ANNUAL REPORT

&

ANNUAL ACCOUNTS

2017 - 2018



National Institute of Technology Calicut Kerala, India www.nitc.ac.in

National Institute of Technology Calicut

NIT Campus P. O., Calicut – 673601

Kerala, India

Phone: +91 495 2286101

Fax: +91 495 2287250

www.nitc.ac.in

ANNUAL REPORT 2017-2018

CONTENTS

ANNUAL REPORT 2017 - 18

	Description	Page
1.0	INTRODUCTION	4
1.1	Mission statement	4
1.2	Vision	4
1.3	Education system	4
1.4	New initiatives	4
2.0	AN OVERVIEW	4
2.1	Historical background	4
2.2	Location	4
2.3	Campus	4
2.4	Administration	5
2.5	Academic programmes	5
2.6	Programmes Offered	5
2.7	Admission procedure	6
2.8	Students	7
2.9	Examination & Evaluation	7
2.10	Placement	7
2.11	Games and Sports	8
2.12	Staff position	9
2.13	Notable Achievements	9
3.0	THE STAFF	12
3.1	Academic Staff (Teaching)	12
3.2	Non-Academic Staff (Non-Teaching Staff)	23
3.3.	Training status	31
3.4	Placement of Staff for academic excellence	36
4.0	TEACHING PROGRAMMES	36
4.1	Programmes Offered	36

	Description	Page
4.2	Courses-wise enrolment with sex, caste break-up	39
4.3	Admission Statistics-UG/PG Programmes, Courses-wise	40
4.4	Student Intake	43
4.5	The Hostels	46
4.6	Scholarships/Assistantships	47
4.7	Games and Sports	47
4.8	Awards	47
4.9	Examination details	49
4.10	Technology Business Incubator (TBI)	51
4.11	Technical Education Quality Improvement Programme (TEQIP)	52
5.0	RESEARCH AND DEVELOPMENT ACTIVITIES	52
5.1	Ph.D Programmes-Existing and Proposed	52
5.2	Proposed plan for Research	90
5.3	Institute–Industry Collaboration	95
6.0	THE COUNCIL, BOG, AND OTHER COMMITTEES	99
6.1	Institute's Council	99
6.2	Board of Governors	100
6.3	Finance Committee	100
6.4	Building and Works committee	100
7.0	CONCESSION FOR SC, ST AND HANDICAPPED STUDENTS	100
7.1	Concessions provided for Students	100
7.2	Concessions provided for Staff	101
8.0	Financial Status	101
8.1	Analysis of Plan and Non-Plan grants	101
8.2	Expenditure Position for last three years	101
9.0	CENTRAL FACILITIES AND SERVICES	101

	Description	Page
9.1	Computing and IT services	101
9.2	Workshop	102
9.3	Educational Technology and Library	104
9.4	Laboratories	107
9.5	Hospital, Post office, Shopping centre	110
9.6	Physical facilities (Games and Sports)	111
9.7	Other facilities	112
10.0	NOTABLE ACHIEVEMENTS	116
10.1	Past achievements	116
10.2	Achievements that took place during the year	123
11.0	ANNEXURES	246
11.1	Institute's Senate	246
11.2	Board of Governors	247
11.3	Finance, Building and Works and other Committees	248
11.4	Research projects and Consultation jobs	248
11.5	Faculty Position	254
11.6	Administrative and other Staff	255
11.7	Staff Members deputed/Sponsored for Training, Learning	258
11.8	Scholarships and Awards	258
11.9	The Parent Teacher Association	259
11.10	National Service Scheme	259
11.11	Training & Placement statistics	262

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 manpower, Institute is not keeping any fixed number of the Ph.D. scholarships but proactively encourage the enrollment. All undergraduate and postgraduate programmes have been designed in line with the IIT System, giving appropriate weightages for the theory and practice.

1.4 NEW INITIATIVES

From 2002 admissions onwards, the curriculum & syllabi of the various 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 26th June 2002, is one of the 31 similar institutions in the country. It is fully funded by the Government of India. It is an Institute of National Importance under NIT Act 2007. This Institute mentored NIT Sikkim, which is one among the 10 new NITs added in the year 2010.

2.2 LOCATION

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

2.3 CAMPUS

The institute campus has all the essential amenities required. The library, computer centre and laboratories of the institute are well equipped. 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 mega hostel with 500 rooms are available for girls. One International hostel with twenty semi-furnished rooms is also available. The institute has a good number of staff quarters and a guest house with 20 rooms.

2.4 ADMINISTRATION

2.4.1 GOVERNANCE

Institute is governed by the NIT Act 2007 and the statutes. Board of Governors and the Senate are the authority of the Institute. Hon'ble President of India is the Visitor of the Institute. Chairperson of the Board of Governors is nominated by the Visitor.

2.4.2 Institute follows 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. Six Deans spearhead the consultative mechanism that assists the Director in administration and management. The academic units of Departments and Schools are headed by faculty and the administrative sections are headed by officers of appropriate rank.

2.5 ACADEMIC PROGRAMME

The Institute imparts technical education at the degree and postgraduate levels viz., (1) Undergraduate (UG) programme of four years duration leading to B.Tech Degree, (2) UG programme of five years duration leading to B.Arch. degree, (3) Postgraduate (PG) programme of two years duration leading to M.Tech degree, (4) PG programme of two years duration leading to M.Sc degree (5) a programme of three years duration leading to the Master of Computer Applications (MCA) degree and (6) 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	Programme Code
		Structural Engineering	CE61
		Traffic and Transportation Planning	CE62
Civil Engineering	CE	Offshore Structures	CE63
		Environmental Geotechnology	CE64
		Water Resources Engineering	CE65
Commutan Saionaa P		Computer Science and Engineering	CS61
Computer Science & Engineering	CS	Computer Science & Engineering (Information Security)	CS62
		Instrumentation and Control Systems	EE61
D1 1D		Power Systems	EE62
Electrical Engineering	EE	Power Electronics	EE63
		Industrial Power and Automation	EE64
		High Voltage Engineering	EE65

Electronics and		Electronics Design and Technology	EC61
Communication	EC	Microelectronics and VLSI Design	EC62
Engineering	20	Telecommunication	EC63
		Signal Processing	EC64
		Industrial Engineering and Management	ME61
	ME	Thermal Sciences	ME62
Mechanical		Manufacturing Technology	ME63
Engineering		Energy Engineering and Management	ME64
		Material Science and Technology	ME65
		Machine Design	ME66
Nano Science and Technology NST		Nanotechnology	NS61
Chemical Engineering	СН	Chemical Engineering	CH61

(d) Master of Science

M.Sc. programmes are offered in the following disciplines:

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

(f) Master of Computer Applications (MCA)

