
3	Sri. Raghunadhan T	Deputy Registrar (Stores & Purchase)	MA, M.Com., LLB-Low of Taxation, LLM
4	Sri. M Radhakrishnan	Deputy Registrar (Academic)	B.Sc., MBA, PG Diploma in Materials Management, PG Diploma in Personal Management and Industrial Relations
5	Sri. P M Krishnan	Officer on Special Duty(on deputation) Sr. Audit Officer, AG's office	BSc. B Ed. SAS. RAE & CPD-1
6	Sri. C Unnikrishnan	Officer on Special Duty(on deputation) Sr. Audit Officer, AG's office	B Com. SAS. RAE & CPD-1
7	Sri. V Muraleedharan	Internal Audit Officer (on deputation) from AG's office	B Sc. SAS. RAE & CPD-1
8	Dr. Celine A.A	Resident Medical Officer	BSc, MBBS
9	Smt. Sweety Mathew	Lib.Gr.III (Hr.Gr)	M.Sc., M L I Sc , UGC NET
10	Smt. Lalitha Kumari P.S	Librarian Gr.IV (Hr.Gr)	BA, Bachelor of Lib and Information
11	Sri. Balachandran Nair C.G	Librarian Gr.IV (Hr. Gr.)	BA, MLISc. Type (E&M)Higher
12	Smt. Sobhana J	Librarian Gr.IV (Hr. Gr)	MA, Bachelors Degree in Library & Information Science
13	Sri. Jayarajan.T	Librarian Gr.IV (Hr. Gr)	BA, bachelor of Lib and Information
14	Smt. Latha. C	Librarian Gr.IV (Hr. Gr)	MA, Master of Degree in Library and Information Science, UGC. NET
15	Sri. C P Balan	Library Attender	SSLC (failed)
16	Sri. K P Shaju	Librarian Gr.IV	SSLC, Certificate in Llibrary Science
17	Sri. M K Chandramohan	Graphic Artist (Hr. Gr)	Bachelor of Fine Arts in Applied Arts
18	Sri. K Jayaraman	Offset Machine Operator (Hr. Gr)	SSLC, Diploma in Printing and Technology
19	Sri. P Abraham	Pharmacist	SSLC, Diploma Course in Pharmacy
20	Smt. Rosamma V J	Staff Nurse (Hr. Gr)	SSLC, Certificate in General Nursing and Midwifery Examination
21	Smt. Stella V C	Fair Copy Superintendent.	SSLC, Typewriting English & Malayalam (Lower & Higher), Short hand English (Lower)
22	Sri. T Vijayan	Sr. Gr. Typist	SSLC, Typewriting English & Malayalam (Higher)
23	Smt. Subhadra C K	Confidential Assistant Gr.I	SSLC, Typewriting English & Malayalam Higher Short hand English Lower

24	Smt. V Vilasini	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher , Short hand English Lower
25	Smt. Veluthakki C	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher , Short hand English Lower
26	Sri. Sathianandan.P	UD Steward	SSLC, Typewriting English lower
27	Sri. Narayanankutty. P	L.D Steward	SSLC
28	Sri. Anwar Sadath. C	L.D Steward	PDC, Restaurant Counter Service, Typewriting English (lwr)
29	Smt. Devaki P P	Sr. Supdt	PDC
30	Smt. C.P Rugmini	Sr.Supdt	SSLC Typewriting Eng.(H)
31	Sri. A. Balan	Jr. Supdt	SSLC, Typewriting (E) Lower
32	Sri. M. Reejish Kumar	Jr. Supdt	SSLC
33	Sri. P. Muraleedharan	Jr.Supdt	SSLC
34	Smt. K.Mini	U D Clerk	SSLC
35	Smt. P. Prama	U D Clerk	SSLC
36	Sri. A. Venugopal	U D Clerk	PDC
37	Smt. P.P Karthiayani	U D Clerk	SSLC
38	Sri. V. Hassan Mohammed	U D Clerk	SSLC
39	Smt. P.M Madhavi	L D Clerk	SSLC, Typewriting English Lower
40	Sri. S.M Shafi	U D Clerk	SSLC
41	Sri. P. Praveen Kumar	U D Clerk	BA
42	Sri. Petson Andrew	U D Clerk	BBA,MBA
43	Sri. N. Sukumaran Nair	U D Clerk	BA
44	Sri. Prasad .M.V	U D Clerk	BA, PGDCA(Software)
45	Sri. Sasikumar K.T	U D Clerk	PDC
46	Sri. K. Unnikrishnan	U D Clerk	SSLC, Typewriting English Higher, Malayalam Lower
47	Smt. Soosy Kutty J.L	U D Clerk	BSc, Typewriting English Higher Malayalam Lower
48	Smt. Juliet Das P.D	U D Clerk	MA, Typewriting English Higher
49	Sri. Sethumadhavan Mecheri	UD Clerk	BA, Typewriting English Lower
50	Sri. K.N Purushothaman Pillai	U D Clerk	SSLC, Typewriting English Higher
51	Smt. C.K Kanakambujam	L D Clerk (on leave)	PDC
52	Smt. G. Chandrika	U D Clerk	PDC
53	Smt. P. Sindu	U D C on temporary basis	BA, Type writing English Lower , Word Processing-Computer Course, Office Automation Course
54	Smt. Smera K.S.	L D Clerk	M.Sc. Computer Science,
55	Smt. Mereena John	L D Clerk	B.Sc., Typewriting English Lower, Computer Word Processing.
56	Smt. Sobhana T.	L D Clerk	B.Sc., PGDCA
57	Sri. M.T Varghese	Assistant Engineer	PDC, NTC Trade-Electrician ,Diploma in EE, Wireman License Certificate of Electrical Wiring
58	Sri. T.E Thomas	Assistant Engineer	SSLC, Diploma in CE,Part-time course Architectural Draughtsman-ship, PT course on structural design and tall buildings
59	Sri. P.Keraleeyan	Foreman,MED	SSLC, NTC-Mechanic Refrigeration & Air Conditioning Diploma in M.E, B.Tech.-ME.
60	Sri. K.P Venugopal	Instructor, ECE	SSLC, NTC Mechanic General Electronics, NTC Electrician trade, Diploma in EE, Post Diploma in Communications, B.Tech. (ECE)
61	Sri. T.K Sasidharan	Instructor, EED	PDC, NTC Electrician trade,

			Diploma in EE
62	Sri. P. Anil Kumar	Supervisor, MED	SSLC, ITI Trade- Mechanic R&A/c, Diploma in ME
63	Sri. A. K. Mohan Kumar	Asst.Engineer	SSLC, Diploma in Civil Engg., B.Tech.-CE.
64	Sri. E. Pradeep Kumar	Supervisor, MED	Diploma
65	Sri. P. Prabhakaran	Senior Mechanic (Sl.Gr), EMU	SSLC, Diploma in Electrical Engineering
66	Sri. T.V Varghese	Senior Mechanic (Sl.Gr), Engineering Unit	SSLC, English Typewriting lower Certificate in CE (2 years course)
67	Sri. B. Venugopal	Lab Technician, EED	SSLC, NTC-wireman, Diploma in EE
68	P.T. Ashok Kumar	Lab Technician, EED	SSLC, Certificate Exam in EE, Diploma in EE
69	Sri. A. Rajagopalan	System Analyst (Hr.Gr)	BSc, PG Diploma in Operations Research & computer application, MSc, M.Tech.
70	Sri. Santhosh Kumar. S	System Programmer	B.Sc., M.Sc.(maths), M.Sc in Information System, PG Diploma in Computer Engg. & in Software Tech., Degree of master of science in information system (University of Chester)
71	Sri. G. Sasidharan Pillai	Computer Technician	BSC, Typewriting English & Malayalam Higher, Computer programming (COBOL), Console Operator Cum Programmer Asst. (NCVT), PG Diploma in computer Application
72	Sri. V.R Ajayachandran	Computer Operator (Hr. Gr)	PDC, Diploma in ME, Post Diploma in Computer Application
73	Pradeep Kumar K K	Instructor MED	SSLC, ITI Trade- Mechanic Motor Vehicle, Diploma in ME
74	Rajendran M.K	Instructor MED	SSLC, NTC Trade –Mechanic Gen. Electronics, Diploma in ME
75	Pradeep Kumar E	Supervisor, MED	Diploma
76	Abhilash	Sr. Mechanic, Sl. Gr. MED	ITI Fitter, Diploma in ME
77	Anandan P	Sr. Mechanic, Sl. Gr. MED	SSLC, Certificate Exam In Automobile Engineering
78	Dharmarajan K	Sr. Mechanic, Sl. Gr. MED	SSLC(Failed), Plumber-Trade
79	Joseph George P G	Sr. Mechanic, Sl. Gr. MED	SSLC, NTC-Turner
80	Mohan T P	Sr. Mechanic, Sl. Gr. MED	ITI Diesel Mechanic, SSLC
81	Sasi. K K	Sr. Mechanic, Sl.Gr. MED	Pre Degree, Diploma in Computer Engg, Type Writing English Lower
82	Velayudhan Kutty N P	Sr. Mechanic, Sl. Gr. MED	P D C, NCVT Electrical & Electronics, Diploma in ME
83	Ajayan A	Sr. Mechanic MED	J.T.S L C(Foundry), NTC Electrician (Foundry)
84	Eldho P Varghese	Sr. Mechanic MED	SSLC, NTC Mechanic Diesel, VHSE, Diploma in ME
85	George T M	Sr. Mechanic MED	SSLC, NTC Trade-Fitter
86	Manoj KG	Sr. Mechanic MED	THSLC (Trade-Turning), Diploma in ME
87	Prasad Mochikkal Variath	Sr. Mechanic MED	SSLC, NTC Welder, Diploma in ME
88	Reghu P V	Sr. Mechanic MED	JTSLC, Sheet Metal Diploma in M.E
89	Sanal P R	Sr. Mechanic MED	P D C, NTC Mechanist (Trade)
90	Shali Joseph	Sr. Mechanic MED	SSLC, NTC(Foundry Trade)
91	Suresh K.C	Sr. Mechanic MED	SSLC, NTC Trade-Welder
92	Surendran. P.K	Sr. Mechanic MED	SSLC, Trade Mechanist-NAC
93	Unnikrishnan R	Sr. Mechanic MED	Pre Degree, Diploma in M.E (Machinist)
94	Vasu TC	Sr. Mechanic MED	SSLC, NTC- Mechanic (Diesel)

95	Sri. Mohanlal .D	Sr. Mechanic, CED	SSLC, NTC Trade Welder
96	Sri. P. Sreenivasan	Sr. Mechanic, CED	SSLC, NTC Trade Plumber
97	Sri. K. Shibu	Instructor, CED	SSLC, NTC Trade Plumber , Diploma in CE, Computer Shikshan
98	Sri. K. Sahadevan Nair	Sr.Mechanic,Sl.Gr.EED	VIIIth Std
99	Sri. N.K Mohammed Sali	Sr. Mechanic, EED	SSLC, NTC Trade Electrician, Diploma in EE
100	Sri. K. A Somanathan	Sr. Mechanic, EED	SSLC, NTC Trade Electrician, Diploma in EE
101	Sri. Sasesh A.R	Sr. Mechanic, EED	SSLC, NTC Trade Electrician, Diploma in EE
102	Sri. Nanda Kumar K	Sr. Mechanic, EED	JTSLC, NTC Electrician ,B.com, Diploma in EE ,PT course in Data Entry and console operation
103	Sri. Suresh Kumar. G	Sr.Mechanic, Sl.Gr. ECD	SSLC, NTC Trade Mechanic General Electronics
104	Sri. V. Krishnan Kutty	Sr. Mechanic, ECD	JTSLC, Trade Certificate Mechanic General Electronics
105	Sri. Anandan K.R	Sr. Mechanic, ECD	SSLC, NTC-Mechanic Radio & Television, NAC Trade Electronic Mechanic
106	Sri. Abdul Sathar V.M	Sr. Mechanic, CSE	Pre Degree, NTC Data preparation and Computer Software, Diploma IT
107	Sri. Narayana Lal M	Sr. Mechanic, AED	SSLC, ITI Electronics 1 year Diploma
108	Sri. Beljith P	Sr. Mechanic Bio-Mechanics	Pre Degree, Typewriting English Lower & Higher, B.Sc. Maths, Business Professional Programmer
109	Sri. Rameshan N	Driver	Driving Licence (Heavy)
110	Sri. T. Rajendran Pillai	Sr.Mechanic, CED	Army Trade Brick layer Construction (Ex-Military)
111	Sri. Noushad K.K	Sr.Mechanic, CED	Diploma in Computer Engg., NTC Data Preparation & Computer Software, Typewriting English (lower), Business professional programmer O' Level
112	Sri. Ajaya Kumar. R	Sr.Mechanic, CED	SSLC, NTC-D'man Civil
113	Sri. Jayan V.S	Sr.Mechanic, EED	SSLC, NTC Electrician, Electrical wireman license
114	Sri. Praveen H Babu	Mechanic, ECD	SSLC, NTC ElectronicMechanic, Typewriting English (Lower), Job Training course in Advanced Electronics
115	Smt. Sreeja .V	Mechanic, COE	Diploma in Computer Engg. – O' level, M.Sc
116	Sri. Biju Francis	Mechanic, COE	PDC, Data Preparation & Computer Software (NTC) Typewriting English Lower, Word Processing and Data Entry Techniques
117	Sri. Raju K P	Sr. Mechanic, EMU	SSLC, NTC Electrician, Wireman
118	Sri.Santhosh Kumar MV	Mechanic, EMU	SSLC, Electrician NTC
119	Sri. Mahesan K A	Mechanic, EMU	SSLC, Electrician NTC, Diploma in EE
120	Sri. Sudheer P R	Mechanic EU	SSLC, NTC-Plumber
121	Sri. Jayesh Kumar P	Mechanic EU	PDC, NTC- Plumber
122	Sri. T K Sadanandan	Sr. Mechanic EU	NTC-Plumber
123	Sri. P Divakaran	Sr. Mechanic, (Sl.Gr.) EU	SSLC, NTC-Plumber
124	Sri. K Alavikutty	Sr. Mechanic EU	SSLC failed, NTC-Plumber
125	Sri. Mathew Varghese	Sr. Mechanic EU	PDC, NTC-Plumber
126	Sri. Abdul Sidheek P K	Sr. Mechanic EU	SSLC, NTC-Plumber
127	Sri. Sathyan P K	Sr. Mechanic EU	SSLC, NTC-Plumber

128	Sri. A M Mathew	Sr. Mechanic, (Sl.Gr.) EU	SSLC, NTC-Plumber
129	Sri. C Sreenivasan	Sr.Mechanic, Sl.Gr. EMU	SSLC, Wireman Exam
130	Sri. C R Climson	Sr. Mechanic EMU	SSLC, NTC-Electrician Trade, Type writing (E) Lower, Wireman Licence
131	Sri. M K Radhakrishnan	Sr. Mechanic EMU	SSLC, NTC Electrician Trade
132	Sri. C V Abraham	Lab Assistant (Hr. Gr)	PDC, Certified Course in Computer Programme
133	Sri. Prakash Peter	Lab Assistant	B.Sc(Chemistry) , CCCA M.Sc(Applied Psychology)
134	Smt. A. Sumathi	Peon	Ist Std
135	Sri. P. Apputty	Peon	SSLC Failed
136	Sri. C. Gopalan	Peon	Vth Std.
137	Smt. T.P. Ravia	Peon	Vth Std.
138	Sri. B. Mohanan Nair	Peon	IIIth Std.
139	Sri. K.V.Chandu	Peon	IVth Std
140	Smt. Sangeetha P.K.	Peon	SSLC Failed
141	Smt. Sarojini P.	Peon	VIIth Std.
142	Smt. Savithri.C	Peon	VIIth Std
143	Sri. M. Rajan	Watchman	SSLC Failed
144	Sri. K. Abdul Hameed	Watchman	VIIIth Std.
145	Sri. P. Aravindan	Watchman	VIIIth Std.
146	Sri. N.K. Ummerkutty	Watchman	VIIIth Std.
147	Sr. M. Sivaraman	Watchman	VIIIth Std.
148	Sri. V.P. Sadanandan	Gardener	Vth Std.
149	Sri. P.K. Koran	Watchman cum Gardener	VIth Std.
150	Sri. T. Janardhanan	Watchman cum Gardener	SSLC
151	Sri. Sadanandan M.M.	Watchman cum Gardener	SSLC
152	Sri. Mamukoya M.	Watchman cum Gardener	VIIIth Std.
153	Sri. Abdul Razak P.	Watchman cum Gardener	VIIIth Std.
154	Sri. C. Preman	Watchman cum Gardener	SSLC Failed
155	Sri. T. Narayanan	Watchman cum Gardener	VIIIth Std.
156	Sri. M.K. Rajan	Watchman cum Gardener	SSLC
157	Sri. P V. Bhagyanathan	Watchman cum Gardener	SSLC
158	Sri. Vinod K.P.	Watchman cum Gardener	IXth Std. Not completed
159	Sri. Revi V.	Watchman cum Gardener	IVth Std.
160	Sri. K. Bhaskaran	Watchman cum Gardener	SSLC
161	Sri. K.T. Balakrishnan	Watchman cum Gardener	SSLC Failed
162	Smt. V. Pushpavally	Sanitation Worker	VIth Std.
163	Smt. K. Thankamani	Sanitation Worker	IVth Std.
164	Smt. Freeda S. Balan	Peon	SSLC Failed
165	Smt. O. Chandramathi	Sanitation Worker	IV Std.
166	Smt. V.P. Thankam	Sanitation Worker	VIIIth Std.
167	Smt. I. Siamala	Sanitation Worker	SSLC Failed
168	Smt. K.K. Santha	Sanitation Worker	SSLC Failed
169	Smt. K.P. Devi	Sanitation Worker	VIIIth Std.
170	Smt. Devi Poolakkal	Sanitation Worker	SSLC Failed
171	Smt. E. Visalakshi	Sanitation Worker	SSLC Failed
172	Smt. Saroja T.M	Sanitation Worker	SSLC Failed
173	Smt. Sasikala L.	Sweeper cum Sanitation Worker	SSLC Failed
174	Smt. C.Geetha	Sweeper cum Sanitation Worker	SSLC
175	Smt. C Thanka	Sweeper cum Sanitation Worker	SSLC Failed
176	Smt. Jameela A.K.	Sweeper cum Sanitation Worker	SSLC Failed
177	Sri. K Parameswaran	Bearer cum Roomboy	SSLC Failed
178	Sri. P. Abdurahiman	Bearer cum Roomboy	SSLC Failed
179	Sri. Unnikrishnan C.	Vehicle Cleaner	SSLC Failed
180	Smt. K.K. Santha	Sanitation Worker	SSLC Failed

### 3.3 PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SINo	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
3.	Sri.Jimmy Jose	Pursuing Ph.D (Full time) at IIT Kharagpur(Under QIP)
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.Saidalavi Kalady	Pursuing Ph.D Part Time at NIT Calicut
7.	Smt. Saleena N	Pursuing Ph.D Part Time at NIT Calicut
8.	Sri.Srinivasa T M	Pursuing Ph.D Full time at Hamburg University of Technology (TUHH), Germany (Sponsored by Govt. of India)
9.	Smt. Subhasree M	Pursuing Ph.D (Full time) at IIT Madras(Under QIP)
10.	Sri.Sumesh T A	Pursuing Ph.D (Full time) at IIT Kanpur(Under QIP)
11.	Smt. Subhashini R	Pursuing Ph.D (Full time) at IIT Madras(Under QIP)

#### 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.

#### DEPARTMENT OF CHEMICAL ENGINEERING

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

#### DEPARTMENT OF CHEMISTRY

- i) M.Sc (Chemistry)
- ii) Ph.D.



**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) Ph. D.

**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.

**SCHOOL OF NANO SCIENCE AND TECHNOLOGY**

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

**DEPARTMENT OF PHYSICS**

- 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**

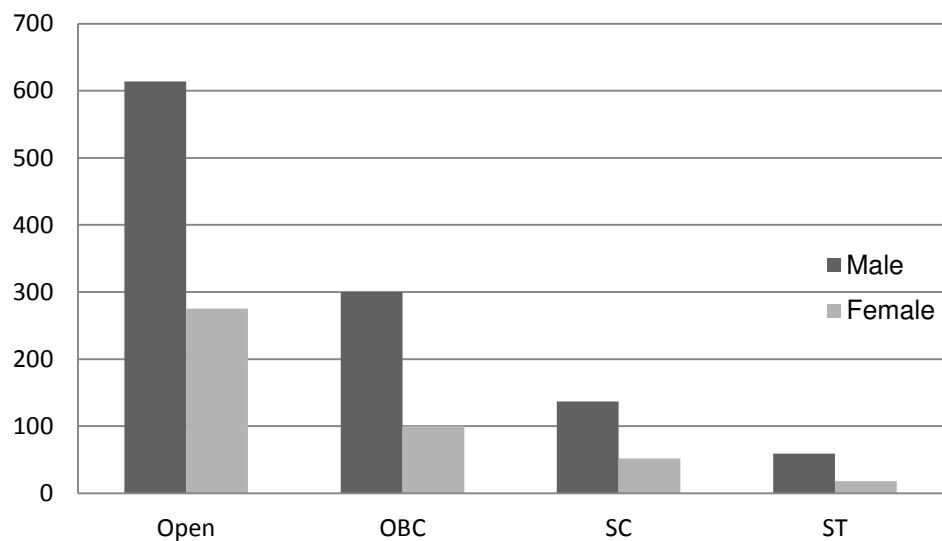
- i) MBA
- ii) Ph.D.

**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. The courses were included in institute time-table for all the first year students.

4.2 COURSE-WISE ENROLMENT WITH SEX, CASTE, BREAK UP 2013-2014

Level	Open		OBC		SC		ST		TOTAL
	Male	Female	Male	Female	Male	Female	Male	Female	
<b>B.Tech./B.Arch.</b>	382	155	194	50	95	31	42	13	962
<b>M.Tech.</b>	152	55	73	23	32	16	16	3	370
<b>MCA</b>	15	5	10	3	5	0	1	1	40
<b>MBA</b>	11	9	8	3	2	0	0	0	33
<b>M.Sc.</b>	13	17	5	10	1	4	0	1	51
<b>Ph.D.</b>	41	34	10	11	2	1	0	0	99
<b>Total</b>	614	275	300	100	137	52	59	18	1555



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

4.3.1. 1<sup>st</sup> semester B.Tech/B.Arch Admission 2013-14

SPECIALISATION	OP	OP(PH)	OP(OB)	OP(OB)PH	OP(SC)	OP(SC)PH	OB	OB(PH)	SC	SC(PH)	ST	ST(PH)	NRI	DASA	FOREIGN	MEA(WELFARE)	TOTAL	MALE	FEMALE	TOTAL
Architecture	20	0	0	0	0	0	13	0	7	0	4	0	0	5	0	0	49	22	27	49
Bio Technology	12	0	0	0	0	0	7	0	3	0	1	0	0	3	0	0	26	14	12	26
Civil Engineering	62	1	0	0	0	0	37	0	18	0	10	0	0	11	0	1	140	100	40	140
Chemical Engineering	40	2	0	0	0	0	24	0	14	0	3	0	0	9	0	0	92	61	31	92
Computer Science and Engineering	70	2	0	0	0	0	35	0	20	1	8	0	0	13	0	0	149	118	31	149
Electrical and Electronics Engineering	65	2	0	0	0	0	35	1	17	0	7	0	0	13	0	0	141	101	40	141
Electronics and Communication Engineering	71	1	0	0	0	0	35	1	19	0	10	1	0	9	0	0	148	94	54	148
Engineering Physics	14	0	0	0	0	0	8	0	4	0	1	0	0	1	0	0	28	23	5	28
Mechanical Engineering	68	1	0	0	0	0	34	0	17	1	9	0	0	13	1	0	144	141	3	144
Production Engineering	20	1	0	0	0	0	14	0	5	0	1	0	0	4	0	0	45	39	6	45
Total	422	10	0	0	0	0	229	2	117	2	50	1	0	76	1	3	962	713	249	962

4.3.2. 1<sup>st</sup> Semester M.Tech. 2013-2014

Course	Code		OP	OP-PH	OBC	OBC-PH	SC	SC-PH	ST	ST-PH	QIP	QIP (POLY)	DASA	SP	TOTAL	MALE	FEMALE	TOTAL
Civil	CE61	1.Structural Engineering	9	0	6	0	2	0	1	0	0	0	0	1	19	8	11	19
	CE62	2.Traffic & Transportation Engineering	10	0	6	0	2	0	1	0	1	0	0	0	20	9	11	20
	CE63	3.Offshore Structures	10	0	5	0	2	0	1	0	0	0	0	1	19	13	6	19
	CE64	4.Environmental Geotechnology	10	0	5	0	3	0	0	0	1	0	0	1	20	3	17	20
Computer	CS61	1.Computer Science & Engineering	10	0	5	0	2	0	1	0	2	0	0	1	21	15	6	21
	CS62	2.Computer Science & Engineering (Information security)	9	1	5	0	3	0	2	0	0	0	0	1	21	15	6	21
Electronics & Communication	EC61	1.Electronics Design & Technology	10	0	5	0	2	0	1	0	0	0	0	1	19	16	3	19
	EC62	2.Microelectronics & VLSI Design	9	0	5	0	3	0	2	0	0	0	0	1	20	16	4	20
	EC63	3.Telecommunication	6	0	3	0	2	0	1	0	0	0	1	1	14	10	4	14
	EC64	4.Signal Processing	5	0	3	0	2	0	1	0	1	0	0	1	13	10	3	13
Electrical	EE61	1.Instrumentation & Control Systems	10	0	5	0	3	0	1	0	0	0	0	2	21	15	6	21
	EE62	2.Power Systems	10	0	5	0	3	0	0	0	0	0	0	0	18	13	5	18
	EE63	3.Power Electronics	10	0	4	0	2	0	2	0	0	0	0	1	19	16	3	19
	EE64	4.Industrial Power & Automation	10	0	5	0	3	0	2	0	1	0	0	0	21	16	5	21
Mechanical	ME61	1.Industrial Engineering&Management	10	0	4	1	3	0	0	0	0	0	0	0	18	18	0	18
	ME62	2.Thermal Science	9	0	6	0	3	0	1	0	0	0	0	1	20	18	2	20
	ME63	3.Manufacturing Technology	10	0	5	0	3	0	0	0	0	0	0	0	18	17	1	18
	ME64	4.Energy Management	10	0	5	0	1	0	2	0	0	0	0	1	19	18	1	19
	ME65	5.Material Science&Technology	9	0	5	0	3	0	0	0	0	0	0	1	18	17	1	18
Nano Science & Technology	NS61	Nanotechnology	7	0	3	0	1	0	1	0	0	0	0	12	11	1	12	

4.3.3. M.Sc. (Tech.), MCA & Ph.D. 2013-2014

DEPARTMENT	COURSE	OPEN	OBC	OBC-PH	SC	ST	TOTAL	MALE	FEMALE	TOTAL	QIP	QIP(P)	F.TIME	P.TIME	EXTERNAL	TOTAL	
Mathematics(MMA)	<b>M.Sc.(Tech.)</b>	10	6	0	0	0	16	5	11	16	0	0	0	0	0	16	
Physics(PHA)		10	5	0	3	1	19	12	7	19	0	0	0	0	0	19	
Chemistry(CYA)		10	4	0	2	0	16	2	14	16	0	0	0	0	0	16	
Total		30	15	0	5	1	51	19	32	51	0	0	0	0	0	51	
Management studies	<b>MBA</b>	20	11	0	2	0	33	21	12	33	0	0	0	0	0	33	
Computer	<b>MCA</b>	20	13	0	5	2	40	31	9	40	0	0	0	0	0	40	
Architecture	<b>Ph.D</b>	1	0	0	0	0	1	0	1	1	0	0	0	1	0	1	
Biotechnology		5	1	0	0	0	6	4	2	6	0	0	5	1	0	6	
Chemical		9	2	0	0	0	11	7	4	11	0	0	10	1	0	11	
Civil		11	5	0	0	0	16	8	8	16	1	0	11	4	0	16	
Computer Science		5	1	0	1	0	7	4	3	7	0	0	7	0	0	7	
Chemistry		3	3	0	1	0	7	5	2	7	0	0	5	2	0	7	
Electronics		3	0	0	0	0	3	2	1	3	1	0	2	0	0	3	
Electrical		13	1	0	0	0	14	8	6	14	3	0	10	1	0	14	
Mathematics		8	2	0	0	0	10	1	9	10	0	0	8	2	0	10	
Mechanical		8	2	0	1	0	11	9	2	11	1	0	9	1	0	11	
Nano Science & Tech.		4	0	0	0	0	4	1	3	4	0	0	2	2	0	4	
Physics		3	3	0	0	0	6	3	3	6	0	0	3	0	3	6	
School of Management Studies		2	1	0	0	0	3	1	2	3	0	0					
Total			75	21	0	3	0	99	53	46	99	6	0	74	16	3	99

#### 4.4. Student's Total Strength 2013-14

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

BRANCH	OP			OP(PH)			OP(OB)			OP(OB)PH			OP (SC)			OP (SC)PH			OB			OB(PH)			
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
AR	6	14	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	13	0	0	0
BT	7	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0
CE	41	21	62	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	30	7	37	0	0	0
CH	27	13	40	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	19	5	24	0	0	0
CS	51	19	70	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	31	6	37	0	0	0
EE	46	19	65	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	25	10	35	1	0	1
EC	44	27	71	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	24	11	35	1	0	1
EP	11	3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	8	0	0	0
ME	67	1	68	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	34	0	0	0
PE	19	1	20	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	14	0	0	0
Total																									

BRANCH	SC			SC (PH)			ST			ST (PH)			NRI			DASA			FOREIGN			MEA (WELFARE)			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
AR	6	1	7	0	0	0	1	3	4	0	0	0	0	0	0	2	3	5	0	0	0	0	0	0	21	28	49
BT	1	2	3	0	0	0	1	0	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	14	12	26
CE	14	4	18	0	0	0	8	2	0	0	0	0	0	0	0	6	5	11	0	0	0	0	1	1	100	40	140
CH	9	5	14	0	0	0	1	2	3	0	0	0	0	0	0	3	6	9	0	0	0	0	0	0	61	31	92
CS	15	5	20	1	0	1	8	0	8	0	0	0	0	0	0	12	1	13	0	0	0	0	0	0	118	31	149
EE	14	3	17	0	0	0	5	2	7	0	0	0	0	0	0	7	6	13	0	0	0	1	0	1	101	40	141
EC	10	9	19	0	0	0	7	3	10	1	0	1	0	0	0	6	3	9	0	0	0	0	1	1	94	54	148

4.4.2. 1<sup>st</sup> Semester M.Tech

Sl. No	BRANCH	2013 Batch																									
		OPEN		OP-PH		OBC		OB - PH		SC		SC-PH		ST		ST-PH		QIP		QIP (POLY)		NRI		SP		TOTAL	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	CE61	4	5	0	0	2	4	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8	11
2	CE62	5	5	0	0	2	4	0	0	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	9	11
3	CE63	8	2	0	0	2	3	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	1	0	13	6
4	CE64	1	9	0	0	2	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3	17
1	CS61	8	0	0	0	4	1	0	0	1	1	0	0	1	0	0	0	1	1	0	0	0	0	0	1	15	6
2	CS62	7	2	1	0	5	0	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	1	0	15	6
1	EC61	7	3	0	0	5	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	16	3
2	EC62	7	2	0	0	5	0	0	0	1	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	16	4
3	EC63	5	1	0	0	1	2	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	10	4
4	EC64	4	1	0	0	2	1	0	0	2	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	10	3
1	EE61	6	4	0	0	5	0	0	0	1	2	0	0	1	0	0	0	0	0	0	0	0	0	2	0	15	6
2	EE62	6	4	0	0	5	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	5
3	EE63	9	1	0	0	3	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	16	3
4	EE64	8	2	0	0	3	2	0	0	3	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	16	5
1	ME61	10	0	0	0	4	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0
2	ME62	8	1	0	0	6	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	18	2
3	ME63	10	0	0	0	4	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	1
4	ME64	10	0	0	0	5	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	18	1
5	ME65	8	1	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	17	1
1	NS61	7	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	11	1

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

BRANCH	SC			ST			OPEN			OPEN-PC			OBC			OBC-PC			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
CED	3	6	9	2	1	3	19	25	44	0	0	0	9	13	22	0	0	0	33	45	78
CSD	1	4	5	2	1	3	17	6	23	1	0	1	9	1	10	0	0	0	30	12	42
ECD	7	2	9	5	0	5	27	9	36	0	0	0	13	3	16	0	0	0	52	14	66
EED	8	3	11	5	0	5	31	13	44	0	0	0	16	3	19	0	0	0	60	19	79
MED	12	1	13	2	1	3	49	2	51	0	0	0	24	1	25	1	0	1	88	5	93
NST	1	0	1	1	0	1	7	0	7	0	0	0	2	1	3	0	0	0	11	1	12
Total	32	16	48	17	3	20	150	55	205	1	0	1	73	22	95	1	0	1	274	96	370
MCA	5	0	5	1	1	2	15	5	20	0	0	0	10	3	13	0	0	0	31	9	40
MBA	2	0	2	0	0	0	11	9	20	0	0	0	8	3	11	0	0	0	21	12	33
M.Sc.	1	4	5	0	1	1	13	17	30	0	0	0	5	10	15	0	0	0	19	32	51
Ph.D.	2	1	3	0	0	0	41	34	75	0	0	0	10	11	21	0	0	0	53	46	99



4.4.4 Total number of Students of all semesters and all courses as on 31.03.2014

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

#### 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	2532	1140
Number of inmates in the Hostels (as on 31.03.2012)	3797	1257

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. S. Jayaraj**

##### Wardens:

1. Dr.M V. Vaidyan, EED
2. Dr.Md. Anaul Kabir, Bio Tech.
3. Mr.Bimal. P, Architecture
4. Dr. N. Selvaraju, Che. Engg.
5. Dr. Ashish Awasthi, Maths
6. Dr.A S Sajith, CED
7. Dr. S. Kumaravel, EED
8. Dr. C K Ali, CED
9. Dr.T. J. S Jothi, MED
10. Mr. Sreenu Naik Bhukya, CSED
11. Dr.Malladi V Pavan Kumar, Che. Engg.
12. Dr.Rama Subrahmanyam. K, ECED
13. Dr.Mahesh Kumar, Maths
14. Dr.Rajanikant G. K, Bio Tech.
15. Dr. Kodi Ranga Swamy, CED
16. Dr.Sunil Mathew, Maths
17. Dr.Jagadeesha T, MED
18. Dr.P.K. Madhavan Unni, Physics
19. Dr.K.Muhammad Shafi, SOMS
20. Dr.Praveen Sankaran, ECED
21. Dr.A Shaija, MED
22. Dr.Chithra A V, Maths
23. Dr.S.Sunitha, SOMS
24. Dr.R.Asawathi Nair, Bio Tech.
25. Dr.T.K. Sindhu, EED

**Hostel Manager (Officiating):** Sri. Venugopal. A

##### Stewards:

1. Sri. Sathyanandan P
2. Sri. Narayanankutty .P
3. 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.8,000/- 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.18, 000/- per month for engineering departments and Rs.16,000/- 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. However the practical lessons on playfields were delayed due to adverse rains and non-readiness on infrastructure front. Talent spotting could be completed during 2<sup>nd</sup> semester only. NITC teams 2013-14 in all games were selected by January 2014. Teams were soon trained and sent out to participate in National level Inter NIT tournaments at various NITs of the country. In-Campus Mass Participation Activities were conducted 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. 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. Kozhikode District League championship is one tournament we frequent every year. Participation was complete in events like Foot ball, Cricket, Basket ball, Badminton, Vol.ley ball, Hockey, Table tennis and Tennis.

#### 4.8. AWARDS

##### DEPARTMENT OF ARCHITECTURE

Sl. 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.

##### DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	Name	Award
1	Sri. M Sivakumar	Best Paper award in the Young Researchers Symposium (TYRES 2014) at NIT Warangal

##### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No.	Name	Award
1	T.J. Sarvoththama Jothi	JNCASR Visiting Fellowship Award 2013-2014 for three months

##### PHYSICAL EDUCATION SECTION

Sl. No.	Name of the team	Award/ Laurel won
1.	Inter NIT Badminton at NIT Trichy –Boys	Champions
2.	Inter NIT Badminton at NIT Trichy –Girls	Runner up
3.	Inter NIT Powerlifting at NIT Trichy –Boys	Overall Runner up
4.	Inter NIT Athletic meet at NITK –boys & girls	Overall Runner up
5.	Inter NIT Vol.ley ball at NIT Warangal - boys	Third spot
6.	Inter NIT Basket ball for Boys at NIT Trichy	Last Four
7.	Kozhikode District Cricket League tournament	A' Division

#### 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	132	21	84	17	122	92.42
CS	133	36	65	18	119	89.47
EC	143	38	66	24	128	89.51
EE	150	47	57	23	127	84.67
ME	143	28	72	27	127	88.81
PE	44	8	19	13	40	90.91
BT	9	4	5	0	9	100.00
CH	77	14	47	16	77	100.00
EP	19	8	9	1	18	94.74
<b>TOTAL</b>	<b>850</b>	<b>204</b>	<b>424</b>	<b>139</b>	<b>767</b>	<b>90.24</b>
AR	44	4	22	5	31	70.45

**Detail of M.Tech,MCA & Ph.D Students pssed out**

<b>Pgm. Code</b>	<b>Total Registered</b>	<b>1st class with Distinction</b>	<b>1st Class</b>	<b>2nd Class</b>	<b>Total Pass</b>	<b>Percentage</b>
CE61	16	8	7	1	16	100.00
CE62	17	11	6	0	17	100.00
CE63	15	7	8	0	15	100.00
CE64	15	12	3	0	15	100.00
CS61	21	14	7	0	21	100.00
CS62	18	10	8	0	18	100.00
EE61	27	9	18	0	27	100.00
EE62	18	10	8	0	18	100.00
EE63	19	9	10	0	19	100.00
EE64	19	13	6	0	19	100.00
EC61	17	8	8	1	17	100.00
EC62	19	11	8	0	19	100.00
EC63	16	4	11	1	16	100.00
EC64	18	7	10	1	18	100.00
ME61	15	6	9	0	15	100.00
ME62	16	9	7	0	16	100.00
ME63	13	8	5	0	13	100.00
ME64	14	8	6	0	14	100.00
ME65	12	10	2	0	12	100.00
NS61	10	6	4	0	10	100.00
<b>TOTAL M.Tech</b>	<b>335</b>	<b>180</b>	<b>151</b>	<b>4</b>	<b>335</b>	
MA61	10	2	6	2	10	100.00
CY61	8	3	5	0	8	
PH61	11	3	8	0	11	100.00
<b>TOTAL M.Sc Tech</b>	<b>29</b>	<b>8</b>	<b>19</b>	<b>2</b>	<b>29</b>	
MBA	26	14	12	0	26	100.00
MCA	42	6	31	5	42	100.00
Ph.D	21	0	0	0	21	100.00
<b>TOTAL</b>	<b>453</b>	<b>208</b>	<b>213</b>	<b>11</b>	<b>453</b>	<b>100.00</b>

**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. Apart from incubating the companies, TBI is guiding the prospective entrepreneurs of the region through the training programmes it conducts. 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 2013 - 2014	5
3	Number of units graduated from TBI during 2013 - 2014	6
4	Number of units preparing to graduate	3
5	Total number of units so far assisted by TBI	43
6	Total number of employees in the incubated companies	700

#### Programmes Conducted by TBI

- One day workshop on “INTELLECTUAL PROPERTY RIGHTS AWARENESS” conducted on 05 Oct 2013.
- FACULTY DEVELOPMENT PROGRAMME ON ENTREPRENEURSHIP conducted during 04 to 16 Nov 2013.
- ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 30 Dec 2013 to 23 Jan 2014.
- WOMEN ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 24 Feb to 20 Mar 2014
- TECHNICAL ENTREPRENEURSHIP DEVELOPMENT PROGRAMME (FOOD PROCESSING) conducted during 21 May to 27 Jun 2014.
- “MANAGEMENT DEVELOPMENT PROGRAMME” conducted for six days during March, April & May 2014

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

This Institute has been selected for funding under TEQIP-II. The total allocation under the TEQIP-II is 12.5 Crores spread over five years from 2010-11 to 2014-15. Funding under TEQIP-II is intended mainly for scaling up Post graduate education, research and other related activities. Some of the activities envisaged under the project are: providing Teaching and Research Assistantships for significantly increasing enrolment in Master’s and Doctoral programmes in Engineering disciplines, Faculty and Staff development, Establishment of new laboratories and Modernization and strengthening of libraries. During 2013-14, 18 faculty members have been deputed for International and National Conferences, Workshops etc. 83 Junior faculty members were given inhouse training on basics of pedagogy. 32 senior faculty members have attended the Management Capacity Development Programme (Academic Leadership Programme) conducted by IIM Kozhikode. 2 Senior Faculty members have attended Academic Leadership Programme at Indian Institute of Technology Delhi. 6 Research Scholars have been sponsored for the International Conferences abroad. A number of PG and Ph.D. Scholars were sponsored for the national level events like conferences. The procurement of equipment for strengthening PG Laboratories and research is in progress. 6 Faculty Development Programme have been conducted by the faculty of the Institute with support from TEQIP, 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. Ph. Ds completed under Existing Scheme: NIL
- b. On-going Ph. Ds under the Existing Scheme:

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1.	Ar. Bimal.P,	Dr.P.PAnilkumar	Landuse impacts &parametric characterization of Kerala’s urban pattern	Internal
2.	Ar. Chithra.K,	Dr.P.PAnilkumar & Dr.Naseer.M.A	Landuse Impacts’ analysis in a medium scale urban area -	Internal
3.	Ar. Muhammed Sharief.	Dr.P.PAnilkumar &Dr.Naseer.M.A	Climatic comfort as applied in vernacular architecture	PT
4.	Ar. Katiravan,	Dr.P.PAnilkumar & Dr.Arun	Norms for green buildings for the Indian context	PT
5.	Ar. Pradeep.P,	Dr.P.P.Anilkumar	Built up space vs Infrastructure capacity assessment.	PT

6.	Ar. ASri.utha.K.	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.	Smt. Vidya G Mohan	Dr. Naseer M A	Urban transportation	PT

c. **Proposed Ph.D. programmes:** Nil

**DEPARTMENT OF CIVIL ENGINEERING**

a. **Ph.Ds completed under Existing Scheme:** NIL

b. **On-going Ph. D under existing scheme:**

Sl. No.	Name	Guide	Area of specialization	Scheme (QIP/PT/FT)
1	V Vishnu	Dr. P Syamala	Water Resources Engg.	PT
2	Madhu Raj P C	Dr. J Sudhakumar	Building Science Engg.	QIP
3	Savitha C	Dr. S Chandrakaran Dr T.M. Madhavan Pillai	Geotechnical Engg	FT
4	P Srinivasa Nagu	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg.	QIP
5	Anil Kumar P.S	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg.	QIP
6	Hari G	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg.	PT
7	Gopan M	Dr. Santosh G Thampi	Environmental Engg.	PT
8	Shamla Rasheed	Dr. K Sasikumar Dr P Syamala	Water Resources Engineering	PT
9	K Smitha	Dr. Santosh G Thampi	Water Resources Engg.	FT
10	Sreela P K	Dr MVLR Anjaneyulu	Transportation Engg.	QIP
11	Sivakumar M	Dr MVLR Anjaneyulu	Transportation Engg.	PT (internal)
12	Sabna V	Dr. Santosh G Thampi	Environmental Engg.	FT
13	Chithra N.R	Dr. Santosh G Thampi	Water Resources Engg.	PT (internal)
14	Anu V Thomas	Dr. J Sudhakumar	Building Science Engg.	QIP
15	Anjana Santhakumar	Dr. N Ganesan Dr. P V Indira	Structural Engg	QIP
16	Anjana S	Dr MVLR Anjaneyulu	Transportation Engg.	FT
17	Aneesha Balaji	Dr. T M Madhavan Pillai Dr. Praveen Nagarajan	Structural Engg	PT
18	Manjula N.K.	Dr. Praveen Nagarajan Dr. T M Madhavan Pillai	Structural Engg	FT
19	Yashida Nadir	Dr. Praveen Nagarajan Dr. Mohammed Ameen	Structural Engg	FT-QIP
20	Seena P.	Dr. N Ganesan Dr. P V Indira	Structural Engg	FT-QIP
21	Sri. Ragesh P.P.	Dr. V Mustafa	Offshore Structures	FT-QIP
22	Smt. Sreelekha M.G.	Dr MVLR Anjaneyulu	Transportation Engg.	FT-QIP
23	Sri.B.Venkata Subbaiah	Dr. V Mustafa Dr. Santhosh G Thampi	Offshore Structures	FT-QIP-Poly
24	Safeer ali Abbas Ali	Dr. Arun C	Building Science Engg.	FT

25	Mohammed Abdul Akbar	Dr. V Mustafa	Structural Engg.	FT
26	Binil Gopinath	Dr MVL R Anjaneyulu	Transportation Engineering	FT
27	Asha C. Raju	Dr. Mathava Kumar S	Environmental Engg.	FT
28	Lila P.C.	Dr MVL R Anjaneyulu	Transportation Engineering	PT
29	V.S.Sanjay Kumar	Dr. C Arun	Construction Management	PT
30	Bybin Paul	Dr MVL R Anjaneyulu	Transportation Engineering	PT
31	Nidhi M	Dr. P V Indira	Structural Engg	FT
32	Raghu Kumar C.	Dr. Vinu Palliserry Dr. T P Somasundaran	Bio Mechanics	FT
33	Beena B.R.	Dr. A P Shashikala	Structural Engg	PT
34	Shiji P.	Dr. C Arun	Construction Management	FT
35	Bindu Sugunan	Dr. Santhosh G Thampi	Environmental Engg.	PT
36	Muneera C.P.	Dr. K Krishnamurthy	Transportation Engineering	FT
37	Saji K.P.	Dr. T M Madhavan Pillai Dr. Sajith A S	Structural Engg	PT
38	Abey E.Thomas	Dr. T P Somasundaran Dr. Sajith A S	Structural Engg	FT
39	Biju M.S.	Dr. Santhosh G Thampi	Environmental Engg.	PT
40	Anil Joseph	Dr. S Chandrakaran Dr. N Ganesan	Geotechnical Engg	PT
41	Ansu V	Dr MVL R Anjaneyulu	Transportation Engineering	QIP
42	Devika Babu	Dr MVL R Anjaneyulu	Transportation Engineering	FT
43	Harikumar M	Dr. S Chandrakaran Dr. N Sankar	Geotechnical Engg	FT
44	Greeshma Nizy Eujine	Dr. S Chandrakaran Dr. N Sankar	Geotechnical Engg	FT
45	Lamanto T. Somervell	Dr. Santhosh G Thampi	Hydraulics	FT
46	Subhodeep Jana	Dr. Vinu Palliserry	Bio Mechanics	FT
47	Prashob P S	Dr. T P Somasundaran	Offshore Structures	FT
48	Sahana Ranganatha	Dr. N Ganesan Dr. P V Indira	Structural Engg	FT
49	Sivakumar B	Dr. K Krishnamurthy	Transportation Engineering	PT
50	Sabitha N M	Dr. Santhosh G Thampi Dr. Sathish Kumar D	Hydraulics	PT
51	Dipty Sarin Isaac	Dr. S Chandrakaran Dr. K Rangaswamy	Geotechnical Engg	PT
52	Arun Baby Zacharia	Dr. Harikrishna M Dr MVL R Anjaneyulu	Transportation Engineering	FT
53	Subin Geevarghese Samuel	Dr. C Arun	Construction Management	FT
54	Drisyia.T	Dr. Sathishkumar D	Hydraulics	FT
55	Mandala Siva Priyanka Yadav	Dr. Mathavakumar S	Geotechnical Engg	FT
56	Neena.M.Joseph	Dr. Harikrishna M Dr MVL R Anjaneyulu	Transportation Engineering	FT
57	Ciby Jacob Cherian	Dr. Sajith A S Dr. T M Madhavan Pillai	Structural Engg	FT
58	Irshad Abdul Azeez.P	Dr. P V Indira Dr. N Ganesan	Structural Engg	FT
59	Prakash.C	Dr. Santhosh G Thampi	Environmental Engg.	PT
60	Sandeep.M.S	Dr.Praveen Nagarajan Dr. A P Shashikala	Structural Engg	FT

c. Proposed Ph.D. programmes: Nil

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**a. Ph. Ds completed under Existing Scheme:**

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

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

Sl. No.	Name	Guide	Area of specialisation	Scheme (QIP/PT/ FT)
1.	Sri. Manu J Pillai	Dr. M P Sebastian, Dr.S.D Madhu Kumar	Mobile Networks	PT
2.	Sri. K.S.Valasaraj	Dr. Vineeth Paleri	Compilers	QIP
3.	Sri. Shyam P Joy	Dr. Priya Chandran	Information Security	PT
4.	Sri. Saidalavi Kalady	Dr. V K Govindan	Intelligent agents	PT
5.	Smt. Saleena N	Dr. Vineeth Paleri	Compilers	PT
6.	Smt. Anu Mary Chacko	Dr.S D Madhu Kumar	Network Security	PT
7.	Smt. Rekha R.	Dr. Vineeth Paleri	Compilers	FT
8.	Smt. Pournami P.N.	Dr. V.K. Govindan	Image Processing	PT
9.	Sri. Vinith R	Dr. V.K. Govindan	Image Processing	PT
10.	Smt. Pamela Vinita Eric	Dr. K. Murali Krishnan	Algorithms	PT
11.	Sri. Jayaraj P B	Dr. K. Murali Krishnan	Operating Systems	PT
12.	Sri. Jereesh A S	Dr. V.K Govindan	Image Processing	PT
13.	Smt. Lijiya A	Dr. K. Murali Krishnan	Image Processing	PT
14.	Smt. Saniya A	Dr. S D Madhu Kumar	Cloud Computing	PT
15.	Sri. Jithin R	Dr. Priya Chandran	Information Security	FT
16.	Sri.Unnikrishnan P	Dr. V.K.Govindan	Pattern Recognition	FT
17.	Smt.Shabeera T P	Dr. S D Madhu Kumar	Cloud Computing	FT
18.	Ranju Ann George	Dr.Sudeep K S	Algorithms & Graph Theory	FT
19.	Nishamol P H	Dr. G. Gopakumar	Bio Informatics	FT
20.	K Nagaraju	Dr.Sudeep K S	Algorithms & Graph Theory	FT
21.	Jeethu V Devasia	Dr. Priya Chandran	Algorithms	FT