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

(g) Master of Business Administration (MBA)

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 & Khandvi (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 Government of India (GoI).
- * Joint Entrance Examination (Main), conducted by the Central Board of Secondary Education (CBSE), New Delhi.
- Nominated by the Ministry of External Affairs (Students Cell), GoI, through Indian Council for Cultural Relations (ICCR).
- # Nominated by the Ministry of External Affairs, GoI

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 of M.Sc and MBA without fellowship is based on Institute's Criteria

Ph. D. Programmes

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

2.8 STUDENTS

The Students' Affairs Council (SAC) 2017-18 was elected and constituted with 64 branch councilors and 12 executive council members. The annual techno-management festival Tathva '17 was successfully conducted in October 2017. The event witnessed an all-time high registration count of 2000 external participation. "Avishkaar" was conducted as a social initiative of Tathva '17. A one day medical camp in a tribal school in Wayanad was conducted in association with Calicut Medical College and various other technical projects including those for hearing aids were implemented. The annual cultural festival RAGAM 2018 was organized in March 2018. 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 event marked an all-time record in terms of registration with above 2000 external participation.

2.9 EXAMINATION & EVALUATION

All academic programmes of the Institute follow the credit-semester system. Minimum credits to be earned for the award of various degrees are specified in the respective curricula. The modalities for continuous evaluation of various courses being offered by the departments/schools 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 2017-18, 134 companies visited the campus for recruitment. 134 firms made a total of 698 offers. The details are shown in Annexure I.

B. Tech Programme: 455 out of 619 eligible B.Tech students (73.5%) got placed. 16 students got more than one offer. The details are shown in Annexure I. The highest salary (CTC) offered for B. Tech is 40 lakhs per annum by Adobe. Computer Science got 100% placement with an average salary of 12.5L.The institute average salary is 8.5L.

	2017-18	Total	Placed	Max	Min	Avg
		Students		Salary per	salary per	salary
				annum (in	annum (in	per
				Lakhs)	Lakhs)	annum
						(in
						Lakhs)
	Bio Technology	19	2	6	5.5	5.5
	Chemical Engineering	58	32	17	4.5	6.5
	Civil Engineering	92	48	17	3.5	6.4
	Computer Science &	108	108	40	4.5	12.5
B.Tech	Engineering					
	Electronics & Communication	93	86	22	5	8.85
	Engg					
	Electrical & Electronics	105	77	17	4	7.56
	Engineering					
	Engineering Physics	12	3	6	5.5	6
	Mechanical Engineering	104	81	17	3.5	6.4
	Production Engg	28	18	7	3.5	5.8

Additional information:

30L above	5 students
25L and above	6 students
20L and above	21 students
15L and above	55 students
10L and above	140 students
8L and above	178 students
6L and above	350 students
5L and above	422 students

B. Arch Programme: Since the students were doing projects outside the campus, most of the students could not attend the campus placement; however 2 out of 5 who registered got placement through Training & Placement Cell.

M. Tech Programme: Out of the 275 M.Tech students registered with T&P, 78 students got placed. Overall 28.3% got placed.

MCA Programme: Out of the 22 students registered with T&P, all 22 got placed leading to 100% placement.

MBA Programme: Out of 36 students 18 students got placed, leading to 50% placements.

Internship offers: This year the institute received 99 paid internships, covering 59 for B Tech, 34 for M Tech and 6 for MBA.

2.11 GAMES AND SPORTS

PHYSICAL EDUCATION OBJECTIVES

Unlike the REC days, where physical education and sports was a voluntary activity and optional in the curriculum, the NIT scenario has physical education as a compulsory entity in the curriculum. The OT programme included in the time table comprise of classroom orientation of freshers and a one-credit course in physical education (Code: ZZ1093). Mass participation and interclass activities run

simultaneously aiding in talent search, formation of institute teams, providing them specialist training by professional coaches and exposing them in as many interscholastic tournaments as possible. Olympic values programme stress on character development through sports & event-managerial abilities. Tae Kwon - do equiped girl students with courage and skill to defend themselves and fight in justice.

2.12 STAFF POSITION

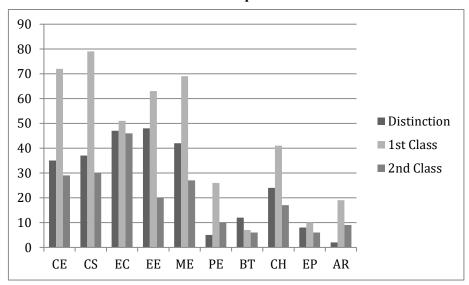
Teaching Staff

The sanctioned strength of teaching staff is 483. The department wise break-up of the sanctioned and in position strength of faculty is given below.

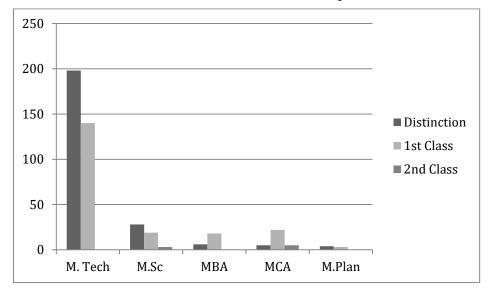
Department/School	Sanctioned	In position as on 31.03.2018
Architecture & Planning	23	7
Chemical Engineering	27	8
Civil Engineering	64	24
Computer Science & Engineering	58	20
Electrical Engineering	62	23
Electronics & Communication Engineering	60	23
Mechanical Engineering	81	30
Mathematics	25	15
Physics, Chemistry and Humanities	42	14
Training & Placement & Physical Education	3	3
Biotechnology	16	6
Management Studies	16	3
Nanoscience & Technology	6	6
Total	483	182

2.13 NOTABLE ACHIEVEMENTS (using Graphs, Charts, Diagrams)

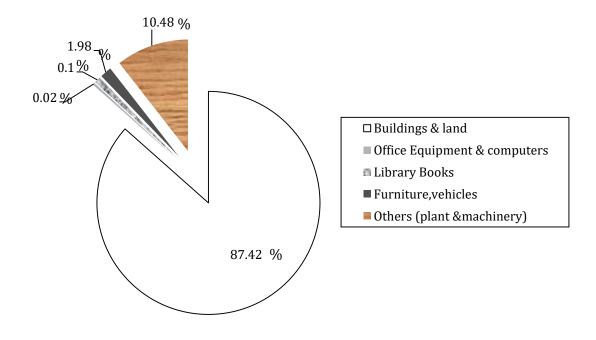
(i) Details of B. Tech & B. Arch students passed out in 2017-2018