22.	Sreejini K S	Dr. V.K.Govindan	Image Processing	FT
23.	Sameera Muhammed Salam	Dr. K Muralikrishnan	Graph Theory	FT
24.	Remya K Sasi	Dr. V.K Govindan	Image Processing	FT
25.	Nandini J Warriar	Dr. K Muralikrishnan	Graph Theory	FT
26.	Daphna Chacko	Dr. K Muralikrishnan	Graph Theory	FT
27.	Arun K S	Dr. V.K.Govindan	Image Processing	FT
28.	Anita Brijit Mathew	Dr. S D Madhu Kumar	Cloud Computing	FT
29.	Ojus Thomas Lee	Dr. S D Madhu Kumar, Dr.Priya Chandran	Cloud Computing	FT
30.	Sunil Kumar P V	Dr. G. Gopakumar	Bio Informatics	FT
31.	Sarang Sukumar A	Dr. G. Gopakumar	Bio Informatics	FT
32.	Gilesh M P	Dr. S D Madhu Kumar	Cloud Computing	FT
33.	Mahija K C	Dr. K A Abdul Nazeer	Bio Informatics	FT
34.	Vishak R	Dr. K A Abdul Nazeer	Bio Informatics	FT
35.	Shamna P	Dr. V.K Govindan	Image Processing	FT

c. **Proposed Ph.D. programmes: NIL**

**DEPARTMENT OF ELECTRICAL ENGINEERING**

a. **Ph. Ds completed under Existing Scheme:**

SI No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Sri. Vinod Pottakulath	Dr. Elizabeth P Cherian & Dr. R Sreeram Kumar	Power Systems	FT
2	Smt. Subha. D.P	Dr. Paul K Joseph	Biomedical Engineering.	PT

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

SI. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	A Dolly Mary	Dr. Abraham T Mathew & Dr. Jeevamma Jacob	Control Systems	QIP
2	R Sunitha	Dr. R Sreeram Kumar & Dr. Abraham T Mathew	Power system security	Internal
3	Sreekanth M	Dr. Abraham T Mathew	Control Systems	FT
4	Shyma Muhammed	Dr. Abraham T Mathew	Control Systems	FT
5	Mary Reena K E	Dr. Abraham T Mathew	Control Systems	QIP
6	Ajay Babu	Dr. Ashok S	Investigations on Plug-in Vehicles	FT
7	Rajeev T	Dr. Ashok S	Cloud Computing Applications in DG	QIP
8	Vasanthi V	Dr. Ashok S	Power Quality issues.	QIP
9	Sujo George	Dr. Ashok S	Automation	FT
10	Maya G	Dr. Elizabeth P Cherian	Power Systems	FT
11	Parthish Kumar	Dr. Jeevamma Jacob	Control Systems	PT
12	M Pala Prasad Reddy	Dr. Jeevamma Jacob	Control Systems	FT
13	T Srinivas Sirish	Dr. K S Sivanandan	Control Systems	QIP
14	Shalu George	Dr. K S Sivanandan	Control Systems	QIP
15	Jinu K T	Dr. K S Sivanandan	Control Systems	PT
16	Ashmi M	Dr. K S Sivanandan	Control Systems	FT

17	Sujalakshmi V	Dr. K S Sivanandan & Dr. K M Moideenkutty	Control of self-balancing system	PT
18	Rehna Nalakath	Dr. M P Nandakumar.	Control Systems, Optimal Control	FT
19	K Dheeraj	Dr. M P Nandakumar.	Control Systems, Optimal Control	FT
20	T Ananthan	Dr. M.V. Vaidyan	Control Systems	FT
21	Shijoh V	Dr. M.V. Vaidyan	Control Systems	FT
22	Anirudh K M	Dr. Mukti Barai	Power Electronics	FT
23	Meenu D Nair	Dr. Mukti Barai	Power Electronics	FT.
24	Vivek G	Dr. Mukti Barai	Power Electronics	FT
25	Saritha M	Dr. Paul K Joseph & Dr. Abraham T Mathew	Biomedical image processing	FT
26	Asha ND	Dr. Paul K Joseph	Cardiac signal processing	FT
27	Jayachandran ES	Dr. Paul K Joseph	Biosignal processing	FT
28	Reeda K	Dr. Paul K Joseph	Nerve conduction studies	PT
29	Surya S Nair	Dr. Paul K Joseph	Biomedical Engineering	FT
30	Thasneem Fathima N K	Dr. Paul K Joseph	Biomedical Engineering	FT
31	O. Asokan	Dr. R Sreeram Kumar	Investigations on Voltage Instability Problems	PT
34	Ismayil	Dr. R Sreeram Kumar & Dr. Sindhu T K	Power Systems	QIP
35	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
36	Binu K Baby	Dr. Saly George	Power Electronics	FT
37	Nafeesa K	Dr. Saly George	Power Electronics	FT
38	Siny Paul	Dr. Sindhu T K	Nanocomposite Insulators	PT
39	Nisha P V	Dr. Sindhu T K & Dr. Elizabeth P Cherian	Electromagnetic interference	PT
40	Sony Kurian	Dr. Sindhu T K & Dr. Elizabeth P Cherian	Power Systems	FT
41	Devika KB	Dr. Susy Thomas	Control Systems	FT
42	Mija S.J	Dr. Susy Thomas	Dynamic Control System	Internal
43	Rinu Alice Koshy	Dr. Susy Thomas	Control Systems	PT
44	Mini V	Dr. T. K. Sunil Kumar	Power Systems	QIP
45	Priya N	Dr. T. K. Sunil Kumar	Control Systems	FT
46	Shinghare D Y	Dr. T. K. Sunil Kumar	Power Systems	QIP (Poly)
47	Suresh P Damodaran	Dr. T. K. Sunil Kumar	Power Systems	QIP
48	Febina Beevi	Dr. Jeevamma Jacob & Dr. T.K. Sunil Kumar	Control Systems	FT
49	Guguloth Ramesh	Dr. T. K. Sunil Kumar	Power Systems	FT
50	John George	Dr. T.L. Jose & Dr. Jeevamma Jacob	FACTS Controllers for Power Quality Improvement	FT
51	Joseph Peter	Dr. Rijil Ramchand	Constant switching frequency hysteresis controllers	FT
52	Biju K	Dr. Rijil Ramchand	Grid interfacing of renewable energy sources using multilevel inverters	PT
53	Pratheesh K J	Dr. Rijil Ramchand, Dr. Jagadanand G	Multi Level Inverters	FT
54	Deepthi S Nair	Dr. Saly George, Dr. Jagadanand G	Torque ripple reduction in BLDC motors	FT
55	Nithin Raj	Dr. Saly George, Dr. Jagadanand G	Condition monitoring of Induction Machine	FT
56	Abhilash T Vijayan	Dr. Ashok S	Process Automation	QIP

57	Jino M Pattery	Dr. Elizabeth P Cheriyan&Dr.RijilRamchand	Power Systems	PT
58	Sivaprasad	Dr. Kumaravel S & Dr. S Ashok	MicroGrid	FT
59	Rajashree Raghavan	Dr. Susy Thomas	Control Systems	QIP
60	M J Laly	Dr. Elizabeth P Cheriyan& Dr. Abraham T Mathew	Control Systems	QIP
61	Sandeep J	Dr.RijilRamchand& Dr. S Ashok	Power Electronics	FT
62	Rohit K Mathew	Ashok S & Kumarvel S	Power Systems	FT
63	Haseena K A	Dr.Jeevamma Jacob & Dr. Abraham T Mahew	Control Applications in Power Systems	FT
64	Jaya C K	Dr. Abraham T Mahew	Control Applications in Power Systems	FT
65	Smt.Parvathy	DrM.P.Nandakumar	Optimal Control	FT

**c. Proposed Ph.D. Programmes:**

SI No.	Name	Guide	Area of specialization	Scheme (QIP/PT/FT)
1	Retheep Raj	Dr. K S Sivananadan	Control Applications in Power Systems	QIP
2	Nikhil Binoy C	Dr. Susy Thomas	Control Applications in Power Systems	QIP

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**a. Ph. Ds completed under Existing Scheme :**

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Ameer P M	Dr. Lillykutty Jacob	Underwater Sensor Networks	PT
2	Harigovindan V P	Dr. Lillykutty Jacob & Dr. A V Babu	Vehicular Networks	FT
3	Anzar S.M.	Dr. P.S. Sathidevi	Multi-biometrics	FT
4	Manju Manuel	Dr. Elizabeth Elias	2D digital filter design	QIP
5	V.P.Harigovindan	Dr. A.V. Babu	Wireless Networks	FT

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

SI. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Thafasalliyas V. P.	Dr. Sameer S. M.	Wireless Communications	FT
2	Cibile K. Kanjrathumkal	Dr. Sameer S. M. & Dr.Lillykutty Jacob	Wireless Communications	QIP
3	Muneer P.	Dr. Sameer S. M.	Wireless Communications	FT
4	Namitha A. S.	Dr. Sameer S. M.	Wireless System Design	FT
5	FintoRaphel	Dr. Sameer S. M.	Multimedia Transmission over Wireless Networks	FT
6	Cibil K	Dr. Lillykutty Jacob &	Cooperative Communications	QIP

		Dr. S M Sameer		
7	Anil K Jacob	Dr. Lillykutty Jacob	Body Area Networks	FT
8	Jalaja M J	Dr. Lillykutty Jacob	Underwater Sensor Networks	QIP
9	Mary Reena	Dr. Lillykutty Jacob Dr. Abraham T Mathew	Networked Control Systems	QIP
10	Shamna H R	Dr. Lillykutty Jacob	Cooperative Networks	QIP
11	Deepthi Renjith	Dr. Lillykutty Jacob	IPv6 over Wireless PAN	QIP
12	Gilesh M P	Dr. Lillykutty Jacob & Dr. S D Madhukumar	Cloud Computing	QIP
13	Lalmohan K.S	Dr. Deepthi P.P. & Dr. P.S.Sathidevi	Secure Communication	PT
14	Jayakumar E.P	Dr. P.S.Sathidevi	Speech Processing	PT
15	Lekshmi M.S.	Dr. P.S.Sathidevi	Speech Processing	PT
16	Sreelatha G.	Dr. P.S.Sathidevi	Image Processing	QIP
17	K S Lalmohan	Dr. P S Sathidevi/ Dr. Deepthi P P	Secure Communication	PT
18	Sudhish N George	Dr. Deepthi P P	Multimedia Security	PT
19	Celine Mary Stuart	Dr. Deepthi P P	Secure Channel Coding	QIP
20	Jilna P	Dr. Deepthi P P	Design of low complex cryptographic primitives FT	FT
21	Abhilash Antony	Dr. Sreelekha G	Video Compression	FT
22	Arun Varghese	Dr. Sreelekha G	Video object recognition	QIP
23	Meena V	Dr. G Abhilash	Signal Processing	Part- time
24	Gayatri Parthasarathi	Dr. G Abhilash	Signal Processing	Full-time
25	T James	Dr. Elizabeth Elias	Multirate Signal Processing	PT
26	Bindiya T S	Dr. Elizabeth Elias	Multirate Signal Processing	PT
27	Shaeen K	Dr. Elizabeth Elias	Multirate Signal Processing	FT
28	Nisha Haridas	Dr. Elizabeth Elias	Multirate Signal Processing	FT
29	Sakthivel	Dr. Elizabeth Elias	Multirate Signal Processing	PT
30	Remya Jayachandran	Dr. P.C subramaniam & Dr. Rama Komaragiri	Microelectronics	FT
31	BindimaT.	Dr. Elizabeth Elias	Multi-rate Filter Banks	QIP
32	Shahnaz K V	Dr.C.K.Ali	Wireless Communication	FT
33	Deepak P M	Dr.C.K.Ali	Wireless Communication	FT
34	Sidharth Shelly	Dr. A.V. Babu	Wireless Networks	FT
35	Deepak K.S.	Dr. A.V. Babu	Wireless Networks	PT
36	Geethu K.S.	Dr. A.V. Babu	Underwater Acoustic Networks	
37	Upama Rajan	Dr. A.V. Babu	Wireless Networks	FT

38	Rambabu K	Dr. A.V. Babu	Wireless Networks	FT
39	Suja K.J	Dr. Rama Komaragiri	MEMS	PT
40	Ranjith R	Dr. Rama Komaragiri	VLSI	FT
41	Remya Jayachandran	Dr. Rama Komaragiri Dr. P.C. Subramaniam	VLSI	FT
42	Krishnapriya S	Dr. Rama Komaragiri	VLSI	FT
43	Hari C. V.	Dr. Praveen Sankaran	Pose Classification	FT
44	Rashmi M.	Dr. Praveen Sankaran	Manifold Embedding	FT
45	Deepa N	Dr. Praveen Sankaran	Nonlinear Image-Processing	FT

**c. Proposed Ph.D Programmes:NIL**

**DEPARTMENT OF MECHANICAL ENGINEERING**

**a. Ph. Ds completed under Existing Scheme:**

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Manu V. Thottackkad	Dr. P.K. Rajendra Kumar and Dr. K. Prabhakaran Nair	Evaluation of Tribological Behaviour of Nano-Lubricants	FT
2	Baiju V	Dr. C. Muraleedharan	Theoretical and experimental investigations on solar adsorption refrigeration systems	FT
3	Sreejith CC	Dr. C. Muraleedharan and Dr. Arun P	Modelling and nalysis of steam assisted air gasification of biomass	FT
4	Ahmed Saleel C	Dr. S. Jayaraj and Dr. A. Shaaja	Thermal sciences	FT
5	Vinay, V. Panicker	Dr. R. Sridharan	Modelling and Analysis of Distribution, Allocation and Routing Decisions in a Two-Stage Supply Chain	PT
6	Varaprasad, G.,	Dr. Anandakuttan B. Unnithan, A.B	A Study on Consumer adoption of Self-Service Technologies in Banking	PT
7	Rajesh Vanchipura	Dr. R. Sridharan	Development and Analysis of Heuristics for scheduling a Flow Shop with Sequence Dependent Setup time	QIP

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

Sl. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme FT/PT /QIP
1	Ciby Thomas	Dr. Ghulam Jilani	Thermal Science	PT
2	Bipin Balaram	Dr. M.D. Narayanan & Dr. P. K. Rajendra kumar	Design	FT
3	M. Srinivas	Dr. S. Jayaraj	Energy	PT
4	K Jayakumar	Dr. M. A. Joseph & Dr. Jose Mathew	Fabrication of particulate composites	PT
5	Shijo Thomas	Dr. C. B. Shoban	Nano Technology	PT

Sl. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme FT/PT /QIP
6	Bharatbhushan V Kamble	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
7	Jesseela S	Dr. C. B. Shoban and Dr. Sarith P Sathian	Nano Technology	QIP
8	Sri. Talari Chinna Pamulety,	Dr. V. Madhusudanan Pillai	Analysis of information sharing and inventory policies on supply chain performance	FT
9	Favas T K	Dr. Ghulam Jilani	Thermal Science	PT
10	A.P. Sudheer	Dr. R. Vijayakumar and Dr. Mohandas	Robotics	PT
11	Sekar K	Dr. Allesu Kanjirathinkal and Dr. M A Joseph	Al alloy pressure casting	PT
12	Rohinikumar. B.	Dr. C. Muraleedharan	Analysis of solar thermal water pumping system	PT
13	Umarali, K	Dr. T. Radha Ramanan and Dr. R. Sridharan	Scheduling	PT
14	Sreenath A.M.	Dr. Rajendrakumar, P.K.and Dr. M.L.Joy	Design	PT
15	Sajith K.G.	Dr. C. Muraleedharan	Studies on hybrid solar thermal-pv system	PT
16	Sreedhar Babu	Dr. K. Prabhakaran Nair and Dr. Rajendrakumar, P.K.	Tribology	FT
17	Shiyas C. R.,	Dr. V. Madhusudanan Pillai	Development and analysis of cell heterogeneity based models for the design of cellular manufacturing	FT
18	Suresh Kumar M.	Dr. V. Madhusudanan Pillai	Planning annualised hours	PT
19	Arunkumar O.N	Dr. T. Radha Ramanan	Working capital Management	FT
20	J. Laxmi Lalitha,	Dr. V. Madhusudanan Pillai	Manufacturing execution system	PT
21	Rajesh T N P	Dr. T J Sarvoththama Jothi and Dr. T. Jayachandran (ISRO)	Experimental Studies in Vortex Chamber	FT
22	Vinod V,	Dr. M.D. Narayanan	Synchronization in mechanical systems	FT
23	PV Manu	Dr. A. Ramaraju	Thermal Science	PT
24	N. Jayasree	Dr. T. Radha Ramanan and Dr. R. Sridharan	Forecasting	QIP
25	Pradeepmon T G	Dr. N. Sudarsan	Industrial Engineering	PT
26	Senthil	Dr. R. Sridharan	Reverse logistics	PT
27	Kishor Kumar V V	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
28	Deepa Mohan	Dr. N. Sudarsan	Industrial Management	PT
29	Nidhi M. B.,	Dr. V. Madhusudanan Pillai	Green supply chain management	PT
30	Sajan T John	Dr. R. Sridharan	Reverse logistics	FT
31	Rakesh Hari	Dr. C. Muraleedharan	Entropy estimation during phase change in heat pipes	FT
32	K Pratheesh	Dr. M A Joseph, Dr. M Ravi	Al alloy structure modification	PT
33	Eby Dabid	Dr. R. Manu	Manufacturing Technology	FT

Sl. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme FT/PT /QIP
34	Rajesh VR	Dr. Biju T Kuzhiveli	Thermal Sciences	FT
35	Premchand VP,	Dr. M.D. Narayanan and Dr. A.S.Sajith, CED	Nonlinear vibration absorbers	FT
36	Salumuri. S. L. Rao,	Dr. A. Shaija and Dr. S. Jayaraj	Design and development of Fuel Cell	QIP
37	Remil George Thomas	Dr. R. Manu	Manufacturing technology	PT
38	Chacko Preno Koshy	Dr. Rajendrakumar, P.K.	Design	FT
39	Monikantan V	Dr. M. A. Joseph and Dr. P K Rajendrakumar	Wear studies of nanocomposite	FT
40	Amit Aravind	Dr. ML Joy and Dr. K. Prabhakaran	Development of a new lubricant	FT
41	Basil Kuriachen	Dr. Jose Mathew	Manufacturing	FT
42	Jobin M.V.	Dr. T. Radha Ramanan	Lean Manufacturing	PT
43	Pretheesh K	Dr. Allesu Kanjirathinkal, M A	Strengthening of Al castings	PT
44	Saijal KK	Dr. K. Prabhakaran Nair and Dr. ML Joy	Optimization of helicopter rotor	PT
45	Shaiju M R	Dr. S Jayaraj and Dr. Arun P	Gas turbine diagnosis	PT
46	Rony Johnson,	Dr. S Jayaraj and Dr. Arun P	Solar thermal hybrid systems	PT
47	Rani S	Dr. K. Prabhakaran Nair and Dr. ML Joy	Development of a new lubricant	QIP
48	Abdul Nazar K. P.,	V. Madhusudanan Pillai	Analysis of pull control policies for multi-product manufacturing systems	FT
49	Anish M N	Dhanish P B and Dr R Sridharan	Quality management	QIP
50	Eldose KK	Dr. R. Sridharan	Supply chain scheduling	PT
51	Jagadessah T	Dr. T. J Sarvoththama Jothi	Stress and Thermal analysis in welding	PT
52	Mithun Paul	Dr. T. Radha Ramanan	Scheduling	FT
53	Joseph Babu	Dr. ML Joy and Dr. K. Prabhakaran Nair	Development of a new grease	FT
54	Ajith Kuriakose	Dr. M.D. Narayanan	Modeling of complex systems using fractional calculus	FT
55	Mubarak.M,	Dr. A. Shaija	Expt. investigations on the use of biofuels produced from Chlorella Pyrenoidosa as diesel engine fuel	FT
56	Sreejith B J	Dr. N. Sudarsan	Industrial Engineering	PT
57	Madhu V V	Dr. Dhanish P B	Quality management	PT
58	DeepanRaj B	Dr. S. Jayaraj Dr. V. Subramaniam	Bio-gasification	FT
59	Solomon joseph	Dr. R. Sridharan	Cross docking in supply chains	FT
60	Joby George,	Dr. V. Madhusudanan Pillai	Analysis of inventory policies in supply chain	FT
61	Rupesh S	Dr. Arun P and Dr. C Muraleedharan	Biomass gasification	FT
62	Ramesh M	Dr. Dhanish P B	Quality management	FT

Sl. No	Name of the student and Reg. No.	Name of guides	Area of Specialization	Scheme FT/PT /QIP
63	Dileep k	Dr. S. Jayaraj	Thermal Science	PT
64	Jobin Varghese	Dr. P.K. Rajendra kumar and Dr. K.S. Sivanandan	Design	FT
65	Vinod O M	Dr. Dhanish P B	Statistical Process Analysis	QIP
66	Ladeesh V G	Dr. R. Manu	Electrochemical Discharge Machining	FT
67	Anjana Viswanath	Dr. R.Sridharan	Flow shop scheduling	FT
68	Kiran Mohan	Dr. V. Madhusudanan Pillai	Ergonomic Design of Agricultural Implements	FT
69	Rajesh Kana,	Dr. A. Shaija	Expt. investigations on the use of biofuels produced from Avogadro as diesel engine fuel	FT
70	Srinivasala Rao,	Dr. A. Shaija	Flame acoustic interaction applicable to gas turbines combustion instabilities	PT
71	Lokesh. B naradeshi	Dr. S. Jayaraj		FT
72	Shruthi C M	Dr. M.L. Joy	Robotics	FT
73	Jabir E.	Dr. R. Sridharan and Dr. V. Vinay Panicker	Green Logistics	FT
74	Rakesh. L	Dr. T.J.S. Jothi	Jet Flows	FT
75	Ajyuk Raj	Dr. R. Sridharan and Dr. V. Vinay Panicker	Integrated Airline Fleet Assignment and Crew Scheduling Problem	FT
76	Jilse Sebastian	Dr. C. Muraleedharan	Enzymatic Transesterification of Vegetable Oils	FT
77	Joel George	Dr. C. Muraleedharan and Dr. Arun P	Experimental Analysis of Fluidised Bed Gasification	FT
78	K. Srikanth	Dr. R. Vijayakumar and Dr. Abraham T Mathew	Robotics	FT

**C. Proposed Ph.D. programmes :**

- o PhD programmes in emerging areas of mechanical engineering such as Green energy, Bio medical engineering, nano-tribology, fluid acoustics.

**DEPARTMENTS OF MATHEMATICS**

**a. Ph.D.s completed under Existing Scheme: Nil**

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Deepak D	Dr.Sunil Jacob John	Rough sets	FT
2	Priyadarsan K P	Dr. Satyananda Panda	Fluid Dynamics	FT
3	Shahida.A.T	Dr. M.S.Sunitha.	Topological Graph Theory	FT
4	Bajeel.P.N	Dr. Mahesh Kumar	Reliability	FT
5	K.M. Abdushukoor	Dr. C.M.Sushama	Network Optimization.	FT
6	Naveen.P	Dr. Chithra.A.V	Algebraic Graph Theory	FT
7	Rubell Marion Lincy	Dr. Jessy John	Stochastic Modelling	FT
8	Vijitha Mukundan	Dr.Ashish Awasthi	Singularly Perturbed Differential Equations	FT



9	Siju.K.C	Dr. Mahesh Kumar	Reliability Optimization	FT
10	Lakshmi C	Dr. Ashish Awasthi	Numerical Analysis	FT
11	Dhanyamol M.V	Dr. Sunil Mathew	Convexity in weighted graphs	FT
12	Shijina V	Dr.Sunil Jacob John	Generalized Set Theory – Multiple Sets.	FT
13	Gayathri Varma	Dr.Sunil Jacob John	Generalized Set Theory – Rough Sets.	FT
14	Anjali N	Dr. Sunil Mathew	Connectivity in Weighted Graphs	FT
15	Lisna P.C	Dr. M.S.Sunitha.	On b- coloring of Graphs	FT
16	Ramyamol PC	Dr. Mahesh Kumar	Acceptance sampling plans for Quality and Reliability	FT
17	Eda Suresh Reddy	Dr. Satyananda Panda	Shape Optimization	FT
18	Manimaran	Dr. Jessy John	Stochastic modeling – Time series modeling	FT
19	Aswin V.S	Dr. Ashish Awasthi	Computational methods for Differential Equations	FT
20	Aswathy R.K	Dr. Sunil Mathew	Fractal and Chaos	FT
21	Kiran Kumar Patra	Dr. Satyananda Panda	Fluid Mechanics	FT
22	Shinoj T K	Dr.Sunil Jacob John	Multi sets	PT
23	Boby P Mathew	Dr.Sunil Jacob John	Rough Topology	PT
24	K R Sandeep Narayan	Dr.M.S.Sunitha	Fuzzy Graph and its complements	PT
25	Shinto K G	Dr.Sushama C M	Optimization Techniques	PT
26	Shija.G	Dr.M.J.Jacob	Stochastic Processes	PT
27	Chitralekha K	Dr.Jessy John C	Time Series Modelling and Forecasting	PT
28	Mini Tom	Dr.M.S.Sunitha	Fuzzy Graph Theory	PT
29	Linda J P	Dr.M.S.Sunitha	Fuzzy Graph Theory	PT
30	Jyothis Thomas	Dr.Sunil Jacob John	Topology	PT
31	Jill K Mathew	Dr. Sunil Mathew	Graph Theory	PT
32	Shanas Babu P	Dr. Chithra A V	Graph Theory	PT
33	Jinesh P Joseph	Dr. Ashish Awasthi	Numerical Techniques for singular perturbation	PT
34	Shinoy George	Dr. Sushama C M	Optimization	PT
35	Anjali Kishore	Dr.M.S.Sunitha	Coloring of Fuzzy graphs	PT
36	Rinju Balu K.K.	Dr. Sunil Mathew	Fractal Theory	PT
37	Jincy.N	Dr. Sunil Mathew	Graph Theory	PT
38	Anoop N Nair	Dr.M.J.Jacob	Queuing Theory	PT
39	Dhanya V Mukundan	Dr Satyananda Panda	Fiber Dynamics	PT
40	Jaya Paul	Dr. Sunil Jacob John	Fuzzy sets	PT
41	Mubeen M	Dr. V. Narayanan & Dr. G. Abhilash (ECED)	Wavelets Analysis	PT
42	Dharshanlal M Nair	Dr. Sunil Mathew	Weighted Graph Theory	PT
43	Jahfar.K.T	Dr. Chithra .AV	Spectral Graph Theory	PT
44	Manjusha O.T	Dr. M.S. Sunitha	Fuzzy Graph Theory	PT
45	Suma P	Dr. Sunil Jacob John	Multiset Theory	PT

**c. Proposed Ph. D programmes: Nil**

**DEPARTMENT OF CHEMISTRY****a. Ph. Ds completed under Existing Scheme : NIL****b. On-going Ph. Ds under the Existing Scheme**

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

**b. Proposed Ph.D. programmes : Nil**

**DEPARTMENT OF PHYSICS****a. Ph.D. completed under existing scheme:**

Sl. No.	Name	Guide	Area of Specialization	Scheme
1.	Dr. Sudheesh. P	Dr. Chandrasekharan. K	Non linear optics	FT

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

Sl. No	Name	Guide	Area of specialization	Scheme
1	Aneesh .J	Dr. P. Predeep	Polymer Memories	FT
2	Faseena .N.M	Dr. P. Predeep	Organic Electronics	FT
3	Jayan Manuel	Dr. P. Predeep	Organic Electronics	FT
4	Simimol. A	Dr. Aji A. Anappara (Internal guide)	Graphene (Material Science)	External
5	Murali Krishnan M	Dr. P. Predeep	Spintronics	FT
6	Kulkarni Prabhanjan Dilip	Dr. P. Predeep	Spintronics	FT
7	Praveen T	Dr. P. Predeep	Organic Electronics	FT
8	Shiju K	Dr. P. Predeep	Organic Electronics	FT
9	Simimol. A	Dr. Aji A. Anappara (Internal guide)	Graphene (Material Science)	External
10	Siji Narendran	Dr. Chandrasekharan .K	Non linear optics	FT
11	Smijesh Nadarajan Achary	Dr. Chandrasekharan .K	Non linear optics	FT
12	Divyasree M. C	Dr. Chandrasekharan .K	Non linear optics	FT
13	Ayishabi .P.K	Dr. Raghu Chatanathodi	Electronic Structure, Surface Phenomena	PT
14	Lakshmikanth .G	Dr. Raghu Chatanathodi	Electronic Structure, Surface Phenomena	FT
15	Daughty John	Dr. Raghu Chatanathodi	Electronic Structure of Graphene and other nano-structures	PT
16	Satheesh Chandran. P. M	Dr. M. K. Ravi Varma	Applied Optics	FT
17	Issac S. I.	Dr. M. K. Ravi Varma	Applied Optics	PT
18	Suhail Kuttoth	Dr. M. K. Ravi Varma	Spectroscopy	FT
19	Yoosuf Ameen	Dr. Vari Sivaji Reddy	Organic Solar cells	FT
20	Sri. Naseer A. P.	Dr. P. K. Madhavan Unni	Critical Point Phenomena	FT
21	Julin Joseph	Dr. Aji A Anappara	Carbon Quantum Dots (Material Science)	FT
22	Nishaina Sahadev	Dr. Aji A Anappara	Graphene (Material Science)	FT

**c. Proposed Ph.D programmes: NIL****DEPARTMENT OF PHYSICAL EDUCATION****a. Ph. Ds completed under Existing Scheme : NIL**

**b. On-going Ph. Ds under the Existing Scheme**

Sl. No.	Name	Guide	Area of Specialization	Scheme(QI P/PT/FT)
1	Baby Salini	Dr. A.M. Najeeb	Physical education sciences	PT( under Karpagam University)
2	Shimjith.P	Dr. A.M. Najeeb	Physical education sciences	PT( under Karpagam University)
3	Mubassir K P	Dr. A.M. Najeeb	Physical education sciences	PT( under Karpagam University)
4	Athul Meethal	Dr. A.M. Najeeb	Physical education sciences	PT( under Bharathiar University)
5	Akhilesh E	Dr. A.M. Najeeb	Physical education sciences	PT( under Bharathiar University)
6	Sumesh D	Dr. A.M. Najeeb	Physical education sciences	PT( under Bharathiar University)
7	Harry Benny	Dr. A.M. Najeeb	Physical education sciences	PT( under Bharathiar University)
8	Bipin Shankar	Dr. A.M. Najeeb	Physical education sciences	PT( under Bharathiar University)

**c. Proposed Ph.D. programmes: Nil**

**SCHOOL OF MANAGEMENT STUDIES**

**a. Ph. Ds completed under Existing Scheme:NIL**

**b. On-going Ph. Ds under the Existing Scheme**

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	Shobitha Poullose	Dr.N Sudarsan	Human Resources Mgt	FT
2	Salwa C H	Dr. T Radha Ramanan	Marketing	FT
3	Abdul Latheef Kiliyanni	Dr.N Sudarsan	Human Resources Management	FT
4	Lisbeth Mary John	Dr.K Muhammad Shafi	Human Resources Management	FT
5	Shanujas	Dr.K Muhammad Shafi	Gen. Management	FT
6	Jyothi P T	Dr.N Sudarsan	Investment Analysis	PT
7	Biju Mathew	Dr.N Sudarsan	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 S D	Strategic Management	PT
11	Pratap Kumar S	Dr.K Muhammad Shafi	Gen. Management	PT
12	Preethi M	Dr. T Radha Ramanan	Technology Transfer	PT

**c. Proposed Ph.D. programmes: NIL**

## SCHOOL OF BIOTECHNOLOGY

a. Ph. Ds completed under Existing Scheme: Nil

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

Sl. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Sri. Praveen Kumar Reddy	Dr. Md. AnaulKabir	Molecular Biology	FT
2	Smt. Aswathy.N	Dr. Md. AnaulKabir	Protein folding	FT
3	Sri. WasimUddin	Dr. Md. AnaulKabir	Drug Resistance	FT
4	Sri. Dileep. P	Dr. Md. AnaulKabir	Gene Regulation	FT
5	Smt. Vidhuna Sadanandan	Dr. Santhiagu	Enzyme technology	FT
6	Sri. Jaya Prakash. S	Dr. Santhiagu	Bioprocess technology	FT
7	Sri. Yuvaraj. K.R	Dr. Santhiagu	Herbal Biotechnology	FT
8	Smt. Divya.A	Dr. Santhiagu	Bioprocess technology	FT
9	Sri. Saravana Perumal	Dr. Santhiagu	Bioprocess technology	FT
10	Mis.Joji.K	Dr. Santhiagu	Bioprocess technology	FT
11	Mis.NishaSalim	Dr. Santhiagu	Bioprocess technology	FT
12	Sri. Adarsh. V.K	Dr. Santhiagu	Bioinformatics& Drug Discovery	FT
13	Sri. Mahesh Kumar Teli	Dr. Rajanikanth.G.K	Drug Design	FT
14	Sri. Pradeep H	Dr. Rajanikanth.G.K	Neuroscience	FT
15	Sri. Shyam B. Nair	Dr. Rajanikanth.G.K	Nano Biotechnology	FT
16	Sri. S. Md. Fayaz	Dr. Rajanikanth.G.K	Bioinformatics	FT
17	Sri.SinoySugunan	Dr. Rajanikanth.G.K	Bioinformatics	FT
18	Sri. ArunAnirudhan	Dr. Rajanikanth.G.K	Bioinformatics	FT
19	Sri. Suvanish Kumar	Dr. Rajanikanth.G.K	Bioinformatics	FT
20	Smt. Sreekala Nampoothiri	Dr. Rajanikanth.G.K	Bioinformatics	FT
21	Sri. Prakash	Dr. Rathinasamy	Cancer biology	FT
22	Sri. Lakshmi Mohan	Dr. Rathinasamy	Cancer biology	FT
23	Sri. Arul Kirubakaran	Dr. Rathinasamy	Cancer biology	FT
24	Ms .Geethu Chellappan	Dr. Aswathi Nair	Plant Biotechnology	FT
25	Ms .Keerthi Divakaran	Dr. Aswathi Nair	Plant Biotechnology	FT
26	Sri. Ganapathy.G	Dr. Aswathi Nair	Plant Biotechnology	FT
27	Smt. Princy. C.P	Dr. Aswathi Nair	Plant Biotechnology	FT
28	Smt.Saumya Mary Mathew	Dr. Suchithra T.V	Enzymology	FT
29	Smt. Anna SajuKynadi	Dr. Suchithra T.V	Bioplastics	FT
30	Smt. Sareena.C	Dr. Suchithra T.V	Multidrug resistance	FT
31	Sri. Ilshad Sabah	Dr. Suchithra T.V	Microbial Fuel Cell	FT

## SCHOOL OF NANO SCIENCE & TECHNOLOGY

a. PhD's completed under existing scheme:

Sl. 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

**b. On-going PhD's under existing scheme:**

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Ajin C. Sajeevan	Dr.V. Sajith	Catalytic Nano particles	FT
2	S. Balamurugan	Dr.V. Sajith	Abrasive action of Catalytic Nano particles	FT
3	Vipin.P.Antony	Dr.V.Sajith	Corona discharge system	FT
4	Parvathy R Chandran	Dr.N. Sandhyarani	Targetted Drug Delivery	FT
5	Abdul Rasheed P	Dr.N. Sandhyarani	DNA sensors	FT
6	Reny Thankam Thomas	Dr.N. Sandhyarani	Environmental Nanotechnology	FT
7	Rahul T k	Dr.N. Sandhyarani	Photonic Band gap structures	FT
8	Nair Tulasi Radhakrishnan	Dr.N. Sandhyarani	Fuel cells	FT
9	Nimmy John	Dr.N. Sandhyarani	Liquid Crystal Display	KSCSTEC Project fellow
10	Nandu Gopan	Dr.Sarith P Sathian	Nanofluidics	FT
11	Jeetu S babu	Dr.Sarith P Sathian	Nanofluidics	FT
12	Arun Kumar K V	Dr.Sarith P Sathian	Combustion	FT
13	Anjan R Nair	Dr.Sarith P Sathian	Nanoscale Interfacial thermal science	PT
14	Joe Francis T	Dr.Sarith P Sathian	Nanoscale Interfacial thermal science	PT

**c. Proposed PhD programmes: NIL**

**5.2 DETAILS OF Ph.D DONE SO FAR**

Sl. No	Department	No.of Ph.D Completed	Scheme		
			QIP	FT	PT
1	Architecture	1	1	-	-
2	Civil Engineering	27	-	-	-
3	Computer Science & Engineering	9	2	3	4
4	Electrical Engineering	29	4	4	21
5	Electronics and Communication Engineering	27	9	11	7
6	Mechanical Engineering	22	6	7	9
7	Mathematics	12	-	3	9
8	Chemistry	23	-	16	7
9	Physics	6	-	4	2
10	School of Nano Science & Technology	5	-	5	-
11	School of Management Studies	1	-	1	-
12	Chemical Engineering	1	-	1	-

**5.3 PROPOSED PLAN FOR RESEARCH**

**DEPARTMENT OF ARCHITECTURE**

- Department 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.
- Senate has approved starting a new PG programme in Urban Planning in the Department. Process is underway to start the same.

## DEPARTMENT OF CIVIL ENGINEERING

- 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 also 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
  4. 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
  9. 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 four major areas for research and development, namely, Energy & Power Systems, Control & Instrumentation, Electrical machines and Power Electronics and Industrial Power & Automation. 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 Lakhs – Dr. Subha D.P) ) (6) Development of Highway wind Mill , Intelligent Road Stud -CTR , Dr Ashok S (Rs 12 lakhs)

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

- High Vol.tage.
- Power Quality Research.
- Smart Grid.
- Robotic Facility and Automation.

## DEPARTMENT OF CHEMISTRY

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 azeotrops, 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 to 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. Developing transition metal based coordination complexes for binding interaction studies with mammalian DNA. This will give more insights 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. P Predeep works in the field of Organic & Polymer Electronics and Photonics (Plastic Solar Cells, Organic LEDs and Transistors, OFETs, Optical Switches, Polymer Memories), Transparent Conductors, Polymer Nano composites, Photonic and Superconducting Glasses, Advanced functional materials

Dr. Chandrasekharan .K works in the field of Nonlinear optical study of organometallic complexes with nano & pico second time domain.

Dr. Raghu Chatanathodi is interested in Computational Methods in Condensed Matter Physics, Materials Modeling, Electronic Structure Computation, Surface Phenomena and Catalysis

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)

Dr. Vari Sivaji Reddy is a solid state experimental physicist working on optoelectronic and charge carrier transport properties of organic semiconductor devices such as light emitting diodes, solar cells and bistable memory devices. His research interests include development of bulk hetero-junction solar cells based on organic semiconductor nanostructures and studies on switching mechanism of bistable memory devices based on organic semiconductors and metal nanoparticles.

Dr. P. K. Madhavan Unni is interested in light scattering investigations near the quadruple critical point in the quaternary liquid mixture Methyl-ethyl-ketone + water + secondary butyl alcohol (FRG-project) and non-linear dynamics in polymer solutions (project proposal under preparation).

Dr. Aji A. Anappara works in the field of Optics of carbon quantum dots: The goal of 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.

#### **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
13. Biofuel Research
14. Bioprospecting

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

Continuing research in Management



**5.4 INSTITUTE – INDUSTRY COLLABORATION  
DEPARTMENT OF ARCHITECTURE**

Sl. No.	Name	Firm & Description of the work
1	Dr. P. P. Anilkumar Dr. Naseer M. A.	Organized a workshop jointly with IIA Calicut Chapter on 'Art and Design Education: The Lost Sensibility' on 29th October 2013. All faculty of the Department and reputed architects in town including IIA office bearers and artist Jinan took part in the workshop.

**DEPARTMENT OF CIVIL ENGINEERING**

Sl. 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 Municipality, Aluva – 683101
24	Kochi Metro Rail Project, Eastern Entry Tower, Eranakulam Southern Railway Station Kochi - 686 016
25	The Municipal 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, Harbour 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	Many other Govt., Semi Govt. and Private Organisations

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Large numbers of M.Tech Students are doing their Projects in Intel and IBM

Sl. No.	Name	Firm & Description of the work
1	Sri. Saidalavi Kalady	GEC Sreekrishnapuram, Training Programme for Faculty Members
2	Dr. V K Govindan	GEC Sreekrishnapuram, Training Programme for Faculty Members
3	Dr. Gopakumar G	Postal Department, Training on windows Server & SQL Server Administration for two batches Batch 1 : From April 29 2013 to May 3 2-13 Batch 2 : From May 6th 2013 to May 10th 2013

#### DEPARTMENT OF CHEMISTRY

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

### 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)

### 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:

- 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
- 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 Minority 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			
	2010-2011	2011-2012	2012-2013	2013- 2014
Govt. of India –Grant (Non-Plan)	3900.00	3700.00	4800.00	7020
State Govt. Grant (Non-Plan)	-	-	-	
Govt. of India Grant (Plan-General)	5504.00	4300.00	5949.99	1375
Govt. of India (Plan-OSC)	2200.00	1300.00		

## 8.2 EXPENDITURE POSITION FOR LAST THREE YEARS

Particulars	Rs. in lakhs		
	2011-2012	2012-2013	2013-2014
Expenditure- (a) Under Plan(General)	6245.99	2673.92	1824.79
Expenditure -(b) Under Plan(OSC)			
Expenditure-Under Non-Plan	5847.93	6772.18	8004.63

## 9.0 CENTRAL FACILITIES AND SERVICES

### 9.1 COMPUTING & IT SERVICES

#### 9.1.1 CENTRAL COMPUTER CENTRE

Central Computer Centre provides computational facility for NITC students and staff. The Centre has state of the art infrastructure with fearfully 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 workstations. 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 T620 which 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.

#### Available Resources

**Super Computer “PURNA”**(Parallel Universal Remote Numerical Analyser)

**Main Features:** Speed 1.5 Tera FLOPS peak speed, 16 nodes, **Efficiency** ~70% Linpack, **Operating system**-64 Bit Linux-HPC RHEL V.5.3, **Processor Architecture** - Harper town processor architecture **Cluster Management Suite** - Platform OCS Dell Edition V1.0(Cluster Management Tools such as Ntop, HPC, Cacti, PCM, OFED, Nagios Ganglia, Lava etc.), **Supported Compilers** - Intel Compiler Cluster Kit, GNU Compiler Collection (G++, G Fortan, G95), **Communication Network**(Primary and Out of Band)-GigaBit Connection through Management & Administrative GigaBit switch Out of Band switch (To connect to the entire NIT Campus), **Accessibility** - either in CCC or anywhere in the NIT campus.

**Efficient Economical Cluster Computing:** Quad-Core – ‘Harper town Processor’ architecture, fully integrated, tested, customizable clusters, industry standard operating environments: workload manager GB Management Performance Optimized Intel math Kernel Libraries.

**HPC System Configuration:** Head Node, Compute Node, Interconnect, Management Network, Storage, Parallel File System, Software Stack.

**Software Stack Components of HPC Solutions:** Operating System, Cluster Deployment tools, Node & Cluster Monitoring tools, Network & Node file system, message passing libraries, Application workload manager, Certification tools, support for high speed interconnect, Performance benchmarking tools, Development tools.

**Storage & HPC Value Proposition:** High Performance Computing, Shared File System, Parallel File System, Storage, Networking & Management Consolidation, Backup & Policy based Archive, De-duplication, Computational continuity & Disaster Recovery Plan, Server & Storage Virtualization, Information Life Cycle Management.

**Users:** The facility is made open to all faculties in all the departments and schools for their academic, research and consultancy work. Various research and project work of Ph.D and PG students, B.Tech students pursuing computationally intensive projects.

An overview of selected listing of work done by various departments and schools with PURNA

#### Mechanical & Production Engineering

- Structured grid problems(Lattice Boltzmann methods)
- Unstructured grid problems(finite element analysis)
- 2-D hydrodynamics simulations
- Molecular nano-technology
- Material property simulations

#### Nano Technology

- Molecular dynamics

#### Electrical & Electronics Engineering

- Signal processing

#### Civil Engineering

- Advanced Structural problems

#### Computer Science & Mathematics

- Image processing
- Dynamic programming
- Spectral methods (such as Cooley-Tukey Fast Fourier transform)
- Branch and bound methods
- Monte Carlo simulation
- LAPACK++(a library for high performance linear algebra computations)

#### Physics & Chemistry

- N-body problems (such as Barnes-Hut simulation)
- System 51 isualiz based on Quantum Mechanical Calculations
- Nano physics &Chemistry

#### Chemical Engineering

- Chemical reaction dynamics
- Schrodinger software suite
- Moe: the molecular operating environment( for chemical computing software development and deployment)

#### Electronics Engineering Department

- Graph Traversal (such as Sorting algorithms)
- Combinational logic(such as brute-force cryptographic techniques)

#### Biotechnology

- Gene algorithm solving

#### User viewed Features

- Optimized libraries of g++, gfortran, Intel® C++ and Intel ® Fortran have been setup. These includes the Intel® Math Kernel Libraries
- Users of PURNA have various choices of Messages Passing Interface (MPI) libraries at their disposal. Open MPI which is preferred MPI of many of the world's fastest super- computers is available .MPICH and MPICH2 which have been the MPI of choice for parallel data processing in many Universities has also been setup.

- Subroutine libraries that can calculate Discrete Fourier Transform in multiple dimensions such as Fast Fourier Transform in the West 2 (FFTW2) and FFTW3 have been setup in parallel operation mode.
- Quantum – ESPRESSO, a code for calculating electronic and structural properties materials from first principle quantum mechanical calculation has been setup to perform in parallel mode.
- LAMMPS, an open source code for the simulation of molecular dynamic evolution of Nanoscale systems has been setup for peak performance on the cluster, using the g++ and FFTW2 libraries .
- RHEL 5.3 has been updated with the latest updates and various additional features such as NTFS file support was added
- Visual Molecular Dynamic Software was compiled and setup to simulate the tremendous amount of data generated as part of Molecular Dynamics Simulations
- Users can access, copy and modify data on their user accounts in PURNA as if it were an external hard disk connected to their system.

### **Servers**

HP Rack Servers-DL 385G5, P2378 BASE HP Servers, Quad Core Dell Power Edge 6600 Quad Processor Xeon Servers, Dell Power Edge 2600 Dual Processor Servers, Sunfire V210.

#### **Server Details:**

**HP Rack Servers :** DL 385G5,P2378 BASE HP Servers, Quad Core AMD Opteron™ Processor 2378 @ 2.4 GHz x 2 Processor, 16 GB RAM, HDD-4 x 300 GB 10k rpm hot plug SPT SAS Drivers on hardware raid controller, 16 GB DDR2-667 with advanced ECC Memory ,32 MB video memory ,Chipset: Server Works HT 2100 North Bridge and HT1 999 Dell Power Edge 6600 Server with Intel Xeon Quad Processor MP-3.00 GHz / 4 MHz FSB 4GB DIMM, 73 GB ultra 320 SCSI HDD, Dell Power Edge 2600 Server with Intel Xeon Dual Processor 3.06 GHz/1MB 266 MHz SDRAM ,73 GB ultra 320 SCSI HDD .

**SUN - Fire –V2 10 ULTRA SPARK IIII**

**Graphic and Engineering Work stations : HP Work Stations** – GK884AV HP XW 4550 Work Stations HPL 1710,TFT Monitor ,AMD Opteron 1000 Series Processor @ 2.2 Gz,1 MB L2 Cache ,1Gz AMD Hyper Transport Technology, AMD 690 G with AT1 Radeon, X1250 Chipset BIOS, 4GB DDR2 SDRAM,667MHz ECC Memory, 160 GB SATA, 3GB/S 7200 RPM Drive,16xDVD +RW. This facility is reserved for Computational and Graphic Intensive Work.

#### **Systems**

**DELL Intel Pentium IV Systems,** Core2Duo Processor E6550@2.33 GHz,2GB RAM,240 GB IDE HDD, Graphics card ,Intel Pentium IV PCs, P4 2.8 GHz, 512 MB RAM ,CDRW 52X, 80 GB HDD.

The Systems are connected to the servers through gigabit switches and CAT6 UTP cables .The centre is connected to the campus-networking centre with backbone of 32 Mbps through a Nortel L3 switch and in turn to internet.

#### **UPS, Printers & Other accessories:**

UPS The centre is backed by 80 kVA and 30 kVA UPS of DELTA USA and USA makes, PRINTERS HP Laser Jet 5m ,HP Laser Jet 4050 N, HP Deskjet 870 dxi, HP Deskjet 5160,Wipro 1050+DX Dot matrix printer, Epson 24 pin LQ 1050 –DX 136 column dot matrix printer, SCANNER HP Scanjet 4c, CD WRITER HP Plus 7500 series ,Yamaha CD writer(24X),External Drive Enclosure Suitable for DVD-RW & ROM,CD-ROM &RW & 2.5, 3.5 IDE HDD USB 2.0 480 Mbps .

#### **OS & Software**

**Campus license for all the Microsoft products Operating System** RedHat Linux ES, SUN OS (Solaris 7 & 9), Windows 2003 Server, Windows 2000 Professional Comm.Edition, Windows 2000 Server AE, Sco open Server, RedHat Linux 9 Prof Edition – Red Hat Prof Workstation, Windows 2000 Professional Comm. Edition, Suse Linux & Debain Linux, Programming Software /Compilers C, C++, Fortran 77,Fortran 90,Pascal. Java, Anjuta Turbo C++ Suit, Borland C++ Builder, Kylix Professional, Visual Studio 6.0, Microsoft Developer (MSDN),Office software Microsoft Office 2003, Microsoft Front Page, Star Office 7, Word Perfect, GIST ISM Office, Accounting Software TATA E-X Next Generation, Tally silver, File transferring software Cute FTP Pro, GS cute FTP advanced version, Mathematics computing software Mathematica 5.0, CFD/Computational software Matlab 7.3.0, Fluent 6.1.22(100 licenses of Matlab and 20 licenses of Fluent are accessible throughout the campus through intranet),Comsol 3.2,Gambit 2.1.6, Report Creation software Crystal Report 10 Professional Edition, Crystal Enterprise version 10,DBMS, ORACLE workgroup server, ORACLE 9i and 10 G Personal Multimedia Software & Other Coral Draw Graphics Suite 12 ,Coral painter, Coral X metal for Developer, Adobe Photoshop CS, Adobe PageMaker 7,Adobe Acrobat Writer, Macro Media Flash MX, Macro Media Dream Weaver, Ulead Video Studio,3D Max 6 Discrete, Painter, GIF Animator, Macro Media of Web Design Studio(Studio MX)etc.

### 9.1.2 CAMPUS NETWORKING CENTRE

Campus Networking Centre (CNC) of the Institute manages the Internet connectivity (both wired and wireless), web servers and mail server of the Institute. The campus is interconnected with about 25 KMs of fiber optic backbone network with 56 routed internal networks and a wireless LAN, managed by the Unified Threat management system. NITC web server and mail server are high performance, quad core processor servers. The wireless LAN covers important areas of the campus with IEEE 802.11b/802.11g standards. Presently the network is served by 200 Mbps of Internet connectivity provided by BSNL under the NMEICT/NKN scheme of MHRD and 12 Mbps by RELIANCE. All the hostels are served with Internet connectivity through wired mode. The CNC functions on all days on a 24x7 basis. 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 level service support that is designed to minimize system downtime in the entire campus. The services include installation and maintenance of computer and peripheral devices, software and operating system installations, and system configuration etc. This unit is also responsible for testing of systems supplied for conformance to stated standards and prior specified user requirements

## 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 builds up their confidence level in practical fields too. The syllabi too were modified accordingly. The research works, requiring fabrication, assembly and testing, done in other departments, are carried out in the sections of central workshop. Apart from the regular practical classes, interdepartmental requirements in Volving fabrication are carried out in central workshop. 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- COOPER make, MODGIL make- and BATLIBOI make
- Slotting Machine- 1no. ROSCHER ELCHLERGerman 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- ADDISONS
- Tool Post Grinder- MPD H08
- Band Saw Machine– 1 no. LAXONS.
- Kirloskar Hack Saw Machine- 9” capacity
- Band Saw and Circular Saw Blade Sharpening Machine- ITALIAN MODEL
- Wolf Portable Grinder
- Precision Lathe Tool GrinderWOLF, 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
- Bench Grinder- 7 Nosdouble ended, with wheels
- PROTECH flexible shaft grinder- 2 Nos.
- All tools for fitting operations
- All carpentry tools
- 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
- Wood cutting band saw machine

- 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-
  - Samson English make- 14" blade, cutting size 1/8", with handle
  - Portable Electric Shear
- Riveting Machine
- Fly Press- Pillar type, MASTER
- Hydraulic Pipe Bending Machine- HYDROBRAND, 1" to 3"
- Spray-painting unit cylinder 1, stage, IMPERIAL
- Hand Operated Circle Cutting Machine
- Edge Folding Machine Type REF Indian make, 36" X 24
- Power hammer. 65 kg, National Small Ind. Corpn, New Delhi
- Pneumatic Forging Power Hammer NSE make
- Bar Cropping & Shearing Machine Russian make
- Conduit pipe bending Machine- METALEX, , hand operated
- Shell molding machine- Model 1218M, shell sand coating plant of capacity 10 kg.
- 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 block CI, 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 from 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 Institute/Centres/Sections. The Library uses LIBSYS Software 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

Sl. No.	Category	Books at the end of the year 2012-13	Books added during the year 2013-14	Total books as on March 2014
1.	General books	109967	NIL	109967
2.	Books for SC/ST	12778	NIL	12778
3.	Reference books	5901	NIL	5901
	<b>Total</b>	<b>128646</b>	<b>NIL</b>	<b>128646</b>



## (b) Print Journals / Magazines/ Dailies

Sl. No.	Category	PrintJournals/Magazines/Dailies at the end of the year 2012-13	Print Journals/Magazines /Dailies added during the year 2013-14	Total Print Journals Magazines/ Dailies as on March 2014
1.	National	99	NIL	12
2.	International (P + O)	175+Science Direct 5 Sub.Collection	482+8 subject collection	657+8subject collection
3.	Dailies+ Weekly	17	11	28
	<b>Total</b>	<b>291</b>	<b>493</b>	<b>697</b>

### 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 from the Digital Library Reading Room, members can access the Nalanda from the entire campus.

Other services

- 1) Web-OPAC useful for searching books in the library and knowing their status online. This service is available in our NITC intranet.
- 2) 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) Subscription to the services of [j-gate](#) 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 2011-12	Total as on March 2012
Online e-Journals (through INDEST consortia)	-	2,941
E-books	-	63,552
E-Journals	-	4,077
E-Databases (EI-Village 2, Indian Standards, ASTM etc)	-	14,955
NITC Resources (Faculty reports, Students' thesis, Course notes)	67	47,021
Journal Back Vol.s	-	14,411
<b>Total</b>		<b>146957</b>

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 Compaq Server (Proliant ML 350 G2)  
 2 Quad – core Intel Xeon Processor HP (Proliant DL 350 G5)  
 2 Xeon 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

### 9.3.3 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 server

#### Civil Engineering Department

ZZ1001 Engineering Mechanics  
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 2011-12

- Awareness Program on “J-Gate” organized on 13-08-2014

### 9.3.5. Staff position

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
C G Balachandran Nair	Librarian Gr IV
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 : 1  
Project Digital Library Computer Assistant : 3  
Library Contract Staff : 7  
Library Helper : 4  
Office Assistant : 1

## 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 compilers for C, C++, Fortran, Perl, TCL, PHP, ASP, Ruby, ADA, Java, Python, Pascal, Nasm, etc.).

Faculty in charge : Dr. Vinod Pathari

#### Major Equipments:

Item	Quantity
Dell Optiplex 7010 Core i5 Desktop with Dell 18.5" LED Monitor	75
Dell Power Edge Rack server	2
Dell Power Edge server	1
Dell Optiplex 755	3
Dell Workstation	2

#### 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 SQL
- Fully 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:

DELL Optiplex 7010 core i5 Desktop	27
DELL Optiplex 7010MT Desktop	1
Digital Trainer Kits	45
Arm Processors	5
Multiple output DC Power Supply	10

Function Generators	10
Cathode Ray Oscilloscopes	10
Linear and Digital IC Testers	2
LAN-T LAN Trainer	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 System.

Faculty in charge: Sri. Jayaraj P B

#### Major Equipments:

Items Details	Quantity
Dell Optiplex 7010 Core i5 Desktop with Dell 18.5" LED Monitor	75
Dell Precision T3610 Workstation	2
Dell Precision T3400 Workstation	1
Netgear Prosafe WNA P210(Wireless Access Point)	1
Network Server(Rack Mount)Dell Power Edge 2950 with Console	3
Dell Optiplex 755 Dual Core Desktop with Dell 17 LCD Monitor	2

Features:

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

### (i) 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:

ITEM	CONFIGURATION	QTY
Dell Optiplex 7010 Desktop	4 GB RAM, 500 GB HDD	30 nos.
Dell Optiplex 7010 MT Desktop	16 GB RAM, 1 TB HDD	2 nos.
Dell Precision T3610 Workstation	8 GB RAM, 1 TB HDD	1 nos.
Dell Optiplex 755 Desktop	2 GB RAM, 250 GB HDD	1 nos.
PCS Desktop		1 nos.
PW 9355-10-1-NC UPS 20 KV		1 nos.
Canon Canoscan Lide 700F Scanner		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)

### (v) 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:**

	System	Specification	Quantity
1	Dell Precision T3610 Work Station	8 GB RAM,1 TB HDD	1
2	Dell Optiplex 7010 High End Desktop	16 GB RAM,1 TB HDD	2
3	Dell Optiplex 7010 Desktop	4 GB RAM, 500 GB HDD	30
4	Dell Precision T3400 Work Station	4 GB RAM 500 GB HDD	1
5	Dell PowerEdge 2950	8GB RAM, 6X146 GB HDD	2
8	Xentis (Pentium 4)	512 MB,80 GB HDD	1
6	Scanner	CanonScan LiDE 700F	1
7	Printer	Brother DCP-7065 DN	1
9	UPS	ETN Powerware PW 9355-10-1-NC (3-Phase-3Phase)	1

**(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:**

**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 evolved 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.

**Benefits:**

- 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

Item	Quantity
Dell Optiplex 7010 (High End)	2
Dell Precision T3610 Workstation	1
Dell Optiplex 760	13
Dell Optiplex 755	8
Dell Optiplex GX520	4

**Major Equipments:**

**Viii) Web Streaming & Multimedia Laboratory**

Web streaming and multimedia are active topics of research interest among computer scientists and application developers in the present day, and its relevance and prevalence is going to be increase manifold in the coming years. We envisage to set up a full-fledged studio, where the algorithms and programs for web streaming can be tested realistically. Video conferencing equipment is an essential requisite in such a laboratory, as video conferencing is one of the most popular applications of web streaming and multimedia, highly relevant to the academic community. The lab and equipment will be highly useful to the PG Students of the department as a laboratory

which can be used for projects on streaming, multimedia.

Faculty can have their courses video recorded and such contents are going to help a department like ours much better. They can use it as a solution to problem of handling very large classes, where expert lectures can be delivered to a very large group and tutorials handled by TAs for smaller groups. Faculty may be required to be present only for doubt clarification and so on. Expert talks from researchers and eminent faculty elsewhere can also be arranged with reduced costs. Faculty and research can do result oriented, practically relevant research on streaming, multimedia, etc. There is an immense scope for consultancies with this infrastructure and expertise.

Faculty in Charge :Sri. G. Gopakumar

### (IX) 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

Dell Optiplex 7010 Core i5 Desktop with Dell 18.5" LED Monitor	4
Dell Optiplex GX520	6

#### Major equipments :

Item	Quantity
Dell Optiplex 7010 (High End)	7
Dell Precision T3610 Workstation	3
Dell Power Edge T620	1
Dell Optiplex 7010	7
Dell Optiplex GX520	6
IBM X3100 M4	1
Dell Precision T3400	1
SUN Microsystem	1
Dell Power Edge sc 1420	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 and Electronics Workshop

#### 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.

### 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 & Microelectronics Lab
7. Telecommunication Technologies Lab
8. Electronics Workshop
9. PSoC Lab
10. Signal Processing and Communication (SPCom) Lab
11. DST FIST Lab
12. 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 Sciences Lab
13. Advanced Manufacturing Centre
14. Sophisticated Instruments Centre

#### **DEPARTMENT OF MATHEMATICS**

1. Scientific Computing Lab for PG
2. Soft Computing Research Lab

#### **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. Heat Transfer Lab
2. Mass Transfer Lab
3. Fluid Mechanics Lab
4. Mechanical Operations Lab
5. Chemical Reaction Engineering Lab
6. Process Control Lab
7. Chemical Technology Lab
8. Environmental Lab
9. Computer Lab
10. Project Lab
11. Research Lab

#### **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

### **9.5 HOSPITAL, POST OFFICE, SHOPPING CENTRE**

#### **HOSPITAL**

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

1. Dr. Celine .A.A. is working as Resident Medical Officer
2. Dr. Balasubramanian .MD. was appointed in the Health centre on contract basis on every Wednesdays 3.00 pm to 5.00 pm  
An additional R.M.O. Dr. Rakesh T.R. up to June 2013, Dr. Shifas .B. was appointed from September 2013 to 3rd January 2014 and Dr. Midhun Joy was appointed from 20th January 2014 onwards.

#### **3. 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

#### **4. 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)**

Facilities which are ready for use by students:

Foot ball field - 1, Hockey field -1, Synthetic tennis court -1, 25 M Swimming pool, Gymnasium, Floodlit Basket ball court - 1, Cricket Concrete wicket with out net -1, Cricket Stadium with matting wicket – 1, Multipurpose Auditorium housing Badminton courts -3 & Table Tennis facilities - 4 .

#### **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**

- 1. 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 31.03.2013

Sl. No	Name of the Building	Present Stage
1	Construction of building for Central Library	90 % Completed
2	Mega Hostel - I	82 % Completed
3	Construction of 100 Nos. Residential Quarters	Completed (By CPWD)
4	Construction of 500 Unit Single bedded Ladies Hostel	Completed (By CPWD) except rectification.
	<u>Construction of building for</u> Classroom MBA Block Hostel Block Auditorium	By CPWD Completed, except rectification 95 % 85 % 95 %
6	Construction of 1500 Rooms Mega Hostel -II	25 %

#### 9.7.4. CAMPUS SCHOOL

##### Spring Valley School

Spring Valley School is a Senior Secondary Co-educational English Medium School functioning in the institute campus as one of the staff welfare measures, and was started functioning in 1991. 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 and playground etc. have been made available by the institute. The School has excelled in academics, could present its 17<sup>th</sup> batch of class 10<sup>th</sup> and 15<sup>th</sup> batch of class XII students for the Board Examinations in March 2013 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 co-scholastic abilities of the students. Apart from the formal academics, the students have participated and excelled in CBSE Kalotsav 2013(Zonal Youth Festival), conducted by the Sahodaya School Complex, Malabar Region and participated State CBSE Kalotsav. One Student got first prize and another student got third prize. The 14<sup>th</sup> issue of School Magazine "SIGNET" was released during the Annual Day Celebrations on 10<sup>th</sup> January 2014.

##### Office Bearers as on 31.03.2014

- ⊙ Dr.M.N. Bandyopadhyay, Chairman, REC SPECTRA
- ⊙ Dr.Abraham T Mathew, Vice Chairman, REC SPECTRA & President, School Managing Committee.
- ⊙ Dr. K. Chandrasekharan, Secretary, REC SPECTRA & Manager cum Correspondent, Spring Valley School.
- ⊙ Dr.Sindhu T.K., Vice President, School Managing Committee.
- ⊙ Sri.P.Ananthakrishnan, Joint Secretary cum Treasurer, REC SPECTRA
- ⊙ Prof. Unnikrishnan Nambeesan, Senior Principal
- ⊙ Sri.s 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.
- Dr. A K Kasthurba attended Fullbright Nehru International Education Administrators Seminar in 2013 and visited top 15 Universities in US and had discussions with the Administrative heads under USIEF (US-India educational foundation) funded by CIES, department of state, Cultural Affairs, USA. October 2013

##### DEPARTMENT OF CIVIL ENGINEERING

- The department had taken up training of local unemployed youth for self-employment under the Nehru Rozgar Yoganans (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
- Popularized the cost effective Ferrocement water tanks in the rural and urban sector
- Design and Development of water conservation techniques such as rain water harvesting and construction of check dams
- People participation programmes of Panchayats
- Creating awareness of traffic rules and regulations in schools
- Actively associated with the awareness building campaign in connection with the implementation of the Model Solid Waste Disposal Scheme in Calicut Corporation
- InVol.ved in a few biomechanics related projects which have benefited a number of patients visiting the Physical Medicine & Rehabilitation Centre of Calicut Medical College.
- Organise special lectures on good construction practices at the Licensed Engineers and Supervisors Federation Kozhikode
- A project under the TEQIP under the Service to Community scheme titled “IT Training and Social Surveys for Chathamangalam Grama Panchayath”, October 2007 – March 2007
- Assists in implementing Model Solid Waste Disposal Scheme in Calicut City.
- Skill up-gradation of rural craftsmen and women workers under TEQIP
- 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.
- 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
- Ferrocement water tank for community water supply schemes
- Development of low cost precast structural elements such as walls, lintels, beams etc. For buildings in rural areas

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

- Dr. Mukti Barai had reviewed three papers on IEEE transactions on Power Electronics.
- Dr. Rijil Ramchand had reviewed papers for the three journals, IEEE transactions on Power Electronics IEEE transactions on Industrial Electronics, and IEEE Transactions on Fuzzy systems.
- Dr. Susy Thomas is the Member, Faculty of Engineering and Technology, Kerala University from 2010 onwards.
- Dr. Mukti Barai reviewed one paper submitted in IEEE Transactions on Circuits and Systems – part –II (TCAS-II)
- Dr. Kumaravel S, reviewed a paper submitted at Taylor and Francis in Electric Power components and Systems.
- Smt. Mija SJ, reviewed 2 papers at IEEE transactions on Industrial Electronics
- Dr. Susy Thomas served in the interview board of UPSC
- Dr. Susy Thomas was a reviewer for National Conference on “Technological Trends”, CET, TVM-2012
- Dr. Susy Thomas was Academic Audit External Expert for PhD, Karunya University.
- Sri. K.S. Suresh Kumar authored a book titled “Electric Circuit Analysis”, published by Pearson, ISBN-978-81-317-9155-4

- MV Vaidhyan, Member of Editorial board, International Journal of Life Sciences and Technology (IJLST).

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

- Dr. Madhusudhanan Pillai developed a supply chain role play game version. 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'. Online and standalone versions were developed. Standalone version allows the optimal layout development. Simulated annealing based algorithm was 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 was 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.

#### **DEPARTMENT OF PHYSICS**

Dr. P. Predeep

First reported the development of electric conductivity in unvulcanized natural rubber and many innovative applications for natural rubber like its use as an optical recording materials

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)
- (b) Post-Doctoral Fellow, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel (2006-2008)
- (c) Ph.D. in Physics, Department of Physics, Indian Institute of Science, Bangalore. (2006)
- (d) Senior Research Fellowship (SRF) (2000-2003), Council of Scientific and Industrial Research (CSIR), Government of India.
- (e) Junior Research Fellowship (JRF) (1998-2000), Council of Scientific and Industrial Research (CSIR), Government of India.
- (f) Qualified in the CSIR-UGC National Eligibility Test (NET) with JRF.
- (g) University 2nd Rank in M. Sc. Physics Course of the University of Calicut, Kerala, India (1993-1995)

#### **SCHOOL OF NANO SCIENCE AND TECHNOLOGY**

1. 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.
2. Dr. Sajith V. won the Best Young Teacher Award for the performance during the academic year 2007-08 from, NIT Calicut
3. Dr. Sajith V. won the Bhagyalakshmi & Krishna Iyengar Award for the best project in the year 2005, from IIT madras

**10.2 ACHIEVEMENTS THAT TOOK PLACE DURING THE YEAR 2013-2014**

**DEPARTMENT OF ARCHITECTURE**

**a. Publications**

i) Journals

SI No	Name of the Author	Title of the Paper	Name of Conference	Publications/ Journals
1	Dr. Kasthurba A K	Sustainable development of urban heritage at Fort Kochi, Kerala India “ in International Conference AEI 2013 at Architectural Engineering Institute , Pennsylvania State University, USA during 3-5 April 2013	International Conference AEI 2013 at Architectural Engineering Institute , Pennsylvania State University, USA during 3-5 April 2013	ASCE journal online

ii) International Conferences

SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p
1	Dr. P P Anilkumar	Environmental Sustainability as Achieved through Practice of Vernacular Principles; framework from an Indian context.’	International conference on ‘Urban and Extra Urban Studies’ , University of Amsterdam, Netherlands	22nd to 24th November 2013
2	Dr. P P Anilkumar	Landscape landfilling as a Sustainable green option for solid waste management’	International conference on Architecture and Engineering in Urban Development 2013(AEUC 2013) at Colombo, Srilanka	20th to 21st December 2013
3	Dr. P. P. Anilkumar	International conference named Green Campus Summit 2013 jointly organized by Association for promoting Sustainability in Campuses and Communities (APSCC), Puducherry, India, Hamburg University of Applied Sciences, Research and Transfer Centre “Applications of Life Sciences”, RCE Hamburg and Region and Centre for International Business and Sustainability (CIBS), London Met University, UK at Pondicherry	Overview of natural stones as an energy efficient and climate responsive material choice for Leed certified green buildings.	April 04-05, 2013
4	Ar. Chithra K	Adaptations from architecture of animal kingdom – a new approach for sustainable architecture’	International Conference on Architecture and Engineering in Urban Development (AEUD 2013), Sri Lanka	Vol. 1, 2013,
5	Dr. Naseer M.A.	Energy Efficient Building Design: Revisiting Traditional Architecture	Third Asian Conference on Sustainability, Energy and the Environment	June 6-9, 2013 at Osaka, Japan
6	Ar. Chithra K	BIOTECHTURE – A new framework approach buildings & structures for green campus design	Green Campus Summit 2013	Vol. 1, 2013
7	Bimal P.	Form Based Coding Regulation – A Structured Approach To Urban Renewal	AEUD 2013, International Conference at Colombo, Sreelanka, December 2013	2013

**b. Community Services: NIL**

**c. Other Academic and Administrative Services**

Sl. No	Name of Faculty	Academic and Administrative Services
1.	Dr. P. P. Anilkumar	<ul style="list-style-type: none"> <li>- HOD</li> <li>- Member, IRCC</li> <li>- Consultancy Coordinator</li> <li>- PTA 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 style="list-style-type: none"> <li>- Staff in Charge- CA Lab</li> </ul>
3.	Dr. Naseer M A	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>- FA to 2011 Batch</li> <li>- Staff in Charge- CAD Lab</li> <li>- Member, Golden jubilee public relations committee, NITC</li> </ul>
6	Ar.Bimal P	<ul style="list-style-type: none"> <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	Er. Shyni K	<ul style="list-style-type: none"> <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**

Sl.No	Name of Faculty	Title	Coordinators	Duration & Period
1	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
2	Dr. Anilkumar P P & Ar. Chithra K	Interactive workshop on 'Sensitizing curriculum for Basic Design'	Dr. Anilkumar P P Ar. Chithra K	06-09 March 2014
3	Dr. Anilkumar P P & Ar. Chithra K	Interactive Indo-Swiss workshop jointly with University of Bern on 'Sustainable Construction Technique	Dr. Anilkumar P P & Ar. Chithra K	25th February 2014

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. Naseer M A	FDP on Green Building Technology –Changing Paradigm	09-14 June 2014	Department of Architecture, NIT Calicut

**f. Details of Faculty, who acquired Higher qualification:**

Dr. A K Kasthurba

- PDF, IIT Madras August 2013- Jan 2014
- PDF, UIC, IL, USA Feb 2014- July 2014

**g. Consultancy and Testing**

Sl. No	Nature of Service	Organization	Revenue earned	Status
1.	Architectural and Structural Design for CWRDM , Kozhikode.	CWRDM, Kozhikode	-	Agreement being signed
2	Interior Layout Design and Acoustical Design of a 1,000 capacity auditorium for Koyilandy Municipality – Nearing Completion.	Koyilandy Municipality	Received part payment of 2 Lakhs	Ongoing

**h. Patents acquired and filed – Nil**

**i. Student Achievements:**

- Short listed for Westminster Trophy at NASA 2013

**DEPARTMENT OF CHEMICAL ENGINEERING**

- a. Publications  
i journals

Sl. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p.
1	Dr. Shiny Joseph, P.Karthic, , Naveenji Arun & S. Kumaravel	Optimization of biohydrogen production by Enterobacter species using artificial neural network & response surface methodology	Journal of Renewable & Sustainable Energy	5,033104,2013, 10.1063/1.480374
2	Dr. Shiny Joseph, Dr. Lity Alen Varghese, A. Santhiagu P. Karthic, & Naveenji Arun,	Biohydrogen production using Anaerobic mixed bacteria: Process Parameters optimization studies	Journal of Renewable & Sustainable Energy	5,063103,2013, 10.1063/1.4826192
3	Dr. N.Selvaraju, Dr. Llity AlenVarghese, S. Rangabhashiam, E. Suganya,	Significance of exploiting non-living biomaterials for the biosorption of wastewater Pollutants	World Journal of Microbiology biotechnology	30,2014, 1669-1689
4	Dr. Lity Alen Varghese, Najuma Abdul Razack	The effect of various hardeners on the mechanical and thermal properties of epoxy resin	International Journal of Engineering research & technology	3, 2014 2662-2665
5	Dr. V. Sivasubramanian, M. Velan, K. Haribabu B. Deepanraj	Holdup studies in IFBR for Wastewater Treatment	J. Advanced Engg.	1(1), 2014, 8-15
6	Dr. V. Sivasubramanian & K. Haribabu	Treatment of Wastewater in Fluidized Bed Bioreactor Using Low Density Bio support	Energy Precede	50, 2014, 214-221
7	Dr. V. Sivasubramanian, R.Sivashankar, A.B.Sathya, K.Vasantharaj	Reduction of Azo Dye from Aqueous Solution using Acid Treated Aquatic Macrophytes	J. Environmental Nano technology	3(2), 2014, 50-61
8	Dr. V. Sivasubramanian, Jayaraj.S,B. Deepanraj	Biogas Generation through Anaerobic Digestion Process – An Overview	Res. J Chemistry Energy.	18(5), 2014, 80-94



9	Dr. V. Sivasubramanian & S. Naveen	Dense Gas dispersion Studies using Computational Fluid Dynamics	Int. J Engineering Science Innovative Technology	3(3), 2014, 172-177
10	Dr. V. Sivasubramanian & S. Naveen	3D simulation of a Medium Scale Pool Fire	International J Engineering Res Application	4(4), 2014, 178-187
11	Dr. V. Sivasubramanian & Dr. S. Bhuvaneshwari	Equilibrium, Kinetics and Breakthrough Studies for Adsorption of Cr (VI) on Chitosan	Chemical Engineering Committee	201:6, 2014, 834-854
12	Dr. V. Sivasubramanian & Dr. S. Bhuvaneshwari	Comparative studies for chitosan yield and chelating ability of Aspergillus niger and Rhizopus oryzae	Indian J Biotechnology	12 , 2013,429-431.
13	Dr. V. Sivasubramanian & K. Haribabu	Determination of Mass Transfer Coefficient in an Inverse Fluidized Bed Reactor using Statistical and Dynamic Method for a Non - Newtonian Fluid.	J. Scientific and Ind. Res. CSIR journal	72, 2013, 485-490.
14	Dr. V. Sivasubramanian, Dr. N.Selvaraju and Uma Krishnakumar,	Physical - chemical properties of the biodiesel extracted from rubber seed oil using solid metal oxide catalysts, International	J Eng. Res. Apply.	3:4, 2013 2206-2209.
15	Dr.V. Sivasubramanian, Naveenji Arun, Ashir. A	Recent Progress in Hydrodynamics of Inverse Fluidized Bed Reactor – A Review	Chem. Eng. Comm.	200:9, 2013 1260-1277.
16	Dr. N. Selvaraju, M.S.Giri, Nandagopal, Rahul Antony Rangabhashiyam S, & Nidhin Sreekumar	"Overview of Microneedle System- A Third Generation Transdermal Drug Delivery Approach"	Microsystem Technologies (Springer, SCI Impact Factor 2013: 0.952)	Vol. 20 , issue 7- July 2014, 1249-1272
17	Dr. N. Selvaraju , Anu N & Rangabhashiyam S,	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
18	Dr. N. Selvaraju , Anu N , Rangabhashiyam S, and M.S.Giri Nandagopal	Relevance of isotherm models in biosorption of pollutants by agricultural byproducts	Journal of Environmental Chemical Engineering	Vol. 2, issue 1,2014, 398-414
19	Dr. N. Selvaraju, Anu N & S. Pushpavanam	" A Holistic Approach Combining Factor Analysis, Positive Matrix factorization and Chemical Mass balance Applied to Receptor Modeling "	Environmental Monitoring and Assessment (Springer, Impact Factor 2012: 1.592	Vol. 185 , December 2013, 10115-10129
20	Dr. N. Selvaraju & Anu N Rangabhashiyam S	Sequestration of dye from textile industry wastewater using agricultural waste products as Adsorbents	Journal of Environmental Chemical Engineering	Vol. 1, issue 4, 2013, 629-641

21	Dr. N. Selvaraju, Anu & Rangabhashiyam S	"Biosorption of heavy metals using low cost agricultural by-products"	Research Journal of Chemistry and Environment	Vol.17 (11) November (2013) 112-123
22	Dr. N. Selvaraju, Anu N & Rangabhashiyam S.	A Holistic approach Combining Factor Analysis, Positive Matrix Factorization and UNMIX Applied to Receptor Modeling	Journal of Scientific and industrial Reserach	Vol.72, December 2013, 754-759
23	Dr. N. Selvaraju , Anu N & Rangabhashiyam S	The Significance of Fungal Laccase in Textile Dye Degradation - A review	Research Journal of Chemistry and Environment.	Vol.17 (6) June (2013) , 88-95
24	Dr. M.V. Pavan Kumar, M. Ananda Rao and K.Rajesh	Evaluation of Corosion damage to cold rolled grain oriented steel sheets under rain water followed by ambient atmosphere	Engineering Failure Analysis	30, 2013, 10-16

ii. International Conference

Sl. No	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Dr. Lity Alen Varghese, Najuma Abdul Razack	Synthesis & Characterisation studies of the Phenolic resin modifications on the epoxy systems	3rd International conference on Material for the future (ICMF 2012)	6-8, 2013
2	Dr.V. Sivasubramanian	Study on the Effect of pH on Biogas Production from Food Waste by Anaerobic Digestion.	The 9th International Green Energy Conference. Tianjin, China.	May 2014
3	Dr.V. Sivasubramanian	Recycling of Textile Waste Water: Dye Adsorption using Magnetic Biocomposite	Third International Conference on Recycling and Reuse of Materials (ICRM 2014.), MG University, Kottayam, Kerala	April 2014
4	Dr. N. Selvaraju M.A.Vishnuganth, Mathava Kumar	" Continuous-mode Photocatalysis Reactor Operation for livestock Wastewater Treatment "	Abstratct accepted in International Symposium on Integrated Water Resources Management	(IWRM - 2014)
5	Dr. N. Selvaraju Anu N, Vinod M, J. Ahammed A.P, and Suganya E	"Comparision of CMB and UNMIX Receptor Model in Source Apportionment of PM2.5 Data "	International Conference on Advances in Chemical Engineering, ICACE 2013, at NIT Raipur	April 05-06 ,2013
6	Dr. N. Selvaraju Anu N , Arun K. T.M., Jaseel M.V. Suganya E	" Estimations of Source Contribution using PMF and UNMIX analysis of PM2.5 Data "	International Conference on Advances in Chemical Engineering, ICACE 2013, at NIT Raipur	April 05-06 ,2013
7	Dr. N. Selvaraju, R.K. Sikarwar, S.Choudhury, V. M. Tripathi A.Ranjan	Optimization of the properties of a Microbial fuel cell by Dynamic Modelling	International Conference on Advances in Chemical Engineering, ICACE 2013, at NIT Raipur	April 05-06 ,2013

8	Dr. N. Selvaraju, S. Choudhury, R.K.Sikarwar, A. Ranjan	"Dynamic Modeling and Simulation of Microfluidic Fuel cell using COMSOL Multiphysics "	International Conference on Advances in Chemical Engineering, at NIT Raipur	05-06 ,2013 April
9	Dr.V. Sivasubramanian	Renewable utilization of waste for biopolymer production: A review	international Conference on Chemical and Environmental Research, ICCER 2014, Jamal Mohamed College, Trichy.	11-12 March 2014
10	Dr .V.Sivasubramanian	Solid concentration influence on biogas yield from food waste in anaerobic batch digester. _	2014 International Conference and utility exhibition on green energy for sustainable development Pattaya - Thailand	19-21, March 2014
11	Dr .V.Sivasubramanian	Optimization of Gas Holdup and Hydrodynamic Parameters in IF for Wastewater Treatment	International Conference on Chemical and Environmental Research, ICCER 2014, Jamal Mohamed College, Trichy.	11-12 March 2014
12	Dr .V.Sivasubramanian	Utilization of algal and fungal exopolysaccharides for effective treatment of acid mine drainage	International Conference on Chemical and Environmental Research, ICCER2014, Jamal Mohamed College, Trichy.	11-12 March 2014
13	Dr .V.Sivasubramanian	Application of response surface methodology for wastewater remediation	International Symposium on Integrated Water Resources Management, IWRM 2014, CWRDM, Calicut, Kerala	February 2014
14	. Dr .V.Sivasubramanian	Enhancement of biogas production by pretreatment: A review, IV,	International Conference on Advances in Energy Research, IIT Bombay	10-12 Dec.2013
15	. Dr .V.Sivasubramanian	Biosorption of hazardous Azo Dye metanil yellow using immobilized aquatic weed	International Conference on Future Trends in Structural, Civil, Environmental and Mechanical Engineering, Bangkok, Thailand.	July 2013,

#### National Conference

Sl. No.	Name of the Author	Title of Paper	Name of National Conference	Vol., Year, p.p.
1.	Dr. Lity Alen Varghese, Najuma Abdul Razack	Comparative studies on the effect of various hardeners on epoxy resin	1st national Conference on Advanced Trends in Chemical Engineering	2013
2.	Dr. Lity Alen Varghese, Najuma Abdul Razack	Performance of epoxy resin system with various hardeners	26th Kerala Science Congress	2014

3 .	Dr .V.Sivasubramanian	Process optimization of the biodiesel produced from the rubber seed oil & performance analysis of a diesel engine fuelled by the biodiesel blends.	26th Kerala Science Congress Wayanad, Kerala – won the Best Poster Award	January 28-31, 2014
-----	-----------------------	--	---	---------------------

**b. Community Services : Nil**

**c. Other Academic and Administrative Services:**

Name of Staff	Academic and Administrative Services
Dr.Lity Alen Varghese	Head-CHED, , BOAC member, coordinator of proposed MTech program, purchase committee member, dept purchase coordinator, faculty in charge -Chemical Technology Lab
Dr.Shiny Joseph	Class committee chairman, faculty advisor, dept purchase committee coordinator, NBA coordinator, project coordinator
Dr.V.Sivasubramanian	Faculty Advisor, Class Committee Chairman, Faculty Co-Ordinator-Seminar, Purchase committee member, APRC (Academic Performance Review Committee) member, Curriculum Revision Committee member, Co-Ordinator-Environmental Lab, Co-Ordinator-Proposal of new M.Tech program.
Dr. Aparna.K	Faculty advisor, class committee chairman, library in charge, faculty in charge of PDC lab, project coordinator
Smt. S. Bhuvaneshwari	Faculty in charge of research lab, faculty advisor, project guide
Mr.Vineesh Ravi	Faculty advisor, library in charge, faculty in charge of Heat transfer lab
Dr.N.Selvaraju	Faculty Advisor, Department: Placement In charge, Faculty in charge: Environmental Lab, Co-Ordinator-Proposal of new M.Tech program, Class committee chairman, TEQIP II Co-Ordinator, Department Exam Co-ordinator, Dean Plan Fund Co-ordinator, Hostel Warden (A Hostel)
Mr.Haribabu	Faculty Advisor (2012-16 Batch), Faculty Incharge of Reaction Engineering Lab, Department Co-Ordinator: Parent Teacher Association.
Dr.Pavan Kumar	Faculty Advisor, Faculty Incharge of Mechanical Operations Lab, Department Timetable incharge, CHEA Faculty Co-Ordinator, PhD Co-Ordinator, CCB (AIEEE2012) at NITC for admission To BTech/BArch, Warden-E Hostel

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

Sl.No	Title	Coordinators	Duration & Period
1	" Recent Research Trends in Chemical & Environmental Engineering" RRTCEE 2013,	Dr. N. Selvaraju & Dr. Lity Alen Varghese	4 days
2	Changing Scenario in Energy and Environment (CSEE 2013)	Dr. Aparna K and Dr. Shiny Joseph	5 days

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. Shiny Joseph	Faculty Devoelopment programm	1 ½ hours	NIT, calicut
2	Dr. M. V. Pavan Kumar	Bioprocess simulation	22nd 24th April 2014	PSG College of Technology, Coimbathur
3	Dr .V.Sivasubramanian	Biodiesel - A sustainable solution for biofuel production - Invited lecture – FDP on Emerging Trends in Chemical and Environmental Engineering	July 2014	MHRD & TEQIP II, NITC,
	Dr .V.Sivasubramanian	Emerging Trends in Fluidized	July 2014.	MHRD & TEQIP

4		Bed Reactors for Wastewater Treatment – Invited lecture – FDP on Emerging Trends in Chemical and Environmental Engineering ,		II, NITC
5	Dr .V.Sivasubramanian	Key note lecture on “Optimization of Gas Holdup and Hydrodynamic Parameters in IFBR for Wastewater Treatment” in International Conference on Chemical and Environmental Research	12th March 2014	ICCER 2014, Jamal Mohamed College, Trichy
6	Dr .V.Sivasubramanian	Fluidized Bed Reactors for Wastewater Treatment – Invited Lecture – FDP on Modelling Techniques for Environmental and Hydrological Systems	December 2013.	MTEHS - 2013 MHRD-AICTE-TEQIP II - Dept of Civil Eng., NITC
7	Dr .V.Sivasubramanian	Effluent Treatment using Inverse Fluidized Bed Reactors – Invited Lecture – FDP on Green Chemistry: Frontiers and Challenges	June 2013	TEQIP II - Dept of Chemistry, NITC
8	Dr .V.Sivasubramanian	Fluidized Bed Reactors for Wastewater Treatment – Invited Lecture — Chemical Engineering Design, Modeling and Simulation	March 2013.	TEQIP II - GEC, Kozhikode, Kerala

**f. Details of Faculty, who acquired Higher Qualification**

**DEPARTMENT OF CIVIL ENGINEERING**

**(a) Publications**

Sl. No.	Name of the Authors	Title of paper	Name of Journal/conference	Publications Details
1	Chithra NR and Santosh Thampi G	“Selection of predictors for downscaling meteorological data in the Chaliyar river basin”	Proc. of the International Symposium on Integrated Water Resources Management (IWRM-2014),	CWRDM, Kozhikode, Kerala, India, Feb 19-21, 2014, Vol. II, pp. 1244-1252
2	Chithra NR and Santosh G Thampi	“Bias correction of ANN based statistically downscaled precipitation data for the Chaliyar river basin”	Proc. of the International Conference on Energy and Environment (ICEE-2013),	RIT Kottayam, Kerala, India, Dec 12-14, 2013.
3	Chithra NR and Santosh G Thampi	“Bias correction of ANN based statistically downscaled monthly mean maximum and minimum temperature data for the Chaliyar river basin”	Proc. National Conference on Changing Climate Scenario and Sustainable Resource Management (CSSR-14),	NSS College of Engineering, Palakkad, Kerala, India, Jan 17-19, 2014
4	Muhammed Siddik and George K. Varghese	Performance of GA Selection Techniques in Solving the Groundwater Pollutant Source Tracking Problem	Proc. Environmental conference 2014	Central University of Kerala, Kasaragod, 2014
5	Amala M. Saji and George K. Varghese	Landfill Site Selection Based on Human Health	Proc. Environmental conference 2014	Central University of Kerala, Kasaragod
6	Muhammed Siddik and George K. Varghese	Fitness evaluation while using contaminant transport models	Proc. International Conference on Waste	NSS College of Engineering

		for solving groundwater pollution source identification problem	Management for Sustainable Development 2014	Palakkad, March 21- 23, 2014
7	Anu Paul and George K. Varghese	An Investigation into the Percolation of Rainwater through a Surface Paved with Interlocking Tiles	Peoc. International Conference on Waste Management for Sustainable Development 2014	NSS College of Engineering Palakkad, March 21- 23, 2014
8	Rajat Rastogi, Harikrishna M. and Mani Jacob	'Choice based Modelling by Destination Value and Type of Planning for Domestic Leisure Travellers in India'	Journal of Urban Planning and Development, American Society of Civil Engineers, USA.	DOI 10.1061/(ASCE)UP.1943-5444.0000183, 05013002.
9	Adithya Parameswaran, Bhagath Singh K., Sandeep K. and Harikrishna M.	'Design of an Oversaturated Traffic Signal using Simulated Annealing'	Proceedings of International Conference on Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT),	July 01-03, pp 146-150. 2013
10	K. Krishnamurthy	Segregation of Non-Motorised Vehicles- An Economical Option to Improve Capacity of Urban Roads.	Journal of Progress in Civil Engineering	Vol. No.1, Issue No.1. 64-64,2013
11	Abey E. T., T. P. Somasundaran and A. S. Sajith	"A Critical Evaluation of Indian Codes on Seismic Analysis of Concrete Bridges"	Proc. 2nd International Conference on Innovations in Civil Engineering,	SCMS Cochin, May 2014
12	Abey E. T., T. P. Somasundaran and A. S. Sajith	"Significance of Elastomeric Bearing on Seismic Response Reduction in Bridges"	Proc. 9th Structural Engineering Convention,	IIT Delhi, Dec. 2014
13	Sivakumar M., Bincy B., Anjaneyulu M. V. L. R	"Laboratory Studies on Reclaimed Bituminous Mixes"	Proc. National Seminar on Recycling of Bituminous Pavements (NASERBIP), Central Road Research Institute	New Delhi, India, January 15-16, 2014
14	Sivakumar M., Sony K. G., Anjaneyulu M. V. L. R	"Characterization of Nano-Modified Bituminous Concrete Mixes"	Proc. 13th Annual International Conference on Asphalt Pavement Engineering & Infrastructure	Liverpool John Moores University, Liverpool, UK, February 26-27, 2014.
15	Sivakumar M., Sony K. G., Anjaneyulu M. V. L. R	"Performance Characteristics of Nano-Clay Modified Bituminous Mixes", ,	Proc. of Transportation Young Researchers Symposium (TYRES 2014)	National Institute of Technology, Warangal, India, March 27-29, 2014
16	Pramada.S.K, Roshni T, Hashim CK, Anurag K, Binni J, Hafiz S, Mohammed H	An infiltration based recharge estimation model	Proc. of Conference on Changing Climatic Scenario and Sustainable Resource Management (CSSR 2014)	NSS College of Engineering, Palakkad, 17-19 January 2014, Vol.-I, pp: 174-179
17	Pramada.S.K, Minnu.K.P and Roshni T	Genetic algorithm based simulation optimization approach to seawater intrusion	Proc. of International Symposium on Integrated Water Resources Management (IWRM-2014)	CWRDM,Kozhikode, Kerala, 19-21 February 2014, Vol.II,pp. 1313-1320
18	Pramada.S.K and Sowmya V	Surface water groundwater interaction model- A numerical modeling approach	Proc. of First Annual Conference on Innovations and	NITK, Surathkal, Karnataka, 19-

			Developments in Civil Engineering (ACIDIC-2014)	20 May 2014, Paper No. 133, Vol.-I, pp: 1062-1069
19	N.Ganesan, P.V. Indira and Seena.P	"High Performance Cement Concrete Squat Shear Walls Under Reverse Cyclic Loading"	Int. JI. Bridge and Structural Engineer	Vol.44, No.1, March 2014, pp.100-107
20	N.Ganesan, P.V. Indira and Sabeena.M.V	"Bond Stress-Slip Response of Bars Embedded in Hybrid Fibre Reinforced High Performance Concrete"	Int. JI. Construction and Building Materials, Elsevier	Vol.50, January 2014, pp. 108-115
21	N.Ganesan, P.V. Indira and Sabeena.M.V	"Behaviour of Hybrid Fibre Reinforced Concrete Beam-Column Joints Under Reverse Cyclic Loads"	Materials and Design, Elsevier	Vol.54, Feb 2014, pp. 686-693
22	N. Ganesan	"Studies on Hybrid Fibre Reinforced High Performance Concrete"	Proceedings of International Conference on Advances in Materials and Techniques in Civil Engineering, ICMAT-2014	9-11, January 2014, pp.40-46.
23	N.Ganesan, P.V. Indira and Anjana Santhakumar	"Engineering Properties Of Steel Fibre Reinforced Geopolymer Concrete"	Advances in Concrete Construction, An International Journal, Techno Press	Vol. 1, No. 4 , Dec,2013, pp.305-318
24	N. Ganesan	"Strength and Behaviour of Hybrid Fibre Reinforced High Performance Concrete"	Proceedings of the CUSAT National Conference on Recent Advances in Structural Engineering, RASE 2013	Dec 13-15 , 2013, pp.11-25
25	P.Seena, N.Ganesan and P.V.Indira	"Structural Behaviour of High Performance Cement Concrete Slender Shear Walls Under Reverse Cyclic Loading"	Proceedings of the CUSAT National Conference on Recent Advances in Structural Engineering, RASE 2013	Dec 13-15 , 2013, pp.289-295
26	N.Ganesan, Bharati Raj and A.P. Shashikala	"Behaviour of Self Compacting Rubberised Concrete Beam Column Joints"	ACI Materials Journal	Vol.110, No.6,Nov- Dec 2013, pp.697-704
27	N.Ganesan, P.V. Indira and Sabeena.M.V	"Tension Stiffening and Cracking of Hybrid Fibre Reinforced Concrete"	ACI Materials Journal	Vol.110, No.6,Nov- Dec 2013, pp.715-721
28	Anjana Santhakumar, N.Ganesan and P.V.Indira	"Geopolymer Concrete- An Energy Efficient and Ecofriendly Concrete"	Proc. International Conference on Energy, Environment and Ecofriendly Buildings (ICEEEB)	19th – 21st of September 2013 at Jain University, Bangalore
29	N.Ganesan, P.V. Indira and Sabeena.M.V	"Flexural Behaviour of Hybrid Fibre Reinforced High Performance Concrete"	The Bridge and Structural Engineer	Vol.43, No.2, June 2013, pp.39-50
30	N.Ganesan, P.V.Indira and Anjana Santhakumar	"Behaviour of Steel fibre Reinforced Geopolymer Concrete Members under Flexure"	International Journal of Earth science and Engineering	Vol. 6, No.3, June 2013, pp. 546-551
31	N.Ganesan, P.V.Indira and Anjana Santhakumar	"Compressive Constitutive Behaviour of Steel Fibre Reinforced Geopolymer Concrete under Cyclic Loading"	International Journal of Engineering Sciences	Vol.2, No.1, 2013, pp. 1-5
32	N.Ganesan, P.V.Indira and Anjana Santhakumar	"Prediction of ultimate strength of reinforced geopolymer concrete wall panels in one-way"	Construction and Building Materials - An International	Vol. 48, 2013, pp. 91-97

		action”	Journal of ELSEVIER	
33	N.Ganesan, Bharati Raj and A.P.Shashikala	“Flexural Fatigue Behaviour of Self Compacting Rubberized Concrete”	Construction and Building Materials - An International Journal of ELSEVIER	Vol. 44, 2013 pp. 7-14
34	N.Ganesan, P.V.Indira and M.V.Sabeena	“Behaviour of Hybrid Fibre Reinforced High Performance Concrete under Direct Shear”	Innovations in Concrete Construction, Proceedings of the International UKIERI Concrete Congress, NIT Jalandhar	5-8 March 2013, pp. 253-262
35	N.Ganesan, V.Syamprakash and Mini Soman	“Behaviour of Steel Fibre Reinforced Self Compacting Concrete One Way Slabs”	Journal of Structural Engineering	Vol.40, No.2, June-July 2013, pp.104-112
36	N.Ganesan, Ruby Abraham, Beena P.R and Anil R	“Influence of Horizontal Reinforcement on Ultra High Performance Concrete Wall Panels under Two way in plane action”	International Journal of Scientific & Engineering Research	V.4, Issue 5, May 2013, pp.149-152
37	N.Ganesan, P.V. Indira and Anjana Santhakumar.	“Influence of Steel Fibres on Tension Stiffening and Cracking of Reinforced Geopolymer Concrete”	Magazine of Concrete Research, ICE,UK	Vol. 66, No. 6 , Jan 2014, pp.268-276
38	Ganesan, N., Indira,P.V.and Seena,P.	‘Flexural strength and behaviour of Reinforced High Performance Concrete Slender Shear walls’	Proc. Int. Conference on Advances in Engineering and Technology, Sinhgad Institute of Technology, Lonavala, Pune, India	15 -17 May 2013,
39	Ganesan, N., Indira,P.V.and Anjana Santhakumar.	‘Compressive Constitutive Behaviour of Steel Fibre Reinforced Geopolymer Concrete Under Cyclic Loading’	Proc. Int. Conference on Advances in Engineering and Technology, Sinhgad Institute of Technology, Lonavala, Pune, India	15 -17 May 2013,
40	A.S Sajith, T.M. Madhavan Pillai, Mohammed Ameen and Sobin Thomas.	“Performance of Vertical Cantilever with Tip Mass as MTMDs in controlling response of structures for ground motions”	Journal of Structural Engg.	Vol. 40, No. 4, October-November, pp. 411-419.
41	Aneesha Balaji, Ansy A, T M Madhavan Pillai and Praveen Nagarajan.	“Review of IS 456 Code Provisions for Fire Resistance using Finite Element Method”	Proc. International Workshop on Performance, Protection and Strengthening of Structures under Extreme Loading, PROTECT2013	Mysore, India, August 26-27, 2013, pp. 61
42	N K Manjula, Praveen Nagarajan, and T M Madhavan Pillai	“An Evaluation of Ground Motion Scaling Procedures based on Pushover Analysis”	Proc. International Workshop on Performance, Protection and Strengthening of Structures under Extreme Loading, PROTECT2013	Mysore, India, August 26-27, 2013, pp. 59
43	N K Manjula, Praveen Nagarajan, T M Madhavan Pillai.	“A Comparison of Basic Pushover methods”	International Refereed Journal of Engineering and Science,	Vol. 2, Issue 5, May 2013, pp. 14 – 19. (www.irjes.com)

Books published:

- Dr. Praveen Nagarajan (2013), Prestressed Concrete Design, Pearson Education , India, 2013