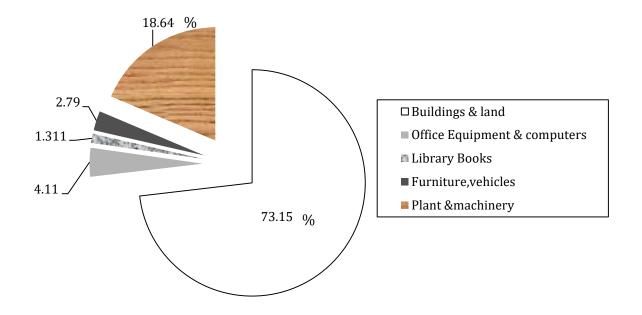
(ii) Details of M.Tech, M. Sc, MBA, MCA & M. Plan Students passed out in 2017-2018



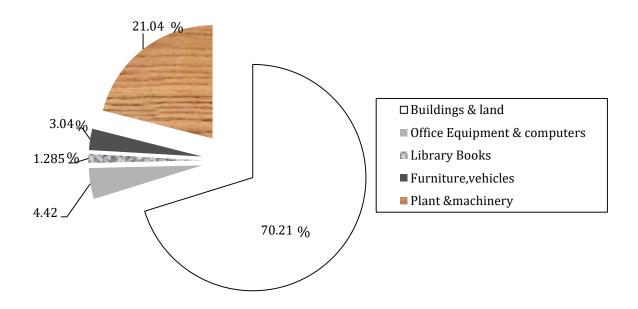
(iii) Details of Assets as on 31.03.2015



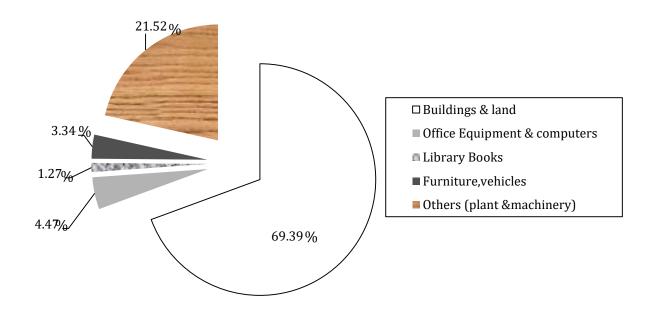
(iv) Details of Assets as on 31.03.2016



(v) Details of Assets as on 31.03.2017



(vi) Details of Assets as on 31.03.2018



3.0. THE STAFF

DIRECTOR: Dr. Sivaji Chakravorti

REGISTRAR: Lt. Col. Pankajakshan K (Retd)

DEANS

Dr. P.S. Sathidevi : Academic

Dr. M.V.L.R. Anjaneyulu : Planning & Development Dr. Ashok S : Research & Consultancy

Dr. T.M. Madhavan Pillai : Faculty Welfare Dr. G Unnikrishnan : Students Welfare

Dr. C.B. Sobhan : Alumni Affairs & International Relations.

ASSOCIATE DEANS

Dr. Harikrishna M : Academic Dr. Subhasri M : Academic

Dr. V Sajith : Planning & Development Dr. K Krishnamurthy : Planning & Development Dr. A Sujith : Research & Consultancy

Dr. Satyananda Panda : Faculty Welfare Dr. C Mohammed Firoz : Students Welfare

3.1 ACADEMIC STAFF (Teaching)

DEPARTMENT OF ARCHITECTURE & PLANNING

	Sl. Qualificatio Specialization					
No	Name	Designation	n	Specialization		
1.	Dr. Kasthurba A.K	Professor & Head	B.Arch, M.Tech, Ph.D	Building Technology, Architectural Conservation		
2.	Dr. P.P Anil Kumar.	Professor	B.Tech, MCP, Ph.D	Architectural Engg., City Planning		
3.	Dr. Naseer M.A	Associate Professor	B.Tech, MCP, Ph.D	Architectural Engg., City Planning		
4.	Mr. Mohammed Firoz C	Assistant Professor	B.Arch, MURP, Ph. D	Architecture, Urban and Regional Planning		
5.	Ms.Chithra .K	Assistant Professor	B.Arch, M Planning, Ph.D	Architecture, Town Planning		
6.	Dr.Shiny .K	Assistant Professor	B.Tech, M Planning	Architectural Engg. Housing		
7.	Mr. Bimal P	Assistant Professor	B.Arch, MCP	Architecture, City Planning		
8.	Dr.Deepthi Bendi	Assistant Professor	B.Arch M.Arch	Construction Management		
9.	Dr.Anjana Bagyanathan	Assistant Professor	B.Arch M.Arch,Ph. D	Landscape Architecture		

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No.	Name	Designation	Qualificatio n	Specialization
1	Dr. V. Siva Subramaninan	HOD & Associate Professor	M.Tech, MBA, PhD	M.Tech: Petroleum Refining & Petrochemicals MBA: Operations Management PhD: Fluidization Engineering
2	Dr. Shiny Joseph	Associate Professor	Ph.D	Mass transfer and Hydrodynamics
3	Dr. Lity Alen Varghese	Associate Professor	Ph.D	Polymer Technology
4	Dr. Aparna. K	Assistant Professor	Ph.D	Heat Transfer
5	Dr.Malladi V Pavan Kumar	Assistant Professor	Ph.D	Process control
7	Dr. S. Bhuvaneshwari	Assistant Professor	Ph.D	Bio separation Technology
8	Dr. Vineesh Ravi	Assistant Professor	M.Tech.,(Ph. D)	Fuel cell
9	Dr. K. Haribabu	Assistant Professor	M.E., PhD	Energy and Enviornment

DEPARTMENT OF CIVIL ENGINEERING

	EPARTMENT OF CIVIL ENGINEERING					
Sl. No.	Name	Designation	Qualificati on	Specialisation		
1	Dr. M.V.L.R. Anjaneyulu	Professor	M.Tech,Ph. D,	Transportation Engg.		
2	Dr. S.Chandrakaran	Professor	M.E,Ph.D	Geotechnical Engg		
3	Dr. N.Ganesan	Professor	M.E,Ph.D	Structural Engg.		
4	Dr. P.V.Indira	Professor	M.Tech,Ph.	Structural Engg.		
5	Dr. T.M.Madhavan Pillai	Professor	M.Tech,Ph.	Structural Engg.		
6	Dr. Mohammed Ameen	Professor	M.E,Ph.D	Structural Engg.		
7	Dr. V.Mustafa (Retired on 30/11/17)	Professor	M.Tech,Ph.	Structural Engg.		
8	Dr. N.Sankar	Professor	M.Tech,Ph.	Geotechnical Engg		
9	Dr. Santosh.G. Thampi	Professor	M.Tech,Ph.	Hydraulics		
10	Dr. A.P.Shashikala	Professor	M.Sc (Engg), Ph.D	Structural Engg.		
11	Dr. T.P.Somasundaran (30/06/17)	Professor	M.Tech,Ph.	Structural Engg		
12	Dr. J.Sudhakumar (Head)	Professor	M.Tech,Ph.	Building Technology		
13	Dr. T.Zachariah Varghese (Retired on 31/10/17)	Professor	M.E,Ph.D	Structural Engg.		
14	Dr. K. Krishnamurthy	Associate Professor	M.E,Ph.D	Transportation Engg.		
15	Dr. Praveen Nagarajan	Associate Professor	M.Tech,Ph.	Structural Engg.		
16	Sri K.Saseendran	Associate Professor	B.Sc. (Geo.), M.Tech.	Geology		
17	Dr. K Sasikumar	Associate Professor	M.Tech,Ph.	Water Resources Engg.		
18	Dr. Chitra N R	Assistant Professor	M.Tech,Ph.	Hydraulics & Water Resources Engg		
19	Dr. George K Varghese	Assistant Professor	M.Tech,Ph.	Environment Engg.		
20	Dr. Harikrishna M	Assistant Professor	M.Tech,Ph.	Transportation Engg.		
21	Dr. Kodi Ranga Swamy	Assistant Professor	M.Tech,Ph.	Geotechnical Engg		
22	Dr. Mini Remanan	Assistant Professor	M.Tech,Ph.	Structural Engg.		
23	Dr. Pramada S K	Assistant Professor	M.Tech,Ph.	Water Resources Engg		
24	Ms. Reesha Bharath K	Assistant Professor	M.Tech	Construction Technology		

25	Dr. Sajith A S	Assistant Professor	M.Tech,Ph.	Structural Engg.
26	Dr. Sathish Kumar D	Assistant Professor	M.Tech,Ph.	Remote Sensing & GIS
27	Sri. Siva Kumar M	Assistant Professor	M.E	Transportation Engg.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl. No.	Name	Designation	Qualification	Specialisation
1	Dr. Vineeth Kumar Paleri	Professor	Ph. D	Programming Languages & Compilers.
2	Dr. Priya Chandran	Professor	Ph. D	Computer Architecture, Algorithms
3	Dr. S.D Madhu Kumar	Associate Professor	Ph. D	Cloud Computing, Big Data Analytics, DBMS, Software Engineering
4	Dr. Abdul Nazeer K A	Associate Professor	Ph. D	Database Systems, Bioinformatics
5	Dr. Murali Krishnan K	Associate Professor	Ph. D	Algorithms and Complexity, Coding Theory
6	Dr. Vinod P	Associate Professor	Ph. D	Information Security Management
7	Dr. Saidalavi Kalady	Associate Professor and Head	Ph.D	Computational Intelligence, Data Mining, Operating Systems
8	Dr. Saleena N	Assistant Professor	Ph. D	Program Analysis, Compilers
9	Ms. Subhasree M	Assistant Professor	Ph.D	Computational Geometry
10	Dr. Subashini R	Assistant Professor	Ph. D	Design and analysis of Algorithms
11	Mr. Sumesh T A	Assistant Professor	M. Tech.	Computer Networks, Computer Vision
12	Mr. Sreenivasa T M	Assistant Professor	M. Tech.	DNA Computing
13	Mr. Sreenu Naik Bhukya	Assistant Professor	M. Tech	Computer Networks, WSNS
14	Dr. Lijiya A	Assistant Professor	Ph. D	Image Processing, Pattern Recognition
15	Dr. Jimmy Jose	Assistant Professor	Ph. D	Cryptography and Security
16	Ms. Anu Mary Chacko	Assistant Professor	Ph.D	Computer Security
17	Ms. Pournami P.N.	Assistant Professor	M. Tech.	Image Processing, Computer vision, Pattern recognition
18	Dr. Jayaraj P B	Assistant Professor	Ph. D	High Performance Computing, Parallel computing
19	Dr. Sudeep K.S	Assistant Professor	Ph. D	Algorithms, Graph Theory
20	Dr. Gopakumar G	Assistant Professor	Ph. D	Bioinformatics, Data Mining

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Name	Designation	Qualification	Specialization
1	Dr. Abraham T Mathew	Professor	Ph.D.	Instrumentation & Control
2	Dr. Ashok S	Professor & Head	Ph.D.	Power & Energy Systems
3	Dr. Jeevamma Jacob	Professor	Ph.D.	Control Systems
4	Mr. K.S.Suresh Kumar	Associate Professor	M.Tech	Power Electronics
5	Dr. Paul Joseph K.	Professor	Ph.D.	Biomedical Instrumentation
6	Dr. Saly George	Professor	Ph.D.	Power Electronics
8	Dr. K S Sivanandan	Professor	Ph.D.	Instrumentation & Control
9	Dr. Susy Thomas	Professor	Ph.D.	Control Systems
10	Mr. P. Ananthakrishnan	Associate Professor	M.Tech.	Power Electronics & Drives
11	Dr. Elizabeth P. Cheriyan	Associate Professor	Ph.D.	Power Systems
12	Dr. Preetha. P.	Associate Professor	Ph.D.	High Voltage Engg.
13	Dr. Rijil Ramchand	Associate Professor	Ph.D.	Power Electronics
14	Ms. Hema Rani.P	Assistant Professor	M.Tech	Power Electronics
15	Dr. Jagadanand G	Assistant Professor	Ph.D.	Signal Processing
16	Dr. Kumaravel S	Assistant Professor	Ph.D.	Power Systems
17	Dr. Mija S J	Assistant Professor	Ph.D	Control Systems
18	Dr. Mukti Barai	Assistant Professor	Ph.D.	Power Electronics
19	Dr. Sindhu T K	Assistant Professor	Ph.D.	Power Systems & High Voltage Engg.
20	Dr. Subha. D.P	Assistant Professor	Ph.D	Biomedical Engineering
21	Mr. Subhash K.M.	Assistant Professor	M.Tech	Instrumentation & Control
22	Dr. T K Sunil Kumar	Assistant Professor	Ph.D.	Power Systems
23	Dr. Sunitha K	Assistant Professor	Ph.D.	High Voltage Engg.
24	Dr. Sunitha. R	Assistant Professor	Ph.D	Power Systems

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl · N o.	Name	Designation	Qualificatio n	Specialization/Areas of Interest
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. C. K. Ali	Professor	Ph. D.	Digital Communication Systems
6	Dr. Sameer S. M.	Professor and Head	Ph. D.	Wireless Communication- Systems and Networks