**(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, Technical Committee Constituted by the Govt. of Kerala to Evaluate Proposals for Consultancy Services for the Sewage Treatment Plant, Medical College Hospital, Kozhikode
- Member, Technical Committee Constituted by the State Mission Director, National Rural Health Mission to Monitor the Progress in Construction of the Sewage Treatment Plant at Medical College, Hospital, Kozhikode
- Member, District Level Planning Committee on Irrigation, Kozhikode District
- Resource Person and Expert, Model Solid Waste Disposal Project of the Kozhikode Corporation

Sri. Harikrishna M : Member of Project Group for preparation of Master Plan for CREC School, in line with the PRISM Project along with Faculty and Students of the Department of Civil Engineering and Architecture

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

**(c) Other Academic and administrative services**

<b>Name of Faculty</b>	<b>Academic and administrative services</b>
Dr. N. Ganesan	<ul style="list-style-type: none"> <li>• Member in many of the Doctoral Committees</li> <li>• Member of Senate of NITC</li> </ul>
Dr. V Mustafa	<ul style="list-style-type: none"> <li>• Dean (Planning and Development), NIT Calicut</li> <li>• Chairman/Member in many of the Doctoral Committees</li> <li>• Member of Senate of NITC</li> <li>• Planning and Revision of Curriculum</li> </ul>
Dr. T P Somasundaran	<ul style="list-style-type: none"> <li>• Chairman Institute Canteen Committee</li> <li>• Member of Senate of NITC</li> <li>• Member, Buildings and Works committee, Central University of Kerala, Kasargod, Kerala</li> <li>• Member, Buildings and Works committee, Malayalam University, Tirur, Kerala</li> <li>• Member, Buildings and Works committee, NIT Goa</li> <li>• Coordinator of M.Tech programme in Offshore structures</li> </ul>
Dr. S. Chandrakaran	<ul style="list-style-type: none"> <li>• Expert member of TRDM to review water shed projects submitted to Govt. of Kerala</li> <li>• Member of Senate of NITC</li> <li>• Member in many of the Doctoral Committees</li> <li>• Reviewer of Indian Geotechnical Journal</li> <li>• Reviewer of Journal of structural engineering</li> <li>• Reviewer of International journal of geotextiles and geomembranes</li> </ul>
Dr. T Zacharia Varghese	<ul style="list-style-type: none"> <li>• Faculty adviser for students of B.Tech (Civil) 2009 Admission</li> <li>• Member of Senate of NITC</li> <li>• I/C of strength of materials, concrete and structural engg. Lab.</li> </ul>
Dr. J Sudhakumar	<ul style="list-style-type: none"> <li>• Member dept. purchase committee</li> <li>• Member of Senate of NITC</li> <li>• Faculty Adviser, 2009 Admission (Civil)</li> <li>• Preparation of Time Table &amp; Class Room for the Department</li> </ul>
Dr. N Sankar	<ul style="list-style-type: none"> <li>• Expert Member in the NBA committee for the Accreditation of courses in an University in Lucknow, October, 2012.</li> <li>• I/C of Geotechnical Engineering Lab.</li> <li>• Member of Senate of NITC</li> <li>• Chairman examination vigilance committee</li> <li>• Member in many of the Doctoral Committees</li> <li>• Coordinator of M.Tech programme in Environmental Geotechnology</li> </ul>
Dr. M V L R Anjaneyulu	<ul style="list-style-type: none"> <li>• Chairman, UG admission for the Institute</li> <li>• I/C of Transportation Engineering Laboratory</li> <li>• Member of Senate of NITC</li> <li>• Coordinator of M.Tech programme in Traffic and Transportation planning</li> <li>• Member, Departmental purchase committee</li> <li>• Member, IRC - HRB - Identification, Monitoring and Research Application (ISRI.A) Committee.</li> </ul>

	<ul style="list-style-type: none"> <li>• Coordinator, State Technical Agency, PMGSY, NRRDA</li> <li>• Chaired the workshop on “Sustainable Transport Planning and Policy”, at Conference of Transportation Research Group of India (CTRG), 7th to 10th December, 2011, Vivanta, Bangalore.</li> <li>• Member (AICTE Nominee), Board of Governors, Government Engineering College Wayanad</li> <li>• Member, Consultative Committee, Transportation Research Centre, College of Engineering, Trivandrum</li> </ul>
Sri K Saseendarn	<ul style="list-style-type: none"> <li>• I/C of Geotechnical Engineering Lab.- assistant</li> <li>• Department Secretary</li> </ul>
Dr. Mohammed Ameen	<ul style="list-style-type: none"> <li>• Member of Senate of NITC</li> <li>• Member of the Library Advisory Committee of NITC</li> <li>• Member in many of the Doctoral Committees</li> <li>• PhD Programme Coordinator of the Department</li> <li>• Faculty Advisor for Civil batch 2010</li> </ul>
Dr. P V Indira	<ul style="list-style-type: none"> <li>• Coordinator, Centre for Continuing Education</li> <li>• Member of Senate of NITC</li> <li>• Member in many of the Doctoral Committees</li> <li>• Coordinator of M.Tech programme in Structural Engg</li> <li>• Faculty adviser for students of B.Tech (Civil) 2011 Admission</li> </ul>
Dr. A P Shashikala	<ul style="list-style-type: none"> <li>• President of Civil Engineering Association</li> <li>• I/C Offshore Engineering Lab</li> <li>• Member of Senate of NITC</li> <li>• Faculty adviser for students of B.Tech (Civil) 2010 Admission</li> <li>• Member in many of the Doctoral Committees, DCC, DPC</li> </ul>
Dr. T M Madhavan Pillai	<ul style="list-style-type: none"> <li>• Member, Board of Studies, Civil Engg., NIT, Trichy.</li> <li>• Adviser, (WS &amp; FS, Weaker students &amp; Foreign Students), NITC</li> <li>• Coordinator SC/ST cell of the Institute, NITC</li> <li>• Member of Senate of NITC</li> <li>• Departmental information facilitation in-charge for Annual Report etc</li> <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 style="list-style-type: none"> <li>• Registrar, NIT Calicut</li> <li>• Co-ordinator, Student Counselling</li> <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 style="list-style-type: none"> <li>• Associate Dean (Planning &amp; Development), NIT Calicut</li> <li>• Faculty advisor for students of B.Tech (Civil) 2012 admissions</li> <li>• I/C of Survey Lab.</li> </ul>
Dr. Arun C	<ul style="list-style-type: none"> <li>• Faculty adviser for students of B.Tech (Civil) 2010 Admission</li> <li>• Secretary of Regional Engineering College Calicut Alumni Association (RECCAA) (2008-2012)</li> <li>• Faculty in Charge of NITC Health Center (2010 – till date)</li> <li>• Adjunct Faculty at School of Management Studies, NITC</li> <li>• Member of NITC Grievance Redressed Cell for Faculty</li> </ul>
Dr. Sajith A S	<ul style="list-style-type: none"> <li>• Associate Dean (SW) from December 2013.</li> <li>• Faculty Advisor 2012 Admissions (Civil)</li> <li>• Lab in charge UG CAD Lab, CED</li> <li>• Co-coordinator, Dept. consultancy projects</li> <li>• Warden, Institute Hostels (B – Hostel)</li> </ul>
Dr. Praveen Nagarajan	<ul style="list-style-type: none"> <li>• I/C teaching aids/class rooms</li> <li>• Co-ordinator, B. Tech project evaluation</li> <li>• Faculty adviser for students of B.Tech (Civil) 2012 Admissions</li> <li>• Data base preparation of Alumni</li> <li>• I/C of Examination</li> </ul>
Dr. George K Varghese	<ul style="list-style-type: none"> <li>• Faculty advisor for students of B.Tech (Civil) 2011 Admission</li> <li>• Programme coordinator, NSS Cell</li> </ul>

	<ul style="list-style-type: none"> <li>• Lab-in charge, Environmental Engineering Lab</li> </ul>
Dr. Harikrishna M	<ul style="list-style-type: none"> <li>• Counselling Official – CSAB - JEE (Main) Reporting Centre, NIT Calicut – 2013.</li> <li>• In-charge, PG Computer Centre, CED- 01-08-2012 to date</li> <li>• Assistance to Faculty i/c in Time table and Room allotment - 01-08-2012 to date</li> <li>• Assistance in Student Counselling and Weak Students' Affairs – CED- 01-08-2012 to date</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 to co-ordinate activities relating to Civil Works including Environmental Management of TEQIP- Phase – II</li> </ul>
Smt.Chitra N R	<ul style="list-style-type: none"> <li>• Warden for Ladies Hostel</li> <li>• Faculty advisor for students of B.Tech (Civil) 2008 Admission</li> <li>• I/C of drawing office</li> </ul>
Dr. Vinu Palissery	<ul style="list-style-type: none"> <li>• Faculty Adviser, 2013 Admission (Civil)</li> <li>• Co-lab-in-charge, Structures/SM/Concrete lab</li> </ul>
Dr. K Rangaswamy	<ul style="list-style-type: none"> <li>• Faculty Advisor – 2010 admission</li> <li>• Warden, NITC Hostel (PG 2)</li> <li>• I/C of Geotechnical Engineering Lab-assistant.</li> </ul>
Dr. K Krishna Murthy	<ul style="list-style-type: none"> <li>• Executive Engineer (I/C), NIT Calicut</li> </ul>
Sri. M Sivakumar	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2011</li> </ul>
Dr. Mini Ramanan	<ul style="list-style-type: none"> <li>• Member, B. Tech project evaluation</li> <li>• Faculty Advisor for Civil batch 2012</li> </ul>
Dr. Madhav Kumar S	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2010</li> <li>• I/C of Environmental Engineering Lab.</li> <li>• Dept. representative, Inst. Research and Consultancy Committee (IRCC), NIT Calicut</li> <li>• Member, CED Webpage Design &amp; Development Team</li> <li>• Designed a system for Solid Waste management in NITC Campus</li> </ul>
Dr. D Sathish Kumar	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2011</li> </ul>
Dr. Pramada S K	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2012</li> <li>• I/C of Seminar Labrary</li> </ul>

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

SI No	Name of Staff	Title of the Programme	Organisation
1	Dr. George K Varghese, S. Mathavakumar Prof. B. J. Alappat of IIT Delhi	Thermal and other techniques for waste management	Organized jointly with IIT Delhi during March 7 -9.
2	Dr. Harikrishna M	Short term programme on 'Urban Transport Systems Planning'	Centre for Transportation Research, CED at National Institute of Technology Calicut from November 25 - November 29, 2013
3	Dr. K.Krishnamurthy	One Day Training Programme on "Road Safety Awareness for Educational Institutional Bus Drivers"	NIT Calicut in collaboration with Motor Vehicles Department, Kozhikode, Govt. of Kerala on 11 <sup>th</sup> January, 2014.
4	Dr. K.Krishnamurthy	Short term training programme on "Road Safety and Audit" organized for PWD Engineers	NIT Calicut, 04-05 <sup>th</sup> March 2014
5	Dr. Sajith A S Dr. George K Varghese	One day training programme in Total Station to faculty members of Vidya Institute of Technology Trichur	NIT Calicut,2014
6	Dr. Vinu Palissery	FDP on Biomechanics for Engineers (BME-2013),	NIT Calicut, Dec15-21, 2013

7	Sri. M Sivakumar	One day workshop on “Modern Bituminous Mix Technologies”	NIT Calicut, October 26, 2013
8	Dr. Pramada S K	A two day training programme on “Groundwater flow and Contaminant Transport Modeling”	NIT Calicut, 27-28 December 2013, (sponsored by TEQIP II)
9	Dr. Praveen Nagarajan	Applications of Finite Element Method to Engineering Problems	NIT Calicut, 09-15 December 2013

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

Sl. No	Name of Staff	Title of the Programme	Organisation
1	Smt. Chitra N R	“Modeling the impact of climate change on water resources” in the FDP on Modelling Techniques for Environmental and Hydrological Systems (MTEHS- 2013),	NIT Calicut, Dec 8-14, 2013
2	Dr. George K Varghese	Advances in Hydrosystems Modelling and Climate Change Impact Assessment	TKM College of Engg., Kollam. 28th Nov.2013
3	Dr. George K Varghese	Modelling Techniques for Environmental and Hydrological Systems (MTEHS-2013)	NIT Calicut, Civil Dept. 9th Dec.2013
4	Dr. George K Varghese	Changing Scenario in Energy and Environment	NIT Calicut, Chemical Dept. 10th Dec.2013
5	Dr. George K Varghese	Groundwater Flow and Contaminant Transport Modeling	NIT Calicut, Civil Dept. 28th Dec.2013
6	Dr. George K Varghese	Waste Management - Issues and Priorities	TKM College of Engg., Kollam. 5th Mar.2014
7	Dr. George K Varghese	NITC-IITD National Seminar on Thermal and Other Techniques for Waste Management	NIT Calicut, Civil Dept. 7th Mar.2014
8	Dr. George K Varghese	Recent Trends in Bio-Energy	GCE Kannur. 27th Mar.2014
9	Dr. Harikrishna M	“Factors influencing Road Safety” in Training Programme on ‘Road Safety and Audit’	National Institute of Technology Calicut from March 4 –5, 2014.
10	Dr. Harikrishna M	Short term Programme on ‘Urban Transport Systems	National Institute of Technology Calicut from November 25 – November 29, 2013.
11	Dr. K.Krishnamurthy	“Transportation Systems Planning” conducted by Centre for Transportation Research	Department of Civil Engineering, NIT Calicut during 25-29 <sup>th</sup> November, 2013
12	Dr. Sajith A S	Sessions in the three day workshop on Surveying with Total Station and GPS	Department of Civil Engineering as part of the activities of the Centre for Transportation Research during April 28-30,2014
13	Sri. M Sivakumar	“Recycling of Bituminous Mixes – Cold Process” in One day workshop on “Modern Bituminous Mix Technologies”	NIT Calicut, October 26, 2013
14	Sri. M Sivakumar	“Evaluation of Flexible Pavement Distress” in One day workshop on “Flexible Pavement Evaluation and Overlay Design by BBD”	NIT Calicut, November 23, 2013
15	Dr. Pramada.S.K	“Flow net analysis by numerical method” and “Seawater intrusion modeling”	Department of Civil Engineering, NIT Trichy 25-26 October 2013
16	Dr. Pramada.S.K	“Groundwater modeling –Numerical method” on Modelling Techniques for Environmental and Hydrological Systems (MTEHS-2013)	Department of Civil Engineering, NIT Calicut 8-14 December 2013
17	Dr. Pramada.S.K	“ Groundwater modeling –Numerical method”, Groundwater modeling –	Department of Civil Engineering, College of engineering, Trivandrum 9-14,

		Case studies” and “Demonstration of Visual Modflow” for a training programme Groundwater Development and Management	December 2013
18	Dr. Pramada.S.K	“Groundwater modeling-Finite difference method”, and “Seawater Intrusion” for a training programme on Groundwater flow and Contaminant Transport Modeling	Department of Civil Engineering, NIT Calicut 27-28 December 2013
19	Dr. Pramada.S.K	“Groundwater modeling “ for a seminar on Groundwater	Department of Civil Engineering, Sree Budha College of Engineering, Alappuzha, 31 <sup>st</sup> , January 2014
20	Dr. N Ganesan	Invited Lecture On “Ferrocement And Its Applications In The Construction Industry”	Government Engineering College, Barton Hill, Trivandrum,13 April 2013
21	Dr. N Ganesan	Keynote Paper On “Strength And Behaviour Of Steel Fibre Reinforced Self Compacting Rubberised Concrete” (SFRSCRC) Structural Elements At The International Conference On Futuristic Innovations And Developments In Civil Engineering (ICFIDCE 13)	Mepco Schlenk Engineering College, Sivakasi During 18-20, April, 2013, Pp.9-29
22	Dr. N Ganesan	Special Lecture At The Workshop On Bamboo Application And Its Development	Kerala Bamboo Mission, At Kochi, December 2013
23	Dr. N Ganesan	Keynote paper on “Strength and Behaviour of Hybrid Fibre Reinforced HPC” , At the National Conference on Recent Advances in Structural Engineering, RASE 2013	13-15, December, 2013, CUSAT, Kochi, pp.11-25
24	Dr. N Ganesan	Keynote paper on “Forensic Engineering And Retrofitting Of RCC Structures”, National Seminar On Advances In Structural Engineering, NASE 13	Mar Baselios College Of Engineering And Technology, Trivandrum, 16-17, December, 2013
25	Dr. N Ganesan	Keynote paper on “Studies On Hybrid Fibre Reinforced High Performance Concrete” At The Second International Conference On Advances In Materials And Techniques In Civil Engineering, ICAMAT-2014	Sri Krishna College Of Technology, Coimbatore, 9-11, January, 2014
26	Dr. N Ganesan	Invited Lecture on “Experimental Techniques” in FDP	TKM College of Engineering Quilon on 23 <sup>rd</sup> January 2014
27	Dr. N Ganesan	Keynote paper on “Flexural, Shear And Tension Stiffening Characteristics Of Hybrid” National Conference On Frontier Application In Civil And Environmental Engineering	CIT, Coimbatore ,24-25, February,2014

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

Sri. Harikrishna M: Doctor of Phylosophy, Indian Institute of Technology Roorkee,RoorkeeAugust 2013

**(g) Consultancy and testing**

Sl. No.	Client/Organisation	Revenue Earned (INR)	Status
1	Deputy Director, Prasar Bharathi Broadcasting Corporation of India, AIR & TV, Swami Sivananda Salai, Chennai.	63202	Completed
2	The Executive Director, Centre for Water Resources Development & Management, Kunnamangalam, kozhikode 673571.	16854	Completed
3	The Exe. Engineer (PMGSY), District Programme Implimentation Unit, Civil Station, Kozhikode	33708	Completed

4	The Secretary, Eramala Grama Panchayath, Orakkatteri P O, Kozhikode	50000	On going
5	State Bank Of India, Calicut Branch, PB No.9, Bank Road, Mananchira, Calicut 673 001	56180	Completed
6	DGM & Project Director, National Highways Authority of India, 2B-RAK TOWER, Edappally, Ernakulam 682 024	250428	Completed
7	Deputy Chief Engineer, O/o the Chief Project Manager, Railway Electrification, EVR Periyar Road, Egmore, Chennai 600 008	33708	Completed
8	The Pricipal, AWH Engg. College, Kuttikkatoor	28090	Completed
9	Senior DGM, Antenna Products & Satcom Div., Electronics Corporation of India, ECIL Post, Hyderabad 500062	11236	Completed
10	The Executive Engineer, Centre for Water Resources Development & Management, Kunnamangalam, Kozhikode	44944	Completed
11	The Executive Engineer, PWD, Mahe	16854	Completed
12	Prasar Bharathi,(India's Public Service Broad Caster)All India Radio, Calicut	8427	Completed
13	Superintendent, Taluk Head Quarters Hospital, Koyilandy	28090	Completed
14	Cochin International Airport	405000	On going
	<b>Total amount for consultancy carried out during 2013-2014</b>	<b>10,46,721</b>	
15	<b>Total amount for testing carried out during 2013-2014</b>	<b>10,94,346</b>	Completed
	<b>Grand Total</b>	<b>21,41,067</b>	

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

Sl. No	Name of Faculty	Title of the Programme	Duration and Period	Organisation
1	Smt. Chithra N R	International Symposium on Integrated Water Resources Management (IWRM-2014)	Feb 19-21, 2014	CWRDM, Kozhikode, Kerala, India
2	Smt. Chithra N R	International Conference on Energy and Environment (ICEE-2013)	Dec 12-14, 2013	RIT Kottayam, Kerala, India
3	Smt. Chithra N R	National Conference on Changing Climate Scenario and Sustainable Resource Management (CSSR- 14)	Jan 17-19, 2014	NSS College of Engineering, Palakkad, Kerala, India
4	Dr. Harikrishna M	Training Programme on Academic Leadership for faculty as part of Management Capacity Development activity of TEQIP – II	6 – 8 February, 2014.	Indian Institute of Management Kozhikode,
5	Dr. Harikrishna M	AICTE sponsored Curriculum Development Workshop on 'Self- Awareness and Higher Goals in Education'	June 17-21, 2013.	Centre for Continuing Education, Indian Institute of Technology Madras, Chennai
6	Dr. K Krishnamurthy	Management Development Programme on Academic Leadership for NIT Calicut	27 <sup>th</sup> February-01 <sup>st</sup> March 2014	Indian Institute of Management Kozhikode
7	Dr. Vinu Palissery	Management Development Programme on Academic Leadership for NIT Calicut	27 <sup>th</sup> February-01 <sup>st</sup> March 2014	Indian Institute of Management Kozhikode
8	Dr. Vinu Palissery	2 Day Workshop on "Research in Structural Engineering"	Jan 30th and 31st 2014	SERB-DST
9	Sr. M Sivakumar	Two days National Seminar on "Recycling of Bituminous Pavements"	January 15-16, 2014	CRRI New Delhi, India
10	Sr. M Sivakumar	Two days workshop on "Warm Mix Asphalt –	July 08-09, 2013	IIT Madras,

		Challenges and Way Forward”		Chennai, Tamil Nadu
11	Sr. M Sivakumar	13 <sup>th</sup> International Conference on “Asphalt, Pavement Engineering and Infrastructure”	February 26-27, 2014	Liverpool John Moores University at Liverpool, UK.

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

### a. Publications

#### i. Journal

Sl No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p.
1	Vinod Pathari, Rajendra M Sonar	Delivery an information security assurance indicator at the organisationa level	Inf. Manag. Comput. Security	21(5): 401-419 (2013)
2.	Shabeera T P, S.D Madhu Kumar	Optimizing Virtual Machine Allocation in MapReduce Cloud for improved Data Locality	International journal of Big data intelligence (JBDI)Inderscience journal	2014
3	Barkuru Sri harsha , PN Pournami , V K Govindan,	B-spline Non Rigid Image Registration using L-BFGS Optimizer,	International Journal of ComputerScience and Information Technologies,	Vol.5(3),2014,Pages :3813-3816
4	N.S. Narayanaswamy, R. Subashini	Obtaining matrices with the Consecutive Ones Property by Row deletions	Algorithmica	DOI 10.1007/s00453-014-9925-1
5	Anu Mary Chacko, Suresh Kumar, Vinod Pathari	Generalized Architecture to Capture End to End Provenance in a System	IT Convergence and Security (ICITCS)	proceedings of IT Convergence and Security (ICITCS) Dec 16- 18 2013
6	Badharudeen P, Anu Mary Chacko, Dr. S.D Madhu Kumar,	A Scheme for Generating Provenance Aware Applications through UML	International Journal of Management and Information Technology	, Vol. 6, No.3, Oct 2013 page nos 867-872
7	P Badharudheen, Anu Mary Chacko , Dr. S D Madhu Kumar	Making an Application Provenance Aware through UML A General Scheme	Recent Trends in Computer Networks and Distributed Systems Security Communications	Computer and Information Science Vol. 420, 2014 pp 451-460
8	Jereesh A S and Govindan V K	Gene Regulatory Network Modelling using Cuckoo Search and S-system	International Journal of Advanced Research in Computer Science and Software Engineering	Vol. 3, Issue 9, September 2013, ISSN: 2277 128X ; Available online at: <a href="http://www.ijarcsse.com">www.ijarcsse.com</a> ;
9	Jereesh A S and Govindan V K	An effective reverse engineering methodology for the reconstruction of gene regulatory network using gene expression profile	International Journal of Universal Pharmacy and Bio Sciences; 2(6); November-December 2013	ISSN: 2319-8141; Full Text Available On <a href="http://www.ijupbs.com">www.ijupbs.com</a> ;
10	Jereesh A S and Govindan V K	A clonal based algorithm for the reconstruction of genetic network using S-system,, IJRET: International journal of research in engineering and technology		ISSN 2319-1163, p ISSN 2321-7308, Vol. 2, No. 8, Aug 2013. ( <a href="http://www.ijret.org">www.ijret.org</a> )
11	Jyothisha J. Nair*and V. K. Govindan	Multi-Scale Segmentation Based on Nonlinear Complex	Journal of Medical Imaging and Health	Vol. 3, 1–4, 2013;

		Diffusion;	Informatics	
12	Johnes Jose and Govindan V.K.	Image Reconstruction from Projections using Triangular Linear System of Equations	International Journal of Engineering Research & Technology (IJERT);	Vol. 3 Issue 1, January – 2014; ISSN: 2278-0181
13	Rakhee M, Govindan V.K and Baiju Karun	Enhancing the Precision of Walsh Wavelet Based Approach for Color and Texture Feature Extraction in CBIR by Including a Shape Feature	Bulgarian Academy of Sciences, Cybernetics And Information Technologies,	Vol. 13, No 2, 2013, Print ISSN: 1311-9702; Online ISSN: 1314-4081, DOI: 10.2478/cait-2013-0011.
14	Prasad Someswara, V. K. Govindan, Sathidevi P. S.;	Image quality augmented intramodal Automatic Palmprint authentication,”	IET Image processing	Vol. 6, Issue 6, 2013
15	Rahna E and V K Govindan;	A Novel Technique for Secure, Lossless Steganography with Unlimited Payload;.	International Journal of Future Computer Communication	Vol. 2, No. 6, pp. 638-64, : 2010-3751. DOI: 10.7763/IJFCC. 2013.V2.243
16	Lakshmi Sasilal and V. K. Govindan;	Arithmetic Coding-An Enhanced Implementation Using Locality;	Lecture Notes On Information Theory	Lecture Notes On Information Theory Vol.1, No. 3, September 2013, ISSN : 2301-3788
17	Vidya A S and V K Govindan	Video Surveillance System for Security Applications;	Communications in Computer and Information Science	2013; LNCS pp. 70–79, 2013.
18	Lijiya A, Mumthas T K, and Govindan V.	Chromosome Classification using M-FISH Images;	Communications in Computer and Information Science,	LNCS, pp. 80–89, 2013
19	Jasmin T jose and V K Govindan;	Varying Area Based Shadow Detection in Video Sequences;	Communications in Computer and Information Science 2013;	LNCS pp. 114–123, 2013.
20	Bairagi Nath Behera and V K Govindan;	Improved Multimodal Biometric Watermarking in Authentication Systems Based on DCT and Phase Congruency Model;	IJCSN International Journal of Computer Science and Network	Vol. 2, Issue 3, June 2013; ISSN (Online): 2277-5420 www.ijcsn.org,
21	Jasmin T jose and V K Govindan;	Efficient Algorithm for Varying Area based Shadow Detection in Video Sequences;	International Journal of Computer applications (IJCA),	ISBN : 973-93-80875-76-7; Vol. 72, No. 16, June 2013.
22	Lijiya A, Sreejithlal G S, Govindan V K;	M-FISH Image Segmentation and Classification using Fuzzy Logic,	International Journal of Computer applications	Vol. 70, No. 5, pp. 46-50, May 3013.
23	Saritha Murali and V K Govindan	Shadow Detection and Removal From a Single Image Using LAB Color Space,	Cybernetics and Information Technologies	Vol. 13, No 1, pp. 95-103, 2013; Print ISSN: 1311-9702; Online ISSN: 1314-4081; DOI: 10.2478/cait-2013-0009.
24	Saidalavi Kalady, V. K Govindan, Abraham T Mathew;	Mathematical Modeling and Experimental evaluation of Optimal Agendas and Procedures for N-Issue Negotiation;	International Review on Computers and Software (I.RE.CO.S.),	Vol. 01, No. 02, 2013.
25	Lijiya A, Mumthas T K and Govindan V K	Karyotyping of Human Chromosomes Using M_FISH Images;	International Journal of management and information technology (JMIT),	2013.
26	Saumya Sadanandan and V K Govindan;	Image Compression with Modified Skipline Encoding and Curve Fitting	International Journal of Computer applications (IJCA),	Vol. 74, No. 5, ISBN:973-93-80876-35-9, 2013.



27	Vidya A S and Govindan V K;	Video Surveillance System for Security Applications;	International, International Journal of Computer applications (IJCA),	Vol. 74 , No. 1, ISBN:973-93-80876-31-6, 2013.
28	Lakshmi Sasilal and Govindan V K;	Arithmetic Coding- A Reliable Implementation International	International Journal of Computer applications (IJCA),	Vol. 73, No. 7, ISBN:973-93-80876-07-5, 2013.
29	Ashutosh Sharma and V K Govindan	Fractal Image Compression using Locality Sensitive Hashing	International Journal of Engineering Research & Technology (IJERT);	ISSN:2278-0181, <a href="http://www.ijert.org">www.ijert.org</a> , IJERTV3IS031896 Vol. 3 Issue 3, pp. 1898-1901, March – 2014.
30	Sreejini K. S and V. K. Govindan;;	Severity Grading of DME from Retina Images: A Combination of PSO and FCM with Bayes Classifier;	<i>International Journal of Computer Applications (0975 – 8887)</i> ,	Vol. 81 – No 16, November 2013
31	Baby Vijlin and Govindanh V.K.;	Optimal Threshold Selection for Wavelet Transform based on Visual Quality	International Journal of Computer Applications (0975 – 8887);	Vol. 81 – No 19,pp25-28;November 2013
32	Sreenu Naik Bhukya,Rakesh Kumar Mishra	Service Broker Algorithm for Cloud-Analyst	International Journal of Computer Science and Information Technologies	2014
33	PN Maddaiah , PN Pournami and VK Govindan	Optimization of Image Registration for Medical Image Analysis	International Journal of Computer Science and Information Technologies, ISSN 0975-9646	Vol. 5 (3) , 2014, 333398,
34	Lijiya.A, Joshy Joseph, V.K Govindan	Occlusion detection in M-FISH Human Chromosome Images		International Journal of Computers and Technology(IJCT), Vol.:13,No.4
35	K A Abdul Nazeer, M P Sebastian, S D Madhu Kumar,	A Novel Harmony Search-K means Hybrid Algorithm for Clustering Gene Expression Data,”	Bioinformation	Vol. 9(2):84-88, 2013

ii . International Conference

Sl. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Viswakarma, Abhinay and Sudeep. K. S	Node Assignment Problem	IEEE Sponsored International Conference On Information Communication & Embedded Systems ICICES 2013, February 2013, Chennai.	2013
2	Sudeep, K. S	Role of Social Media in the Arab Spring and beyond	UGC-Sponsored International Seminar on Society, Culture and Politics in West Asia	Arab Spring Dynamics, October 2013,
3	Babitha Balachandran, S.D Madhu Kumar	Optimization Of Reconfiguration Time During Client Movement On Siena	International Conference on Advances in Computing, Communications and Informatics (ICACCI-13)	August 2013
4	Viju Poonthottam, S.D. Madhu Kumar	A Dynamic Data Placement Scheme for Hadoop Using Real-time Access Patterns,	International Conference on Advances in Computing,	August 2013

			Communications and Informatics (ICACCI-2013).	
5	Shabeera, TP, S.D Madhu Kumar	'Bandwidth-Aware Data Placement Scheme for Hadoop	IEEE Recent Advances in Intelligent Computational Systems (IEEE RAICS). Trivandrum, India	December 2013
6	Badharudheen. P, S.D Madhu Kumar, Anu Mary Chacko	Making an Application Provenance-Aware through UML - A General Scheme	SNDS 2014 Trivandrum India.	March 2014
7	Narayanaswamy, R. Subashini	FPT algorithms for consecutive ones submatrix problems	8th International conference on Parameterized and Exact Computation	Springer 2013 <u>Lecture Notes in Computer Science</u> ISBN 978-3-319-03897-1, Vol.: 8246, 2013
8	Sreejini K. S. and V. K. Govindan	Automatic Grading of Severity of Diabetic Macular Edema Using Color Fundus Images;	Third International Conference on Advances in Computing and Communications,	pp.177-180, 2013
9	Sreenu Naik Bhukya, G. Anjan Babu, R. Sendhil Kumar	Feed Forward Network with Back Propagation Algorithm for Detection of Breast Cancer	The 8th International Conference on Computer Science & Education (ICCSE 2013) April 26-28, 2013. Colombo, Sri Lanka	2013
10	Sreenu Naik B, Rakesh Kumar Mishra, Sandeep Kumar	Priority Based Round-Robin Service Broker Algorithm For Cloud-Analyst	2014 IEEE International Conference on Advanced Computing(IACC 2014) February 21-22, Gurgaon, India	2014
11	Sreenu Naik B, Ajay Pratap Singh	HP-AODV AN ENHANCED AODV ROUTING PROTOCOL FOR HIGH MOBILITY MANETS	Fourth International Conference on Advanced Computing and Communication Technologies For High Performance Applications June 19-21, 2014 FIST ,Cochin, India	2014
12	Nabizath Saleena and Vineeth Paleri.	Global Value Numbering for Redundancy Detection: A Simple & Efficient Algorithm.	29th Annual ACM Symposium on Applied Computing,	pp. 1609-1611.
13	Chacko A.M , Kumar S, Pathari V	Generalized Architecture to Capture End to End Provenance in a System	Proceedings of Conference on IT Convergence and Security( ICITCS 2013) Macau,	Dec 2013
14	P. Badharudheen, Anu Mary Chacko, S. D. Madhu Kumar	Making an Application Provenance-Aware through UML – A General Scheme	Recent Trends in Computer Networks and Distributed Systems Security Communication in Computer and Information Science	Vol. 420, pp 451-460, 2014.
15	Badharudeen P, Anu Mary Chacko, Madhukumar S	A Scheme for Generating Provenance Aware Applications through UML	International Journal of Management and Information Technology	Vol. 6, No.3, pp 867-872, Oct 2013
17	Nigam, A. Chauhan, S. Murali, V.	Rent or self-execute? Resource management strategies for cloud providers	ICACCI 2013	2013

iii.National Conference

Sl. No.	Name of the Author	Title of Paper	Name of National conference	Vol., Year, p.p.
1	Jithin R and Priya Chandran,	Virtual Machine Isolation - A Survey on the Security of Virtual Machines	SNST - 2014,	Proceedings of SNST 2014, IITMK. March 2014
2	Jeethu Devasia and Priya Chandran	Towards an Improved Algorithm for Modeling Information Flow in Biological Networks	ACCIS 14, TKMCE, June 2014.	2014

**b. Community Services**

**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) Member, Board of Academic Council (iii) Member, Curriculum Revision Committee (iv) Member, Institute Level 'Anti Ragging Committee' (v) Member, Library Purchase Committee Dept. Level : (i) Faculty Adviser, M.Tech (CSE) (ii) Faculty in charge, Computational Intelligence Lab (iii) Faculty in charge, Biocomputing Research Lab Others : Member, Board of Studies in Computer Science and Engineering, University of Calicut
Dr. S.D Madhu Kumar	1.Member- Institute Research Committee and PTA Secretary 2.Administrative responsibility for CNC/CCC (as HoD, CSED) 3. Vice Chair- ACM Trivandrum Professional Chapter 4.IEEE Malabar Subsection- Publications and Web Support Chair 5.ACM DEBS 2014- Publicity Co-chair 6.ACM SAC 2014 Cloud Computing Track co-chair 7.IEEE International Conference- Recent Advances in Intelligent Computing Systems (RAICS 2013)- Big Data Track co-chair 8.National Conference on Emerging Trends in computing (NCETIC 13)- Advisory Committee 9.ADCONS'13 NITK- TPC Member 10. International Workshop on Service- Oriented Architecture and Cloud Computing (SOAC-2013)- Program Chair 11. ACM Goa Workshop on software Engineering- TPC member 12. International workshop on Virtualization and Cloud Computing (IWVCC 2014)- TPC Member 13. PTA Secretary
Dr Priya Chandran	.Programme Co-ordinator, M. Tech (CSE) and M. Tech (CSE (IS)), Member of Senate, BPGS and BUGS. Chairperson/ Member of several doctoral committees.
Dr. Vineeth Paleri	Ph.D Programme Co-ordinator, Professor In Charge- Institute Website, Secretary Technology Business Incubator
Dr. Vinod Pathari	MCA Programme Coordinator
Dr. Sudeep K S	Faculty-in-charge of DSS
Smt.Pournami P.N.	Warden, Ladies Hostel.
Dr. Gopakumar G	Faculty in Charge, Campus Networking Centre
Dr. V. K Govindan	Dean(Academic), Member-Senate, BOAC Chairman, PTA President
Smt. Saleena N	Faculty Advisor, In-Charge of examinations
Sri. Jayaraj P B	Faculty in Charge of Central Computer Centre

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

Sl. No	Title	Coordinators	Duration & Period
1	FDP on pattern Recognition and Machine Learning	Dr.V.K Govindan, Lijiya.A	One week June 23-June 28,2014
2	MHRD-AICTE sponsored Faculty Development Programme on Image Computing and Applications	Dr. V K Govindan Smt. Pournami P N	5 days June 11 <sup>th</sup> – 15 <sup>th</sup> , 2013

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Lijiya.A	FDP on pattern Recognition and Machine Learning	One week June 23-June 28,2014	NIT Calicut
2	Pournami P N	ISTE-SRM Short term Training Programme on Image Processing	One day 03-06-2013	College of Engineering, Managed by IHRD, Established by Govt. of Kerala,Attingal, Trivandrum – 695 101
3.	K A Abdul Nazeer	FDP on Soft Computing Techniques	One day, June 2013	T K M College of Engineering, Kollam

**f. Details of Faculty, who acquired Higher Qualification:-**

1. Sri. Abdul Nazeer K A, Associate Professor acquired Ph.D
2. Sri. Gopakumar G, Assistant Professor acquired Ph.D
3. Sri. Vinod Pathari, Assistant Professor acquired Ph.D
4. Smt. Subashini R, Assistant Professor acquired Ph.D

**DEPARTMENT OF ELECTRICAL ENGINEERING****a. Publications**

Sl. No	Name of the Author	Title of paper	Name of Journal / National Conference	Publication Details
1	Maya G., Elizabeth P. Cheriyan, Jeevamma Jacob	Stability Enhancement of a Multimachine System using STATCOM with Supplementary controller	International Review on Modelling and Simulation	Vol.6, No.2, pp-480-489, April 2013
2	VinodPottakulath, Elizabeth P. Cheriyan, R. Sreerama Kumar	Determination of Reduced Order Model for Torsional Interaction Investigations using Selective Modal Analysis, Part I : Initial Approach	International Journal of Electric Power and Energy Systems (Elsevier)	Vol. 44, Issue 1, pp 482-487, 2013
3	VinodPottakulath, Elizabeth P. Cheriyan, R. Sreerama Kumar	Determination of Reduced Order Model for Torsional Interaction Investigations using Selective Modal Analysis, Part II : Application to Practical Power Systems	International Journal of Electric Power and Energy Systems (Elsevier)	Vol. 44, Issue 1, pp 454-460, 2013
4	Maya G., Elizabeth P. Cheriyan, Jeevamma Jacob	Damping of inter area oscillations using SSSC and STATCOM with supplementary Controllers	IEEE International Technical Conference (TENCON 2013), Xi'an, China	October 2013.
5	M.Pala Prasad Reddy, Jeevamma Jacob	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
6	Sanila P and Dr.Jeevamma Jacob	Composite fast-slow MPC design for flexible joint manipulator	InternationalConference on Advanced trends in Engineering&Technology FORSCHUNG, VimalJyothi Engg. College,Chemberi,	pp. 17-22, March 2014

			Kannur	
7	Ambili Mohan & Dr.Jeevamma Jacob	Robust controller for twin rotor mimo system using quantitative feedback theory	International Conference on Advanced trends in Engineering and Technology FORSCHUNG, VimalJyothi Engineering College,Chemberi, Kannur	pp.23-29, March 2014
8	Sneha Rachel Francis, Mija S J	Design of Fault Tolerant Control Laws for Jet Engines	Applied Mechanics and Materials, Trans Tech Publications, Switzerland	Vol. 367, 2013, pp.96-100
9	AthulAjith, Mija S. J.	Brain Emotional Learning based Intelligent Controller and its Application on CSTR	International Journal of Advanced Electrical and Electronics Engineering	Vol.2, No.3, 2013, pp.122-128
10	RehnaNalakath and M.P.Nandakumar	An Approach to Parameter Optimization problem for a class of Compromise Solutions under Vector Valued Performance Criteria	International Review of Automatic Control (I.RE.A.CO.)	Vol.6, n.6, May 2013.
11	M.P.Nandakumar and RehnaNalakath	Determination of Compromise Solutions for Linear Steady state regulator with Vector Valued Performance index	International Conference of Scientific and Research Publications	Vol. 3, Issue 11, Nov. 2013
12	M.P.Nandakumar and Dheeraj K	An Inverse Optimal Control Approach for Nonlinear System Design Using ANN	InternationalConference on Control and Test Engineering, Toronto, Canada.	
13	D Kavitha, T N P Nambiar, Sindhu T K	Invesstigation of treeing process in nanofilled epoxy material by finite element method	Journal of electrical engineering	Vol.14, No.1, 2014.
14	Ismayil C., Sreerama Kumar R., andSindhu T. K	Fuzzy Logic and Genetic Algorithm based Automatic Generation Control of Two-Area Deregulated Power Systems	International Review on Electrical Engineering	Vol. 9, no.1, Feb. 2014,
15	Nisha P. V., Sindhu T. K., Elizabeth P. Cheriyar	Simulation of Electromagnetic Interference and its Mitigation in an Induction Motor Drive	International review on modelling and simulation	Vol.6, No.5, October 2013
16	Sony Kurian,Sindhu T. K., Elizabeth P. Cheriyar	Review on Developments in Wind Energy Generation and its Integration to Utility Grid	International review on modelling and simulation	Vol.6, No.5, October 2013
17	Ismayil C., Sreerama Kumar.R Sindhu T. K	Automatic Generation Control of Single Area Thermal Power System with Fractional Order PID (PI <sup>λ</sup> D <sup>μ</sup> ) Controllers	Proceedings of the Third International Conference on Advances in Control and Optimization of Dynamical Systems, ACODS 2014, Indian Institute of Technology Kanpur, India	Vol.3, Mar. 13-15, 2014.
18	Guguloth Ramesh and T.K. Sunil Kumar	Power Flow Solution with Flexible AC Transmission System Devices	International Journal of Electrical Engineering and Technology	Vol.4, No.4, pp. 232-44, July-August 2013.
19	Guguloth Ramesh and T.K. Sunil Kumar	Congestion Management in a Deregulated Power System with Thyristor Controlled Series Capacitor",	International Journal of Engineering Research and Technology	Vol.2, No.11, pp.948-54, Nov 2013.
20	Guguloth Ramesh and T. K. Sunil Kumar	Congestion Management in a Deregulated Power System with Micro Grid	International Journal of Electrical, Electronic Science and Engineering	Vol.7, No.11, pp.551-55, Dec 2013.
21	Priya N. and T. K. Sunil Kumar	A Novel Method of Order Reduction For Interval	International Journal of Advanced Research in	Vol.2, Issue 12, December 2013.

		System	Electrical, Electronics and Instrumentation Engineering	
22	Priya N. and T. K. Sunil Kumar	Low Order Controller Synthesis For Interval Systems	International Journal of Engineering Research	Vol.3, Issue 2, February 2014
23	Suresh K. Damodaran and T. K. Sunil Kumar	Optimal Environmental Economic Dispatch Using a Classical Technique	International Review of Automatic Control	<u>Vol. 7, No. 3 (2014)</u>
24	A. Dey, Rajeevan P. P, RijilRamchand, K. Mathew, and K. Gopakumar,	A Space-Vector-Based Hysteresis Current Controller for a General n-Level Inverter-Fed Drive With Nearly Constant Switching Frequency Control	IEEE Trans. Power Electron.	Vol. 60, no. 5, pp. 1989 - 1998, May 2013
25	Biju K,RijilRamchand	Modeling and simulation of single phase five level inverter fed from renewable energy sources	International Conference on Microelectronics, Communications and Renewable Energy (ICMiCR)	4-6 June 2013,Kanjirappally, Kerala, India
26	Sunitha R, Sreerama Kumar R, Abraham Mathew and Veeresh P. Kosaraju,	“Cluster Computing Environment for On-line Static Security Assessment of Large Power Systems”	ACEEE Int. Journal on Electrical and Power Engineering	Vol. 4, No. 2, pp. 66-73, August 2013 (DOI:01.IJEPE.4.2.1283)
27	Sunitha R, Sreerama Kumar R., Abraham T. Mathew,	“On-line Static Security Assessment Module using Artificial Neural Networks” ,	IEEE Transactions on Power Systems,	Vol.28, No.4, pp 4328-4335, November 2013 (DOI: 10.1109/TPWRS.2013.2267557)
28	Sunitha R, Sreerama Kumar R., Abraham T. Mathew.	A Multi-Objective Contingency Constrained Optimal Power Flow based on Composite Security Index Using Genetic Algorithm and Newton Method	International Review on Modelling and Simulations (IREMOS)	December 2013 (Vol. 6 N. 6)
29	GuaravKhare, Sunitha R	Optimal PMU Placement using matrix modification based Integer Linear Programming	International Conference on Circuits, Power and Computing Technologies	pp. 632-636, March 2014
30	Silpa Das C K and Sunitha R	Steady State Reactive Power Flow Analysis of an Electric Power Transmission System with Increased Penetration of PhotoVol.taic Generation	Proceedings of National Conference on recent Advancements in Engineering and Technology (nCORETech-14)	L B S College of Engineering, Kasaragod, Kerala, 25-26 February 2014.
31	Silpa Das C K and Sunitha R	The Effect of Increased Penetration of PhotoVol.taic Generation on Steady State Vol.tage of a Power Transmission System	Proceedings of International Conference on Advanced Trends in Engineering and Technology (FORSCHUNG)	VimalJyothi Engineering College, Chemperi, Kannur, 28th March 2014.
32	M. V. Vaidyan	An FPGA based parallel architecture for online parameter estimation using the RLS identification algorithm	Journal of micro processors and micro systems	Vol.-38, issue 5. pp. 496–508
33	M. V. Vaidyan	A smart virtual platform for field programmable gate array (FPGA) based process control development and its implementation	AMSE, Advances in modeling- automatic control- theory and applications	Vol. 68, issue 1
34	M. V. Vaidyan	A reconfigurable parallel hardware implementation of the self tuning regulator	ACM transactions on reconfigurable technology and systems	Vol. 6, no. 4

			(TRETTS)	
35	M. V. Vaidyan	Computer Aided Implementation of Estimator Based Inverse Dynamics Controller for the Control of Non-measurable State Variables of an Autonomous Hybrid System	Lecture Notes on Software Engineering	Vol. 1, No 3, pp. 284-288
36	M. V. Vaidyan	Nonlinear Modelling and Fuzzy Control of Quadruple Tank Process	National conference on energy and environment management	NSS college of Engineering, Palakkad, 7-9 February, 2014
37	M. V. Vaidyan	Novel petrinet and labview based approaches for automation of small scale soap industry with FPGA and comparative evaluation	IEEE Conference on Systems, Process & Control	Kuala Lumpur Malaysia, 13-15 Dec 2013
38	M. V. Vaidyan	Implementation of FPGA based Model Predictive Control for MIMO Systems”,	IEEE conference on systems and process control.	Kuala Lumpur Malaysia, 13-15 Dec 2013
39	M. V. Vaidyan	Computer Aided Implementation of Estimator Based Inverse Dynamics Controller for the Control of Non-measurable State Variables of an Autonomous Hybrid System	International Conf. on Software & Computer Applications.	Paris, 1-2 June 2013.
40	Reeda K Paul Joseph & Sujith O	A novel fuzzy expert system for the identification of Carpal Tunnel Syndrome	Bio med research International	Vol.2013 ID846780
41	N D Asha & Paul Joseph	Linear and non linear analysis of heart rate variability in supraventricular tachycardia	Journal of medical imaging & health informatics	Vol.3,294-300,2013
42	M Saritha & Paul Joseph	Automatic Interpretation of SRI.I brain images using probabilistic neural net work	Journal of medical imaging & health informatics	Vol.3,237-241,2013
43	Thasneem Fathima, M. Bedeezzaman & Paul Joseph	Wavelet based features for classification of normal, Ictal and intercitaleeg signals	Journal of medical imaging & health informatics	Vol.3,301-305,2013
44	N D Asha & Paul Joseph	Non linear indices of heart rate variability for differentiating arrhythmias	Journal of mechanics in medicine and biology	Vol.13,No4(2013)135 0061(17 pages)
45	Thasneem Fathima, M. Bedeezzaman & Paul Joseph	Detection of Epileptic Seizure event and onset using EEG	Bio med research International	Vol. 2014 ID450573
46	Devika K B and Susy Thomas	Nonlinear inverse dynamic controller for the conflict resolution of free flying aircrafts	International Journal of Electrical and Electronics Engineering	Vol. 2, Issue 5, Nov 2013., ISSN (print) 2278-9944; ISSN (online): 2278-9952
47	Kishore Bingi and Susy Thomas	A new chaotic attractor generated from a 3-d autonomous system with one equilibrium and its fractional order form	International Journal of Electrical Engineering and Technology (IJEET)	Vol. 5, Issue 2, February 2014, 51-59
48	Kishore Bingi and Susy Thomas	Quasi sliding mode control of chaos in fractional order Duffing system	International conference on Power, Control and Emdedded systems (ICPCES – 2014)	February 27-28, 2014.
49	Kishore Bingi and Susy Thomas	Control of fractional order four wing chaotic attractor via quasi-sliding mode	International conference on Advanced Trends in Engineering (ICATE – 2014)	March 2014
50	Srikanth Yerra and Kumaravel S.,	"Modeling, Simulation and Analysis of Matrix Converter	Second International Conference on Power,	February 27 – 28, 2014

		Fed Induction Motor Drive"	Control and Embedded Systems (ICPCES – 2014)	
51	P. Karthic, Shiny Joseph, Naveenji Arun, S. Kumaravel,	"Optimization of biohydrogen production using Enterobacter species by artificial neural network and response surface methodology",	International Journal of renewable & Sustainable Energy ; Vol. 5, Issue 3.	May 2013.
52	Varghese Mathew Vaidyan & Ashok S.	Energy Efficient Scheme For DC Motor Drives In Parameter Uncertainties	International Journal of Power and Energy Conversion	Inderscience Publishers
53	Vasanthi V. and Ashok S	Performance of simple boost controlled Z-source inverter fed 3-phase locomotive in the motoring region	International journal of Electrical and Electronics Engineering research	Vol. 3, Issue 5, 127-132, Dec 2013
54	Rajeev T. and Ashok S	Service Oriented Cloud Architecture for Improved Performance of Smart grid Applications	International Journal on Research in Engineering and Technology	Vol. 2., No. 9, pp 1-7, 2013
55	Rajeev T. and Ashok S	Architecture for data coordination processing and real time services in smart grid	International Review on modeling and Simulations	Vol. 6., No.6, 2013
56	Vasanthi V. and Ashok S	Analysis of Harmonics of Electric Traction System using Wavelet Transform	International Journal of Computer Applications	Vol. 71, No.24, June 2013

**b. Book Chapters:**

Sl. No.	Name of the Author	Title of Chapter	Name of Book	Publication Details
	Sunitha K., M. Joy Thomas , and D.V. Giri	Coupling of Hyperband Signals with an Underground Cable	Ultra Wide Band Short Pulse Electromagnetics (UWB SP-10)	Springer New York

**C. Other Academic and Administrative services:**

Sl. No	Name of Staff	Academic and Administrative Services
1	Dr.Abraham T Mathew	Institute Coordinator, TEQIP
2	Dr Ashok S	Warden , CH
3	Sri. P Ananthakrishnan	Faculty i/c of Electrical Check Measurements
4	Dr. Elizabeth P. Cheriyan	Member, Institute level Anti-Ragging Committee
5	Dr. Jagadanand G	Nodal Officer, TEQIP Phase II.
6	Dr. Kumaravel S	Warden B-Hostel
7	Dr. Kumaravel S	Branch counsellor, IEEE, NITC Chapter
8	Dr. Kumaravel S	Faculty in Charge, IPF Club
9	Dr. Rijil Ramchand	Deputy Chairman, PG Admissions
10	Dr. Rijil Ramchand	Associate Dean ( R & C)
11	Dr. Saly George	Chair Person, ETL
12	Dr. Sindhu T K	Nodal Officer, TEQIP Phase II.
13	Dr. Sindhu T K	Warden L.H
14	Dr. T.K SunilKumar	Deputy Chairman UG Admissions

**d. Conferences/ summer/ winter School/short term courses/workshops conducted:**

Sl. No	Title	Coordinators	Duration and Period
1	FDP on Embedded Systems Hardware, Software and Design Aspects.	Lyla B Das & DrJagadanand G	7 Days. 23/06/2013 to 29/06/2013
2	FDP: Advanced Control: Theory and Applications	Mija S. J, Jeevamma Jacob	One Week. 08/12/13 – 14/08/13
3	Two day workshop on Power system Modelling and simulation	DrSindhu T K Sunitha R	Two days, 4/04/2013 and 50/4/2013, 2014



4	Recent Trends and Applications of High Voltage Engineering	Dr. Sindhu T K and Dr. Preetha P.	22/06/14 to 28/06/2014
5	Power System Modeling and Simulation	Dr. Sindhu T K and Smt. Sunitha R.	04/04/14 to 05/04/2014
6	FDP on Research and Technical Challenges of Smart Grid	Dr. Kumaravel S, Dr.S Ashok	One Week 16 <sup>th</sup> – 22 <sup>nd</sup> June, 2013
7	Workshop on Python	Ashok S	One Day. On 28th August 2013
8	Workshop on LateX	Ashok S	One Day. On 31st July 2013
9	National Workshop on LabVIEW	Ashok S	TwoDays, On 16th and 17th February 2013

**e. Expert lectures delivered in conferences/ Seminars/ Workshops**

Sl. No.	Name of staff	Title of the programme	Duration and Period	Organization
1.	Dr. Sindhu T K	FDP on Applications of Power Electronics	One week, 7-11 October, 2013	Govt. Engg College, Thrissur.
2.	Dr. Sindhu T K	FDP on smart grid	One Week, July 2013	NIT Calicut.
3	Dr.Paul Joseph K	CUTECMIA'14 IEEE International Conference on Current Techniques in Medical Image Analysis	March 26-29,2014	AdiShankara Institute of Engineering & Technology Kaladi
4	Dr. S Ashok	'Power Quality -Issues & Remedial Measures'- IEEE students chapter meeting	5-12-2013	GEC Kannur
5	Dr. S Ashok	"Eind Energy Systems"- One day National workshop on Renewable energy	12-11-2013.	ANERT at Trivandrum .
6	Dr. S Ashok	"Power Quality Standards" -One day workshop on Power Quality problems & solutions	13-8-2013	SEEM ,Ernakulam.
7	Dr. S Ashok	Conducted Pre conference tutorial session on "Energy Management"	July 4 – 6, 2013	ASri.itha School of Engineering, Kollam for the International Conference on Technological Advancements in Power and Energy (TAP Energy)
8	Dr. S Ashok	FDP on "Power Quality Issues in Power Electronics System"	21-5-2013.	GCT Coimbatore.
9	Dr. S Ashok	FDP on "Smart Grid Engineering"	22-5-2013.	KSR College of Engg, Erode.