7	Dr. A. V. Babu	Professor	Ph. D.	Wireless Networks
8	Dr. Deepthi P. P.	Professor	Ph. D.	Communication, Signal Processing, Cryptography
9	Dr. G. Abhilash	Associate Professor	Ph. D.	Signal Theory (Mathematical Structures of Signals and Systems), Compressed Sensing and Sparse Signal Processing, Machine Learning for Signal Processing
10	Ms. LylaB.Das	Associate Professor	M. Tech.	Embedded systems
11	Mr. R. Suresh	Associate Professor	M. Tech.	Signal Processing and Communication
12	Mr. Jaikumar M.G.	Associate Professor	M. Tech.	Microelectronics
13	Dr. Sreelekha G.	Associate Professor	Ph. D.	Image and Video Processing
14	Dr.Praveen Sankaran	Assistant Professor	Ph. D.	Image Processing, Pattern Classification, Statistical Pattern Analysis, Biometrics
15	Dr. Dhanaraj K. J.	Assistant Professor	Ph. D.	Analog IC Design and power management, VLSI Architectures for Signal Processing Systems
16	Dr. Sudhish N. George	Assistant Professor	Ph. D.	Sparse Signal Processing, Computer Vision, Multimedia Encryption
17	Mr. V. Sakthivel	Assistant Professor	M. Tech.	Advanced Communication Systems, Digital Signal Processing
18	Mr. Bhuvan B.	Assistant Professor	M. Tech.	Solid state imaging, Integrated circuit design
19	Mr. Raghu C. V.	Assistant Professor	M. Tech.	Electronic System Design
20	Dr. Suja K. J.	Assistant Professor	Ph. D.	Opto-Electronics, MEMS
21	Dr. Bindiya T S	Assistant Professor	Ph. D.	VLSI Design, Multirate Signal Processing
22	Dr. Ameer P. M.	Assistant Professor	Ph. D.	Telecommunication, Wireless Networking
23	Dr. Jayakumar E. P.	Assistant Professor	Ph.D.	Speech and Audio Processing, Digital IC design

DEPARTMENT OF MECHANICAL ENGINEERING

SI. No	ARTMENT OF MECHA Faculty Name	Designation	Qualificatio n	Specialization
1	Dr. Rajendra Kumar P K	Professor and Head	PhD.	Machine Design & Tribology
2	Dr. Ghulam Jilani	Professor	PhD.	Thermal Engineering
3	Dr. Jayaraj S	Professor	PhD.	Computational Fluid Dynamics
4	Dr. Jose Mathew	Professor	PhD.	Manufacturing Science
5	Dr. Joseph M A	Professor	PhD.	Production Engineering
6	Dr. Joy M L	Professor	PhD.	Machine Design & Tribology
7	Dr. C Muraleedharan	Professor	PhD.	Refrigeration & Air Conditioning
8	Dr. K Prabhakaran Nair	Professor	PhD.	Machine Design & Tribology
9	Dr. Ramachandran N	Professor (Retired on 31-08- 2017)	PhD.	Unconventional Machining
10	Dr. Sridharan R	Professor	PhD.	Industrial Engineering
11	Dr. Biju T. Kuzhiveli	Associate Professor	PhD.	Cryogenics
12	Dr. Madhusudanan Pillai V	Associate Professor	PhD.	Industrial Engineering
13	Dr. Manu R	Associate Professor	PhD.	Manufacturing Engineering
14	Dr. Narayanan M D	Associate Professor	PhD.	Solid Mech. & Design
15	Dr. Shaija A	Associate Professor	PhD.	CFD and Heat Transfer
16	Dr. Arun P	Assistant Professor	PhD.	Energy Engineering
17	Dr. Dhanish P B	Assistant Professor	PhD.	Production Engineering
18	Dr. Gangadhara Kiran Kumar L	Assistant Professor	PhD.	Fluids and Thermal Sciences
19	Dr. Jagadeesha T	Assistant Professor	PhD.	Manufacturing Technology

20	Dr. Jayadeep U B	Assistant Professor	PhD.	Solid Mechanics & Design
21	Sri. Manu P V	Assistant Professor	M. Tech.	Propulsion Engineering
22	Dr. Radha Ramanan T	Assistant Professor	Ph.D.	Industrial Engineering
23	Sri. Ratnakumar K	Assistant Professor	M. Tech.	Industrial Management
24	Sri. Rohini Kumar B	Assistant Professor	M. Tech.	Thermal Engineering
25	Dr. Sarvoththama Jothi T J	Assistant Professor	PhD.	Thermal and Fluids Engineering
26	Dr. Sekar K	Assistant Professor	PhD	Manufacturing Technology
27	Dr. Sudheer A P	Assistant Professor	PhD	Manufacturing Engineering / Robotics
28	Sri. Sreenath A M	Assistant Professor	M. Tech.	Machine Design
29	Dr. Srinivas M	Assistant Professor	PhD.	Energy Engineering
30	Dr. Varaprasad G	Assistant Professor	Ph.D.	Industrial Engineering & Management
31	Dr. Vinay V. Panicker	Assistant Professor	Ph.D.	Industrial Engineering

DEPARTMENT OF MATHEMATICS

Sl. No.	Name	Designation	Qualificatio n	Specialization
1	Dr. M.J. Jacob	Professor	M.Sc., Ph.D.	Stochastic Processes, Insurance Risk and Ruin
2	Dr. Jessy John C	Professor	M.Sc., Ph.D.	Time Series Modelling and Applied Statistics
3	Dr. V. Narayanan	Associate Professor	M.Sc., Ph.D.	Queuing Theory
4	Dr. Chithra. A.V.	Associa te Profess or	M.Sc., Ph.D.	Operator Theory

5	Dr. Sunil Jacob John	Associa te Profess or	M.Sc., M. Phil., Ph.D	Generalized Set Theory, Topology
6	Dr. M.S. Sunitha	Professor	M.Sc., M. Phil., Ph.D	Fuzzy Graph Theory
7	Dr. C. M. Sushama	Associa te Profess or	M.Sc., Ph.D.	Fuzzy Optimization
8	Dr. Satyananda Panda	Associa te Profess or	M.Sc., Ph.D.	Computational Fluid Dynamics, Modeling & Scientific Computing
9	Dr. Lineesh. M.C.	Asst. Professor	M.Sc., Ph.D.	Time Series Modelling and Wavelet Theory
10	Dr. Sanjay. P.K.	Asst. Professor	M.Sc., Ph.D.	Harmonic Analysis
11	Dr. Krishnan Paramasiva m	Asst. Professor	M.Sc., Ph.D.	Algebraic Graph Theory, Algorithms & Complexity
12	Dr. Sunil Mathew	Asst. Professor	M.Sc., Ph.D.	Fuzzy Graph Theory, Bio computational 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. Lisa Sreejith	Associate Professor& Head	M. Sc. M Phil, Ph.D.	Surface Chemistry
2	Dr. G. Unnikrishnan	Professor	M. Sc. Ph.D.	Polymer Science &Technology

3	Dr. Lakshmi C.	Associate Professor	M. Sc. Ph.D.	Bio-organic Chemistry
4	Dr. Sujith A	Assistant Professor	M. Sc. PhD.	Polymer Technology
5	Dr. Suni Vasudevan	Assistant Professor	M. Sc. Ph.D.	Inorganic Chemistry
6	Dr. C. Arunkumar	Assistant Professor	M. Sc. Ph.D.	Bio-inorganic Chemistry
7	Dr. Parameswaran Pattiyil	Assistant Professor	M. Sc. Ph.D.	Theoretical & Computational Chemistry

DEPARTMENT OF PHYSICS

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

CENTRE FOR TRAINING & PLACEMENT

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

PHYSICAL EDUCATION

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. A.M. Najeeb	Professor & Head		Exercise Physiology, Olympic Values Education, Sports Infrastructure Management.
2	Mr. Sunil M. S	Assistant Professor	M.P.Ed., M.Phil.	Exercise Physiology, Yoga, Football

SCHOOL OF NANO SCIENCE & TECHNOLOGY

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr.C.B. Sobhan	Professor	Ph.D.	Micro and Nanoscale heat transfer
2	Dr.N. Sandhyarani	Associate Professor & Head	Ph.D.	Nanoscience/Spectroscopy
3	Dr.Sajith V.	Assistant Professor	Ph.D.	Optical Measurements, Nanofluids, Automobile Engineering
4	Mr.Shijo Thomas	Assistant Professor	M. Tech	Nanofluids, Heat Transfer, IC Engines
5	Mr.Hanas T.	Assistant Professor	M. Tech	Materials Science, Medical materials
6	Dr.Soney Varghese	Assistant Professor	Ph.D.	Polymer/Nano Technology
7	Dr.Subramanyan Namboodiri V	Inspire Faculty	Ph.D.	Soft matter physics, optofluidics

SCHOOL OF MANAGEMENT STUDIES

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. V.Madhusudanan Pillai	Professor & Head	Ph. D.	Operation Management
2	Dr. N Sudarsan	Professor	Ph. D	Human Resources Management
3	Dr.K Muhammad Shafi	Assistant Professor	Ph. D	Finance &General Management
4	Dr. S. Sunitha	Assistant Professor	Ph. D	Economics
5	Dr. Preeti Navaneeth	Assistant Professor	Ph. D	Communication

SCHOOL OF BIOTECHNOLOGY

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. Rajanikant.G.K	Associate Professor & Head	Ph.D	Radiantion biology Neuroscience
2	Dr. Md. Anaul Kabir	Associate Professor	Ph.D	Molecular Genetics, Genetic Engineering
3	Dr. Santhiagu. A	Associate Professor	Ph.D	Bioprocess Technology, Recombinant Technology, Enzymology
4	Dr. Suchithra T.V	Assistant Professor	Ph.D	Microbiology, Enzymology, Biofuels
6	Dr. Rathinasamy K	Assistant Professor	Ph.D	Anticancer drugs, Cell Biology and Biophysics
7	Dr. Prem Raj Pushpakara	Assistant Professor	Ph.D	Biochemistry, Microbiology, Molecular biology

CENTRE FOR BIOMECHANICS

FACULTY

Dr. Mohammed Ameen, Professor of Civil Engineering

Dr. T. M. Madhavan Pillai (Head), Professor of Civil Engineering

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

Dr. G. Abhilash, Associate Professor of Electronics 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, (Retd.) Prosthetic & Orthotic Engineer, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.

3.2. NON-ACADEMIC STAFF

Sl. No.	Name	Designation	Qualification
1	Lt. Col. Pankajakshan K (Retd)	Registrar	M. Tech
2	Dr. Raghunadhan T	Deputy Registrar (Academic) 01.04.2017 to till date	Ph.D
3	Sri. K P Swaminathan	OSD (Finance) from 01.04.2017 to 27.03.2017	B.Sc
4	Sri. Bharat Singh Rawat	Deputy .Registrar (Estt) 01.04.2017 onwards to till date	MA, LLB, LLM
5	Sri.Gejo.C.V.	Deputy Registrar (Finance) 28.03.2017 to till date	B. Tech., M.Sc., Executive Post Graduate Diploma in General Management.
6	Sri. K M Muralikrishnan	OSD (Stores & Purchase) 01.04.2017 to till date (from AG"s office)	M.Sc
7	Sri. V Muraleedharan	Internal Audit Officer (on deputation) from AG's office, and Deputy Registrar(Estt) from 01.04.2017 to 20.09.2017	B Sc. SAS. RAE & CPD
8	Ashok Kumar Dev	Assistant Registrar 21.08.2017 to till date	B.Tech, M.Tech
9	Asha Gopalan	Assistant Registrar 16.08.2017 to till date	BSc , MSc, Med with Gold Medal, UGC-JRF Medal, PhD,

10	Saravanan. S	Assistant Registrar 16.08.2017 to till date	B.Sc., M.Sc.
11	Sreeda S	Assistant Registrar 18.08.2017 to till date	BA, MA
12	E K Cyril	Officer on Special duty(Audit) from AG's office 06.11.2017 to till date	B.Sc(Maths),PGDT
13	Dr. Celine A.A	Resident Medical Officer	BSc, MBBS
14	Smt. Sweety Mathew	Lib.Gr.III (Hr.Gr)	M.Sc , M.L.I.Sc , UGC(NET)
15	Smt. Sobhana J	Librarian Gr.IV (Hr. Gr)	MA, Bachelor Degree in Library & Information Science,M.L.I.Sc
16	Sri. Jayarajan.T	Librarian Gr.IV (Hr. Gr)	BA, Bachelor of Lib and Information Science, M L I Sc.
17	Smt. Latha. C	Librarian Gr.IV (Hr. Gr)	MA, B L I Sc., Master of Degree in Library and Information Science, UGC. NET
18	Sri. K P Shaju	Librarian Gr.IV	SSLC, Certificate in Llibrary Science
19	Sri. M K Chandramohan	Graphic Artist (Hr. Gr)	Bachelor of Fine Arts in Applied Arts (BFA)
20	Sri. K Jayaraman	Offset Machine Operator (Hr. Gr)	SSLC, Diploma in Printing and Technology, Netison fundamentals and advanced
21	Sri. P Abraham	Pharmacist	SSLC, Diploma Course in Pharmacy
22	Smt. Stella V C	Fair Copy Superintendent.	SSLC, Typewriting English & Malayalam (Lower & Higher), Short hand English (Lower)
23	Smt. Veluthakki C	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher, Short hand English Lower
24	Sri. Narayanankutty. P	U.D Steward	SSLC
25	Sri. Anwar Sadath. C	L.D Steward	PDC, Restaurant Counter Service, Typewriting English