**f. Details of faculty who acquired higher qualification**

Smt. Subha D P : Awarded PhD

**g. Consultancy and testing:**

Sl. No	Nature of service	Faculty inVol.ved	Organization	Revenue earned	Status
1	Testing	Dr Ashok S	KSEB & other industries	Rs 1.28 Lakhs	completed
2	Re-engineering	Dr Ashok S	IISR, Calicut		Completed
3	Energy Audit	Dr Ashok S	MIMS , Calicut	Rs 2.0 Lakhs	On going

**h. Patents acquired and filed**

Dr Ashok S, "Arc flash detection device" Reg NO: 085/PF-PIC/2012/KSCSTE dated 06/06/2013.

**DEPARTMENT OF ELECTRONICS & ENGINEERING**

**a. Publications**

**i. Journal**

Sl. No	Name of the Author	Title of the paper	Name of Journal	Vol., Year. PP
1	Muneer P. & 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	Accepted,2014
2	Thafasallyas V. P & Sameer S. M	Low Complexity Metaheuristics for Joint ML Estimation Problems	Applied Mathematics and Computation (Elsevier)	Vol. 230, pp. 342-358, Mar. 2014
3	Cible K. K., Sameer S. M., and Lillykutty Jacob	A Unified Approach for the Fading Statistics of Heterogeneous Compound Channels in Transparent Relay Transmissions	EURASIP Journal on Wireless Communications and Networking	Vo. 274, 2013.
4	Cible K. K., Sameer S. M., and Lillykutty Jacob	Terrain Dependant Hop Count Selection for Transparent Relay Transmissions	The Journal of Engineering (IET)	DOI: 10.1049/joe.2013.0153, 2013.
5	Cible K. K., Sameer S. M., and Lillykutty Jacob	Analysis and Modeling of Realistic Compound Channels in Transparent Relay Transmissions	The Scientific World Journal	Vol.2014, doi:10.1155/2014/538578
6	V.P. Harigovindan, A. V. Babu and L. Jacob	Fairness Assurance through TXOP Tuning in IEEE 802.11p Vehicle-to-Infrastructure Networks for Drive-Thru Internet Applications	Communications and Network, Scientific Research	Vol. 5 No. 1, 2013, pp. 69-83. DOI: 10.4236/cn.2013.51007.
7	V.P. Harigovindan, A. V. Babu and L. Jacob	Improving Aggregate Utility in IEEE 802.11p Based Vehicle-to-Infrastructure Networks	Journal of Telecommunication Systems, Springer	In Press,2014
8	V.P. Harigovindan, A. V. Babu and L. Jacob	Proportional Fair Resource Allocation in Vehicle-to-Infrastructure Networks for Drive-Thru Internet Applications	Computer Communications, Elsevier	Available online: <a href="http://dx.doi.org/10.1016/j.comcom.2013.12.001">http://dx.doi.org/10.1016/j.comcom.2013.12.001</a>
9	Cibile K.K, Sameer S. M, and Lillykutty Jacob	A Unified Approach for the Fading Statistics of Heterogeneous Compound Channels in Transparent Relay Transmissions,"	EURASIP journal on Wireless Communications and Networking	In Press,2014
10	Cibile K.K, Sameer S. M, and Lillykutty Jacob	Analysis and Modeling of Realistic Compound Channels in Transparent Relay Transmissions	The Scientific World Journal, Hindawi Publishing	In Press,2014
11	Sudhish N George, Deepthi P P	Multiple chaotic maps based secure measurement matrix	Int. J. of Signal and Imaging System Engg.	Accepted,2014

		generation for multimedia compressive sensing	(Inderscience),	
12	Sudhish N George, Deepthi P P	A novel approach for secure compressive sensing of images using multiple chaotic map	Journal of Optics (Springer)	Vol.43, No. 1, 2014, pp. 1-17
13	Sudhish N George, Deepthi P P	A secure LFSR based random measurement matrix for compressive sensing	Sensing and Imaging: An Int. J. (Springer)	Vol. 15, No. 1, 2014, pp. 1-29.
14	Sudhish N George, Arun Raj R and Deepthi P P,	A new framework for encryption and authentication multimedia data	International Journal of Multimedia and Ubiquitous Engineering	Vol. 8, No. 5, 2013, pp. 105-118.
15	K S Lalmohan, Deepthi P P, and Sathidevi P S	Design and Implementation of Secure Stream Cipher based on Elliptic Curves on Time Shared Basis	Int. Journal of Computer Applications,	Vol. 68, no. 21, pp. 14-21, Apr. 2013.
16	Abhilash, A., Sreelekha,G.	Performance improvement of lossless HEVC using updated reference row intra prediction	International Journal of Multimedia, User Design and User Experience	Vol.25(1), 2013, pp.1109-1113
17	Ameer, P. M., and Lillykutty Jacob.	Accurate Localization Under Correlated Errors for Underwater Acoustic Sensor Networks	International Journal of Wireless Information Networks	20, 2013, 375-384
18	Bindiya T. S., Elizabeth Elias	Design of Multiplier-less Sharp Transition Width Non-Uniform Filter Banks Using Gravitational Search Algorithm	Taylor and Francis - International Journal of Electronics	Available online from May 2014
19	Bindiya T. S., Elizabeth Elias	Design of FRM Based MDFT Filter Banks in the Canonic Signed Digit Space Using Modified Metaheuristic Algorithms	Inderscience - International Journal of Signal and Imaging Systems Engineering	Accepted,2014
20	Bindiya T. S., Elizabeth Elias	Design of multiplier-less sharp transition width MDFT filter banks using modified metaheuristic algorithms	International Journal of Computer Applications	88(2):1-14, February 2014
21	James T George and Elizabeth Elias	Reconfigurable channel filtering and digital down conversion in optimal CSD space for software defined radio	Elsevier International Journal of Electronics and Communication	dx.doi.org/10.1016/j.aoue.2013.09.013, October 2013
22	Bindiya T .S. and Elizabeth Elias	Modified metaheuristic algorithms for the optimal design of multiplier-less non-uniform channel filters.	Springer Journal of Circuits, Systems, and Signal Processing,	March 2014, Vol. 33, Issue 3, pp.815-837, doi:10.1007/s00034-013-9662-8.
23	Shaheen K and Elizabeth Elias	Design of Multiplier-less cosine modulated filter banks with sharp transition using evolutionary algorithms,	International Journal of Computer Applications	doi>10.5120/11748-7025, Vol.-68-No.25, April-2013
24	Manju Manuel and Elizabeth Elias	Design of Circularly Symmetric 2-D Sharp Wideband Filters using FRM and Multiplierless Transformation,	International Journal of Signal and Imaging Systems Engineering, Inderscience Publishers	http://www.inderscience.com/info/ingeneral/forthcoming.php
25	Aravind Illa and Elizabeth Elias	FIR Approximation of GTD Filter Banks and their Multiresolution Optimality	International Journal of Computer Applications P ublished by Foundation of Computer Science, New York, USA	doi87(10):1-5, February 2014.
26	Bindiya T .S. and Elizabeth Elias	Multiplier-less Sharp Filter Banks using Gravitational Search Algorithm	Taylor and Francis - International Journal of Electronics	<b>DOI:</b> 10.1080/00207217.2014.905992

27	James T George and Elizabeth Elias	A 16-Band Reconfigurable Hearing Aid using Variable Bandwidth Filters	, Global Journal of Research in Engineering	Vol. 14-F Issue 1 Version 1.0., 2014
28	Bindiya T .S. and Elizabeth Elias	Design of Multiplier-less Sharp Transition Width MDFT Filter Banks using Modified Metaheuristic AlgorithSmt. .	International Journal of Computer Applications Published by Foundation of Computer Science, New York, USA	doi>88(2):1-14, February 2014.
29	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, Inderscience Publishers	<a href="http://www.inderscience.com/info/ingeneral/forthcoming.php">http://www.inderscience.com/info/ingeneral/forthcoming.php</a>
30	Bindiya T .S. and Elizabeth Elias	Design of Multiplier-less Sharp Transition Width MDFT Filter Banks using Modified Metaheuristic AlgorithSmt.	International Journal of Computer Applications, Published byFoundation of Computer Science, New York, USA.	doi:88(2):1-14, February 2014.
31	Suja k j, Kumar G S Nisanth, A Rama Komaragiri	Dimension and Doping Concentration Based Noise and Performance Optimization of a Piezoresistive MEMS Pressure Sensor	Microsystem technologies	DOI.10.1007/S.00542-014-2118-7,
32	Suja k j, Vidya Gopal T, Rama Komaragiri	Optimized design of a double diaphragm based MEMS pressure sensor	International Journal of Emerging Science and Engineering	ISSN: 2319-6378, Vol.-2, Issue-1, November 2013
33	Suja k j, Kumar G S Rama Komaragiri	Analysing the effect of temperature in boron implanted piezoresistor in silicon based MEMS pressure sensor,	Journal of Emerging Technoligies., Image processing and networking.	ISSN No: 0973-2993
34	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
35	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
36	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
37	Suja K J , G S Kumar, Nisanth A, Rama Komaragiri	Dimension and doping concentration based noise and performance optimization of piezoresistive MEMS pressure sensor	Microsystem Technologies, Springer Publications	DOI 10.1007/s00542-014-2118-7
38	Suja K J, Rama Komaragiri	Verifying finite element simulation in miniature silicon based stacked diaphragm structure	Microsystem Technologies, Springer Publications	DOI 10.1007/s00542-013-1936-3
39	Suja K J,Rama Komaragiri	Optimized design of double diaphragm based MEMS pressure sensor for wider range and better sensitivity	International journal of Emerging Science and Engineering (IJESE),IS SN:2319-6378	Vol.2,Issue 1,November 2013
40	Suja K J, E Surya Raveendran, Rama Komaragiri	Investigation on better Sensitive Silicon based MEMS Pressure Sensor for High Pressure Measurement	International Journal of Computer Applications (0975 – 8887	Vol. 72– No.8, pp. 40-47 May 2013.

ii. International Conference

Sl. No.	Name of the Author	Title of the paper	Name of International Conference	Vol., Year. PP
1	Najlah C. P., Muneer P. and Sameer S. M	Joint Estimation of Carrier Frequency Offsets and Doubly Selective Channels for OFDMA Uplink using Line Search	IEEE Second International Conference on Recent Advances in Intelligent Computational Systems (RAICS 2013)	December 2013
2	Thafasalliyas V. P and Sameer S. M.	A Novel Joint ML Technique for Estimation of Timing, CFO and Channel in OFDMA Uplink	IEEE Region-10 International Conference 2013, TENCON Spring, Sydney, Australia	April 2013
3	Thafasalliyas V. P and Sameer S. M.	A Firefly Technique for Estimation of Carrier Frequency Offsets in OFDMA Uplink	IEEE Region-10 International Conference 2013, TENCON Spring, Sydney, Australia	April 2013
4	Cible K. K., Sameer S. M., and Lillykutty Jacob	On the Receiver Characterization Of Transparent Multi hop Relay Transmission Systems	IEEE Region-10 International Conference 2013, TENCON Spring, Sydney, Australia	April 2013
5	Najlah C. P., Muneer P. and Sameer S. M	A Novel Joint Estimation Technique for Doubly Selective Channel and Carrier Frequency Offset in High Mobility OFDMA Uplink	IEEE Region-10 International Conference 2013, TENCON Spring, Sydney, Australia	April 2013
6	Shamna H R, Naga Lakshmi Appari, Lillykutty Jacob,	Cooperative MAC Protocol: Performance Modeling and Analysis	IEEE RAICS 2013	Trivandrum India, Dec 2013
7	Anil Jacob and Lillykutty Jacob	A discrete time polling protocol for wireless body area network	IEEE International Conference on Advance Computing (IACC 2014)	Gurgaon, India, Feb 2014
8	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,	Seville, Spain, June 2014
9	Jalaja M J and Lillykutty Jacob	'Adaptive Data Collection in Sparse Underwater Sensor Networks Using Mobile Elements	The Second International Workshop on Marine Sensors and Systems, MARSS 2014	Benidorm, Spain, June 2014
10	Jalaja M J and Lillykutty Jacob	Lifetime Enhancement in Sparse Underwater Acoustic Sensor Networks Using Mobile Elements	SPCOM 2014	Bangalore, India, July 2014.
11	Sarika T, Deepthi P P	A channel coder design for a high speed and less complex communication system using QC- LDPC codes	IEEE Int. Conf. Communication and Signal Processing (ICCSP-2014)	2014
12	Jesy P, Deepthi.P.P	Joint Source channel Network Coding Using QCLDPC codes	IEEE Int. Conf. Communication and Signal Processing (ICCSP-2014)	2014
13	Nishant Augustine, Sudhish N George and Deepthi P P	Compressive sensing based Audio Scrambling using Arnold Transform	Springer, Int. Conf. Security in Computer Networks and Distributed Systems (SNDS- 2014)	pp. 172- 183., 2014
14	Jilna P and Deepthi P P,	Implementation of an Elliptic Curve Based Message Authentication Code for Constrained Environments	Springer, Int. Conf. Security in Computer Networks and Distributed Systems (SNDS- 2014),	pp. 520-529., 2014
15	Nishant Augustine, Sudhish N George and Deepthi P P	Compressive sensing based audio scrambling using cellular automata	IEEE Int. Conf. Electronics, Computing and Communication Technologies (CONECCT-2014)	pp. 1-5, 2014
16	Abhishek, Sudhish N George and Deepthi P. P	PWLCM based image encryption through compressive sensing	IEEE Int. Conf. Recent Advances in Intelligent Computational Systems (RAICS-2013)	pp. 48-52, 2013
17	Sruthi K and Deepthi P P	FPGA Implementation of Regular Parallel LDPC Decoder Using Min Sum Algorithm	in Proc. 2nd International Conference on Recent Advances in Sciences and Engineering, ICRASE 2013, pp	2013

			201-204, Taj Deccan, Hyderabad, India	
18	Sarika K T and Deepthi P P	Novel High Speed Communication System Based on the Concatenation of RS and QC-LDPC Codes	Proc. IEEE International Conference on Microelectronics, Communications and Renewable Energy (ICMiCR) 2013	pp 1-5, 2013
19	Shine P James, Sudhish N George, and Deepthi P P	Secure Selective Encryption of Compressed Audio	in Proc. IEEE International Conference on Microelectronics, Communications and Renewable Energy (ICMiCR) 2013	pp 1-6, 2013
20	Athira A, Sudhish N G, and Deepthi P P	A Novel Encryption Method Based on Compressive Sensing	in Proc. Int. Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing- 2013	pp. 271 – 275, 2013
21	Anoop B N, Sudhish N G, and Deepthi P P	Secure Image Transcoding Technique Using Chaotic Key Based Algorithm with Improved Security	in Proc. Int. Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing- 2013	pp. 693 – 697, 2013
22	Ashna K, Sudhish N George	GSM based automatic energy meter reading system with instant billing	in Proc. Int. Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing- 2013	pp. 65 – 72, 2013
23	Neetha George, Lal M J, Sudhish N George	Digital tracking filter of FM-CW radar	in Proc. Int. Multi Conference on Automation, Computing, Control, Communication and Compressed Sensing- 2013	pp. 636 – 640, 2013
24	V Meena, G Abhilash	Sparse Representation and Recovery of a Class of Signals Using Information Theoretic Measures	IEEE INDICON 2013	978-1-4799-2275 -8/13/\$31.00 © 2013 IEEE
25	Kaka Radhakrishna, Nisha Haridas, Bindiya T. S., Elizabeth Elias	Cuckoo Optimization Algorithm for the Design of a Multiplier-less Sharp Transition Width Modified DFT Filter Bank	International Conference On Advanced Engineering Optimization Through Intelligent Techniques	July 2013
26	Suja k j, Nisanth, Rama Komaragiri	Sensitivity Enhancement of a Silicon Based MEMS Pressure Sensor by Optimization of Size and Position of Piezoresistor	ICECS 2014 Feb 14, 2014	2014
27	Suja k j, Nisanth, Rama Komaragiri	Performance Analysis of a Silicon Piezoresistive Pressure Sensor Based on Diaphragm Geometry and Piezoresistor Dimensions	ICCPCT 2014 20th-21st March 2014,	2014
28	Suja k j, Kumar G S, Rama Komaragiri	Analysing the effect of temperature in boron implanted piezoresistor in silicon based MEMS pressure sensor	ICBDM 2014, Feb 14	2014
29	Suja k j, Shailendra Kumar Sonkar	Signal Conditioning Unit for Piezoresistive based Micro Pressure Sensors	ICCPCT 2014	2014
30	K V Shahnaz Palash Kulahre C.K.Ali	An uplink OFDM/SDMA multiuser detection using Firefly algorithm	AEOTIT, SVNIT, Gujarat	Pages 373-375, July 1-3, 2013
31	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
32	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
33	Sidharth Shelly	Probability Distribution of Link Life	2013 IEEE International	pp. 1418 –

	and A.V. Babu,	Time in Vehicular Ad Hoc Networks,	Conference on Advances in Computing, Communications and Informatics (ICACCI-2013).	1423, 2013 ,
34	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).	pp.1041-1046.,2013,
35	Nisanth.A, Suja KJ, Rama Komaragiri	Performance Analysis of a Silicon Piezoresistive Pressure Sensor Based on Diaphragm Geometry and Piezoresistor Dimensions	ICCPCT 2014 -International Conference on Circuits, Power and Computing Technologies ,20th-21st March 2014 , Noorul Islam Centre for Higher Education, Kumaracoil, Tamilnadu.	2014
36	Kumar G S, Suja KJ, Rama S Komaragiri	Analysing the effect of Temperature in Boron implanted piezo resistor in Silicon based MEMS pressure sensor	ICBDM 2014 International Conference on Emerging terms in science Engineering business and Disaster Management Feb 14. Noorul Islam Centre for Higher education KumaracoilTamilnadu.	2014
37	Nisanth.A, Suja KJ, Rama Komaragiri	Sensitivity Enhancement of a Silicon Based MEMS Pressure Sensor by Optimization of Size and Position of Piezoresistor	ICECS 2014 -International Conference on Electronics and Communication Systems, Feb. 2014	2014
38	D. Anil Prasad, Rama Komaragiri	Effects of Source/Drain Doping Concentration on 4H-SiC MESFET Characteristics	International Conference on VLSI and Signal Processing (ICVSP), 10 – 12 January, 2014	2014
39	Nitha M Biju, AswathyManazhi and Rama Komaragiri	Mixed mode Circuit Simulation of a Junction less Transistor and a Comparative Study with CMOS Inverter	3rd International Conference on Advances in Computing and Communications-2013 (ICACC-2013), 28th to 31st August 2013, Kochi, India	2013
40	Aswathy M, Nitha Biju and Rama Komaragiri	Comparison of a 30nm Tunnel Field Effect Transistor and CMOS Inverter Characteristics	3rd International Conference on Advances in Computing and Communications 2013 (ICACC-2013), 28th to 31st August 2013, Kochi, India	2013
41	Suja K.J., Santo Mathew and Rama Komaragiri	Optimized Design of a MEMS Pressure Sensor for Tsunami Warning System	IEEE Global Humanitarian Technology South Asia Satellite Conference 2013 (GHTC SAS-2013), 23rd-24th August 2013, Trivandrum, India.	2013
42	Yogeshwara Rao Golive, Rama Komaragiri	A Simulation study of multifunction Double-Halo Field Effect Transistor	International Conference on Microelectronics, Communication and Renewable Energy-2013 (ICMiCR 13).	2013
43	Veeranagendra Kumar S, Rama Komaragiri	Simulation of Gate-All-Around Cylindrical Transistors and Gate-All-Around Rectangular Transistors	International Conference on Microelectronics, Communication and Renewable Energy-2013 (ICMiCR 13).	2013
44	Krishnapriya S, Rama Komaragiri	Germanium source-Germanium channel-Silicon drain Vertical TFET for Low Power Applications	International Conference on Microelectronics, Communication and Renewable Energy-2013 (ICMiCR 13).	2013
45	Meenu T.V, Rama Komaragiri	A Vertical JFET With Improved On To Off Current Performance	International Conference on Microelectronics, Communication and Renewable Energy-2013	2013

46	Anil Prasad Dadi, Rama Komaragiri	Performance Comparison of 4H-SiC MESFETs	International Conference on Microelectronics, Communication and Renewable Energy-2013 (ICMiCR 13).	
47	Suja K.J, Vidyagopal T.V, Rama Komaragiri,	Optimized Design of a Silicon based MEMS Pressure Sensor for Wider range and Better Sensitivity	International Conference on Microelectronics, Communication and Renewable Energy-2013 (ICMiCR 13)	2013
49	Vidya Gopal, Suja K J and Rama Komaragiri	Temperature study of reinforced MEMS Pressure sensor	ICGITS, April 2013.	2013
50	Santo Mathew, Suja K J, Rama Komaragiri	Optimization of stacked diaphragm for MEMS Piezoresistive pressure sensor	ICGITS, April 2013.	2013
51	Pattem Ashok Kumar and Praveen Sankaran	"Visual Information Fidelity in Evaluating Retinex Enhancement Algorithms"	in Proc. of IEEE International Conference on Communication & Signal Processing 2014 (ICCSP'14), pp. 700-704, 2014.	2014
52	D Nair, P. Ashok Kumar, and Praveen Sankaran, , Eighth	"An Image Dehazing Method using Retinex"	International Conference on Image and Signal Processing 2014, Elsevier publishers.	2014

#### b. Community Services

Name of Staff	Community Service
Dr. Sameer S. M	Treasurer, IEEE Kerala Section
Dr.G Abhilash	Serves as reviewer to international journals (EURASIP Signal Processing) and international conferences
V.Sakthivel	Joint Secretary/ Treasurer of Faculty Association NIT Calicut
Dr.Elizabeth Elias	<ul style="list-style-type: none"> <li>• Member, Board of Governors, GEC, Calicut</li> <li>• Expert Member, NBA</li> <li>• Keynote Speaker in National and International conferences in India</li> <li>• Reviewer in International Journals (Elsevier, Springer, Taylor and Francis)</li> <li>• Member, Grievance Redressal committee, NIT Calicut.</li> <li>• Member, Board of studies, Mysore Univesity, Karunya University</li> <li>• Evaluator of PhD theses of NIT Trichy, Anna University, Bangalore University, JNTU, Hyderabad</li> <li>• Delivers expert talks in Engineering Colleges in Kerala, Tamil Nadu, Karnataka, and Andhra Pradesh</li> <li>• Expert Member, CERD, CET, Trivandrum</li> <li>• Expert Member, Interview board of DRDO in Bangalore, Hyderabad</li> </ul>

#### c. Other Academic and Administrative services

Name of Staff	Academic and Administrative Services
Lillykutty Jacob	<ul style="list-style-type: none"> <li>• Board of Governors, NIT Goa</li> <li>• Board of Studies, NIT Surathkal</li> <li>• Advisory Committee, AISAT Kochi</li> <li>• NAAC Peer Team Member</li> <li>• Associate Editor: Sadhana- Academy Proceedings in Engineering Sciences, Springer</li> <li>• Editorial Board Member: International Journal of Distributed Sensor Networks, Hindawi; International Journal of Network Management, Wiley; The Scientific World Journal, Hindawi</li> <li>• Reviewer for International journals: IEEE Trans. on Computers, IEEE Communication Letters, IEEE Trans. on Communications, IEEE Journal on Selected</li> </ul>



	<p>Areas of Communications, IEEE Trans. on Wireless Communications, IEEE Trans. on Vehicular Technology, IEEE Trans. on Mobile Computing</p> <ul style="list-style-type: none"> <li>• TPC/Reviewer for International Conferences: IEEE</li> <li>• INFOCOM, IEEE GLOBECOM, IEEE International Conference on Local Computer Networks (LCN), IEEE ICC SDLP</li> </ul>
P. C. Subramaniam	<ul style="list-style-type: none"> <li>• Class Committee Chairman Of Final Year ECE</li> <li>• Mini Project Evaluation Co-Ordinator</li> <li>• Student Placement Committee Member</li> </ul>
P.S. Sathidevi	<ul style="list-style-type: none"> <li>• Chair Person, UG Admissions</li> </ul>
G. Abhilash	<ul style="list-style-type: none"> <li>• BTech Project Coordinator</li> <li>• Served as Project guide to two BTechProjects and two MTech Projects</li> <li>• Serves as Guide to two PhD Students</li> <li>• Serves as Doctoral committee member to ECE, EEE, MED, CSED and Mathematics departments.</li> <li>• Member of Advisory Committee to Central Library</li> <li>• Member of Purchase Committee to Central Library</li> </ul>
Sameer S. M.	<ul style="list-style-type: none"> <li>• Senate Nominee to the Board of Governors, NIT Calicut</li> <li>• Associate Dean (Planning and Development), NIT Calicut</li> <li>• Faculty Advisor, B.Tech (2011-15) batch</li> <li>• Member of several doctoral scrutiny committees</li> <li>• M.Tech (Telecom) Project Evaluation Committee</li> </ul>
Sreelekha G	<ul style="list-style-type: none"> <li>• Faculty Advisor, B.Tech (2011 Batch)</li> <li>• Faculty -in-Charge of Laboratories: DSP Lab</li> <li>• Faculty in charge of Staff Amenities</li> <li>• Member - Project Evaluation Committee(M. Tech Signal Processing)</li> <li>• Project Manger &amp; Procurement Nodal officer – TEQIP_II</li> </ul>
V.Sakthivel	<ul style="list-style-type: none"> <li>• Member in UG project evaluation committee</li> <li>• Faculty Advisor (B.Tech ECE 2013 batch)</li> <li>• Faculty-in-charge of Electronic Circuits Lab</li> <li>• Member in Annual Stock Verification (May 2013)</li> <li>• Member in vigilance committee of ECE Department</li> </ul>
Jayakumar E. P.	<ul style="list-style-type: none"> <li>• Faculty Advisor (B.Tech 2010 Admission)</li> <li>• Member, Project Evaluation Committe (EDT),</li> <li>• Member, Examination Vigilance Committee.</li> </ul>
Dr.C.K.Ali	<ul style="list-style-type: none"> <li>• HOD, ECED</li> </ul>
Dr. Rama Komaragiri	<ul style="list-style-type: none"> <li>• Warden Mega Hostel, Boys</li> <li>• Faculty Advisor, M.Tech in Microelectronics and VLSI</li> <li>• Faculty In-charge, Simulation Lab</li> <li>• Faculty In-charge, NITC ISTE Student Chapter</li> <li>• Faculty Member student guidance cell (ECED co-ordinator)</li> <li>• Reviewer- iMAc4s 2013, ICGITS 2013, 2IES14, ICAECC-14</li> <li>• Reviewer for the journal EPL, MNT,IEE</li> <li>• Panel member CoreELDiligent Design Contest (CDDC), South Zone</li> <li>• PhD thesis examiner, M.Tech Viva-voce examiner</li> <li>• Question paper setter</li> <li>• Session chair in Trends in VLSI Technology and Systems 2014</li> </ul>
Praveen Sankaran	Warden – UG Flats
Suresh R.	<ul style="list-style-type: none"> <li>• Information facilitator/Liaison officer/website manager</li> <li>• Faculty -in-Charge of SPCOM lab</li> <li>• Class Committee Chairperson, B. Tech. 20012 batch</li> <li>• UG Project Evaluation Committee member</li> </ul>
Bindya T. S.	<ul style="list-style-type: none"> <li>• Faculty Advisor, UG(2009 and 2013 Batches)</li> <li>• Time Table Committee Member</li> <li>• UG Mini Project Evaluation Member</li> </ul>

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

Sl. No.	Title	Coordinators	Duration & Period
1.	Signals and Systems	V.Sakthivel (at NIT Calicut)	Two week & 02-01-2014 to 12-01-2014
2.	Pedagogical Aspects in Engineering Education	Dr. Rama Komaragiri, Dr. Abraham T. Matthew (EED)	2nd -5th January 2014
3.	FDP on CMOS Design	Dr. Rama Komaragiri	23rd– 29th June 2013

e. Expert lectures delivered in Conferences/ Seminars/ workshops

Sl. No.	Name of Staff	Title of the Programme	Duration & Period	Organization
1	Dr. Sameer S. M.	Three day seminar on Software Defined Radio	14-16 May 2013	Rajagiri School of Engineering and Technology, Kochi, Kerala.
2	Dr. Sameer S. M.	National Conference on Advances in Computational Intelligence and Communication Technologies 2013	26-27 June 2013	LBS Institute of Technology for Women, Trivandrum, Kerala.
3	Dr. Sameer S. M.	Second National Conference on Emerging Technologies- 2013.	19-20 July 2013	Government Engineering College, Barton Hill, Thiruvananthapuram, Kerala
4	Dr. Sameer S. M.	National Seminar on Advances in Computing, Communication & Applications (ACCA13)	20-21, November 2013	Sullamussalam Science College, Malappuram, Kerala
5	Jayakumar E.P.	FDP on CMOS Design	27 and 28 of June 2013	NIT Calicut
6	Lyla B.Das	Reconfigurable Embedded Systems	November 2013, Three Hours	Government Engineering College, Kannur
7	Lyla B.Das	Fpga Based Systems	January 2014, 60urs	Jyothi Engineering College, Thrissur
8	Lyla B.Das	Embedded Systems	May 2013, 3hours	Sree Buddha Engineering College, Chengannur
9	Dr. Rama Komaragiri	Key note address in ICGITS 2013	4th -6th April 2013	SAINTGITS College of Engineering Pathamuttom, Kottayam , Kerala, India,
10	Dr. Rama Komaragiri	Recent Advances in Semiconductor Memories: Emerging Memory Technologies”, In Workshop on Solid State Circuits	September 2013	SAINTGITS College of Engineering Pathamuttom, Kottayam , Kerala, India
11	Dr. Rama Komaragiri	“CMOS Architectures for Signal Processing”, In TEQIP Sponsored Faculty Development Programme on VLSI Architectures for Signal Processing		Department of ECE, PSG College of Technology, Peelamedu, Coimbatore - 641 004.
12	Dr. Rama Komaragiri	Application of Sciences in Electronics Industry		Dayapuram College of Arts and Science for Women, Calicut, Kerala.
13	Dr. Rama Komaragiri	Green Technologies: Role of Semiconductors and VLSI		Organized by IEEE SB, In association with Department of ECE, Knowledge Institute of Technology, Salem.
14	Dr. Rama Komaragiri	Low Power VLSI Design Aspects		Organized by IEEE SB, In association with Department of ECE, Knowledge Institute of Technology, Salem.
15	Dr. Rama Komaragiri	Low Power VLSI Design Aspects”, In FDP on VLSI	June 18-22, 2013,	Organized by Department of ECE, T. K. M. COLLEGE OF

		Design, Sponsored by TEQIP -II,		ENGINEERING, KOLLAM, KERALA.
16	Dr. Rama Komaragiri	21) "Carbon Nano Electronics", STTP on Emerging Technologies in Electronics	May 2013	Department of ECE, Thejus Engineering College, Trissur, Kerala.
17	Dr. Rama Komaragiri	Multi-gate MOSFET Devices	May 2013	Department of ECE, Thejus Engineering College, Trissur, Kerala.
18	Bindiya T. S.	FDP on CMOS Design	27 and 28 of June 2013	NIT Calicut

**f. Details of Faculty, who acquired Higher Qualification**

Sl. No.	Name	Qualification	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Ameer P M	Ph.D	Underwater Sensor Networks	PT

**g. Consultancy and Testing : NIL**

**h. Patents Acquired & Filed :**

Sl. No.	Name of Staff	Title	Year
1	Dr. Sameer S. M.	"An Efficient System and Method for Carrier Frequency Offset Estimation and Correction for MIMO-OFDM System," US Patent No: US8520778 B2	August 27, 2013.

**i. Student achievements :**

Many UG students are undergoing MS/PhD studies in higher educational institutes in India and abroad.

**DEPARTMENT OF MECHANICAL ENGINEERING**

**a. Publications**

**i. Journals**

Sl. No	Name of the Authors	Title of paper	Journal name	Vol., Page Nos., Year of publication
1	K Pratheesh M Ravi. Allesu Kanjirathinkal, MA Joseph	Effect of Mg and Sr additions on the microstructure, mechanical properties and reciprocating wear characteristics of hypereutectic Al-14 Si alloy	Applied Mechanics and Materials	Vol.592-594(2014)pp1296-1299
2	K Sekar K Allesu M A Joseph	Design, construction and Performance evaluation of multiple casting machine	Nigerian Journal of Technology (nijotech)	Vol.32. No.3 November 2013,pp498-506
3	Rani S, K. Prabhakaran Nair, M. L. Joy	Evaluation of Physio-chemical and Thermal Properties of Rice Bran Oil As A Lubricant Base Oil	Technology Letters	Vol. 1, Page 33-37, 2014
4	Sreedhar Babu K Prabhakaran Nair K. Rajendrakumar P.K.	Numerical analysis of THD journal bearing operating under commercial lubricant SAE15W40 containing weight fraction of CuO, CeO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> nanoparticles	Journal of Tribology and Surface Engineering	Vol. 3, Iss. 1-2, pp. 13-30 2013
5	Sreedhar Babu K Prabhakaran Nair K. Rajendrakumar P.K.	Mathematical models for the viscosity-temperature relationship of the lubricants containing nanoparticles and its applications to journal bearings	International Journal of Nanoparticles	Vol. 6, No. 4, pp. 296-311, 2013
6	Manu V. Thottackkad Rajendrakumar P.K.	Experimental studies on the tribological behaviour of engine oil	Industrial Lubrication and Tribology	Vol. 66 Iss. 2 pp. 289-297

	Prabhakaran Nair K.	(SAE15W40) with the addition of CuO nanoparticles		2014
7	Jayadeep U.B., Bobji M.S., Jog C.S.	Energy loss due to adhesion in longitudinal impact of elastic cylinders	European Journal of Mechanics	Vol. 45, pp 20-31 (2014)
8	Jayadeep U.B., Bobji M.S., Jog C.S.	Energy Loss in the Impact of Elastic Spheres on a Rigid Half-Space in Presence of Adhesion	Tribology Letters	Published online DOI: 10.1007/s11249-013-0245-4
9	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
10	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
11	Vanchipura, R. and Sridharan, R	Effect of problem size on the performance of constructive algorithms for flow shop scheduling problems with sequence dependent setup times.	International Journal of Internet Manufacturing and Services", Corrected proof in press.	2014
12	Panicker, V.V., Vanga R., and Sridharan, R	Ant Colony Optimization Algorithm for Distribution-Allocation Problem in a Two-Stage Supply Chain with a Fixed Transportation Charge",	International Journal of Production Research	Vol. 51, No. 3, pp. 698-717.2013
13	Vinay, V.P., & Sridharan.R	Taguchi method for parameter design in ACO algorithm for distribution-allocation in a two-stage supply chain	International Journal of Advanced Manufacturing Technology	Vol. 64, Nos. 9-12, pp. 1333-1343. 2013
14	Reddy, M.V., Panicker, V.V., and Sridharan, R	Ant colony optimisation for location routing problem and its application to bill delivery services	International Journal of Logistics Systems and Management	Vol. 14, No. 1, pp. 1-37.2013
15	Vanchipura, R. and Sridharan, R	Impact of varying levels of setup time on the performance of algorithms for scheduling a flow shop with sequence dependent setup time.	International Journal of Services and Operations Management	Vol. 14, No. 4, pp. 421-444.2013
16	Varaprasad, G., Sridharan, R. and Unnithan, A. B	Internet banking adoption in a developing country – an empirical study	International Journal of Services and Operations Management	14(1), 54-66, 2013
17	Varaprasad, G., Sridharan, R. and Unnithan, A. B.	Internet banking adoption by the customers of private sector banks in India	International Journal of Strategic Decision Sciences.	4(1), 39-50, 2013
18	Varaprasad, G., Kailash, S. C., Sridharan, R. and Unnithan, A. B.	An empirical investigation on credit card adoption in India	International Journal of Service Science, Management, Engineering, and Technology.	4(1), 13-29, 2013
19	Muthukumar, R., Varaprasad, G., Sridharan, R. and Unnithan, A. B.	An empirical study to identify the factors influencing the customer satisfaction of ATMs in India	International Journal of Strategic Decision Sciences.	4(4), 25-40, 2013
20	Saleel, C., A., Shaija, A., and Jayaraj, S	On Simulation of Backward Facing Step Flow using Immersed Boundary Method	American Journal of Fluid Dynamics	3(2): 9-19. 2013
21	Saleel, C., A., Shaija, A., and Jayaraj, S	Computational Simulation of Fluid Flow over a Triangular Step using Immersed Boundary Method	International Journal of Computational Methods	Vol. 10, No. 04. 2013
22	Salumuri S. Lingeswara Rao, A. Shaija and S. Jayaraj.	Mathematical modeling of Proton Exchange Membrane Fuel Cells- a brief review	International Journal of Emerging Trends in Engineering and Development.	Issue 4, Vol.1, 2014.

23	S.S.L. Rao, A. Shaija and S. Jayaraj	Optimization of operating parameters to maximize the current density without flooding at the cathode membrane interface of a PEM fuel cell using Taguchi method and genetic algorithm	International Journal of Energy and Environment,	Vol. 5, 2014.
24	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	Vol. 4(1). 2014
25	Ajeet P S and Shaija A	Design and development of a solar desalination system	Applied mechanics and Materials	Vol. 592-594, pp 2350-2354. 2014
26	T.J.S. Jothi and K. Srinivasan	Turbulent Mixing Noise from Underexpanded Non-circular Slot Jets	Acta Acustica United with Acustica	Vol. 99, No. 4, pp. 514-523, 2013.
27	Baiju.V, C. Muraleedharan.	“Energy and exergy analysis of solar hybrid adsorption refrigeration system	International Journal of Sustainable Engineering	2013,289-300
28	Baiju.V, C. Muraleedharan.	“Application of neural network for the performance prediction of solar hybrid adsorption refrigeration system”	International Journal of Engineering Research and Technology	Vol. 2 Issue 1, 2013.
29	Baiju.V, C. Muraleedharan.	“Performance study and experimental cycles of solar adsorption refrigeration system”	International Journal of research in Education Methodology	Vol. 3, 2013.
30	Rakesh hari, C. Muraleedharan	‘Numerical analysis of two phase flow in flat heat pipe’	International Journal of Innovative Research in Science, Engineering and Technology	Vol. 2, Special issue 1, ISSN (online) 2319-8753, 2013.
31	Sreejith CC, C. Muraleedharan, Arun P	Performance prediction of steam gasification using an ASPEN Plus thermodynamic equilibrium model	International Journal of Sustainable Energy, Taylor & Francis	Vol. 32, Issue. 4, (2013)
32	Sreejith CC, C. Muraleedharan, Arun P	Performance prediction of air-steam gasification using experimental data-based correction models	Biomass Conversion and Biorefinery	Available online in Springer from 2013
33	C.C. Sreejith, Navaneeth Haridasan, C. Muraleedharan, P. Arun	Allothermal airesteam gasification of biomass with CO <sub>2</sub> (carbon dioxide) sorption: Performance prediction based on a chemical kinetic model	Energy	p. 1-10, 2014.
34	M Shihabudheen, P Arun	Performance evaluation of a hybrid photoVol.taic-thermal water heating system	International Journal of Green Energy	11 (9), 969-986 2014
35	PS Naik, P Arun	Energy and Exergy Analysis of a Plane Reflector Integrated PhotoVol.taic-Thermal Water Heating System	ISRN Renewable Energy	2014
36	CC Sreejith, C Muraleedharan, P Arun	Thermo-chemical analysis of biomass gasification by Gibbs free energy minimization model-Part: II (Optimization of biomass feed and steam to biomass ratio)	International Journal of Green Energy	10 (6), 610-639. 2013
37	ArunVenu, Arun P	Simulation Studies on Porous Medium Integrated Dual Purpose Solar Collector	International Journal of Renewable Energy Research (IJRER)	3 (1), 114-120 2013
38	CC Sreejith, P Arun, C Muraleedharan	Thermochemical Analysis of Biomass Gasification by Gibbs Free Energy Minimization Model—Part: I (Optimization of Pressure	International Journal of Green Energy	10 (3), 231-256. 2013

		and Temperature)		
39	CC Sreejith, C Muraleedharan, P Arun	Energy and exergy analysis of steam gasification of biomass materials: a comparative study	International Journal of Ambient Energy	34 (1), 35-52. 2013
40	K. Jayakumar, Jose Mathew, M. A. Joseph, R. Suresh Kumar, A. K. Shukla&M. G. Samuel	Synthesis and Characterization of A356-Sicp Composite Produced through Vacuum Hot Pressing	Materials and Manufacturing Processes	Vol. 28, No. 9, pp. 991-998, 2013,
41	Sekar, K. Allesu, M. A. Joseph	Design, construction and performance evaluation of multiple casting machine	Nigerian journal of technology	Vol. 32. No. 3. November 2013, pp. 498 – 506
42	Sekar, K. Allesu, M. A. Joseph	Microstructure, double shear and tribological properties of A356 aluminium alloy fabricated by gravity, vacuum and squeeze casting method	International Journal of Mechanics Structural	Vol. 4, Number 1, January-June (2013), pp. 25-34
43	Sekar, K. Allesu, M. A. Joseph	Design of a stir casting machine	American International Journal of Research in Science, Technology, Engineering & Mathematics	Vol. 3(1),June-Aug, 2013, pp. 56-62
44	Sekar, K. Allesu, M. A. Joseph	Design of a Vacuum Casting Machine	International Journal of Engineering and Manufacturing Science	Vol. 3, Number 1 Jan-June (2013), pp. 9-16.
45	Sekar, K. Allesu, M. A. Joseph	Effect of T6 heat treatment in the microstructure and mechanical properties of A356 alloy reinforced with Al <sub>2</sub> O <sub>3</sub> particles by combination effect of stir and squeeze casting	International journal of Procedia Materials	March 2014
46	Shiyas C R and Madhusudanan Pillai V	Cellular manufacturing system design using grouping efficacy based genetic algorithm	International Journal of Production Research, DOI: 10.1080/00207543.2013.871390	2013
47	Madhusudanan Pillai, Pamulety Chinna Talari & Pratap Veera Elluri	Performance analysis of some supply chain replenishment strategies	International Journal of Logistics Research and Applications, DOI: 10.1080/13675567.2013.862227	2013
48	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
49	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	2013
50	M. R. Suresh Kumar, and V. Madhusudanan Pillai	( ), Impact of weight assigned to objective functions in planning annualised hours.	International Journal of Engineering and Management,	Vol. 5, Issue 1, pp. 23–32. 2013

ii. International and National Conference

Sl. No	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Dinesh Babu,P.,Kuriachen,B., Allesu,K., and Mathew,J.	Experimental Investigation and optimization of Process Parameters in machining Inconel-718 using Micro-WEDM	International Conference on Precision, Meso, Micro and Nano Engineering	COPEN-8, 1, pp.240-245, 2013
2	Rani S, K. Prabhakaran Nair, M. L. Joy	Evaluation of Physio-chemical and Thermal Properties of Rice Bran Oil As A Lubricant Base Oil.	International Conference on Advances in Tribology – ICAT14, NIT Calicut	2014

3	Amith Aravind, K. Prabhakaran Nair, M. L. Joy	Physio-Chemical Characterization of Rubber Seed Oil (Hevea Brasiliensis) – A Biodegradable Lubricant Substitute.	International Conference on Advances in Tribology - ICAT14, NIT Calicut	2014
4	Joseph Babu K, K. Prabhakaran Nair, M. L. Joy	Pressure Variations in Hydrodynamic Bearings due to Lump Formation on the Surface of the Bearings.	International Conference on Advances in Tribology – , NIT Calicut	2014
5	Chacko Preno Koshy Rajendrakumar P.K. Manu V. Thottackkad	Experimental Evaluation of the Tribological Properties of CuO Nano-lubricants at Elevated Temperatures	International Conference on Advances in Tribology & Engineering Systems (ICATES 2013)GTU Gujarat, India	15-18 October, 2013
6	Chacko Preno Koshy Rajendrakumar P.K. Manu V. Thottackkad	Experimental Evaluation of Tribological and Thermo-physical Properties of Surfactant-Modified Cu-based Nano-lubricants at Elevated Temperatures	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8 : 2013) NIT Calicut	13-15 December, 2013
7	Chacko Preno Koshy Rajendrakumar P.K. Manu V. Thottackkad	Analysis of Tribological and Thermo-physical Properties of Surfactant-modified Vegetable Oil-based CuO Nanolubricants at Elevated Temperatures - An Experimental Study	International Conference on Tribology (ASIATRIB-2014) Agra, India	17-20 February, 2014
8	Saijal K K, M.L. Joy and K. Prabhakaran Nair	Optimal trailing edge flap position of helicopter rotor for various thrust coefficients to solidity ratio	International conference on aerodynamics	World Academy of sciences, engineering 2013
9	M.Mubarak, A. Shaija, T.V.Suchithra	Performance and Emission Analysis Diesel Engine using Biodiesel blends Produced from Salvinia Molesta and Indigenous Algae	23rd National conference on Engines and Combustion in SVNIT Surat, India	13-16 December, 2013.
10	Vinay V. Panicker and Sridharan R	Ant Colony Optimization based heuristic and its application for solving a Location Routing Problem for Parcel Delivery Services	International Conference on Industrial Engineering (ICIE 2013), S.V. National Institute of Technology Surat, Gujarat	pp. 399-404, 2013.
11	Vinay V. Panicker and Sridharan R	Development and Analysis of Heuristics based on Ant Colony Optimization Algorithm for Distribution-Allocation problem in a Two-Stage Supply Chain.	International Consortium of Students in Management Research (COSMAR 2013), Department of Management Studies, Indian Institute of Science Bangalore.	2013
12	T.J.S. Jothi and K. Srinivasan	Characteristics of screech and transonic tones in jet flows," The 20th International Conference on Sound and Vibration, ICSV 2013	Bangkok, Thailand.	7-11 July 2013.
14	T.J.S. Jothi and K. Srinivasan	Surface roughness effects on jet noise emissions	Acoustics 2013, organized by the Acoustical Society of India (ASI) and the French Acoustic Society (SFA) under the aegis of the CSIR-National Physical Laboratory	pp. 34-39, New Delhi, 10-15, November 2013.
15	Arun K.G, T.J.S. Jothi, 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
16	G Gopi and T.J.S Jothi	Monte Carlo Simulation of Patterned Luminescent Solar Concentrator	National Conference on Renewable Energy Innovation for Rural Development (NCREIRD 2014), Rural Energy Centre, Gandhigram Rural Institute	19 March 2014
17	Rakesh Hari, C. Muraleedharan,	'Numerical analysis of two phase flow in flat heat pipe'	International Conference on Energy and Environment-2013 (ICEE 2013), December 2013 at Rajiv	December 2013