			(lw)
26	Smt. C.P Rugmini	Sr.Supdt.	SSLC Typewriting Eng.(H)
27	Sri. M. Reejish Kumar	Jr. Supdt	SSLC
28	Sri. P. Muraleedharan	Jr.Supdt	SSLC,BA
29	Smt. K.Mini	Js.Supdt	SSLC
30	Smt. P. Prama	U D Clerk	SSLC
31	Sri. S.M Shafi	U D Clerk	SSLC
32	Sri. P. Praveen Kumar	U D Clerk	BA
33	Sri. Petson Andrew	U D Clerk	BBA,MBA, Master of journalism & Mass communication
34	Sri. N. Sukumaran Nair	U D Clerk	BA,
35	Sri. Prasad .M.V	DA	BA, PGDCA(Software)
36	Sri. Sasikumar K.T	U D Clerk	PDC
37	Sri. K. Unnikrishnan	U D Clerk	BA, Typewriting English Higher, Malayalam Lower, Part time course on Data Base
38	Smt. Soosy Kutty J.L	U D Clerk	BSc, Typewriting English Higher Malayalam Lower
39	Smt. Juliet Das P.D	U D Clerk	MA, Typewriting English Higher
40	Sri. Sethumadhavan Mecheri	UD Clerk	SSLC, Typewriting English Lower
41	Sri. K.N Purushothaman Pillai	U D Clerk	BA, Typewriting English Higher
42	Smt. C.K Kanakambujam	L D Clerk (on leave)	PDC
43	Smt. G. Chandrika	U D Clerk	PDC
44	Smt. P. Sindu	UDC	BA, MA, Type writing English Lower, Word Processing-Computer Course, Office Automation Course
45	Smt. Smera K.S.	U D Clerk	M.Sc. Computer Science,

46	Smt. Mereena John	U D Clerk	B.Sc., Typewriting English Lower, Computer Word Processing.
47	Smt. Sobhana T.	U D Clerk	B.Sc., PGDCA, Higher Diploma in Co-operation.
48	Sri. M.T Varughese	Assistant Engineer, EMU	PDC, NTC Trade-Electrician ,Diploma in EE, Wireman License Certificate of Electrical Wiring
49	Sri. T.E Thomas	Assistant Engineer, Engg. Unit	SSLC, Diploma in CE,Part- time course Architectural Draughtsman-ship, PT course on structural design and tall buildings
50	Sri. K.P Venugopalan	Instructor, ECED	SSLC, NTC Mechanic General Electronics, NTC Electrician trade, Diploma in EE, Post Diploma in Communications, B.Tech. (ECE)
51	Sri. T.K Sasidharan	Instructor, EED	PDC, NTC Electrician trade, Diploma in EE, Rtd on 31.11.2017
52	Sri. P. Anil Kumar	Supervisor, MED	SSLC, ITI Trade- Mechanic R&A/c, Diploma in ME
53	Sri. A. K. Mohan Kumar	Asst.Engineer	SSLC, Diploma in Civil Engg., B.TechCE.
54	Sri. E. Pradeep Kumar	Supervisor, MED	Diploma in Mechanical Engg.
55	Sri. B. Venugopal	Sr.Mechanic Sl.Gr.EMU	SSLC, NTC-wireman, Diploma in EE
56	P.T. Ashoka Kumar	Sr.Mechanic Sl.Gr.EED	SSLC, Certificate Exam in EE, Diploma in EE
57	Sri. A. Rajagopalan	System Analyst (Hr.Gr), CSED	BSc, PG Diploma in Operations Research & computer application, MSc, M.Tech.

58	Sri. Santhosh Kumar. S	System Programmer, CSED	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)
59	Sri. G. Sasidharan Pillai	Computer Technician, CSED	BSC,Typewriting English & Malayalam Higher, Computer programming (COBOL), Console Operator Cum Programmer Asst. (NCVT), PG Diploma in computer Application
60	Sri. V.R Ajayachandran	Computer Operator (Hr. Gr), CSED	PDC, Diploma in ME, Post Diploma in Computer Application
61	Pradeep Kumar K K	Instructor, MED	SSLC, ITI Trade- Mechanic Motor Vehicle, Diploma in ME
62	Rajendran M.K	Instructor, MED	SSLC, NTC Trade –Mechanic Gen. Electronics, Diploma in ME
63	Abhilash A	Sr. Mechanic, Sl. Gr. MED	ITI Fitter, Diploma in ME
64	Anandan P	Sr. Mechanic, Sl. Gr. MED	SSLC, Certificate Exam In Automobile Engineering
65	Joseph George P G	Sr. Mechanic, Sl. Gr.MED, Rtd. as on 31.05.2017.	SSLC, NTC-Turner Rtd on 31.05.2017
66	Mohanan T P	Sr. Mechanic, Sl. Gr. MED	ITI Diesel Mechanic, SSLC
67	Sasi. K K	Sr. Mechanic, Sl.Gr. MED	Pre Degree, Diploma in Computer Engg, Type Writing English Lower
68	Velayudhan Kutty N P	Sr. Mechanic, Sl. Gr. MED	P D C, NCVT Electrical & Electronics, Diploma in ME
69	Ajayan A	Sr. Mechanic Sl.Gr. MED	J.T.S L C(Foundry), NTC Electrician (Foundry)
70	Eldho P Varghese	Sr. Mechanic ,MED	SSLC, NTC Mechanic Diesel, VHSE, Diploma in ME
71	George T M	Sr. Mechanic Sl.Gr. MED	SSLC, NTC Trade-Fitter