			Gandhi Institute of Technology, Kottayam, Kerala	
18	Baiju.V, C. Muraleedharan.	Use of Artificial network for the Performance Prediction of Exergy Assessment of Solar Adsorption Refrigeration System”,	Proceedings of 22 <sup>nd</sup> National and 11th International ISHMT - ASME Heat and Mass transfer conference, IIT Kharagpur	December 2013
19	Sajith KG, C. Muraleedharan,	DRYING OF AMLA USING A HYBRID SOLAR DRYER,	International Conference on Energy and Environment-2013 (ICEE 2013), December 2013 at Rajiv Gandhi Institute of Technology, Kottayam, Kerala.	December 2013
20	U. K. Sajith, S. Rupesh, C. Muraleedharan, P. Arun,	Characterisation of Biomass for Gasification,	National conference on latest trends in Mechanical Engineering, March 2014, Palakkad.	March 2014
21	Baiju.V, C. Muraleedharan.	“Optimisation of Coefficient of Performance of Solar adsorption refrigeration system”,	NCME, Toc H Institute of Science and Technology	September 2013
22	Rakesh Hari, Tom Jolly, C. Muraleedhatrn,	‘Boiling and condensation characteristics of a flat heat pipe in the porous wick’	National conference on latest trends in Mechanical Engineering, March 2014 at NSS, College of Engineering, Palakkad, Kerala	March 2014
23	Sreejith KV, C. Muraleedharan,	Reverse flow heat pipes for solar applications-A feasibility study,	National conference on RENEWABLE ENERGY INNOVATIONS FOR RURAL DEVELOPMENT	March 2014
24	S. Sreejith, M. Mubarak, A. Shaija, T.V. Suchitra,	Experimental study on the properties biodiesel produced from indigenous algae as diesel engine fuel,	International conference on Alternate fuels in I.C. Engines,.	2013
25	S. Mithun, M. Mubarak, A. Shaija, T.V. Suchitra	Experimental investigation of biohydrogen production from Indigenous algae and Chlorella Pyrenoidosa	IEEE International Conference on Energy Efficient Technologies for Sustainability ICEETS-2013.	2013
26	Salumuri. S. L. Rao, A. Shaija	Mathematical Modeling and Performance analysis of Proton Exchange Membrane fuel cell	IEEE International Conference on Power, Energy and Control (ICPEC), 2013	2013
27	Salumuri. S. L. Rao, A.Shaija	Mathematical Modeling and Parametric analysis of Proton Exchange Membrane fuel cells - A Semi Empirical Approach,	International conference on Alternate fuels in I.C. Engines, MNIT, Jaipur.	2013
28	A C Pradosh, M.Mubarak & A Shaija	"Optimization Study On Extraction Of Oil From Salvinia Molesta Using Response Surface Methodology "	IEEE International Conference On Recent Advances In Mechanical Engineering and Interdisciplinary Development (ICRAMID-2014) at Ponjesly College Of Engineering, Nagercoil	March 7-8, 2014
29	V Aneesh, A Shaija	Performance Analysis Of Single Slope Solar Still Integrated With Thermoelectric Refrigeration System	IEEE International Conference On Recent Advances In Mechanical Engineering and Interdisciplinary Development (ICRAMID-2014) at Ponjesly College Of Engineering, Nagercoil	March 7-8, 2014
30	A. Shaija, Ashif S	Development of A Dual Purpose Wind Turbine For Low Wind Speed Conditions	IEEE International Conference On Recent Advances In Mechanical Engineering and	March 7-8, 2014



			Interdisciplinary Development (ICRAMID-2014) at Ponjesly College Of Engineering, Nagercoil	
31	Salumuri S. Lingeswara Rao, A. Shaija and S. Jayaraj	Optimization of operating parameters maximize the current density without dehydration at the anode membrane interface of a PEM fuel cell using Taguchi method.	International Conference and Utility Exhibition on: Green Energy for Sustainable Development (ICUE 2014), Pattaya city, Thailand	March 19-21, 2014
32	Sujith K and Arun P	Multi-objective Optimization of Fuel Cell Integrated Hybrid	Energy Systems, Proceedings of the International Conference on Recent Trends in Mechanical Engineering and Interdisciplinary Developments (ICRAMID 2014), Ponjesly College of Engineering, Nagercoil.	March 7-8, 2014
33	Basil Kuriachen, Mithun S Nair, Jose Mathew	Numerical simulation of micro electric discharge machining on Ti-6Al-4V	CAE 2013, IIT Madras	Vol. 1, pp.1-6, Dec 2013
34	Kuriachen B. and Mathew J	Effect of Material Properties on Machinability in Micro EDM Milling	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 246-250. Dec 2013
35	Dinesh S. and Mathew J	Modeling of Burr width in Micro End Milling through Response Surface Method	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 90-95 Dec 2013
36	H.Sooraj, Kuriachen B. and Mathew J	Experimental Investigation on Micro-Milling of Ti-6Al-4V Alloy	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 144-148 Dec 2013
37	Jithin S., Kuriachen B. and Mathew J	Multi-objective Optimization of Micro ED Milling of Ti-6Al-4V using Genetic Algorithm (GA)	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 157-163. DEC 2013
38	Jithin S., Kuriachen B. and Mathew J	Optimization of Micro Electrical Discharge Milling Parameters using Particle Swarm Optimization (PSO)	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 164-169 Dec 2013
39	Suvin P.S., Kuriachen B., Manu R Mathew J	Multi-objective Optimization and Analysis of Taper Cutting by Silicon Carbide (SiC) Abrasive Powder Mixed Micro Wire EDM	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 170-177 Dec 2013
40	Vipin V., Kuriachen B., Manu R. and Mathew J	Experimental Investigation of Powder Mixed Micro Electrical Discharge Milling of Ti-6Al-4V	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 228-233. Dec 2013
41	Vignesh S. Naidu, Kuriachen B., Manu R. and Mathew J	A Hybrid Machining Technique in $\mu$ -EDM: A Combination of Low Frequency Vibration and Magnetic	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering	Vol. 1, pp. 234-239 Dec 2013

		Field Assisted Setup to Machine Stainless Steel Workpiece	(COPEN-8)National Institute of Technology, Calicut	
42	Dinesh Babu P., Kuriachen B., Allesu K. and Mathew J	Experimental Investigation and Optimization of Process Parameters Machining Inconel-718 using Micro-WEDM	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Vol. 1, pp. 240-244 Dec 2013
43	Deepak G. Dilip, Basil Kuriachen and Jose Mathew	Finite Element Analysis of Temperature Distribution on Various Workpiece Materials Machined using $\mu$ -EDM	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 1 pp. 251-256
44	Jayakumar K., Mathew and Joseph M.A.,	Ball Nose End Milling Studies on A356/10% SiCp Composite	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 1, pp. 423-430
45	Navaneeth M.S., Kuriachen B., Sreenath A.M. and Mathew J.	Finite Element Modeling of Micro Cutting by Non Linear Analysis	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 564-568.
46	Tom Josin, G. Jithin, Jose Jyothish, Kumar Sanjay and Mathew Jose	Design, Modeling, Analysis and Manufacturing of an Advanced Centrifugal Pump Impeller	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 576-581.
47	Somashekhar K.P., Shravani S., Mathew J. and Ramachandran N.	Comparative Study on Soft Computing Modeling of Micro WEDM Process	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 696-701.
48	Jayakumar K., Mathew J. and Joseph M.A.	Experimental Studies on Surface Finish and Material Removal Rate in End Milling of A356-SiCp Metal Matrix Composites	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 859-863.
49	Jithin S., Kuriachen B. and Mathew J.	Modeling of $\mu$ -ED Milling of Ti-6Al-4V using RSM and ANN	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 946-950.
50	Mathew J. Joseph, Kuriachen B. and Mathew J.	ANN Modeling and Multiple Objective Optimization of Process Parameters Micro-EDM drilling using Tubular Electrodes	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2, pp. 951-955
51	Mithun S. Nair, Kuriachen B., Vijayakumar R. and Mathew J.	Thermo Physical Modeling of Micro Electric Discharge Machining using Finite Element Method	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2 pp. 993-998.

52	Varghese A., Kuriachen B., Panda S. & Mathew J.	A Finite Vol. Approach for Solving Three Dimensional Micro EDM Mode	Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8) National Institute of Technology, Calicut	Dec. 2013, Vol. 2 pp. 999-1004.
53	K Jayakumar, J Mathew, MA Joseph	<u>An investigation of cutting force and tool-work interface temperature in milling of Al-SiCp Metal Matrix Composite</u>	Proc IMechE Part B:Journal of Engineering Manufacture	227 (3), pages 362-374, 2013
54	Sekar, K., Allesu, K., and Joseph, M.A	Investigation of microstructure, Energy-dispersive spectroscopy, Mechanical properties and fracture study of A356 aluminum alloy reinforced with nano Al <sub>2</sub> O <sub>3</sub> particles combination effect of stir and squeeze casting	Conference on Precision, Meso, Micro and Nano Engg (COPEN: 8), NIT, Calicut, India, 13-15 Dec 2013	Vol. 2,2013, pp 870-875
55	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, India, 21- 24 Feb 2014	Vol. 1,2014, pp 275-279
56	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 effect of stir and squeeze casting method	International Conference on Advances in Tribology(ICAT14), NIT, Calicut, India, 21- 24 Feb 2014	Vol. 1,2014, pp 265-270
57	Sekar, K., Allesu, K., and Joseph, M.A	Fabrication, construction and performance analysis of gravity casting machine	International Conference on Advances in Tribology(ICAT14), NIT, Calicut, India, 21- 24 Feb 2014	Vol. 1,2014, pp 79-80
58	Ganesh Malayath, Manu R., and Sreenath A.M.,	"Micro Hole Drilling Using Electro-Chemical Discharge Machining (ECDM) with Internal Electrolyte Supply",	Proceeding of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8:2013), NIT Calicut	Vol.1, pp.274-279, 2013
59	Prajinlal K.P., Kuriachen B., Eby David, and Manu R.,	An Analytical Model of Forces in Surface Grinding of SiC Particle Reinforced Aluminium Metal Matrix Composites",	Proceeding of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8: 2013), NIT Calicut	Vol.1, pp.352-357, 2013
60	Ankur Sodhani, Binu Thomas, Eby David and Manu R.,	"An FEM Model of Abrasive Grain Scratch on Metal Matrix Composites",	National Conference on Recent Trends in Engineering and Technology, CORE Tech-2014, LBS CE, Kasaragod.	Vol. 1, 2014
61	Divya Prakash, Binu Thomas, Eby David and Manu R.,	"An Analytical Model of Abrasive Grain Scratch on Metal Matrix Composites",	National Conference on Recent Trends in Engineering and Technology, nCORETech-2014, LBS CE, Kasaragod.	Vol. 1,2014
62	Sajan T. J. and Sridharan, R.	Profit maximization model for the design of a reverse supply chain	2nd International Conference Industrial Engineering, S.V. National Institute of Technology, Surat, Gujarat, India, November 20-22.	pp. 481-486, 2013.
63	Vinod V. and Sridharan, R., 2013	Scheduling a dynamic job shop with sequence dependent setup time using discrete-event simulation	2nd International Conference Industrial Engineering, S.V. National Institute of Technology, Surat, Gujarat, India, November 20-22.	pp. 521-525, 2013.
64	Sajan T. J. and Sridharan R.,	Reverse logistics network design and analyses in a multi-product environment	Proceedings of the 13th International Consortium of Students in Management Research, IISc., Bangalore,	2013

			November 15-16, 2013.	
65	Vinod. V. and Sridharan R.	Simulation-based analysis of due-date assignment methods and scheduling decision rules in a dynamic job shop with sequence dependent setup times	Proceedings of the International Simulation Conference of India (ISCI)., Madras, India, February 21-22, 2013.	2013
66	R. Kishore Kumar, and R.Sridharan.	Modeling and Analysis of Order Picking in a Warehouse	Proceedings of 3rd International Conference on Production and Industrial Engineering (CPIE-2013), 29-31, March 2013, NIT Jalandhar, India.	pp. 459 – 467, 2013.
67	Sajan T. John, R. Sridharan, and R. Kishore Kumar	Modelling and analysis of network design for a reverse supply chain	Proceedings of 3rd International Conference on Production and Industrial Engineering (CPIE-2013), 29-31, March 2013, NIT Jalandhar, India.	pp. 452-458, 2013
68	Mathew, W., Sridharan R. and Ramesh A.	A critical review of cold chain in India scenario	Proceedings of the Tenth AIMS International Conference on Management, IIM Bangalore, January 6-9, 2013.	2013
69	Balakrishnan, P. and Sridharan R.,	Vehicle Routing in a Reverse Supply Chain	National Conference on Advances in Design and Manufacturing of Mechanical Systems, Sri Krishna College of Engineering and Technology, Coimbatore, India, April, 4 – 5, 2013.	2013

**b.Community Services – NIL**

**c.Other Academic and Administrative Service**

SL. No	Name of Staff	Academic and Administrative Services
1	Allesu K	<ul style="list-style-type: none"> <li>Head of the Mechanical Engineering Department</li> <li>Secretary, CREC Silver Jubilee Endowment Trust</li> </ul>
2	M. L. Joy	<ul style="list-style-type: none"> <li>Professor MED, Lab in charge, Faculty Advisor, Class committee Chair</li> <li>Dean, Students Welfare</li> </ul>
3	P.K. Rajendra Kumar	<ul style="list-style-type: none"> <li>Chairperson PG Admissions (Till 1<sup>st</sup> November, 2013)</li> <li>Faculty-in-Charge, NITC Music Club</li> <li>Co-ordinator, M.Tech. (Machine Design)</li> </ul>
4	C. Muraleedharan	<ul style="list-style-type: none"> <li>Dean, Students Welfare; April 2013-October 2013</li> <li>Programme Coordinator, MTech Energy Engg &amp; Management</li> </ul>
5	G. Varaprasad	<ul style="list-style-type: none"> <li>Faculty Advisor</li> <li>MED computer Incharge</li> </ul>
6	T.J.S. Jothi	<ul style="list-style-type: none"> <li>Mechanical Engineering Association Faculty Incharge</li> <li>ClubUnwired - Aero Faculty Incharge</li> </ul>
7	K. Sekar	<ul style="list-style-type: none"> <li>Faculty Advisor</li> <li>Material Science Lab Incharge</li> </ul>

8	A. Shaija	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Dean (R&amp;C), NIT Calicut</li> <li>Chairman, TBI NIT Calicut</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/conference</li> <li>National Advisory Committee (NAC) member of AIMTDR and COPEN</li> </ul>
10	M.A. Joseph	<ul style="list-style-type: none"> <li>MED Time Table In-charge</li> <li>Course Coordinator of M.Tech- Materials Science and Technolo</li> </ul>
11	Vinay V Panicker	<ul style="list-style-type: none"> <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> <li>Faculty Advisor of 2010 ME batch Students' (August 2010 onwards – till date)</li> </ul>
12	R. Sridharan	<ul style="list-style-type: none"> <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>

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

Sl. No	Title	Coordinators	Duration & Period
1	One day workshop on 'Second National Workshop on Models and Methods for Supply Chain Decisions'	Vinay V Panicker	26 <sup>th</sup> March 2014, NIT Calicut
2	International Conference on Advances in tribology (ICAT 14)	Dr K Prabhakaran Nair & Dr PK Rajendrakumar, M.L. Joy	February 21-24 2014, NIT Calicut
3	FDP on Advances in numerical methods	Dr K Prabhakaran Nair & Dr. Praveen Nagarajan	Dec. 2013 NIT Calicut
4	National Workshop on "High temperature mechanical properties of materials"	Dr. T.J.S. Jothi and Sri. T. Jagadeesha	11 <sup>th</sup> January 2014 NIT Calicut
5	FDP on biofuels prospects and challenges	Dr. C. Muraleedharan & Dr. P. Arun	July 1-5, 2013. NIT Calicut
6	ISTE workshop on signals and systems	B. Rohinikumar and V. Sakthivel	Jan. 02-12, 2104. NIT Calicut
7	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-8)	Dr. Jose Mathew and Dr. R Manu	Dec. 13-15, 2013, NIT Calicut

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Vinay V Panicker	Data Organization and Descriptive Statistics	11 June 2013	School of Management Studies, NIT Calicut
2	Vinay V Panicker	Hypothesis Testing	12 June 2013	School of Management Studies, NIT Calicut
3	Vinay V Panicker	Statistical Analysis	27 June 2013	Department of Chemical Engineering, Govt. Engineering College Calicut
4	Vinay V Panicker	Hypothesis Testing – Univariate Analysis	26 Sept. 2013	Department of Mechanical Engineering, NIT Calicut
5	Vinay V Panicker	Hypothesis Testing - Bivariate Analysis	27 Sept. 2013	Department of Mechanical Engineering, NIT Calicut
6	Vinay V Panicker	Ant Colony Optimization in Supply Chain Management	06 Nov 2013	Department of Mechanical Engineering, T.K.M. College of Engineering Kollam, Kerala
7	Vinay V Panicker	Application of Ant Colony Optimization in supply chain problems	13 Feb 2014	Department of Mechanical Engineering, GEC Thrissur
8	M.L. Joy	FEM applications in Tribology	2013	NIT Calicut
9	Dhanish P B	Design of Experiments	12 June 2013	FDP organized by SOMS, NIT Calicut
10	Dhanish P B	Introduction to Research	25 June 2013	FDP organized by GCE, Kannur
11	Dhanish P B	Design of Experiments	13 Aug 2013	FDP organized by GCE, Thrissur
12	Dhanish P B	Surface Finish Measurement	10 Sept 2013	TEQIP Workshop on Advanced Metrology at GCE, Thrissur
13	Dhanish P B	Six Sigma	7 Nov 2013	FDP organized by T K M College of Engineering, Kollam
14	Dhanish P B	Design of Experiments	11 Nov 2013	FDP organized by SOMS, NIT Calicut
15	Dhanish P B	Research Methodology and Importance of Data Analysis	3 Feb 2014	FDP organized by GCE, Kannur
16	Dhanish P B	Design of Experiments	14 Feb 2014	Special lecture at RIT, Kottayam
17	C. Muraleedharan	Biomass utilization through gasification	9 March 2014	NITC- IITD National Seminar on Thermal and Other Techniques for Waste Management, NIT Calicut
18	P. Arun	Thermochemical Conversion of Biomass, Emerging Trends in Chemical and Environmental Engineering	June 29-July 5, 2014	Department of Chemical Engineering, NIT Calicut
19	P. Arun	Design and Analysis of Energy Systems , Modern Trends in Energy, Environment and Green Technologies	April 21-25, 2014	Division of Mechanical Engineering, School of Engineering, CUSAT
20	P. Arun	Design and Analysis of Energy Systems, Changing Scenario in Energy and Environment	December 9-13, 2013	Department of Chemical Engineering, NIT Calicut
21	P. Arun	Thermodynamics of Gasification, Biofuels: Prospects and Challenges	July 1-5, 2013	Department of Mechanical Engineering, NIT Calicut
22	B. Rohinikumar	Solar Thermal Systems	04/02/2014	Adams Engineering College, A.P

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

Sl. No.	Name of Staff	Qualification Acquired	Organization
1	Vinay V Panicker	PhD	NIT Calicut
2	G Varaprasad	PhD	NIT Calicut

**g.Consultancy and testing:**

Sl. No	Nature of Service	Organization	Revenue earned	Status
1	Performance characteristics of split air conditioning system with heating facility	Chilton Refrigeration, Cochin	Rs. 55, 555	Completed
2	CAI Training for NTTF Students	NTTF, Tellichery	Rs 50,000	Completed
3	CAI,CAD/CAM Training	SIDCO Calicut	Rs 30,000	Completed

**h.Student achievements**

SAE India Collegiate Club of NITC represented the college in the prestigious international student competition - Formula Student UK 2013, held at Silverstone UK, the home of the British Grand Prix.

**DEPARTMENT OF MATHEMATICS**

**a. Publications**

**i. Journals**

Sl No.	Name of the Author	Title of Paper	Name of Journal	National/ International
1	Sunil Jacob John, Babitha K V	On soft Multisets	Annals of Fuzzy Mathematics and Informatics,	Vol. 5, No. 1, (2013) 35-4.
2	Sunil Jacob John, Babitha KV	Hybrid set Structures for soft computing,	Book chapter in "Mathematics of Uncertainty Modeling in the Analysis of Engineering and Science ProbleSmt.	pp.75-94, IGI Global Pub.(2013).
3	Shinoj TK, Sunil Jacob John	Intuitionistic Fuzzy Multisets	International Journal of Engineering Science and Innovative Technology	Vol. 2, Issue 6, (2013), 1-24.
4	Shinoj TK, Sunil Jacob John	Accuracy in Collaborative Robotics: An Intuitionistic Fuzzy Multiset Approach	Global Journal of Science Frontier Research for publication	Vol.13, Issue.10,(2013),1-9.
5	Jyothis Thomas, Sunil Jacob John,	OnSoft Generalized Topological Spaces	Journal of New Results in Science	No.4, (2014), 01-15.
6	Babitha KV, Sunil Jacob John,	Hesitant Fuzzy Soft Sets	Journal of New Results in Science	No.3(2013),98-107.
7	Anitha Sara Thomas, Sunil Jacob John	Multifuzzy Rough sets and Relations	Advances in Fuzzy Mathematics and Informatics	Vol. 7, No. 5, (2014), pp.807-815
8	M S Sunitha, Sunil Mathew	Menger's Theorem for Fuzzy graphs	Information Sciences	222 (2013) 717-726
9	M S Sunitha, Mini Tom	On Strongest Paths, Delta Arcs and Blocks in Fuzzy Graphs	World Applied Sciences Journal (Special Issue of Applied Math)	22, (2013) 10-17,
10	M S Sunitha, Sandeep Narayan	Some remarks on complement of fuzzy graphs	IOSR Journal of Mathematics	Vol. 7, Issue 4 (Jul. - Aug. 2013), PP 75-77
11	M S Sunitha, Sunil Mathew	On totally weighted interconnection networks	Journal of Interconnection Networks	Vol. 14, No. 1 (2013) (1350004) 1-16

12	M S Sunitha, Linda J P	Mu-Geodetic Iteration Number and Mu- Geodetic Number of a Fuzzy Graph,	Gen. Math. Notes	Vol. 18, No. 1, September, 2013, pp.1-12
13	M S Sunitha Anjaly Kishore	Injective Chromatic Sum and Injective Chromatic Polynomials of Graphs	Gen. Math. Notes	Vol. 18, No. 2, October, 2013, pp.55- 66
14	M S Sunitha, Sunil Mathew	Strongest Strong Cycles and Theta Fuzzy graphs	IEEE Transactions on fuzzy systems	Vol., 21, No. 6, December 2013, pp – 1096 – 104
15	M S Sunitha, Linda J P	Fuzzy detour g-centre in fuzzy graphs	Annals of Fuzzy Mathematics and Informatics	Vol. 7, No. 2, (February 2014), pp. 219 – 228
16	M S Sunitha, Mini Tom	Notes on types of arcs in a fuzzy graph	Journal of Uncertainty in Mathematics Sciences	Vol. 2014, , jums- 00004, (2014)4 Pages
17	M S Sunitha, Linda J P	Fuzzy detour g-interior nodes and fuzzy detour g-boundary nodes of a fuzzy graph	Journal of Intelligent and Fuzzy Systems(JIFS)	27 (2014) 435–442
18	M S Sunitha Anjaly Kishore	Chromatic number of fuzzy graphs	, Annals of Fuzzy Mathematics and Informatics	Vol. 7, No. 4, (April 2014), pp. 543-551
19	M S Sunitha, Manjusha	Notes on Domination in fuzzy graphs	Journal of Intelligent and Fuzzy Systems(JIFS)	Accepted
20	M S Sunitha, Sunil Mathew	Fuzzy Graph Theory – A Survey	Annals of Pure and Applied Mathematics	Vol. 4, No. 1, (2013) 92 -110
21	P.Shanas Babu & A.V. Chithra	Further results on Acyclic Chromatic Number	Open journal of Discrete Mathematics	3,2013,97-100
22	Shanas Babu.P & Chithra.A.V.	Acyclic colouring and Matching of some graphs	Mathematical Sciences International Research Journal	2,2013,501-503
23	P.Shanas Babu and A.V. Chithra	A Brief Note on Acyclic colouring of Line graph of some families	International Journal of Computer Applications	79,2013,31-34
24	MAHESH KUMAR and ASRI.UTHA P	An Optimal Design of Reliability Test Plans for a Parallel System Using Integer Programming	International Journal of Engineering Research and Technology.	Vol. 2, Issue 10, pp. 631-642, Oct 2013.
25	K. Jotsaroop, P. K. Sanjay and Sundaram Thangavelu.	Riesz transforms and multipliers for the Grushin operator	Journal d'AnalyseMathematique	119(2013), Issue 1, pp 255-273 ( Published on 17 Apr 2013)
26	Sunil Mathew,M.S.Sunith a	Cycle connectivity of a fuzzy graph	Journal of Intelligent and fuzzy systems	24, 2013,pp: 549-554
27	Sunil Mathew	On cycle connectivity of graphs	Journal of interconnection networks	13(2), 2013,pp:1-12
28	Anjali N, Sunil Mathew	Energy of a fuzzy graph	Annals of fuzzy mathematics and Informatics	6(3),2013, 455-465
29	Sunil Mathew,M.S.Sunith a	A generalization of classical connectivity parameters for graphs	World applied science journal	22, 2013, pp:18-22
30	Sunil Mathew	Arc analysis algorithm (AAA) for weighted graphs	Discrete mathematics, Algorithms and Applications	5(4), 2013, pp:1-9
31	Minirani S, Sunil Mathew	Bounds for the dimension of the attractor of an IFS	Asian European Journal of Mathematics	6(2), 2013, pp:1-10
32	Rinju Balu S, Sunil Mathew	On n-m iterated function systems	Asian European Journal of Mathematics	6(4),2013,pp:1-12
33	Jicy M, Sunil	Some new connectivity	Journal of uncertainty in	1,2014,pp:1-9



	Mathew	parameters for weighted graphs	mathematical sciences	
34	Mini Tom, Sunitha M S, Sunil Mathew	Notes on types of arcs in fuzzy graphs	Journal of uncertainty in mathematical sciences	1, 2014,pp:1-4
35	Minirani S, Sunil Mathew	Fractals in partial metric spaces	Applications of fractals and wavelets	Accepted,2014
36	Darshan lal M Nair, Sunil Mathew	Some strong adjacency properties in weighted graphs	Journal of uncertainty in mathematical sciences	Accepted,2014
37	Anjali N, Sunil Mathew	ON blocks and stars in fuzzy graphs	Journal of intelligent and fuzzy systems	Accepted,2014
38	K. P. Somashekhar, S. Panda, J. Mathew, N. Ramachandran	Numerical simulation of micro-EDM model with multi-spark	The International Journal of Advanced Manufacturing Technology	DOI 10.1007/s00170-013-5319-October 2013
39	D. Mukundan and S. Panda	Temperature effects on curved stationary viscous thermal fiber jets	Australian Journal of Basic and Applied Sciences	Vol..7, Issue.7, P-613—622, 2013
40	B.Rout ,S.Parida and S. Panda	MHD Heat and Mass Transfer of Chemical Reaction Fluid Flow over a Moving Vertical Plate in Presence of Heat Source with Convective Surface Boundary Condition	International Journal of Chemical Engineering	Vol. 2013, Article ID 296834, 10 pages, 2013. doi:10.1155/2013/296834
41	K B. Basant and S. Panda	Summation of convergent geometric series and the concepts of approachable Sunya	Indian Journal of History of Science	48.2 (2013)291-313
42	Anup N Nair and M J Jacob	inventory with positive service time and retrial of demands	An approach through mutiserver queues	ISRN Operations Research, Vol. 2014 (2014)
43	Anoop N Nair, M J Jacob and A Krishnamoorthy	The multiserver M/M(s,S) queueing inventory system	Annals of Operations Research	DOI 10.1007/s10479-013-1405-5
44	Shinto KG, Sushama CM	An Algorithm for solving Integer Linear Programming problems	International Journal of Reaearch in Engineering and Technology	Vol. 02 Issue 07 July 2013
45	Shinto KG, Sushama CM	Cost Minimization In Fuzzy DEA Models	International Journal of Advance Research	Sep 2013
46	Shinoy George, Sushama CM	Evaluation of Efficiency in DEA Models using a common set of weights	International Journal of Innovative Research in Science, Engineering and Technology	Vol.3, Special Issue 5 July 2014.

ii. International Conference

Sl. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	S. Panda	A meshfree approac for the numerical solution of straight fiber equations, Advances in PDE Modeling and Computation	DAAD International Workshop, IIT Madras, October 2013	page-177—186, 2013
2	A. Verghese, B. Kuriachen, S.Panda, J. Mathew	A Finite Vol. Approach for Solving Three Dimensional Micro EDM Model	International Conference on PRECISION, MESO, MICRO, AND NANO ENGINEERING (COPEN-8: 2013) NIT Calicut, Dec, 13-15, 2013	Vol. 2, Page No. 999-1004, 2013
3	Priyadarsan K P, S. Panda	Flow of second-grade fluid with viscous dissipation and joule heating along an infinite stretching sheet with	ISHMT-ASME Heat and Mass Transfer Conference, IIT Kharagpur, Dec. 28-31, 2013	Paper Code : HMTC1300194,e-proceedings

		convective boundary condition		
4	P. K. Sanjay and Sundaram Thangavelu.	Dimension free boundedness of Riesz transforms for the Grushin operator	New Trends in Applied Harmonic Analysis Sparse Representations, Compressed Sensing and Multifractal Analysis held at Mardel Plata, ARGENTINA.	Organized by International Center for Pure and Applied Mathematics (CIMPA) at during August 5-16, 2013.
5	Ancy Rani & Lineesh M C	Entropy Analysis of Time Series using Wavelets	International Conference on Mathematical Modelling in Computer, Management & Medical Sciences	2013, p.p:199- 203
6	MAHESH KUMAR & BAJEEL P N	Design of Optimal Reliability Test Plans for a Series System in the Presence of Covariates,	International Conference on Advances in Applied Probability, 7Graph Theory and Fuzzy Mathematics (ICAPGF-2014).	To be appear in the proceedings
7	K.C SIJU and MAHE KUMAR	The Effect of the Dependence Classes of Repair Dependence Function on the Availability and Reliability of an Component Parallel System	International Conference on Advances in Applied Probability, Graph Theory and Fuzzy Mathematics (ICAPGF-2014).	2014
8	Rubell Marion Lincy C and Jessy John C	A Fuzzy Rule – Based Reinforcement Learning Agent for Automated Stock Trading	Eighth International Conference and Instructional Workshop on Matrix Analytic Methods in Stochastic Models(MAM806-10 January 2014, conducted at NIT Calicut 2014),	06-10 January 2014 Programme Guide –Page 48
9	Abdushukoor K M, Sushama CM	Traffic Assignment with Fuzzy Travel Time – A Parametric Approach	International conference in Applied Probability Graph Theory and Fuzzy Mathematics Date: January 11-14, 2014 Venue: St.Peter's college Kolenchery, Kerala	2014
10	Shinoy George, Sushama CM	Evaluation of Efficiency in DEA Models using a common set of weights	International conference on Innovations and Advances in Science, Engineering & Technology Date: July 16-18, 2014 Venue: Toc H Institute of Science & Technology Aarakunnam, Kerala	2014
11	P. Naveen and A. V. Chithra	Some Properties of Cayley Graphs on Dihedral Group	International Conference On Advances In Applied Probability, Graph Theory And Fuzzy Mathematics (ICAPGF-2014)	2014

iii .National Conference

Sl. No.	Name of the Author	Title of Paper	Name of National conference	Vol., Year, p.p.
1	Ashish Awasthi & Vijitha Mukundan	An Unconditionally Stable Explicit Method for Burgers' Equation	National Conference on Recent Trends in Analysis and Applied Mathematics (NCRTAAM-2013) NIT Tiruchirappalli -Tamilnadu	pp 46-53, May 9-10, - 2013

**b. Community Services**

Sl. No.	Name of Staff	Academic and administrative Services
1	Dr. M. J. Jacob	Member of doctoral committees of various departments

2	Dr. Jessy John C	Member of doctoral committees of various departments
4	Dr. V. Narayanan	HOD, MAT from 01.01.2013 till date Member of doctoral committees of various departments.
5	Dr. Chithra A.V.	Member of doctoral committees of various departments Warden – Ladies Hostel, Programme Officer, NSS
6	Dr. Sunil Jacob John	Member of doctoral committees of various departments
7	Dr. M S Sunitha	Member of doctoral committees of various departments
8	Dr. C M Sushama	Member of doctoral committees of various departments
9	Dr. Satyananda Panda	Member of doctoral committees of various departments. In charge of Students guidance cell.
10	Dr. Sunil Mathew	Deputy Chairperson – PG Admissions Member of doctoral committees of various departments Warden- Apartments
11	Dr. Mahesh Kumar	Member of doctoral committees of various departments Warden – C Hostel
12	Dr. Ashish Awasthi	Member of doctoral committees of various departments Warden – PG 1 Hostel Officer in charge - Official Language Unit

### c. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services
Dr. M.S.Sunitha	First year Coordinator
Dr. M.S.Sunitha	Member, ICC
Dr. Chithra.A.V	Ladies Hostel Warden, NSS Programme Officer, Member of BoS Maths PG Calicut University
Jessy John C	<p>Academic Services</p> <ol style="list-style-type: none"> <li>Offered MA2001 Mathematics III for Two S3 classes in the Monsoon Semester</li> <li>Offered Global elective MA3028: Statistical Methods For Management for eighth semester B. Tech students during Winter Semester 2013-2014</li> <li>Offered Global elective, MA 7166 Statistical Methods For Quality Management, for sixth semester M. Sc(Tech) in Mathematics and Scientific Computing students during Winter Semester 2013-2014</li> <li>Guiding two Research Scholars</li> <li>Guided one M. Sc(tech) Main Project</li> <li>Supervised one M. Sc. Student's Seminar</li> <li>Guided one M. Sc(Mathematics) Main Project</li> </ol>
	<p>Administrative</p> <ol style="list-style-type: none"> <li>Officiated as Chair Person of WCC of NIT Calicut</li> </ol>
Sunil Mathew	Deputy Chair person, PG Admissions ,NIT Calicut
	Warden, NITC Hostels
	Secretary, NITC Alumni association
	Vice president, Spring valley school management committee
	Time table in charge, MAT,NITC
	Coordinator, MA1002,Mathematics-II
S. Panda	Member, Student Guidance Cell
Ashish Awasthi	1. Coordinator MA1001
	2. Hostel Warden, PG1 Hostel

3. Officer I/C Official Language Unit				
Sl. No.	4. Department computer Lab I/C Title		Coordinators	Duration & Period
1	Networks and their Applications to Engineering - (FDP, Dept. of Mathematics, NIT Calicut)		Sunil Mathew , M S Sunitha	June 16-22, 2013
2	Linear Algebra And Applications (FDP)		Chithra A.V, Sanjay P.K	July7-July13, 2013
3	Eighth International Conference and Instructional Workshop on Matrix Analytic Methods in Stochastic Models (MAM8 2014)		1. Dr M J Jacob 2. Dr Jessy John C 3. Dr Mahesh Kumar	06-10 January 2014 Conducted at NIT Calicut
4	Workshops on Modeling Week and Study Group Meeting on Industrial Problems -		S. Panda, Suresh Kumar Nadupuri	December 2-14, 2013, NIT Calicut

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

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. M.S.Sunitha	UGC sponsored national Seminar on Advances in Discrete Mathematics	25-26 February 2014	PSMO College, Tirurangadi, Kerala,
2	Dr. M.S.Sunitha	Xth Annual conference of ADMA and Graph Theory Day – 10TH	June 10-14, 2014.	Reva Institute of Technology and Management, Bangalore
3	Dr.Chithra.A.V.	MHRD-AICTE sponsored Staff Development Programme on Linear Algebra and Applications	July 7 – July 13 20139	NITC
4	Sanjay P. K.	MHRD-AICTE sponsored Staff Development Programme on Linear Algebra and Applications	July 7 – July 13 2013	NITC
5	Sanjay P. K.	Refresher Course for B.Sc. Mathematics Students in Kerala State	14-22, Sep 2013	Kerala School of Mathematics (KSOM), Kozhikode.
6	Sunil Mathew	National seminar on applications of discrete and fuzzy mathematics,	25-26, Nov.2013	Govt. Arts and Science College Calicut
7	Sunil Mathew	National seminar on fuzzy graphs and combinatorics,	March 6-7, 2014	BCM College Kottayam
8	Sunil Mathew	National seminar on Mathematics and its applications to statistics,	August 22-23, 2014	Vimala College Trissur
9	Sunil Mathew	Orientation program	August 6-8,2014	Adi sankara institute of engg.and tech.,Kaladi
10	S. Panda	STTP, FDP	Jan. 1-5, 2014	NIT Surat, Gujrat
11	S. Panda	Modeling and Computational techniques for fiber dynamics, NCMOCT Conference, Maliankara, Kochi, Kerala, April 5-6, 2013	April 5-6, 2013	SNM College, Maliankara, Kochi, Kerala
12	S. Panda	DAAD International Workshop	October 21-25, 2013	Department of Mathematics, IIT Madras
13	Ashish Awasthi	Short-Term Training Programme on 'Mathematical and Computational Techniques for Engineering Research -MCTER-2013	August 19-24, 2013	Department of Electrical and Electronics Engineering, GEC Kannur-Kerala
14	Dr. Krishnan Paramasivam	National Seminar on Discrete Mathematics (UGC Sponsored)	20.03.2014-22.03.2014	University of Calicut, Kerala.

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

g. Consultancy and testing: Nil

h. Patents acquired and filed: NIL

## DEPARTMENT OF CHEMISTRY

### a. Publications

#### i. Journal

Sl. No	Name of the Author	Title of the paper	Name of Journal	Vol.,Year.PP
1	R. Soman, S. Sujatha, S.De, V.C.Rojisha, P. parameswaran, B.Varghese and C. Arunkumar	Intermolecular interactions in fluorinated tetraarylporphyrins: An expt.al and theoretical study	Eur. J. Inorganic Chem	2014,2653-2662.
2	R. Soman, S. Sujatha, and C. Arunkumar	Quantitative crystal structure analysis of fluorinated porphyrins	J. Fluorine Chemistry	2014,163,1622
3	S. Sujatha, S. Balasubramanian and C. Arunkumar	Thermal decomposition of Nickel (II) and Cu(II) hexaaza macro tricyclic complexes	Asian J. Chemistry	In press ( 2014)
4	Soudha.P and Lisa Sreejith	Poly( Acrylate- Acrylic acid-co-Maleic acid) hydrogel: a cost effective and efficient method for removal of metal ions from water	J. sep. Sci. & Tech	48:18,2795(2013)
5	A. Sujith, A. Shebi, Sudheesh, M. Sunil Kumar, K. Chandrasekhara	Natural Dye Doped Poly (methyl methacrylate) Micro-Particles for Nonlinear Optics	IEEE Micro & Nano Letters	(2014) [Accepted]
6	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 density poly ethylene/ chitosan composite films	Polymer J.- Nature	46, 422 (2014)
7	N. Riyasudheen, manu Jose paul, A. Sujith	Effect of poly(vinyl pyrrolidone) on antifouling of asymmetric poly(ethylene-co-vinyl alcohol) membranes	Chemical Engineering & Technology	37(6), 1021 (2014)
8	Parameswaran, P	Singlet 2- adamantylidene – an ambiphilic foiled carbene stabilized by hyperconjugation	Chemical communications	2013, 49, 8465-8467
9	Parameswaran, P	Ring contraction of six membered metallabenzynes to five membered metal carbene complexes : a comparison with organic analogues	Dalton Transactions	2013, 42, 14733-14741
10	Parameswaran, P.	A functionalized Ge <sup>3-</sup> compound with a dual character of the central germanium atom	Chemical communications	2014, 50, 2986-2989
11	Parameswaran, P.	A catalyst with two coordinate nickel: theoretical and catalytic studies	Eur. J. Inorganic Chem	2014, 818-823.
12	S. Sujatha and C. Arunkumar	Synthesis, Crystal Structure and Hirshfeld Surface Analysis of Copper (II) Complex with pentacoordinated N5 ligands [Cu(AEPN)(2PN)](ClO <sub>4</sub> ) <sub>2</sub>	Asian Journal of Chemistry	In press (2014)
13	R. Soman, S. Sujatha, S.De, V.C.Rojisha,	Intermolecular interactions in fluorinated tetraarylporphyrins: An expt.al and theoretical study	Eur. J. Inorganic Chem	2014,2653-2662.

	P. parameswaran, B.Varghese and C. Arunkumar			
14	R. Soman, S. Sujatha, and C. Arunkumar	Quantitative crystal structure analysis of fluorinated porphyrins	J. Fluorine Chemistry	2014,163,1622
15	S. Sujatha, S. Balasubramanian and C. Arunkumar	Thermal decomposition of Nickel (II) and Cu(II) hexaaza macro tricyclic complexes	Asian J. Chemistry	In press ( 2014)
16	Soudha.P and Lisa Sreejith	Poly( Acrylate- Acrylic acid-co- Maleic acid) hydrogel: a cost effective and efficient method for removal of metal ions from water	J. sep. Sci. & Tech	48:18,2795(2013)

#### b.Community Services

Sl. No.	Name of Staff	Details
1	G. Unnikrishnan	Co-ordinator of Aavishkar 2013, Ragam 2013
2	Dr. Lisa Sreejith	Developed an ecofriendly solution for plastic waste management
3	Dr. A. Sujith	Programme Coordinator, 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 Palliative Care Society, Medical College, Calicut

#### c. Other Academic and Administrative Services

Sl. No.	Name of Staff	Academic and Administrative Services
1	Dr. G. Unnikrishnan	Ph.D Coordinator Faculty –in –charge- Instrumentation
2	Dr. Lakshmi C.	Exam cell in charge
3	Dr. Lisa Sreejith	HOD Chemistry Stores & purchase Incharge
4	Dr. A. Sujith	Programme coordinator, National Service Scheme, First year B.Tech Theory Course coordinator, 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 Lab Course coordinator Training and Placement in-charge
7	Dr. Parameswaran P	Computer centre in charge, Dept. of Chemistry

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

Sl. No	Title	Coordinators	Duration & Period
1	Better Engineering Skills through better chemistry protocols	Dr. G. Unnikrishnan, Dr.	09-13 June 2014
2	Green Environment for academic campus through microscale chemistry	Dr. Lisa Sreejith	09-13 December 2013
3	International Conference on light, Optics-14	Dr. A. Sujith	19-21 March 2014
4	Chemistry Exhibition for students, Chem Ex-2013, NIT Calicut, [Coordinator]	Dr. A. Sujith	4 <sup>th</sup> January 2013

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

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

g. Consultancy and testing:NIL

h. Patents acquired and filed:NIL

i. Student achievements:NIL

**DEPARTMENT OF PHYSICS**

a. **Publications**

i. Journal

Sl. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p
1	Dr Chandrasekharan K	Enhanced linear and nonlinear optical properties of thermally stable ZnO/poly(styrene)-poly(methyl methacrylate) nanocomposite films	Thin Solid Films	531 (2013) 378-384
2	Dr Chandrasekharan K	Nonlinear optical characteristics in lithium substituted ZnO thin films	Optics Communications	309 (2013) 279-281
3	Dr Chandrasekharan K	Third order nonlinear optical properties of azomethine derivative	Optics Communications	287 (2013) 224-227
4	Dr Chandrasekharan K	Third-order nonlinear optical responses in derivatives of phenylhydrazine by Z-scan and optical limiting studies-influence of noble metal nanoparticles	Optical Materials	36 (2013) 304-309
5	Dr. P Predeep	Improved electron collection in fullerene via cesium iodide or carbonate by means of annealing inverted organic solar cells	EPJ PhotoVoltaics 5,	(50401) 1 (2014)
6	Dr. P Predeep	Impedance spectroscopic studies Natural Rubber -Ti nanocomposites:	Advanced Materials Research	204(2014)
7	Dr. P Predeep	Nanocomposites based on High-T Superconducting Ceramic 2212 BSC CO and their properties:	Advanced Materials Research	210(2014)
8	Dr. P Predeep	Towards "Rubbery" Nanoparticles	Journal of Applied Polymer Science, 130(1)	100(2013)
9	Dr. P Predeep	Organic bistable memory device from natural Rubber (cis 1,4 polyisoprene)/fullerene nanocomposite thin films:	Microelectric Engineering, 107	54 (2013)
10	Dr. P Predeep	Electrically conducting plastic film from polyethylene Terephthalate for optoelectronic applications	Polymer Science	Series № 7, (2013)
11	Dr. P Predeep	Plasma polymerized elastomer / conducting polymer composite: structural and optical characterization:	Polymer Composites 34(7),	1091(2013)
12	Dr. P Predeep	Importance of avrami index in the processing of bismuth based high temperature superconductors:	Journal of Alloys and Compounds, 579	65 (2013)
13	Dr. P Predeep	Effect of Sintering Temperature on the Glassy Precursor Synthesis of Superconducting Bi <sub>1.6</sub> Pb <sub>0.4</sub> Sr <sub>2</sub> Cu <sub>4</sub> Ca <sub>3</sub> O <sub>12+δ</sub> (2012).	Journal of Superconductivity and Novel Magnetism	26,1, 53 (2013)
14	Dr. P Predeep	Investigation into the superconducting threshold of	J Therm Anal Calorim., 114(2)	635 (2013),

		Bi1.6Pb0.4Sr2Can21CunO2n+4 +d, n 5 2, 2.5, 4 perovskites synthesized by glassy precursor route with Thermal and Raman spectroscopic techniques		
15	Dr. P Predeep	Iodine doped, semiconducting nylon 6 polymers:	Journal of Plastic Film and Sheeting. 29(2)	127 (2013)
16	Dr. P Predeep	Styrene butadiene copolymer-based transparent conducting thin films: Effect of dopants:	Journal of Elastomers & Plastics 46(4)	325 (2014)
17	Dr. P Predeep	Organic memory devices with natural rubber / fullerene composites:	Rubber chemistry and technology 86(4),	626 (2013).
18	Dr. P Predeep	Modeling, Simulation and Characterization of Organic Light Emitting Diodes:	International Journal of Applied Engineering Research, 8,	89, 2013.
19	Dr. P Predeep	Design and Simulation of Organic Solar Cells Based on P3HT: PCBM:	International Journal of Applied Engineering Research	15, 2013

(ii). International Conference

Sl. No.	Name of the Author	Title of Paper	Name of International Conference	Vol., Year, p.p
1	Dr. P Pradeep Sushama D	Thermal and Optical Studies of Rare Earth Doped Tungsten	International journal of applied physics and Mathematics (IJPM) 4 <sup>th</sup> International conference on applied physics and mathematics, Singapore	Vol. 4, No 2(2014) 18 to 21Feb 2014
2	Dr P Pradeep Sushama D	Study of Various in optical properties of rare earth doped telluride glasses	International union of Materials Research Societies – International Conference in Asia (IUSRI.S-ICA 13) (ICA-2013) at Indian Institute of Science (IISc), Bangalore during 19 – 20 December 2013	
3	Dr P Pradeep S Najidha	Ion beam induced doping in synthetic elastomers	International journal of applied physics and mathematics (IJAPM) 4 <sup>th</sup> International conference on applied physics and mathematics, 18 to 21 at Singapore	Vol.4, No 2 (2014) 135-138
4	Dr P Pradeep T K jayasree	Preparation and Characterization High Tc-Superconducting (Bi2Sr2CaCu2O) nano composites	(IUSRI.S-ICA 13) (ICA 2013) at Indian Institute of Science (IISc), Bangalore during 19-20 Dec 2013	2013
5	Dr P Pradeep TK Jayasree	Nano composites based on High Superconducting Ceramic 2212 BSCCO and their properties	International conference on nanomaterials science, technology and applications (ICNM 13)	2013
6	Dr P Pradeep Amina Shiju K	Field Effect Transistor with Silica Nanoparticles on Gate Dielectric	International conference on nanomaterials : Science, technology & applications (ICNM13) BS Abdu Rahman University 5 – 7 Dec 2013	2013
7	K Shiju Dr P Pradeep	Effects of natural rubber nano particles on Iodine doped natural rubber based organic field effect transistor	International conference on nanomaterials : science, technology & applications (ICNM 13) B S Abdu	2013



			Rahman University 5 – 7 Dec 2013	
8	Sushama D Dr P Pradeep	Structural studies of Erbium doped Telluride – Tungstate Glasses	International conference on nanomaterials : science, technology & applications (ICNM13) BS Abdu Rahman University	2013
9	Anoop KM, Renu Jose, ShijuK Jayan Manuvel Dr P Pradeep	Insitu Polymerised Polyaniline -Poly isoprene composite for Micro Electronic Application	AIP Conf. Proc 1536 365 (2013) RAM Bikaner	DOI 10.1063/1.4810252
10	T Kannan Dr P Pradeep	Low temperature vibrational spectroscopic and magneto resistance studies of Bi <sub>1.6</sub> Pb <sub>0.4</sub> Sr <sub>2</sub> Ca <sub>3</sub> Cu <sub>4</sub> O <sub>12</sub> +	AIP Conf. Proc 1536 365 (2013) RAM Bikaner	DOI 10.1063/1.4810606

(iii). National Conference

Sl. No	Name of the Author	Title of Paper	Name of National Conference	Vol., Year, p.p
1	Dr Chandrasekharan K	Nonlinear absorption studies of axial ligand modified high valent Tin (IV) porphyrins	National laser symposium (DAE-BRNS)	2014, 100
2	Dr Chandrasekharan K	Nonlinear absorption Studies of PbS quantum dots	National laser symposium (DAE-BRNS)	2014, 101
3	Dr. P Pradeep	Invited talk at the Inod-German International Workshop on Advanced materials challenges for Alternative Energy Solutions	AMAES, New Delhi from 15 – 17 Sep 2013	
4	Dr P Pradeep	Invited in the World Congress on Research and Innovations (WCRI2K13)	St Joseph College, Irinjalakuda From 17 to 20 Dec 2013	2013
5	Dr P Pradeep	Invited talk at the National conference on emerging trends in Wireless, Optical and nanotechnologies during	Department of Electronics and communication Engineering, Kautilya Institute of Technology and Engineering Jaipur during 23 Fe 2013	2013
6	Dr P Pradeep	Invited talk at the National Conference on Nanotechnology and Renewable Energy	Jamia Millia University, New Delhi from 28-29 April 2014	2014
7	M. Yoosuf Ameen, K.P Saipriya and V.S Reddy	“Growth and characterization of Cobalt phthalocyanine Nanostructures for Chemical Sensors”	International Conference on Thin Films and Applications (ICTFA), 2013, SASTRA, University Thanjuvur, TN	Year 2013 P 117

(b). **Community Services**

**Dr. P. Pradeep**

- Member: IEEE
- Member: Optical Society of America, (OSA)
- Member of SPIE
- Vice President: Thermophysical properties Society of India.
- Member: Indian Society for the Scientists of Disordered Materials.
- Life member of the Indian Association of Physics Teachers
- Member, Indian Physics Association
- Executive Committee member, Asian Thermophysical properties association
- Member, Board of Editors, Research Journal of Pure and Applied Physics
- Member, Editorial Board, Journal of Engineering and Applied Sciences

**Dr. M.K. Ravi Varma**

- Chairman – UG Admissions, at NIT Sikkim for CCB (AIEEE-2011)
- Member of the Institute Research and Consultancy Committee of NIT Calicut
- Reviewer 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 America

**Dr. P.K. Madhavan Unni**

1. Executive Committee Member, NITC-Staff Club
2. Judge for the state level INSPIRE Exhibition (organized by the Department of Science and Technology, Govt. of India) held at Kottayam on 27/08/2013.

**Dr. Aji .A. Anappara**

- (i). Assisted in GATE-2012 entrance examination

**c. Other Academic and Administrative services**

Sl. No.	Name of staff	Academic and Administrative services
1	Dr Chandrasekharan K	Chairperson PG admission
2	Dr. Vari Sivaji Reddy	<ul style="list-style-type: none"> <li>• Department Examination In-charge</li> <li>• Training and Placement Representative of the Department</li> <li>• PTA Coordinator of the Department</li> <li>• S7 B. Tech (EP) Faculty Advisor &amp; Class Committee chairman</li> </ul>

**d. Conferences/Summer/Winter School/Short term courses/Workshops conducted**

Sl. No.	Title	Coordinators	Duration & Period
1.	Development of Low Cost Science Experiments using Computers for Young Engineers, Scientists & Teachers	Dr. P. Predeep	May 24-26, 2012
2.	Laboratory Experiments in Electronics	Dr. P. Predeep	Aug 31 to Sep 01 2013
3.	Indian Science congress	Dr. P. Predeep	Jan 01, 2013
4.	Workshop on Photonics, NIT Goa	Dr. P. Predeep	
5.	Indo-german workshop, Delhi university	Dr. P. Predeep	

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

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

(g). Consultancy & Testing: NIL

**PHYSICAL EDUCATION SECTION**

**a. Publications**

i. Journal

Sl. No.	Name of the Author	Name of Journal	Title of Paper	Vol., Year, p.p.
1	Dr. A M Najeeb & Atul Meethal	International Journal of Physical Education, Fitness and Sports	Effects Of Circuit Training On Different Surfaces On Selected Physical And Physiological Variables Of School BOYS	ISSN 2277-5447

ii. International Conference: NIL

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: NIL**

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

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

g. Consultancy and testing: NIL

h. Patents acquired and filed: NIL

i. Student achievements: NIL

## SCHOOL OF NANO SCIENCE & TECHNOLOGY

### a. Publications

#### i. Journal

Sl. 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, and C .B. Sobhan	Experimental Investigation of Material Surface Erosion Caused by TiO <sub>2</sub> Nanofluid Impingement	Journal of Nanofluids	3, 97-107 (2014)
2	Ajin C Sajeevan and V. Sajith	A study on Oxygen storage capacity of Zirconium Cerium oxide nanoparticles”,	Advanced Materials Research,	Vol.685 (2013), pp 123 -127
3	Balamurugan and V. Sajith	“ Stabilization studies of Zirconium Cerium oxide nanoparticles Diesel suspension	Advanced Materials Research	Vol.685(2013), pp 128 -13
4	RenyThankam Thomas, Vaishakh Nair, N. Sandhyarani,	TiO <sub>2</sub> nanoparticle assisted solid phase photocatalytic degradation of polythene film: A mechanistic investigation,	Colloids and Surfaces A:Physicochemical and Engineering Aspects,	2013, 422, pp.1-9
5	Reny Thankam Thomas, N. Sandhyarani,	Enhancement in the photocatalytic degradation of low density polyethylene- TiO <sub>2</sub> nanocomposite films under solar irradiation,	RSC Advances,	3, 14080-14087, 2013
6	Manjusha Mathew, N. Sandhyarani,	A highly sensitive electrochemical glucose sensor structuring with nickel hydroxide and enzyme glucose oxidase	Electrochimica Acta ,	2013, 108, 274-280.
7	Parvathy R Chandran, Prakash A, K Rathinasamy, N. Sandhyarani,	Enhanced cytotoxic effect of doxorubicin loaded multifunctional gold nanoparticle for targeted cancer drug delivery,.	Journal of Nanopharmaceutics and Drug Delivery,	2013, 1(3),289-300
8	Abdul Rasheed P, N. Sandhyarani,.	Synthesis of Luminescent MgO Nanocrystals and Their Application in Bioimaging,	Advanced Science, Engineering and Medicine,	2014, 6(3), 283-289
9	Abdul Rasheed P and N. Sandhyarani,	Femtomolar level detection of BRCA1 gene using gold nanoparticle labeled sandwich type DNA sensor,	Colloids and Surfaces B : Biointerfaces,	2014 , 117, 7-13

10	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 Technologies	2014, 1-8
11	Uvais Valiyaneerilakkal, Amit Singh, Kulwant Singh, C. K. Subash, S. M. Abbas, Rama Komaragiri and Soney Varghese	Ferroelectric characteristics of MFIS structure with P(VDF-TrFE)/BaTiO <sub>3</sub> nanocomposite as ferroelectric layer	Applied Physics A	2014
12	Obulapathi Eggedi, Uvais vallyaneerilakkal, M.R Darla and Soney Varghese,	Nanoindentation and thermal characterization of poly(vinylidene fluoride)/ MWCNT nanocomposites	AIP Advances	Vol. 4, pp. 7102, (2014)
13	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
14	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, 20
15	Mallikharjuna Rao Darla, Sriharsha Hegde and Soney Varghese	Effect of BaTiO <sub>3</sub> Nanoparticle on Electro-Optical Properties of Polymer Dispersed Liquid Crystal Displays	Journal of Crystallization Process and Technology	4, pp 60-63, 2014
16	Uvais Valiyaneerilakkal, and Soney Varghese	Poly(vinylidene fluoride-trifluoro ethylene) / barium titanate nanocomposite for ferroelectric nonVolatile memory devices	AIP Advances	Vol. 3, pp. 042131, 2013
17	Kulwant Singh, Jamil Akhtar and Soney Varghese	Multiwalled carbon nanotube-polyimide nanocomposite for MEMS piezoresistive pressure sensor applications	Microsystem Technologies	2013
18	D.M. Rao, K. N. Sharafudeen, K. Chandra sekharan and Soney Varghese,	Third order nonlinear optical properties of azomethine derivatives	Optics Communications,	287, pp 224-227, 201
19	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.
20	Reddy and C. B. Sobhan	Digital Interferometric Measurement of Forced Convection Fields in Compact Channels	International Journal of Optomechatronics	Taylor and Francis, 2014 (in print)
21	Gibin George, R. Krishna Sabareesh, Shijo Thomas, V. Sajith, T. Hanas, Sumitesh Das and C. B. Sobhan,	Experimental Investigation of Metal Surface Erosion caused by TiO <sub>2</sub> Nanofluid Impingement	American Scientific Publisher	Vol. 3, pp. 1-11, 2014

22	Divya Haridas and C. B. Sobhan	Measurement of Convective Heat Transfer from a Vertical Flat Plate Using Mach-Zehnder Interferometer with Wedge Fringe Setting,	International Journal of Mechanical Science and Engineering	Vol.7, No. 12, 2013.
23	K. Raji and C. B. Sobhan,	Theoretical Analysis of the Catalytic Chemical Vapor Deposition Synthesis of Carbon Nanotubes,	Journal of Multifunctional Composites	Vol. 1, No. 2, 2013.
24	G. Carbajal, C. B. Sobhan and G.P.Peterson, ,	Symmetrical Porous Surfaces for Boiling Enhancement in Mini-channels: Effects on Liquid Pressure Drop	Journal of Enhanced Heat Transfer (Begell House),	Vol. 20, No. 1, pp. 73-81, 2013.
25	Binoy Baby and C. B. Sobhan,	Investigations on Forced Convection in a Meso-Channel with Irregular Cross-section,	AIAA Journal of Thermophysics and Heat Transfer,	Vol. 27, No. 1, pp. 70-79, 2013
26	K. Raji and C. B. Sobhan,	Simulation and Modeling of Carbon Nanotube Synthesis: Current Trends and Investigations,	Nanotechnology Reviews (De Gruyter),	Vol. 2, No.1, pp. 73-12013
27	George Gibin, Sabareesh, R.Krishna, Thomas, Shijo, Sajith, V, Hanas, T.; Das, Sumitesh Sobhan, C. B	Experimental Investigation of Material Surface Erosion Caused by TiO <sub>2</sub> Nanofluid Impingement	Journal of Nanofluids, 3(2)	June 2014, pp. 97-107(11).
28	Shijo Thomas, K. Sarun Kumar and C. B. Sobhan,	Flow Measurements in Metal Oxide-Nanoparticle Suspensions in a Rectangular Natural Circulation Loop	Advanced Materials Research	Vol.685, pp. 145-149, 2013.
29	Christine Cleetus, Shijo Thomas, Soney Varghese,	Synthesis of Petroleum-Based Fuel from Waste Plastics and Performance Analysis in a CI Engine,	Journal of Energy,	Vol. 2013 (2013), Article ID 608797.
30	Varma A, and Shijo Thomas,	Simulation, Design and Development of a High Frequency Corona Discharge Ignition System	SAE Technical Paper	2013-26-0014, 2013,
31	Shijo Thomas, Sarun Kumar K., C B Sobhan,	Flow Measurements in Metal Oxide-Nanoparticle Suspensions in a Rectangular Natural Circulation Loop,	Advanced Materials Research	Vol.685 (2013) pp:145-149.

ii. International conference

Sl. No.	Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
1	Divya Haridas, Vibin Antony P, V Sajith and C B Sobhan	Comparison of Infinite and Wedge Fringe Settings in MZI Interferometer for Temperature Distribution Studies	International Conference on Light- OPTICS'14, NIT Calicut, Kerala	March 19-21, 2014,
2	S.Balamurugan and V.Sajith	," Experimental investigation on the effect of Cerium oxide nanoparticle on the lubricity of diesel "	International Conferences on Advances in Tribology, NIT Calicut, Kerala	Feb. 21 -24. 2014
3	Harish S, Shijo Thomas and V.Sajith	Experimental investigation on heat transfer on Microstructures surfaces using Digital interferometry,	11th International ISHMT - ASME Heat and Mass Transfer Conference , , IIT Kharagpur, India	December 28 - 31, 2013
4	Parvathy. R.Chandran N.Sandhyarani,	Chitosan gold nanocomposite for pH sensitive delivery of 5-fluorouracil	International Union of Materials Research Societies – International Conference in Asia (IUSRI.S-ICA-2013), Indian Institute of Science, Bangalore.	2013

5	Abdul Rasheed.P and N. Sandhyarani,	DNA functionalized gold nanoparticle based Biosensor for femtomolar detection of specific DNA sequences	IUSRI.S-ICA-2013	2013
6	Reny Thankam Thomas and N. Sandhyarani	Graphene titania nanocomposites for effective removal of mercury	IUSRI.S-ICA-2013	2013
7	Rahul.T.K and N. Sandhyarani,	Fabrication of photonic crystals via self assembly of colloidal microspheres: formation, inverse structure and properties	IUSRI.S-ICA-2013	2013
8	Subin Mohan, L Bhanuprakash, Subash C K and Soney Varghese	hort Beam Shear Strength Measurements of Glass Fibre Reinforced Epoxy Nanocomposites Modified with Graphene Oxide Interfaces	International Conference on Materials and Characterization Technique	2014
9	Sajith T.A, L Bhanuprakash and Soney Varghese	Tribological Performances of Low Temperature Expanded Graphene Oxides/Epoxy Nanocomposites	International Conference in Advancement in Tribology	2014
10	Shafeeq V H, L. Bhanuprakash, Subash C K and Soney Varghese	Effect of Graphitic Derivatives on the Adhesive Properties of Epoxy Resin on Metal- Metal Substrate	International Conference on Advanced Functional Materials	2014
11	Jitha Vijayakumar, Subash C.K and Soney Varghese	Fabrication of Superhydrophobic Nanostructure for Drop Wise Water Condensation	International Conference on Advanced Functional Materials	2014
12	Uvais V.N, Kulwant Singh, Subash C.K and Soney Varghese	P(VDF-TrFE)/BaTiO <sub>3</sub> Nanocomposite with Enhanced $\beta$ -phase for Ferroelectric Memory Applications	International Conference on Emerging Technologies – Micro to Nano	2013
13	Kulwant Singh, Subash C.K, Uvais V.N, Soney Varghese and J. Akhtar	MWCNT-Polyimide Composite for Piezoresistive Pressure Sensor Application	International Conference on Emerging Technologies	2013
14	Subash C K, Alan Sam, Uvais V.N and Soney Varghese	Poly (Vinylidene Fluoride-Trifluoroethylene) - Zinc Oxide Polymer Nanocomposite for Ferroelectric Applications	Indo-US Workshop on Nano-Structured Electronic Materials Challenges & Relevance to Electronics & Energy Research	2013
15	Thomas Shijo and C. B. Sobhan	Heat transfer measurement in aluminium oxide nanofluid using rectangular thermosyphon loop	10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics	14 – 26 July 2014, Orlando, Florida, USA.
16	Harish S., Shijo Thomas and Sajith	Experimental investigation of heat transfer on microstructured surfaces using digital interferometry	Proceedings of the 22nd National and 11th International ISHMT-ASME Heat and Mass Transfer Conference,	December 28-31, 2013, IIT Kharagpur,
17	Manu Mohan, Shijo Thomas, C B Sobhan, Jaime Taf Tijerina, T. N. Narayanan and P. Ajayan,	Heat transfer studies in thermally conducting and electrically insulating nano-oils in a natural circulation loop”, IMECE2013-64285, ASME 2013	International Mechanical Engineering Congress & Exposition (IMECE2013),	November 15-21, 2013, San Diego, CA, USA.

18	K. Raji and C. B. Sobhan,	A computational model for predicting the mass transport in a CVD reactor for carbon nanotube synthesis, Proceed. SPIE 8973,	4th International conference on smart materials and nanotechnology in engineering Gold Coast, Australia,	Aug 2013.
----	---------------------------	---	--	-----------

iii. National Conference :

Sl. No	Name of the Author	Title of Paper	Name of National conference	Vol., Year, p.p.
1	AbdulRasheed P, N Sandhyarani	A novel sandwich type electrochemical sensor for the detection of brca1 gene using cyclic bisureas/gold nanoparticle composite,	26 <sup>th</sup> Kerala Science Congress Wayanad-	2014,
2	Reny Thankam Thomas, N Sandhyarani,	In-situ synthesis of graphene/graphene oxide-tio <sub>2</sub> nanocomposites for efficient waste water treatment,	26 <sup>th</sup> Kerala Science Congress Wayanad-2014	2014,
3	Reny Thankam Thomas.N. Sandhyarani	Photocatalytic titania nanostructures	National Conference on 'Emerging Interfaces at Molecular Materials'	IIT Madras 2013

**b. Community Service:** NIL

**c. Other academic and administrative services:**

Name of Staff	Academic and Administrative Services
Dr.N. Sandhyarani	First year B Tech Coordinator Examination in Charge, SNST
Dr.C. B. Sobhan	Head, (Up to October 2013) PhD Coordinator
Dr.Sajith V.	1.Head (October 2013 – March 2014) 2.Faculty in charge of Institute Vehicles (up to October 2013) 3.Member, Students Guidance Cell, SNST 4.Member, IRCC,SNST 5.Faculty in charge, Fuels & Combustion Research Lab 6.Time table in charge, School of Nano Science and Technology 7.Member, Purchase Committee,SNST, PHYSICS, SOMS 8.Faculty Advisor, SAE Collegiate Club, NITC Member, 9.Curriculum revision Committee,SNST 10.Procurement Coordinator, TEQIP
Dr.Soney Varghese	1.SEM and SPM Manager
Sri.Shijo Thomas	1. Staff Secretary, SNST 2. Faculty in charge, SNST Association 3. Staff Editor, TechNanos Newsletter 4. Member NITC Faculty Grievance Redressal Committee 5. Staff Advisor, SAE India Collegiate Club 6. Staff Advisor, ENQUIRE Quiz Club

**j. Conferences/Summer/Winter school/short term courses/workshop conducted:**

Sl.No	Title	Coordinators	Duration & Period
1	Spectroscopy, Instrumentation and Applications	M K Ravi Varma, N. Sandhyarani	One day workshop 11.01.2014

**SCHOOL OF MANAGEMENT STUDIES**

**a.Publications**

**b. Community Services:Nil**

**c. Other Academic and Administrative Services**

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

Sl.No	Title	Coordinators	Duration & Period
1	Management Research Methodology	Dr. Muhammad Shafi Dr. R Sridharan	June-10-15, 2013
2	Faculty Development Programme on Management Research Methodology, , National Institute of Technology Calicut	Dr. Muhammad Shafi & Dr. R. Sridharan	10-15 June 2013
3	National Workshop On Research Methods Using Structural Equation Modeling:	Dr. Muhammad Shafi & Dr. Vinay VPanicker	25-26 April 2014
4	Short-Term Training Programme On Mind Dynamics & Personal Excellence (Workshop Using NLP, TA & AI)	Dr. Muhammad Shafi	20-22 Mar 2014
5	National Workshop On Multivariate Analysis Using SPSS And Spreadsheets	Dr. Muhammad Shafi & Dr. R. Sridharan	30-31 Jan & 01 Feb 2014
6	National Workshop On Personal Transformation And Interpersonal Skills	Dr. Muhammad Shafi & Dr. R. Sridharan	20-21 Dec 2013
7	National Workshop On Unraveling Retail (Retail Business Practices)	Dr. Muhammad Shafi & Dr. R. Sridharan	22-23 Nov 2013
8	National Workshop On Research Methodology In Science, Engineering And Management	Dr. Muhammad Shafi & Dr. R. Sridharan	26 - 28 Sept 2013

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

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr.S Sunitha	Delivered a lecture on FDP	1 hr	NIT Calicut
2	Dr. Md. Shafi	Delivered a lecture on FDP	3 hr	NIT Calicut

**SCHOOL OF BIOTECHNOLOGY**

**a. Publications**

**i. Journals**

Name of the Authors	Title of the paper	Name of journal	Vol., Year, p.p.
Sareena C, T.V.Suchithra	Screening of anti-Sri.sa activity of some selected traditional drug formulations against diabetic foot ulcer isolates	International Journal of Pharma and Biosciences	(2014) July ; 5 (3) : Pages 254 – 258
Saumya Mary Mathew, T.V.Suchithra	A threatening approach of wound microflora to diabetic ulcer foot management	International Journal of Current Microbiology & Sciences	2014



Jaya Prakash S, Santhiagu A, and Jasmine S.	Preparation, Characterization and In Vitro Evaluation of Novel Gellan Gum-Raloxifene HCl Nanoparticles.	Journal of Pharmaceutical and Biosciences.	Vol.-2, 2014, p- 63-71.
Jaya Prakash S, Santhiagu A and Jasmine 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.

ii. International Conference

Name of the Author	Title of Paper	Name of International conference	Vol., Year, p.p.
M.Mubarak, A. Shaija T.V.Suchithra	Performance and Emission Analysis of Diesel Engine using Biodies blends Produced from Salvinia Molesta and Indigenous Algae	23rd National Conference on I. C. Engine and Combustion (NCICEC 2013) SVNIT, Surat, India	pp.1-5
WasimUddin	Effect of chromosome copy number on Fluconzolerresisten in oportune fungal pathogen C.albicans	YEAST-2013. 8th INTERNATIONAL CONFERENCE ON YEAST BIOLOGY, Chandigarh, India	2013
Jaya Prakash S, Yuvaraja K. R, & Santhiagu A.	Development and Invitro evaluation Of novel gellan gum- raloxifen nanoparticles for oral drug delivery.	International Conference on Biotechnology and Human Welfare	2013, pp.- 87.
Jaya Prakash S, Yuvaraja K. R, & Santhiagu A.	Homology modeling of Gelf g From gellan gum producing bacterial strain Sphingomonas elodea ATCC 31461.	International Conference on Biotechnology and Bioinformatics,	2014, p- 72.
Yuvaraja K. R., Jaya prakash S., & Santhiagu A.	Antioxidant and hepatoprotective activity of hydnocarpus larifolia against paracetamol induced liver damage in rats.	International Conference on Biotechnology and Human Welfare.	2013, P- 109.
Divya Ayyanari., Jaya Prakash Shanmugam., & Arockiasamy Santhiagu.	Cloning and expression of a highly active recombinant alkal phosphatase from Bacillus lichiniiformis MTCC148	International Conference on Chemical and Bioprocess Engineering.	2013, p- 88.
Vidhuna Sadanandan & Arockiasamy Santhiagu	Isolation of a novel ribonuclease producing soil bacteria and medium optimization for enhanced nuclease production using PlackettBurman design and Central Composite design	International Conference on Chemical and Bioprocess Engineering	2013, p-89

**h. Student achievements**

- 3 Students were the recipients of prestigious Khorana Internship program to carry out research at American universities.
- One Student visited the Centre for Cellular and Molecular Biology, Hyderabad, a premier research institute as Internship.
- One student received research training in Molecular Biology Institute, France
- One student is enrolled for Master degree in Systems Biology, Paris, France.

## 11.0 ANNEXURES

### 11.1 INSTITUTE'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. Sridharan, Dean (FW)
- 5) Dr. M. L. Joy, Dean (SW)
- 6) Dr. Jose Mathew, Dean (R&C)
- 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, Invitee
- 17) Dr. A M MuhammedAmeen, 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 Madhavan Pillai, 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. Elizabeth Elias, Professor, ECED
- 37) Dr. T K Suresh Babu, Professor, T & P
- 38) Dr. C. Raghu, Head, Physics, Invitee
- 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. R Vijayakumar, Professor, MED & Registrar
- 44) Dr. N Ramachandran, Professor, MED
- 45) Dr. P K Rajendrakumar, Professor, MED
- 46) Dr. A Ramaraju, Professor, MED
- 47) Dr. C. Muraleedharan, Professor, MED
- 48) Dr. Lity Alen Varghese. Head, ChED, Invitee
- 49) Dr. P. P. Anil Kumar, Head, Arch., Invitee
- 50) Dr. G Unnikrishnan, Professor, Chemistry
- 51) Dr. Liza Sreejith, Head, Chemistry, Invitee
- 52) Dr. Rajanikant.G.K , Head, SBT, Invitee
- 53) Dr. C B Sobhan, Professor, SNST
- 54) Dr. P C Subramaniam, Professor, ECED
- 55) Dr. N. Sudarsan, Head, SOMS
- 56) Dr. S. D. Madhukumar, Head, CSED, Invitee
- 57) Dr. Santosh. G. Thampi, Professor, CED
- 58) Dr. M. A. Joseph, Professor, MED
- 59) Dr. GulamJilani, Professor, MED
- 60) Dr. K. Chandrasekharan, Professor, Physics
- 61) Dr. M. P. Nandakumar, Professor, EED
- 62) Dr. Saly George, Professor, EED
- 63) Dr. N. Sandhyarani, Head, SNST, Invitee

## 11.2 BOARD OF GOVERNORS

1.	Chairman	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.	Ex. Officio 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	Prof. M Vijayan, Distinguished Professor and Homi Bhaba Chair, Molecular Bio Physics Unit, Indian Institute of Science, Bangalore - 560012(Karnataka)
6.	Member	Smt. Uma Pillai, IAS Former Secretary, Ministry of Tourism and Former Secretary, Department of Defence Production & Supplies, Government of India
7.	Member	Dr. P.Vineeth Kumar, Professor ( CSED), NIT Calicut.
8.	Member	Dr.Sameer S.M., Associate Professor (ECED), NIT Calicut.
9.	Member	Adv.P.M.Suresh Babu, Nominee of the Govt. of Kerala
10.	Member	Dr.K.Shoukkath Ali, Nominee of the Govt. of Kerala
11.	Secretary	Registrar, National Institute of Technology, Calicut (Kerala).

## 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

Sl. 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

## RESEARCH PROJECTS AND CONSULTATION JOBS

## DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1.	Experimental and Deterministic Model studies in regeneration of biosorbents in packed bed column	Dr. N Selvaraju	DST Fast Track	2013	8.82	Ongoing

## DEPARTMENT OF CIVIL ENGINEERING

Sl No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Seismic Evaluation of Existing Multi-storey buildings in Kozhikode district"	Dr. Praveen Nagarajan, Dr. A P Shashikala	KSCSTE, Kerala	2011	9.9	On going
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	On going
3	Investigation of Performance Characteristics of modified bituminous mixtures	Dr. M.VL.R.Anjaneyulu	Kerala State Council For Science, Technology And Environment	2008	10.21	Completed
4	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	2010	9.99	On going
5	Development of A Toolbox for Evaluation and Identification of Urban Road Safety Improvement Measures, 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	2010	15	On going
6	Simplified Models for Torsional Mode Prediction of Tall Buildings under Earthquake	Dr. T P Somasudaran	Kerala State Council For Science, Technology And Environment	2009	11.90	On going
7	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	On going
8	Study of Long Term Performance Of Pavements Reinforced With Coir Geotextiles	Dr. MVLR Anjaneyulu	Coir Board, MMSME, GOI, Kochi, Kerala	2011	268.114	On going
9	Development of Risk Management Tool for Green Construction Sites	Dr. C Arun	Kerala State Council for Science Technology and Environment (Rs 8,80,000/-)	2012	8.80	On going
10	Development of Productivity Monitoring and Wage Analysis Tool for MGNREGA Works in Kerala	Dr. C Arun	Ministry of Rural Development, Govt. of India	2012	16.78	On going
11	Black Spots Identification and Improvement Measures on NH-212 and NH-213 in KERALA	Dr. K Krishnamurthy	Faculty Research Grant (FRG) of NIT Calicut	2010	4.65	Completed
12	Assessment of Effectiveness of NH-47 Bye-pass Road in Coimbatore in Congestion Relief and Level-of-	Dr. K Krishnamurthy	SERC Division, DST, India	2013	6.24	On going

	Service (LOS) Improvement in Traffic Flow on NH-47 in Coimbatore City using Microscopic Simulation Technique (SERC/ET-0108/2010)					
13	Non-linear dynamic analysis of Soil-Structure Interaction	Dr. K. Ranga Swamy	NITC, FRG	2010	3.82	On going
14	Antibiotics Removal from Wastewater using Membrane-Photocatalytic Slurry Reactor System (SERC/ET-310/2011)	Dr. S Mathava Kumar	SERC Divison, DST, India	2013-16	21.80	On going

#### DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Title of the project	Investigators	Sponsoring Agency	Year of Starting	Amount (Lakhs)	Status
1.	Development of nanocomposite insulators	Dr. Sindhu T K	DST	2012	24	On-going
2.	A closed loop control strategy for selective harmonic detection and elimination for generic multi-level inverter configuration for medium and high Vol.tage applications	Dr. MuktiBarai	NITC (FRG)	2010	5	Final stage of completion
3.	Micro Grid	Dr. Kumaravel S	FRG	2010	5	Final stage of completion
4.	Development of Centre for Distributed Energy Research	Dr. Ashok S.	DST-FIST		100	
5.	Development of intelligent robot for fault diagnosis of power lines	Dr. Ashok S.	KSCSTE, Govt of Kerala		11	
6	Development of Highway wind Mill , Intelligent Road Stud	Dr Ashok S	CTR, GOI		12	

#### DEPARTMENT OF ELECTRONICS & ENGINEERING

Sl. No.	Title of the Project	Investigators	Sponsoring Agency	Year of Starting	Amount (Lakhs)	Status
1	Design and Implementation of a Secure Communication System for Reduced Complexity	Dr. Deepthi P P, Dr. Sameer S M, Dr. P S Sathidevi	DIT	2013	38	Ongoing
2	Encryption and authentication of multimedia data	Sudhish N George	NITC (FRG)	2010	4.5	Ongoing
3	VLSI Architecture for DSP Application	Jayakumar E.P.	NIT Calicut	2010	5	Ongoing
4	Design and simulation of piezoresistive pressure sensor for ocean depth measurement	Suja K J	FRG	2013	5	Ongoing
5	Design and implementation of a protocol stack for underwater acoustic sensor networks	A.V. Babu and Lillykutty Jacob	NRB	2013	30	ongoing

**DEPARTMENT OF MECHANICAL ENGINEERING**

Sl. 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' (No. 103/181/2010-NT, date of sanction: 20/2/2013)	C. Muraleedharan And Arun P	MNRE	Two and a half years	35	On going
2	Design and fabrication of anechoic test facility and characterization of acoustic emissions from airfoils in flow field	T.J.S. Jothi	SERB, DST	2014	20	ongoing
3	Production of Bio-diesel from Chlorella Vulgaris and Salvinia Molesta and investigation on its use in single cylinder diesel engine	A. Shaija	Kerala State Council for Science, Technology & Environment (KSCSTE)	2013	11	ongoing
4	Design, development of the solar still integrated with a refrigerator	A. Shaija	Kerala State Council for Science, Technology & Environment (KSCSTE)	2013	PG funded project	completed
5	Development of micro-emulsion from freshwater weed (Kariba weed) as a diesel engine fuel'	A. Shaija	Kerala State Council for Science, Technology & Environment (KSCSTE)	2013	PG funded project	completed

**DEPARTMENT OF MATHEMATICS**

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Applications of partial cut sets in weighted graphs	Sunil Mathew	MHRD/NITC Under FRG scheme	2010	5	Completed
2	Research on Fiber Dynamics, Porous Media, Asymptotic Analysis and MHD Fluid	S.Panda	FRG	2008	4.95	Completed
3	Surface Temperature Reconstruction from free surface data in thin film on a stretching sheet	M. K. Abeyratne, M. C. S Fernando, Uni. Of Ruhuna, Sri Lanka and S. Panda, NIT Calicut	Indo-Sri Lanka Foundation	2011	1.5.	Completed
4	Higher Order Numerical Methods for Singularly Perturbed Differential Equations	Ashish Awasthi	NIT Calicut under FRG	2013	5	Ongoing

**DEPARTMENT OF PHYSICS**

Sl. 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."	PI: Dr. Vari Sivaji Reddy Co-PI: Dr. Sujith A	KSCSTE	2014	28.75	Ongoing
2.	"Development of Bistable Memory Devices Based on Organic Semicconductors"	PI: Dr. Vari Sivaji Reddy	DST	2013	21.84	Ongoing

3	"High energy –density photochemical fuels based on nanomaterial hyt.	PI: Dr. Aji A Anappara Co-Pls: Dr. Raghu C, Dr. Parameswaran P & Dr. Lakshmi C	DST, NanoMisc	2013	44.5	Ongoing
4	"Transparent, flexible and conducting electrodes based on graphene nanometal hybrids"	PI: Dr. Aji A Anappara	DST and Fast Track Scheme	2013	11.10	Ongoing

#### DEPARTMENT OF CHEMISTRY

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
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	Ongoing
3	Development of Pro-fluorophore scaffolds to study peptide aggregation and conformational transitions	Dr. Lakshmi C	DST	2011	20.7	Ongoing
4	Biodegradability enhancement of polyethylene by using biopolymer nanoparticles	Dr. A. Sujith	DST	2012	25.2	Ongoing
5	Lowdensity polyethylene/nanochitosa n 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	17	ongoing

8	Development of Au(III) complexes as antiproliferative agents 'Dean(C&SR)/FRG10-11/0105'	Dr. Suni Vasudevan	Faculty Research Grant, NIT Calicut	2010	5	Ongoing
9	Novel Functionalized Porphyrinic Coordination Arrays, Polymers and Frameworks: Synthesis and Properties	Dr. C. Arunkumar	DST	2012	21.8	Ongoing
10	Novel triazole bridged metalloporphyrins formed via click chemistry: Comparative DNA binding and cleavage studies (Scientist Mentor)	Dr. Sujatha (PI), Dr. C. Arunkumar (Scientist Mentor)	DST	2012	23.6	Ongoing
11	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 (Scientist Mentor)	DST	2012	25.5	Ongoing
12	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
13	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
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	Structural characterization and catalytic properties of <i>meso</i> -phenyl and $\beta$ -pyrrole functionalized porphyrin metal organic frameworks	Dr. C. Arunkumar	Faculty Research Grant, NIT Calicut	2010	5	Ongoing



17	Rational Design and Synthesis of Metalloporphyrin-Lanthanoid Hybrid Materials for Photophysical and DNA Binding/Cleavage Studies	Dr. C. Arunkumar	DST	2013	43.66	Ongoing
18	Structural characterization and catalytic properties of <i>meso</i> -phenyl and $\beta$ -pyrrole functionalized porphyrin metal organic frameworks	Dr. C. Arunkumar	Faculty Research Grant, NIT Calicut	2010	5	Ongoing

#### DEPARTMENT OF ARCHITECTURE

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Development of a Model framework for Land use based Estimation and Prediction of Solid waste generation in small/medium scale towns in India'	Dr. Anilkumar P P & Ar. Chithra K	HSMI/ HUDCO	2013	20	Ongoing

#### SCHOOL OF NANO SCIENCE & TECHNOLOGY

Sl. No	Title of the project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs.)	Status
1	Development of Nanofluids for Cooling Applications in Steel Industry	C.B. Sobhan Shijo Thomas, Hanas T. Sajith V.	TATA Steel	2009	20	Ongoing
2	"Investigations on the Application of Catalytic Nanoparticles as Diesel and Bio Diesel Additives",	Sajith V, C.B.Sobhan N.Sandhyarani Hanas.T	Hindustan Petroleum Corporation Limited (HPCL)	2010	120	Ongoing
3	Ultrasensitive rapid and low cost detection of cancer biomarkers	N.Sandhyarani	Council of Scientific and industrial research	2014	6	Ongoing
4	Flexible Nanomaterial Doped Polymer Dispersed Liquid Crystal (PDLC) Devices for Switchable Window Applications	Nimmy John N. Sandhyarani (mentor)	KSCSTE	2013	15	Ongoing

#### SCHOOL OF BIOTECHNOLOGY

Sl 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	PI: Dr. R. Aswati NairCo-PI: Dr. Padmesh P (JNTBGR)	KSCSTE	2012	16.00	Ongoing

2	Design and In vitro Evaluation of the Neuroprotective Effects of HIF-Prolyl Hydroxylase Inhibitors against Ischemic Stroke	Rajanikant GK (Principal Investigator)	DBT	2012	50.19	Ongoing
---	--	---	-----	------	-------	---------

#### 11.5 FACULTY POSITION (As on 31.03.2014)

*Professor                      Asso. Professor                      Asst. Professor                      Total*

##### *Architecture*

<i>Sanctioned</i>	1	4	7	12
<i>In Position</i>	0	3	4	7
<i>Vacant</i>	1	1	3	5

##### *Chemical*

<i>Sanctioned</i>	2	3	7	12
<i>In Position</i>	0	3	6	9
<i>Vacant</i>	2	0	1	3

##### *Civil*

<i>Sanctioned</i>	6	12	23	41
<i>In Position</i>	13	5	12	30
<i>Vacant</i>	-7	7	11	11

##### *Computer*

<i>Sanctioned</i>	5	9	19	33
<i>In Position</i>	3	5	13	21
<i>Vacant</i>	2	4	6	12

##### *Electrical Engineering*

<i>Sanctioned</i>	5	11	22	38
<i>In Position</i>	10	5	11	26
<i>Vacant</i>	-5	6	11	12

##### *Electronics & Communication*

<i>Sanctioned</i>	5	10	19	34
<i>In Position</i>	4	10	10	24
<i>Vacant</i>	1	0	9	10

##### *Mathematics*

<i>Sanctioned</i>	3	5	11	19
<i>In Position</i>	2	6	07	15
<i>Vacant</i>	1	-1	04	4

*Mechanical*

<i>Sanctioned</i>	10	14	28	52
<i>In Position</i>	13	5	16	34
<i>Vacant</i>	-3	9	12	18

*Science & Humanities*

<i>Sanctioned</i>	2	5	11	18
<i>In Position</i>	3	4	7	14
<i>Vacant</i>	-2	1	0	-2

*School of Bio Technology*

<i>Sanctioned</i>	--	--	--	--
<i>In Position</i>	0	3	4	7
<i>Vacant</i>	0	0	0	0

*School of Management Studies*

<i>Sanctioned</i>	--	--	--	--
<i>In Position</i>	1	0	3	4
<i>Vacant</i>	0	0	0	0

*School of Nano Science and Technology*

<i>Sanctioned</i>	--	--	--	--
<i>In Position</i>	1	1	4	6
<i>Vacant</i>	0	0	0	0

*Training & Placement & Physical Education*

<i>Sanctioned</i>	1	1	2	4
<i>In Position</i>	1	1	1	3
<i>Vacant</i>	0	0	1	1

*Total*

<i>Sanctioned</i>	40	74	149	263
<i>Additional Sanctioned</i>	3	6	10	19
<i>Grand Total</i>	43	80	159	282
<i>In Position</i>	51	51	98	200
<i>Vacant</i>	-8	29	61	82

11.6 ADMINISTRATIVE AND OTHER STAFF (Pre-NIT Pattern)

**ADMINISTRATIVE STAFF-OFFICERS**

Sl. No.	Designation	Name
<b>INSTITUTE OFFICE</b>		
1	Registrar	1. Dr. Santosh G Thampi (upto 13.09.2013) 2. Dr. R. Vijayakumar (14.09.2013 to 31.03.2014)
2	Dy Registrar (Admn)	Sri. P M Krishnan (Sr Audit Officer on deputation from AG's Office)
3	Dy Registrar (Finance)	Sri. C Unnikrishnan (Sr Audit Officer on deputation from AG's Office)
4	Dy Registrar (S&P)	Sri T Raghunathan
5	Dy Registrar (Academic)	Sri. M Radhakrishnan
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
<b>LIBRARY</b>		
11	Librarian	Vacant
12	Librarian (Gr.II)	Vacant
<b>HOSPITAL</b>		
13	Lady Medical Officer	Vacant
14	Resident Medical Officer	Dr. (Smt.) A.A. Celine
<b>ENGINEERING UNIT</b>		
15	Asst. Exe. Engineer	Vacant
	Divisional Accountant	Balan. A
<b>HOSTEL OFFICE</b>		
16	Hostel Manager	Vacant
TPL		

**NON TEACHING STAFF STRENGTH**

Sl. No	Designation	Sanctioned
<b>COLLEGE &amp; DEPARTMENTAL OFFICES</b>		
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
<b>ENGINEERING UNIT</b>		
1	Assistant Executive Engineer	Vacant
2	Assistant Engineer (Electrical)	
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
<b>i. LIBRARY</b>		
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
<b>ii. HOSPITAL</b>		
1	Staff nurse	2
2	Pharmacist	1
3	Attender Hospital	1
<b>iii. HOSTEL</b>		
1	Stewards	5
2	Matron-Ladies Hostel	1
<b>iv. GUEST HOUSE</b>		
1	Guest House Manager	1
2	Cook-cum-butler	1
3	Bearers-cum-Room boy	2
<b>v. COLLEGE VEHICLES SECTION</b>		
1	Driver	4
2	Vehicle Cleaner	2
<b>vi. WATCH AND WARD STAFF</b>		
1	Sergeant	1
2	Watchmen	6
3	Watchman-cum-Gardener	16
4	Gardener	1
<b>vii. SANITATION</b>		
1	Sanitation worker	16
2	Sweeper-cum-Sanitation worker	6
3	Part-time Sweeper	25

#### NON-TEACHING STAFF (ACADEMIC)

<b>DEPARTMENT OF CIVIL ENGINEERING</b>		
1	Instructor	1
2	Senior Mechanic, Lab Technician	9
3	Mechanic	4
<b>DEPARTMENT OF ARCHITECTURE</b>		
1	Senior Mechanic	2
2	Draftsman Gr. II	1
<b>DEPARTMENT OF ELECTRICAL ENGINEERING</b>		
1	Instructor	1
2	Senior Mechanic	11
3	Mechanic	2
<b>DEPARTMENT OF ELECTRONICS &amp; COMMUNICATION ENGINEERING</b>		
1	Instructor	1
2	Senior Mechanic, Lab Technician	4
3	Mechanic	3
<b>DEPARTMENT OF COMPUTER SCIENCE ENGINEERING</b>		
1	System Analyst	1
2	System Programmer	1
3	Computer Operator	1
4	Computer Technician	1
5	Senior Mechanic	1
6	Mechanic	5
<b>DEPARTMENT OF MECHANICAL ENGINEERING</b>		
1	Draughtsman Gr. I	1
2	Foreman	1
3	Supervisor	2

4	Instructors	2
5	Senior Mechanic	25
6	Mechanic	7
<b>CENTER FOR BIO-MECHANICS</b>		
1	Senior Mechanic	1
2	Mechanic	1
<b>DEPARTMENT OF SCIENCES &amp; HUMANITIES</b>		
1	Lab Assistant	4
<b>TRAINING AND PLACEMENT CELL</b>		
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. Abraham. P, Paramacist, Health Centre. 2. Radhakrishnan. M, Sr. Mechanic 3. Eldho P Varghese, Sr. Mechanic,MED. 4. Jayan. V.S Sr. Mechanic, EED. 5. Sureshkumar. G, Sr. Mechanic (Sl.Gr), ECED. 6. Shibu. K, Instructor, CED. 7. Climson. C.R Sr. Mechanic, EMU.	Working Knowledge of Computer & Windows OS Essential.	02.12.2013 to 06.12.2013	Advanced Training Institute, Hyderabad.
1. Sathianandan. P, UD Steward, Hostel Office. 2. Anwar Sadath. C, LD Steward.	PC Hardware & Networking Basis.	09.12.2013 to 13.12.2013	Advanced Training Institute, Hyderabad.
1. Unnikrishnan. C, OSD (FIN.). 2. Muraleedharan. V, IAO(Admn.). 3. Purushothaman Pillai. K.N, UDC (Accounts Section). 4. Sukumaran Nair, UDC, (Accounts Section). 5. Thomas. T.E, Assistant Engineer, Engg. Unit.	Right to Information Act & Citizen Charter.	16.01.2014 to 18.01.2014	Integrated Training & Policy Research (Training Division New Delhi).
1. Sethumadahavan Mecheri, UDC, (Accounts Section). 2. Sasikumar. K.T, UDC, (Estt.Section). 3. Muraleedharan. P. JS (Estt. Section). 4. Unnikrishnan. K, UDC (Academic).	Recruitment Rules & Reservation in Service.	20.02.2014 to 22.02.2014	Integrated Training & Policy Research (Training Division, New Delhi).

5. Praveen Kumar. P, UDC (Purchase).			
1. Anandan. K.R, Sr. Mechanic, ECED. 2. Sasesh. A.R. Sr. Mechanic, EED. 3. Somanath. K.A, Sr. Mechanic, EED. 4. Shafi. S.M, UDC, Accounts Section. 5. Prakash Peter, Lab Assistant, Chemistry.	Repairs & Maintenance PC & Its Perifarals.	25.11.2013 to 06.12.2013	Advanced Training Institute, Dehradun.
1. Beljith. P, Sr. Mechanic.	Annual Work Shop on Knowledge Network.	17.10.2013 to 19.10.2013	IISE, Bangalore

## 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 sub-committee 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 1 <sup>st</sup> 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.

1. 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.
3. 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>, 3<sup>rd</sup> 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 2013 - 14

NO	Date	COMPANY	TOTAL UG	AR	MCA	PG	TOTAL	Effective Total
1	24.07.13	Bajaj 7.2L	6				6	6
2	24.07.13 25.07.13	Broadcom10.2/11.2L	4				4	10
3	26.07.13 27.07.13	Amazon 18L	4		1		5	15
4	28.07.13 29.07.13	Yahoo 15.2/17.2L	2			1	3	18
5	28.07.13 29.07.13	Texas 12L	2				2+2	20
6	29.07.13	E bay 11L	2				2	22
7	31.07.13	G S 11L	1				1+3	23
8	02.08.13 03.08.13	ZS 7.5L	12				12	35
9	03.08.13 04.08.13	Morgan Stanly 12L	1			3	4	39
10	03.08.13	Google						-
11	04.08.13 05.08.13	Nvidia 10/12L	2				2	41
12	05.08.13	Sandvine 10L	2				2	43
13	06.08.13	Netapp10/11L	1			1	2	45
14	06.08.13 07.08.13	McaAfee 9/10L	3		1		4	49
15	07.08.13	Pepsico 6L	2				2	51
16	07.08.13 08.08.13	C Dot 8L	3				3	54
17	08.08.13	Deloitte 6L	19		2		21	75
18	11.08.13	Walmart 20L	0				0	75
19	12.08.13 13.08.13	Cavium 6L	3			2	5	80
20	10.08.13 13.08.13	Oracle Ser Tech 12L	5			2	7	87
21	10.08.13 14.08.13	Oracle appl 12L	7			2	9	96
22	15.08.13 16.08.13	Future first 9L	1				1	97
23	17.08.13	Maruthi 5.4L						97
24	17.08.13 18.08.13	Mu Sigma 6L	22				22	119
25	20.08.13	AmadeusLab 7.7L	2			1	3	122
#	23.08.13	Cavium 6L	1			1	2	124

26	23.08.13	UTC Aero4.8L	6				6	130
27	24.08.13	*Finisar 8L	3				3	133
28	27.08.13	Verizon5.5L	7		1		8	141
29	27.08.13	Intel 11L				5	5	146
30	31.08.13 01.09.13	Mahindra Comviva5L	2		7		9	155
31	22.08.13 02.09.13 03.09.13	Samsung 7L	6		1		8	163
32	02.09.13 05.09.13	GE 7L				2	2	165
33	06;07;08; 09;10.09.1 3	Honda R&D 6L	3		13		3	168
34	10.09.13 11.09.13	SAP 7L	2				2	170
35	12.09.13 20.09.13	L&T ECC	32				32	202
36	18.09.13 19.09.13	Samsung SEI 7.2/8.6	2			1	3	205
37	20.09.13	Oracle gcs9L	3			1	4	209
38	23.09.13 24.09.13	Citi 11.5L	6				6	215
39	25.09.13 26.09.13	Accolite 7.5/8.5L	1				1	216
40	26.09.13 27.09.13	TCE 3.5/3.8L	2			2	4	220
41	30.09.13	ESAB 4.2L	1				1	221
42	02.10.13 03.10.13	OneConvegence5- 6L	1			3	4	225
43	05.10.13	Indian Navy 7L						-
44	06.10.13	E & Y5-7 L	3			1	4	229
45	07.10.13 08.10.13	Polaris 4.5L	3				3	232
46	06.10.13 10.10.13	ABB 5L	3				3	235
47	21.10.13	Flytext6/10L					0	235
48	21.10.13	Suntech4L	4		1		5	240
49	21.10.13 22.10.13	Ingersoll Ranf 4.5/6L	7			1	8	248
50	22.10.13	Arya Network6L	-				0	248
51	24.10.13	Sudharsan Chem 4L	3				3	251
52	26.10.13	Virtusa5L	10				10	261
53	23.10.13 28.10.13	Oracle FS7L	2		2		4	265
#	06.10.13 10.10.13	ABB 5L	1				1	266
54	30.10.13	ACG world Wide 4.5L	1				1	267
55	06.11.13	FosterWheeler 4.2L	5				5	272
56	07.11.13 08.11.13	Relience 5.5L	30				30	302
57	09.11.13	KPMG 4.5L	3				3	305
58	11.11.13	Petronet LNG 10L	2				2	307
59	11.11.13	JP Morgan	0				0+6	307

	12.11.13	12L/30000						
60	12.11.13	Kony lab5.5L	8				8	315
61	14.11.13 15.11.13	Bosch 4.7L	2				2	317
62	14.11.13 16.11.13	Murugapa 4L	2				2	319
63	26.11.13 27.11.13	Aricent 3.5L	10		4	1	15	334
64	28.11.13	Sigmoid 6L						
65	29.11.13	Nest 3/3.2L	9			2	11	345
66	29.11.13 30.11.13	Zoho 4-6.5L	1			1	2	347
67	17.12.13	Intergraph 4L	3				3	350
68	18.12.13	Kalkicomm4.5/4.75 L	2				2	352
69	18.12.13	Tatahitachi 7L	0				0	352
70	17.18.19. 20.12.13	TCS 3.2/3.5	18		1	16	35	387
#		L&T ECC		3			3	390
71	04.01.14	SRI.F 4.5L					-	390
72	06.01.14	L&T EDRC 3.8L				4	4	394
73	06.01.14	Nucleus soft 4.5L	0				0	394
74	07.01.14	Rancore 4.5L	4				4	398
75	08.01.14	Indian Army	-					-
76	08.01.14 10.01.14	Idea	2				2	400
#	22.08.13 02.09.13 03.09.13	Samsung 7L	2				2	402
#		L&T ECC				9	9	411
77	15.01.14	Century link 5L	2				2	413
78	16.01.14	Quest 3.5/3.9L	2			5	7	420
79	20.01.14	Tata Adv systems 4	2				2	422
#	21.01.14	Maruthi 5L	2				2	424
80	22.01.14	Hero 5.7L	2				2	426
81	23.01.14 24.01.14	L&T 3.7L	3				3	429
82	24.01.14	RGUKT6L				9	9	438
83	03.02.14	Pricol 4L	0				0	438
84	03.02.14	Webfluenz3.6L	0				0	438
85	06.02.14	Gulf contra 6L	4				4	442
86	10.02.14	HCS 4L	0				0	442
87	11.02.14	Forte group 3L					-	442
88	14.02.14	IBS 3L	5			1	6	448
89	04.03.14	Bullfinch5L	1				1	449
90	04.03.14	Netapp SD 7L					0	449
91	06.03.14	EnCARE 3L				1	1	450
92	11.03.14	Powegrid 12L	2				2	452
93	##	Apple 70L						-
94	12.03.14	Mediatek7l					0	452
95	13.03.14	KITCO 3L					-	-
96	13.03.14 14.03.14	Quicklogic 7L	2				2	454
97	14.03.14	Mcdormatt 6L				1	1	455
#	20.03.14	SRI.F	6				6	461
#	20.03.14	Bullinch5L	2				2	463
#	05.04.14	Broadcom 9L				1	1	464
98	05.04.14	Tisomtech 3.5/3.75	0			1	1	465
99	05.04.14	Sobha Dev3.1L					-	-
100	02.04.14 07.04.14	Thermofisher 5.5L	1			2	3	468
101	11.04.14	Rel Jio Infocom 5L					5	473

102	13.04.14	Nokia Sem 6.5/7L	0			5	5	478
103	20.04.14	Trilogy/Dev Fact 24L	0			0	0	478
#	23.04.14	Intel 11L				1	1	479
104	23.04.14	SISA 4L					0	479
105	24.04.14	Contour D Arch 3		1			1	480
106	24.04.14	FACET 3L						
##	05.05.14	SRI.F	3				3	483
107	09.05.14	I gate3.5L	7			3	10	493
108	09.05.14	DEP 3.5L						
109	13.05.14	HSCC 6L					5	498
110	13.05.14	Rubyseven	2			1	3	501
##		Polaries			6		6	507
##		Sobha					2	509
##		Kitco	1	3		2	6	515
##		L&T					3	518
111	01.06.14	Al adark6L	2				2	520
		Polaries	3				3	523
112		PRDC						
		L&T ECC				1		524
			394	7	27	96		524

**AUDIT REPORT**  
**2013 - 2014**

**Separate Audit Report of the Comptroller & Auditor General of India  
on the Accounts of National Institute of Technology, Calicut  
for the year ended 31 March 2014**

1. We have audited the attached Balance Sheet of National Institute of Technology, Calicut as at 31 March 2014, 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 financial statements are the responsibility of the Institutes management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. This Separated 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 though Inspection Reports /CAG's Audit Reports separately.
3. We have conducted our audit in accordance with auditing standard 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 disclosures 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 or 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 not been drawn up in the uniform format approved by the Ministry of Finance, Government 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**

**A.1 Liabilities**

**A.1.1. General Fund (Schedule 2) – Rs. 403.08 crores.**

This is understated by Rs. 21.17 lakh due to non-inclusion of interest received on 2 FDs (Nos. 6726562798 & 67206563021 amounting to Rs. 519.95 lakh) on maturity, as the maturity value including interest amounting to Rs.541.12 lakh was transferred to SBI account (No. 10401160578) in December 2013 with corresponding understatement of current Assets. Loans, Advances & Deposits.

**A.1.2. Current Liabilities & Provision (Schedule-6) Rs. 87.81 Cr**

**Other liabilities – Provision for Pension/GPF Contribution Rs. 198.58 lakh.**

- a) This includes Provision created for the Pension Contribution and GPF Contribution Rs. 36.92 lakh of the Deputation Staff in previous years and carried forward. As per records, there was no liability pending for payment. Hence, Current Liabilities & Provision stands overstated by Rs. 36.92 lakh with corresponding overstatement of expenditure.
- b) This is understated by Rs. 120.65 lakh due to non-provision of the liability for the value of equipments procured during 2013-14 and payments made in April, May, June and July 2014 with corresponding understatement of Fixed Assets.

## A.2. Assets

### 1. (a) Fixed Assets (Schedule-7) – Rs. 102.64 Cr

This is understated by Rs.712.38 lakh (excluding depreciation) due to non inclusion of the assets created utilizing the grant received from GOI under Technical Education Quality Improvement Programme (TEQIP) – Phase 1, which was closed in June 2009, into the stock account of the Institution, as detailed below.

SI No	Details of Assets	Value in Rs.	Rate of depreciation (Percent)	Depreciation amount from 2009-10 to 2012-13 in Rs.	Depreciation amount from 2013-14 in Rs.
1	Books & Library	32390267	60	32182970	746272
2	Civil works	15728463	10	5409019	1031945
3	Equipments	137497042	15	65722727	10766147
4	Furniture	2508633	10	862719	164592
	<b>Total</b>	<b>188124405</b>		<b>104177435</b>	<b>12708956</b>
	<b>G Total</b>				<b>116886391</b>

This has resulted in overstatement of General Fund by Rs. 1881.24 lakh (as the General Fund received has already been taken into General Fund). Depreciation also stands understated by Rs. 1168.86 lakh with corresponding overstatement of surplus.

### (b) Buildings – Residential – Rs. 56.96crore.

This includes Rs. 3004.22 lakh being expenditure incurred for 100 residential quarters constructed by CPWD. As per records, the work was completed and handed over during June 2010 to April 2011. The Institute has capitalized these quarters during 2013-14 and provided depreciation for one year instead of three years. Hence, Depreciation stands understated by Rs. 300.42 lakh (Rs. 3004.22 lakh x 5/100 x 2 years) with corresponding overstatement of Fixed Assets and overstatement of Income.

## 2. Capital Work in Progress- Rs. 278.56 crore.

a) This is overstated by Rs. 4650.00 lakh due to non-capitalisation of the completed work of the construction of 500 Nos. single bedded hostels for ladies completed in October 2013. Total expenditure incurred for the work and unutilized fund available with CPWD against the fund deposited for the work were Rs. 3477.75 lakh and 1172.25 lakh respectively. Non-capitalising the completed work has also resulted in understatement of residential building by Rs. 3303.86 lakh (Excluding depreciation) and Sundry Debtors by Rs. 1172.25 lakh. Depreciation stands understated by Rs.173.89 lakh with corresponding overstatement of surplus.

b) This is overstated by Rs. 13.30 lakh due to non capitalisation of Rs. 36.03 lakh in respect of completed work of construction of compound wall for campus completed in April 2013 and the balance amount payable against the work was Rs. 22.73 lakh (Total expenditure incurred Rs. 36.03 lakh – deposited amount Rs. 13.30 lakh). Non- capitalising the completed work has resulted in understatement of residential building by Rs. 34.23 lakh (Excluding depreciation) and understatement of Liabilities by Rs. 22.73 lakh.

### **3 Computers/ Peripherals – Rs. 95.10 lakh**

This does not include Rs. 54.49 lakh being the value of computers accessories procured and installed in March 2014. This has resulted in understatement of Fixed asset by Rs. 38.14 lakh (excluding depreciation) with understatement of Current Liabilities by Rs. 54.49 lakh. Due to non inclusion of depreciation surplus stands overstated by Rs. 16.35 lakh.

### **4. Office Equipment Rs. 45.20 lakh**

This does not include Rs. 65.52 lakh being the value of the equipment purchased, received and commissioned during 2013-14 but capitalized during April – July 2014 (due to delay in setting the bills). This has resulted in understatement of Fixed Assets by Rs. 60.61 lakh (excluding depreciation) with understatement of Current Liabilities by Rs. 65.52 lakh. Due to non inclusion of depreciation, surplus stands overstated by Rs. 4.91 lakh.

### **5. Loans Advances & Deposits (Schedule – 10) - Rs. 12.23 crore**

The above included deposits for electricity amounting to Rs. 14.62 lakh. It is observed that Institute had given deposits for electricity amounting to Rs. 21.98 lakh, however difference of Rs. 7.36 lakh was booked as energy charges. This has resulted into understatement of Loans, Advances and Deposits and overstatement of Expenditure by Rs. 7.36 lakh each

## **B. Income and Expenditure Account for the year ended 31/03/2014**

### **B.1 Expenditure**

#### **1. Administrative and General Expenses Expenditure (Schedule – 17)**

##### **Electricity & Power – Rs.2.55 crore**

This does not includes Rs. 22.53 lakh being electricity charges for the month of March 2014 (HT Con. No12/2333 Rs.20.62 lakh +LT con No.68 – Rs. 0.88 lakh + Rs. 1.02 lakh) but paid in April 2014. Non-provision of the energy charge payable has resulted in understatement of administrative Expenditure by Rs. 22.53 lakh with corresponding understatement of Current Liabilities.

##### **ii. Depreciation Expenses**

##### **b. Other expenses (Schedule – 21) Prior Period Rs. 00**

This does not include Rs. 8.86 lakh being the depreciation of value of the 12 equipments (Rs.41.93 lakh) imported during 2010 to 2012 and capitalized in 2013-14. Hence, Prior Period Expenditure (Depreciation) for the year stands understated by Rs. 8.86 lakh with corresponding overstatement of Fixed Assets by the same amount.

### **B.2 Income**

#### **i) Academic Receipt (Schedule – 11) – Tuition fee – Rs. 22.63 Crore**

Total tuition fee received from NRI/DASA students during 2013 – 14 was Rs. 1164.24 lakh Out of the total NRI/DASA fee the institute has transferred 50 percent to Growth Fund as per the Board Resolution No. 80.50 and Bye Laws of the Growth Fund amended vide resolution no. 86.08 in October 1998 and balance 50 percent show as tuition fee income. Non-accounting the full amount as receipt during the current year. Academic Receipt stands understated by Rs. 582.12 lakh with corresponding overstatement of Growth Fund.

### **C. General**

#### **1 General – Format of Accounts**



Ministry of Finance GOI Had introduced Uniform Format of Accounts for all Central Autonomous Bodies in 2001 in consultation with CAG of India. Accounts of the NIT, Calicut have been prepared in the new format of account introduced by Ministry of Human Resource Development, Government of India for the Institution of Higher Education. Which was under finalisation in consultation with CAG of India.

## **2 Current Assets ( Schedule 9) Rs. 220.01 Crore**

The Institute has been operating 115 bank accounts. Confirmation Certificate of balance of Bank Accounts and FDs and interest receivable on the accounts as on 31<sup>st</sup> March 2014 were not available in the files furnished to audit. As per the list of FDs furnished to audit total value of FDs was Rs. 12221.19 lakh as against Rs. 13541.06 lakh shown as term deposit with various bank. The Difference in this account was Rs. 1319.86 lakh. It was also noted that the institute has closed 2 FDs with SBI valued Rs. 5199.54 lakh (FD Nos. No 67225598155 and 6722585872) on 4/12/2013 and transferred the maturity value to the current account No. 10401160578 with SBI. However the value of closed FDs was also included in the FD list. Further, Certain FDs were renewed automatically on maturity. However, the renewed FDs were not collected and filed. The Institute has not maintained the FD register properly and updated the figures. Bank reconciliation statements of the various bank accounts were not prepared properly and timely. Hence in the absence of the above the correctness of the figure could not be ensured in audit.

### **D) Grants in aid**

The Institute received grant - in - aid of Rs. 8395.00 lakh (Plan Fund Rs.1375.00 lakh and Non – Plan Fund Rs. 7020.00 lakh) from the Government of India during 2013-14 and internal source generated was Rs. 5164.52 lakh. Out of the total receipts of Rs. 14310.64 lakh (including unspent balance carry forward from previous year Rs. 751.12 lakh (Plan Rs. 2238.79 lakh & Non - Plan (-) Rs. 1487.67 lakh), the institute utilized an amount of Rs. 8697.93 lakh ( Plan Rs.1825.50 lakh +Non-plan Rs. 6872.43 lakh) leaving Rs. 5612.71 lakh (Plan Rs.1651.71 lakh & Non – Plan Rs. 3961.00 lakh) as unspent amount.

### **E) Management Letter:**

Deficiencies which have not been included in the audit Report have been brought to the notice of the Director. National Institute of Technology, Calicut through a management letter issued separately for remedial/ corrective action.

**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 to this Audit Report 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 2014 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/-**

**Director General of Audit (Central), Chennai**

**Place: Chennai**

**Date: 07.July 2015**

## **Annexure**

### **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. The Institute has not prepared a Manual for internal audit and accounting procedures for effective implementation of the internal audit. Bank reconciliation statements were not prepared and necessary registers were not updated regularly.

### **2. Adequacy of Internal Control System:**

Internal Control System was inadequate on the following areas.

NIT has not maintained / updated figures in the asset register to ascertain the exact time of capitalisation, total depreciation provided against the assets etc. FD register has not been maintained and updated properly. Confirmation of Bank balance from concerned banks were not available to audit. NIT has not prepaid the Accounting Manual also.

### **3. System of Physical Verification of Assets:**

Annual Physical Verification of assets have been conducted only up to 2012-13.

### **4. System of Physical Verification of inventory:**

Since the institute is an educational institution, no inventory items are available for physical verification.

### **5. Regularities in Payment of statutory dues:**

The NIT is regular in payment of statutory dues.

**S/d-**

**Deputy Director (DT)-11**

**ANNUAL ACCOUNTS**  
**2013 -2014**

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**  
**BALANCE SHEET AS ON 31.03.2014**

SOURCES OF FUNDS	Schedule	Current Year	Previous Year
<b>UNRESTRICTED FUNDS</b>			
Corpus	1	609254411.00	483191371.00
General Fund	2	4030758982.00	3859716912.00
Designated/Earmarked Funds	3	0.00	0.00
<b>RESTRICTED FUNDS</b>	4	125917570.00	95660974.00
<b>LOANS/BORROWINGS</b>	5	0.00	0.00
Secured		0.00	0.00
Unsecured		0.00	0.00
Reserves & Surplus		769000.00	769000.00
<b>CURRENT LIABILITIES &amp; PROVISIONS</b>	6	878086911.00	639271894.00
<b>TOTAL</b>		<b>5644786874.00</b>	<b>5078610151.00</b>
<b>APPLICATION OF FUNDS</b>			
<b>FIXED ASSETS</b>	7	1026431252.00	597323153.00
Tangible Assets		0.00	0.00
Intangible Assets		0.00	0.00
Capital Work-In-Progress		2295823796.00	2217830190.00
<b>INVESTMENTS</b>	8	0.00	0.00
Long Term		0.00	0.00
Short term		0.00	0.00
<b>CURRENT ASSETS</b>	9	2200193347.00	1810436148.00
<b>LOANS, ADVANCES &amp; DEPOSITS</b>	10	122338479.00	453020660.00
<b>TOTAL</b>		<b>5644786874.00</b>	<b>5078610151.00</b>
Notes on Accounts	22		

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2014**

	Schedule	Current Year				Previous Year	
		Unrestricted Funds			Restricted Fund	Total	Total
		Corpus	Designated fund	General fund			
<b>INCOME</b>							
Academic Receipts	11				23,62,30,613.00	223461873.00	
Grants & Donations	12				702368923.00	480494286.00	
Income from investments	13				0.00	0.00	
Other Incomes	14				36002993.00	33239754.00	
<b>TOTAL (A)</b>					974602529.00	737195913.00	
<b>EXPENDITURE</b>							
Staff Payments & Benefits	15				515248803	500347475	
Academic Expenses	16				121185487.00	106458260.00	
Administrative and General Expenses	17				156696915	124121237.00	
Transportation Expenses	18				766980	690913	
Repairs & maintenance	19				6551907.00	10464640.00	
Finance costs	20				13709.00	7013.00	
Other Expenses	21				0.00	9932741.00	
<b>TOTAL (B)</b>					800463801.00	752022279.00	
<b>Balance being excess of</b>							
<b>Income over Expenditure (AB)</b>					<b>174138728.00</b>	<b>-14826366.00</b>	
Transfer to/from designated fund							
Building fund							
<b>Balance being surplus carried to General fund</b>					<b>174138728.00</b>	<b>-14826366.00</b>	
Notes on Accounts	22						

## SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2014

### SCHEDULE -1 CORPUS

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
Balance as at the beginning of the year	483191371.00	367657237.00
Add: Contributions towards Corpus	126063040.00	115534134.00
Deduct: Asset written off during the year created out of corpus	0.00	
<b>BALANCE AT THE YEAR-END</b>	<b>609254411.00</b>	<b>483191371.00</b>

### SCHEDULE -2 GENERAL FUND

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
Balance as at the beginning of the year	3859716912.00	3264357794.00
Add: Contributions towards General Fund	162145160.00	610185484.00
Add/(Deduct): Balance of net income/(expenditure) transferred from the Income and Expenditure Account	174138728.00	14826366.00
<b>BALANCE AT THE YEAR-END</b>	<b>4196000800.00</b>	<b>3859716912.00</b>
less: unspent balance of grant received from MHRD transferred to liability	165241818.00	0.00
<b>GRAND TOTAL</b>	<b>4030758982.00</b>	<b>3859716912.00</b>

**SCHEDULE 3 – DESIGNATED/EARMERKED FUNDS**

	FUND WISE BREAK UP				TOTAL	
	FUND AA	FUND BB	FUND CC	FUND DD	CURRENT YEAR	PREVIOUS YEAR
a) Opening balance of the funds						
b) Additions to the Funds:						
i. Donation/grants						
ii. Income from investments made of the funds						
iii. Accrued interest on investments of the funds						
iv. Other additions (specify nature)						
<b>TOTAL (a+b)</b>						
c) Utilisation/Expenditure towards objectives of funds						
i. Capital Expenditure						
- Fixed Assets						
- Others						
<b>Total</b>						
ii. Revenue Expenditure						
- Salaries, Wages and allowances etc.						
- Rent						
- Other Administrative expenses						
<b>Total</b>						
<b>TOTAL (c)</b>						
<b>NET BALANCE AS AT THE YEAR-END (a+b-c)</b>						

**SCHEDULE 4 – RESTRICTED FUNDS**

	FUND WISE BREAK UP				TOTAL	
	FUND AA STUDENTS FUND	FUND BB PROJECT	FUND CC TEQIP	FUND DD	CURRENT YEAR	PREVIOUS YEAR
a) Opening balance of the funds	13172488.00	59895464.00	22593022.00		95660974.00	76614756.00
b) Additions to the Funds:						
i. Donation/grants	0.00	22358100.00	50000000.00		72358100.00	41902875.00
ii. Income from investments made on account of funds	814065.00	1875073.00	1225888.00		3915026.00	3870427.00
iii. Accrued interest on investments of the funds	0.00	0.00	0.00		0.00	0.00
iv. Other additions	7225689.00	4160041.00	0.00		11385730.00	0.00
<b>TOTAL (a+b)</b>	<b>21212242.00</b>	<b>88288678.00</b>	<b>73818910.00</b>		<b>183319830.00</b>	<b>122388058.00</b>
<b>c) Utilisation/Expenditure towards objectives of funds</b>						
i. Capital Expenditure						
- Fixed Assets						
- Others						
<b>Total</b>						
ii. Revenue Expenditure	7788061.00	30192157.00	19422042.00		57402260.00	26727084.00
- Salaries, Wages and allowances etc.						
- Rent						
- Other Administrative expenses						
<b>Total</b>						
<b>TOTAL (c)</b>						
<b>NET BALANCE AS AT THE YEAR-END (a+b-c)</b>	<b>13424181.00</b>	<b>58096521.00</b>	<b>54396868.00</b>		<b>125917570.00</b>	<b>95660974.00</b>



## SCHEDULE 5 – LOANS /BORROWINGS

### SECURED LOANS

	CURRENT YEAR		PREVIOUS YEAR	
1. Central Government	0	0	0	0
2. State Government (Specify)	0	0	0	0
3. Financial Institutions: a) Term Loans	0	0	0	0
b) Interest accrued and due	0	0	0	0
4. Banks: a) Term Loans	0	0	0	0
- Interest accrued and due	0	0	0	0
b) Other Loans (specify)	0	0	0	0
- Interest accrued and due	0	0	0	0
5. Other Institutions and Agencies	0	0	0	0
6. Debentures and Bonds	0	0	0	0
7. Others (Specify)	0	0	0	0
<b>Total</b>	0	0	0	0
Note: Amounts due within one year	0	0	0	0

### UNSECURED LOANS

	CURRENT YEAR		PREVIOUS YEAR	
1. Central Government	0	0	0	0
2. State Government (Specify)	0	0	0	0
3. Financial Institutions	0	0	0	0
4. Banks: a) Term Loans	0	0	0	0
b) Other Loans (specify)	0	0	0	0
5. Other Institutions and Agencies	0	0	0	0
6. Debentures and Bonds	0	0	0	0
7. Fixed Deposits	0	0	0	0
<b>Total</b>	0	0	0	0
Note: Amounts due within one year	0	0	0	0

**SCHEDULE 6 - CURRENT LIABILITIES & PROVISIONS**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
<b>A. CURRENT LIABILITIES</b>		
1. Deposits from staff		
2. Deposits from students	12092964.00	10460964.00
3. Sundry Creditors		
a) For Goods & Services	0.00	0.00
b) Others	0.00	0.00
4. Advances Received	12237698.00	2890141.00
5. Interest accrued but not due on:		
a) Secured Loans/borrowings	0.00	0.00
b) Unsecured Loans/borrowings	0.00	0.00
6. Statutory Liabilities (GPF,TDS,WC TAX,CPF,GIS,NPS):		
a) Overdue	0.00	0.00
b) Others	158225213.00	138207686.00
7. Other current Liabilities		
a) Salaries	0.00	0.00
b) Receipts against sponsored projects	0.00	0.00
c) Receipts against sponsored fellowships & scholarships	193354731.00	183993645.00
d) Unutilised Grants	165241818.00	
e) Grants in advance	0.00	0.00
f) Other funds		
g) Other liabilities	96999030.00	76300299.00
<b>TOTAL (A)</b>	<b>638151454.00</b>	<b>411852735.00</b>

<b>B. PROVISIONS</b>		
1. For Taxation	0.00	0.00
2. Gratuity	77128000.00	77128000.00
3. Superannuation/Pension	19857946.00	73524000.00
4. Accumulated Leave Encashment	2658391.00	2658391.00
5. Expenses payable	140291120.00	74108768.00
6. Trade Warranties/Claims	0.00	0.00
<b>TOTAL (B)</b>	<b>239935457.00</b>	<b>227419159.00</b>
<b>TOTAL (A+B)</b>	<b>878086911.00</b>	<b>639271894.00</b>

## SCHEDULE 7 –FIXED ASSETS

DESCRIPTION	GROSS BLOCK				DEPRECIATION				NET BLOCK	
	Cost/valuati on as at beginning of the year	Additions during the year	Deductions during the year	Cost/valuation at the yearend	As at the beginning of the year	On additions during the year	On deduction s during the year	Total up to the yearend	As at the current yearend	As at the Previous yearend
I. Land:										
a) Freehold	769000	0	0	769000	0	0	0	0	769000	769000
b) Leasehold	0	0	0	0	0	0	0	0	0	0
II. Buildings:	0	0	0	0	0	0	0	0	0	0
a) On Freehold Land	0	0	0	0	0	0	0	0	0	0
i..Residential	269193385	300422491	0	569615876	126013819	22179790	0	148193609	421422267	143179566
ii.Non Residential	633241016	202533177	0	835774193	318564678	51363883	0	369928561	465845632	314676338
b) On Leasehold Land	0	0	0	0	0	0	0	0	0	0
c) Ownership Flats/ Premises	0	0	0	0	0	0	0	0	0	0
d) Superstructures on land not belonging to edu. institution	0	0	0	0	0	0	0	0	0	0
III. Plants, machinery & equipments	430763627	19670843	0	450434470	330423821	17119233	0	347543054	102891416	100339806
IV. Vehicle	4624976	0	0	4624976	4253008	55795	0	4308803	316173	371968
V. Furniture & fixtures	65856191	1255400	0	67111591	28506978	3850715	0	32357693	34753898	37349213
VI. Office equipment	4520049	0	0	4520049	4137020	325575	0	4462595	57454	383029
VII. Computer/peripherals	8906698	603935	0	9510633	8652465	482756	0	9135221	375412	254233
VIII. Electric installations	0	0	0	0	0	0	0	0	0	0
IX. Library books	39046543	0	0	39046543	39046543	0	0	39046543	0	0
X. Tube wells & water supply	0	0	0	0	0	0	0	0	0	0
A. Total of Current Year	1456921485	524485846	0	<b>1981407331</b>	859598332	95377747	0	<b>954976079</b>	<b>1026431252</b>	597323153
PREVIOUS YEAR	1404927687	53522194	1528396	1456921485	794727005	64871327	0	859598332	597323153	6100200682
XII. Capital work-in-progress	2637830190	147813134	0	2785643324	0	0	0	0	2785643324	0
TRANSFER TO ASSETS	0	0	489819528	489819528	0	0	0	0	489819528	0
B. NET WORK-IN-PROGRESS	2637830190	147813134	489819528	<b>2295823796</b>	0	0	0	0	<b>2295823796</b>	2637830190
TOTAL (A+B)	4094751675	672298980	489819528	4277231127	859598332	95377747	0	954976079	3322255048	3235153343

## SCHEDULE 8 – INVESTMENTS

### INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

	CURRENT YEAR	PREVIOUS YEAR
1. In Central Government Securities	0	0
2. In State Government Securities	0	0
3. Other approved Securities	0	0
4. Shares	0	0
5. Debentures and Bonds	0	0
6. Others (to be specified)	0	0
<b>TOTAL</b>	0	0

### INVESTMENTS OTHERS

	CURRENT YEAR	PREVIOUS YEAR
1. In Central Government Securities	0	0
2. In State Government Securities	0	0
3. Other approved Securities	0	0
4. Shares	0	0
5. Debentures and Bonds	0	0
6. Others (to be specified)	0	0
<b>TOTAL</b>	0	0

**SCHEDULE 9 – CURRENT ASSETS**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
1. Stock:		
a) Stores and Spares		
b) Loose Tools		
c) Publications	1901021.00	-1713361.00
2. Sundry Debtors:	0.00	0.00
a) Debts Outstanding for a period exceeding six months	0.00	0.00
b) Others	0.00	0.00
3. Cash balances in hand (including cheques/ drafts and imprest)	451528.00	537154.00
4. Bank Balances (to be further classified as pertaining to earmarked fund or otherwise)		
a) With Scheduled Banks:		
-In Current Accounts	329869245.00	241812762.00
-In term deposit Accounts	1354106533.00	1343994367.00
-In Savings Accounts	510365943.00	222306149.00
b) With non-Scheduled Banks:		
-In Current Accounts	0.00	0.00
-In term deposit Accounts	0.00	0.00
-In Savings Accounts	0.00	0.00
5. Post Office- Savings Accounts		
6. Cash in Treasury	3499077.00	3499077.00
<b>TOTAL</b>	<b>2200193347.00</b>	<b>1810436148.00</b>

**SCHEDULE 10 – LOANS, ADVANCES & DEPOSITS**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
1. Advances to employees: (Non-interest bearing)		
a) Salary		
b) Festival		
c) LTC	29906917.00	30443918.00
d) Medical Advance		
e) Other (to be specified)		
2. Long Term Advances to employees: (Interest bearing)		
a) Vehicle loan	691724.00	723584.00
b) Home loan	186562.00	299882.00
c) Others (to be specified)	0.00	0.00
3. Advances and other amounts recoverable in cash or in kind or for value to be received:		
a) On Capital Account	0.00	0.00
b) to suppliers	0.00	0.00
c) Others	0.00	0.00
4. Prepaid Expenses		
a) Insurance	0.00	0.00
b) Other expenses	0.00	0.00
5. Deposits		
a) Telephone		
b) Lease Rent		
c) Electricity	1461887.00	1461887.00
d) AICTE, if applicable	91389.00	91389.00
e) MCI, if applicable	0.00	0.00
f) Others (to be specified)	0.00	420000000.00

6. Income Accrued:		
a) On Investments from Earmarked/ Endowment Funds	0.00	0.00
b) On Investments-Others	0.00	0.00
c) On Loans and Advances	0.00	0.00
d) Others (includes income due unrealized-Rs.....)	0.00	0.00
7. Other receivable		
a) Debit balances in Sponsored Projects	0.00	0.00
b) Debit balances in Fellowship & Scholarship	0.00	0.00
c) Grants Recoverable	90000000.00	0.00
d) Other receivables	0.00	0.00
8. Claims Receivable	0.00	0.00
<b>TOTAL</b>	<b>122338479.00</b>	<b>453020660.00</b>



**SCHEDULE 11– ACADEMIC RECEIPTS**

<b>Academic</b>	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
1. Tuition fee	22,63,54,450.00	21,36,15,870.00
2. Admission fee	3,36,400.00	5,85,000.00
3. Enrolment Fee	-	-
4. Library Admission fee	16,81,000.00	-
5. Laboratory fee	-	-
6. Art & Craft fee	-	-
7. Registration fee	22,29,700.00	29,74,600.00
8. Syllabus fee	-	-
<b>Total (A)</b>	<b>23,06,01,550.00</b>	<b>21,71,75,470.00</b>
<b>Examinations</b>		
1. Admission test fee	-	-
2. Annual Examination fee	39,11,450.00	46,77,300.00
3. Mark sheet, certificate fee	4,77,040.00	-
<b>Total (B)</b>	<b>43,88,490.00</b>	<b>46,77,300.00</b>
<b>Other fees</b>		
1. Identity card fee	2,07,973.00	2,13,503.00
2. Fine/Miscellaneous fee	10,32,600.00	13,95,600.00
3. Medical fee	-	-
4. Transportation fee	-	-
5. Hostel fee	-	-
<b>Total (C)</b>	<b>12,40,573.00</b>	<b>16,09,103.00</b>
<b>Sale of publications</b>		
1. Sale of syllabus and Question Paper, etc.	-	-
2. Sale of prospectus including admission forms	-	-
<b>Total (D)</b>	-	-
<b>GRAND TOTAL (A+B+C+D)</b>	<b>23,62,30,613.00</b>	<b>22,34,61,873.00</b>

### SCHEDULE 12– GRANTS & DONATIONS

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
1) Central Government	702000000.00	480000000.00
2) State Government(s)	0.00	0.00
3) Government Agencies	0.00	0.00
4) Institutions/Welfare Bodies	0.00	0.00
5) International Organisations	0.00	0.00
6) Others (Apprenticeship Training Grant)	368923.00	494286.00
<b>TOTAL</b>	<b>702368923.00</b>	<b>480494286.00</b>

### SCHEDULE 13-INCOME FROM INVESTMENTS

	CURRENT YEAR	PREVIOUS YEAR
Investment from Earmarked/Endowment Fund		
1) Interest		
a) On Govt. Securities		
b) Other Bonds/Debentures		
2) Income received		
a) Each Fund separately		
3) Income accrued		
a) Each Fund separately		
4) Others (Specify)		
TOTAL		
TRANSFERRED TO EARMARKED/ ENDOWMENT FUNDS		

	CURRENT YEAR	PREVIOUS YEAR
Investment from Earmarked/Endowment Fund		
1) Interest		
a) On Govt. Securities		
b) Other Bonds/Debentures		
2) Income received		
a) Each Fund separately		
3) Income accrued		
a) Each Fund separately		
4) Others (Specify)		
TOTAL		

### SCHEDULE 14- OTHER INCOME

	CURRENT YEAR	PREVIOUS YEAR
<b>A. Income from Land &amp; Building</b>		
1. Hostel Room Rent	9353345.00	8522641.00
2. License fee		
3. Hire Charges of Auditorium/Play ground/Convention Centre, etc	0.00	0.00
4. Electricity & water charges	12349402.00	12111462.00
<b>Total</b>	<b>21702747.00</b>	<b>20634103.00</b>
<b>B. Sale of Institute's publications</b>		
<b>C. Income from holding events</b>	0.00	0.00
1. Gross Receipts from annual function/ sports carnival	0.00	0.00
Less: Direct expenditure incurred on the annual function/ sports carnival	0.00	0.00
2. Gross Receipts from fetes	0.00	0.00
Less: Direct expenditure incurred on the fetes	0.00	0.00
3. Gross Receipts for educational tours	0.00	0.00
Less: Direct expenditure incurred on the tours	0.00	0.00
4. Others (to be specified and separately disclosed)	0.00	0.00
<b>Total</b>	<b>0.00</b>	<b>0.00</b>
<b>D. Interest on Term Deposits:</b>		
a) With Scheduled Banks	3911104.00	9095353.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00
<b>E. Interest on Savings Accounts:</b>		
a) With Scheduled Banks	0.00	0.00
b) With Non-Scheduled Banks	0.00	0.00
c) With Institutions	0.00	0.00
d) Others	0.00	0.00

<b>F. Interest On Loans:</b>		
a) Employees/Staff	0.00	0.00
b) Others	0.00	0.00
<b>G. Interest on Debtors and Other Receivables</b>	0.00	0.00
<b>Total</b>	3911104.00	9095353.00
<b>H. Others</b>		
1. Income from consultancy		
2. RTI fees	0.00	0.00
3. Income from Royalty	0.00	0.00
4. Sale of application form (recruitment)	1159300.00	714200.00
5. Misc. receipts (Sale of tender form, waste paper, etc.)	9229842.00	2796098.00
6. Profit on Sale/disposal of Assets:	0.00	0.00
a) Owned assets	0.00	0.00
b) Assets acquired out of grants, or received free of cost	0.00	0.00
<b>Total</b>	<b>10389142.00</b>	<b>3510298.00</b>
<b>GRAND TOTAL (A+B+C+D+E+F+G+H)</b>	<b>36002993.00</b>	<b>33239754.00</b>

**SCHEDULE 15 – STAFF PAYMENTS & BENEFITS**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Salaries and Wages	371661010	315985332
b) Allowances and Bonus	0.00	0.00
c) Contribution to Provident Fund	17503701	19369260
d) Contribution to Other Fund (specify)	0	0
e) Staff Welfare Expenses	0	0
f) Retirement and Terminal Benefits	113761237	153714581
g) LTC facility	3811972	2763759
h) Medical facility	1603891	1203739
i) Children Education Allowance	2595300	3742372
j) Honorarium	2619000	1211585
k) TA/DA expenses	1692692	2356847
l) Others (specify)	0	0
<b>TOTAL</b>	<b>515248803</b>	<b>500347475</b>

**SCHEDULE 16 – ACADEMIC EXPENSES**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Laboratory expenses	0.00	0.00
b) Field work/Participation	0.00	0.00
c) Seminar/Workshop	5130981.00	2628155.00
d) Payment to visiting faculty		
e) Examination		
f) Student Welfare expenses		
g) Admission expenses		
h) Convocation expenses		
i) Publications		
j) Stipend/means-cum-merit scholarship	98982985.00	90033130
k) Subscription Expenses	10531646.00	8413754
l) Others (FDP,R&D,medals & prizes)	6539875.00	5383221
<b>TOTAL</b>	<b>121185487.00</b>	<b>106458260.00</b>

**SCHEDULE 17 – ADMINISTRAIVE AND GENERAL EXPENSES**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Electricity and power	25519398	26370882.00
b) Water charges		
c) Insurance		
d) Rent, Rates and Taxes (including property tax)	1219.00	1219.00
e) Postage & telegram	257604.00	215180.00
f) Telephone and Internet Charges	1248037.00	1146487.00
g) Printing and Stationary	854154.00	819191.00
h) Traveling and Conveyance Expenses	0.00	29211.00
i) Expenses on Seminar/Workshops		
j) Hospitality	4402922	2277385.00
k) Auditors Remuneration	89780.00	150000.00
l) Professional Charges	13200966.00	10548527.00
m) Advertisement and Publicity	2367419.00	103068.00
n) Magazines & Jornals	0.00	0.00
o) Others (Legal charges,hospital contingencies,OE&Misc.,T&P,Hindi translation,DOC,Depreciation)	108755416	82460087.00
<b>TOTAL</b>	<b>156696915</b>	<b>124121237.00</b>



**SCHEDULE 18 – TRANSPORTATION EXPENSES**

	CURRENT YEAR	PREVIOUS YEAR
1. Vehicles (owned by educational institution)		
a) Running expenses	454880	384943
b) Repairs & maintenance	196324	216856
c) Insurance expenses	105319	89114
2. Vehicles taken on rent/lease		
a) Rent/lease expenses	10457	0
<b>TOTAL</b>	<b>766980</b>	<b>690913</b>

**SCHEDULE 19 – REPAIRS & MAINTENANCE**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a)Building:	3273139	1460473
b) Furniture & Fixture	0	143048
c) Plant & machinery	15000	1140112
d) Office Equipments	32459	252727
e) Cleaning material & services	0	0
f)Others (Campus, water supply system, play field, electrical installation)	3231309	7468280
<b>TOTAL</b>	<b>6551907</b>	<b>10464640</b>

**SCHEDULE 20 – FINANCE COSTS**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Interest on fixed loans	0.00	0.00
b) Interest on other loans	0.00	0.00
c) Bank charges	13709.00	7013.00
d) Others (specify)	0.00	0.00
<b>TOTAL</b>	<b>13709.00</b>	<b>7013.00</b>

**SCHEDULE 21 – OTHER EXPENSES**

	<b>CURRENT YEAR</b>	<b>PREVIOUS YEAR</b>
a) Provision for Bad and Doubtful Debts/Advances	0.00	0.00
b) Irrecoverable Balances Written-off	0.00	0.00
c) Others (Prior period expense)	0.00	9932741.00
TOTAL	0.00	9932741.00

# **NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**

## **SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31<sup>st</sup> MARCH 2014**

### **SCHEDULE-22 SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS**

#### 1. System of Accounting:

All Income and Expenditure are accounted on accrual basis.

#### 2. Valuation of Assets & Liabilities:

Assets and Liabilities are recorded at historical cost to the Institution and capitalized at cost inclusive of freight and installation charges. Physical verification of the assets for the year 2013-2014 is yet to be completed.

#### 3. Income from Institute Fees:

Institute fees are payable at the commencement of every semester (6 months duration) and taken as income for the financial year in which it was due for payment by the students.

#### 4. Depreciation:

Depreciation of Fixed Assets is provided under written down value method at the rate specified in the IT Act and 50% depreciation is provided for the assets put to use/capitalized for less than 180 days.

#### 5. Retirement Benefits:

Actuarial Valuation of the retirement benefit has not been done. However, liability towards gratuity has been estimated and provision created for the same. Even though liability for Earned Leave Surrender has not been estimated accurately, a token provision of Rs26.58 Lakh has been created for liability towards Earned leave Surrender.

6. Income Tax: No provision for Income tax has been made, as the institute is an academic non-profit autonomous body.

7. Grants in Aid- both plan and Non-plan are taken on accrual basis wherever specific confirmation and sanction has been received.

8. Total area of 115.129 Hectors of land was acquired by the State Government in 1962 and handed over free of cost to erstwhile REC. Out of this , valuation of 3.76 Hectors of land was made by the Revenue Authorities in 2005 at Rs.1,22,74,174 which was exhibited under Reserves and Surplus in the Balance Sheet till 2010-2011; However this amount has since been removed from Reserves and Surplus as per the suggestion of AG Auditors and the actual cost incurred (ie, Rs 7.69 Lakh) at the time acquisition of land in 1962 is exhibited under Reserves and Surplus in the Accounts for the current year.
9. TEQIP assets are not exhibited in the Schedule 7 along with Institute's assets as a formal sanction for transferring. TEQIP assets to the Institute is yet to be received from the authorities.
10. Growth Fund has been created mainly by transferring 50 percent of the Tuition fee of NRI/DASA students every year.
11. Tuition Fee collected from NRI students at the time of joining is made in foreign currency.
12. Contingent Liabilities in respect of
  - (i) Bank Guarantee given by in favour of KSEB at the end of the year amounted To Rs. 14.62 Lakh.
13. Capital Commitments- Estimated value of contracts remaining to be executed on capital account and not provided for as at the end of the year amounted to Rs212.49 Lakh.
14. CIF Value of imports of equipments for the current year amounted to Rs.48.61 Lakh.
15. Previous years figures have been regrouped wherever necessary to match with current year's presentation.
16. Schedules 1 to 21 are annexed and form an integral part of Balance Sheet as at 31<sup>st</sup> March 2014 and the Income and Expenditure Account for the year ended on that date.
17. With effect from the date 13 September 2013 HDFC Bank has been instructed to close the account operated by NITC with HDFC for collection of fees.

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**  
**Cash flow statement for the year ended 31.03.2014**

<b>Cash flow from operating activities:</b>	<b>Amount(Rs.)</b>
Surplus/(deficit) for the year	174138728.00
Adjustments for the non-operating incomes/expenses	
Depreciation	95377747.00
Write offs	12516298.00
Interest expenses on loans	0.00
(Interest Income)	-3911104.00
(Dividend Income)	0.00
(Grants relating to assets to the extent recognised as income in the Income & Expenditure Account)	0.00
<b>Surplus /(deficit) before changes in the Current</b>	<b>278121669.00</b>
<b>Assets/Current Liabilities</b>	
(Increase)/Decrease in Current Assets	-92979679.00
Increase/(Decrease) in Current Liabilities	61056902.00
<b><i>Net Cash from Operating Activities</i></b>	<b>246198892.00</b>
<b>Cash Flow from Investing Activities:</b>	
(Purchase)/Sale of fixed assets	-182479452.00
(Purchase)/Sale of investments	0.00
Interest received	3911104.00
Dividend received	0.00
<b><i>Net Cash from Investing Activities</i></b>	<b>-178568348.00</b>

<b>Cash Flow from Financing Activities:</b>	
Additions to general fund during the year	162145160.00
Grants/funds in nature of founders'/promoters'	
Contribution	
Grants/funds related to assets not requiring fulfillment of any obligation	156319636.00
Endowment fund (principal sum)	
Proceeds from long term borrowings	
(Repayment of long-term borrowings)	
Interest paid on loans xx	
<b><i>Net Cash Flow From Financing Activities</i></b>	<b>318464796.00</b>
<b>Net Increase /Decrease in Cash equivalents</b>	386095340.00
<b>Cash and Cash equivalent at the beginning of the period</b>	1811964801.00
<b>Cash and Cash equivalent at the end of the period</b>	<b>2198060141.00</b>

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT  
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR 2013-2014**

<b>RECEIPTS</b>	<b>Sch</b>	<b>Current Year(Rs)</b>	<b>Previous Year(Rs)</b>	<b>PAYMENTS</b>	<b>Sch</b>	<b>Current Year (Rs)</b>	<b>Previous Year (Rs)</b>
<b>Opening Balance</b>				Plan Payments for fixed assets		18,24,79,452.00	25,96,23,439.00
Cash in hand		3,52,446	70,797	Project Payments		3,01,92,157.00	1,77,00,719.00
Cash in Bank		46,41,18,911	31,39,03,902	GPF Payments		3,20,35,956.00	2,73,39,874.00
Fixed Deposit		1,34,39,94,367	70,60,51,951	CPF Payments		1,70,76,328.00	1,41,36,214.00
Treasury		34,99,077	31,12,577	TEQIP Payments		1,94,22,042.00	20,37,809.00
<b>GRANTS RECEIVED</b>				Student Fund Payments		77,88,061.00	69,88,556.00
Plan Annual	R-1		59,49,99,000.00	TBI Payments		80,53,002.00	92,10,774.00
Plan OSC		13,75,00,000.00		Growth Fund Payments		14,65,320.00	29,94,007.00
Non Plan- Recurring	R-1	61,20,00,000.00	48,00,00,000.00	Refundable Moneys Payments		9,02,51,057.00	9,17,30,866.00
Non plan - Recurring OSC			0	FBS Payments		30,890.00	43,893.00
Apprentice Trng Grant		3,68,923.00	4,94,286.00	HWD Payments			80,149.00
QIP poly Grant		-	-	Payment from a/c no.IV		150.00	
QIP General Grant		-	-	Establishment Expenses (excluding provision)	R-2	49,03,07,024.00	43,86,67,599.00
Students Funds receipts		80,39,754.00	83,01,417.00	Other Admin. Expenses (excluding provision)	R-3	20,22,62,732.00	18,93,56,830.00
Project Fund receipts		2,83,93,214.00	3,39,05,336.00	Loans and Advances		3,18,54,624.00	36,06,483.00
TEQIP Receipts		5,12,25,888.00	14,63,933.00	Other payments		36,97,170.00	1,00,50,421.00
CPF Receipts		1,82,66,435.00	1,98,10,230.00	security dep with kseb			



GPF Receipts	5,08,90,796.00	4,09,31,252.00	<b>Closing Balance</b>			
Growth Fund Receipts	12,75,28,360.00	11,85,28,141.00	Cash in hand		2,19,343.00	3,52,446.00
Refundable Moneys Receipts	11,05,91,701.00	15,61,36,941.00	Cash in Bank		84,02,35,188.00	46,41,18,911.00
HWD Receipts		4,66,649.00	Fixed Deposit		1,35,41,06,533.00	1,34,39,94,367.00
FBS Receipts	3,470.00	7,029.00	Treasury		34,99,077.00	34,99,077.00
TBI Receipts	1,27,07,384.00	83,97,258.00				
Tution fee and other fee	23,55,45,600.00	18,80,05,845.00				
Interest earned Plan	2,46,45,160.00	1,72,89,100.00				
Refund a/c No.IV	12,173.00	75,785.00				
Interest earned Non-Plan	39,11,104.00	90,95,353.00				
Other Receipts / Income	2,57,34,416.00	2,40,89,417.00				
Prior Period Income	70,42,486.00	2,68,487.00				
Miscellaneous receipt	4,86,04,441.00	16,01,27,748.00				
<b>TOTAL</b>	<b>3,31,49,76,106.00</b>	<b>2,88,55,32,434</b>			<b>3,31,49,76,106.00</b>	<b>2,88,55,32,434</b>

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**  
**SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2013-2014**  
**SCHEDULE R - 1 GRANTS RECEIVED**

<b>Plan</b>		<b>Non Plan</b>	
<b>Date</b>	<b>Amount</b>	<b>Date</b>	<b>Amount</b>
04.07.2013(I <sup>st</sup> instl)	1,375.00	26.07.2013(I <sup>st</sup> instl)	1,620.00
		15.11.2013(II <sup>nd</sup> instl)	2,000.00
		19.02.2014(III <sup>rd</sup> instl)	2,500.00
		IV <sup>th</sup> instl receivable Rs.9 crore	-
<b>Total</b>	<b>1,375.00</b>		<b>6,120.00</b>

**NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**  
**SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2013-**  
**2014**

**SCHEDULE R - 2 ESTABLISHMENT EXPENSES**

	<b>Current Year(Rs)</b>	<b>Previous Year(Rs)</b>
1. Pension, Leave Salary	114384990.00	153714581.00
2. Salary of Establishment	118475464.00	98494711.00
3. - do - Senior Administrative Staff	9643113.00	9803158.00
4. - do -Teaching Staff UG , MBA	265636681.0	232010680.0
5. - do - Teaching Staff PG		0.0
<b>Total</b>	<b>508140248.0</b>	<b>49,40,23,130</b>
less : provisions created	57627363.00	113318139.00
add: provisions written off	39794139.00	57962608.00
<b>Grand Total</b>	<b>490307024.00</b>	<b>438667599.00</b>

**SCHEDULE R - 3 ADMININISTRATIVE EXPENSES**

	<b>Current Year(Rs)</b>	<b>Previous Year(Rs)</b>
1. Department Operating Cost	1,06,94,657.00	1,48,21,764.00
2. Repairs & Maintenance Expenses	65,51,907.00	1,04,64,640.00
3. Academic Expenses	2,22,02,502.00	1,64,25,130.00
4. PG – Stipend	9,89,82,985.00	9,00,33,130.00
5. Other Expenses	5,85,13,755.00	5,14,50,417.00
<b>Total</b>	<b>19,69,45,806.00</b>	<b>18,31,95,081</b>
less : provisions created	17167003.00	22483929.00
add: provisions written off	22483929.00	28645678.00
<b>Grand Total</b>	<b>202262732.00</b>	<b>189356830.00</b>