72	Manoj KG	Sr. Mechanic, MED	THSLC (Trade-Turning), Diploma in ME
73	Prasad Moochikkal Variath	Sr. Mechanic, MED	SSLC, NTC Welder, Diploma in ME
74	Raghu P V	Sr. Mechanic Sl.Gr.,MED	JTSLC, Sheet Metal Diploma in M.E
75	Sanal P R	Sr. Mechanic Sl.Gr, MED	P D C, NTC Mechanist (Trade)
76	Shali Joseph	Sr. Mechanic MED	SSLC, NTC(Foundry Trade)
77	Suresh K.C	Sr. Mechanic Sl.Gr,MED	SSLC, NTC Trade-Welder
78	Surendran. P.K	Sr. Mechanic Sl.Gr.MED	SSLC, Trade Mechanist-NAC
79	Unnikrishnan R	Sr. Mechanic MED	Pre Degree, Diploma in M.E (Machinist)
80	Vasu TC	Sr. Mechanic Sl.Gr.MED	SSLC, NTC- Mechanic (Diesel)
81	Sri. Mohanlal .D	Sr. Mechanic, Sl.Gr.CED	SSLC, NTC Trade Welder
82	Sri. P. Sreenivasan	Sr. Mechanic, Sl.Gr.CED	SSLC, NTC Trade Plumber
83	Sri. K. Shibu	Instructor, CED	SSLC, NTC Trade Plumber , Diploma in CE, Computer Shikshan
84	Sri. N.K Mohammed Sali	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
85	Sri. K. A Somanath	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
86	Sri. Sasesh A.R	Sr. Mechanic, Sl.Gr.EED	SSLC, NTC Trade Electrician, Diploma in EE
87	Sri. Nanda Kumar K	Sr. Mechanic, EED	JTSLC, NTC Electrician ,B.com, Diploma in EE ,PT course in Data Entry and console operation
88	Sri. Suresh Kumar. G	Sr.Mechanic, Sl.Gr. ECED	SSLC, NTC Trade Mechanic General Electronics
89	Sri. V. Krishnan Kutty	Sr. Mechanic, Sl.Gr.ECED	JTSLC, Trade Certificate Mechanic General Electronics
90	Sri. Anandan K.R	Sr. Mechanic, Sl.Gr.ECED	SSLC, NTC-Mechanic Radio & Television, NAC Trade
	•	•	

			Electronic Mechanic
91	Sri. Abdul Sathar V.M	Sr. Mechanic, CSED	Pre Degree, NTC Data preparation and Computer Software, Diploma IT
92	Sri. Narayana Lal M	Sr. Mechanic, MED	SSLC, ITI Electronics 1 year Diploma
93	Sri. Beljith P	Sr. Mechanic ,CNC on work arrangement	Pre Degree, Typewriting English Lower & Higher, B.Sc. Maths, Business Professional Programmer
94	Sri. Noushad K.K	Sr.Mechanic, CED	Diploma in Computer Engg., NTC Data Preparation & Computer Software, Typewriting English (lower), Business professional programmer O' Level
95	Sri. Ajaya Kumar. R	Sr.Mechanic, CED	SSLC, NTC-D'man Civil
96	Sri. Jayan V.S	Sr.Mechanic, EED	SSLC, NTC Electrician, Electrical wireman license
97	Sri. Praveen H Babu	Sr. Mechanic, ECED	SSLC, NTC Electronic Mechanic, Typewriting English (Lower), Job Training course in Advanced Electronics
98	Smt. Sreeja .V	Sr.Mechanic, CSED	Diploma in Computer Engg., Advanced Diploma 'A' level, and M.Sc Computer Science.
99	Sri. Biju Francis	Sr.Mechanic, CSED	PDC, Data Preparation & Computer Software (NTC) Typewriting English Lower, Word Processing and Data Entry Techniques
100	Sri. Raju K P	Sr. Mechanic, EMU	SSLC, NTC Electrician, Wireman
101	Sri.Santhosh Kumar MV	Sr.Mechanic, EMU	SSLC, Electrician NTC
102	Sri. Mahesan K A	Sr.Mechanic, EMU	SSLC, Electrician NTC, Diploma in EE
103	Sri. Sudheer P R	Sr.Mechanic MED	SSLC, NTC-Plumber
104	Sri. Jayesh Kumar P	Sr.Mechanic Engg.Unit	PDC, NTC- Plumber
			·

105	Sri. T K Sadanandan	Sr. Mechanic Sl.Gr., Engg. Unit	NTC-Plumber
106	Sri. P Divakaran	Sr. Mechanic, (Sl.Gr.) Engg.Unit	SSLC, NTC-Plumber
107	Sri. K Alavikutty	Sr. Mechanic Sl.Gr.Engg.Unit	SSLC failed, NTC-Plumber
108	Sri. Mathew Varghese	Sr. Mechanic Engg.Unit	PDC, NTC-Plumber
109	Sri. Abdul Sidheek P K	Sr. Mechanic Engg.Unit	SSLC, NTC-Plumber
110	Sri. Sathyan P K	Sr. Mechanic Sl.Gr.CED	SSLC, NTC-Plumber
111	Sri. A M Mathew	Sr. Mechanic, (Sl.Gr.) Engg. Unit	SSLC, NTC-Plumber
112	Sri. C R Climson	Sr. Mechanic EMU	SSLC, NTC-Electrician Trade, Type writing (E) Lower, Wireman Licence
113	Sri. M K Radha krishnan	Sr. Mechanic EMU	SSLC, NTC Electrician Trade
114	Sri. C V Abraham	Lab Assistant (Hr. Gr), Physics	PDC, Certified Course in Computer Programme Rtd.on 31.10.2017.
115	Sri. Prakash Peter	Lab Assistant	M.Sc.,Applied Psychology
116	Sri. C. P Hariharan	System Programmer, MED	AISSE, Pre-degree, B.Tech
117	Smt. A. Sumathi	Peon (Hr.Gr)	Ist Std
118	Sri. P. Apputty	Peon	SSLC Failed Rtd.on 31.05.2017
119	Smt. T.P. Ravia	Peon	Vth Std.
120	Sri. K.V.Chandu	Peon	IVth Std
121	Smt. Sangeetha P.K.	Peon	SSLC Failed
122	Sri. M. Rajan	Watchman	SSLC Failed
123	Sri. K. Abdul Hameed	Watchman	VIIth Std.
124	Sri. P. Aravindan	Watchman	VIIIth Std.Rtd.on 30.06.2017
125	Sri. N.K. Ummerkutty	Watchman	VIIth Std.
126	Sri. T. Janardhanan	Watchman cum Gardener	SSLC
127	Sri. Sadanandan M.M.	Watchman cum Gardener	SSLC
128	Sri. Mamukoya M.	Watchman cum Gardener	VIIth Std.
129	Sri. Abdul Razak P.	Watchman cum Gardener	VIIIth Std.
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·

130	Sri. C. Preman	Watchman cum Gardener	SSLC Failed
131	Sri. T. Narayanan	Watchman cum Gardener	VIIIth Std.
132	Sri. M.K. Rajan	Watchman cum Gardener	SSLC
133	Sri. P V. Bhagyanathan	Watchman cum Gardener	SSLC
134	Sri. Vinod K.P.	Watchman cum Gardener	IXth Std. Not completed
135	Sri. K. Bhaskaran	Watchman cum Gardener	SSLC
136	Smt. V. Pushpavally	Sanitation Worker	VIth Std.
137	Smt. K. Thankamani	Sanitation Worker	IVth Std.
138	Smt. I. Siamala	Sanitation Worker	SSLC Failed Rtd.on 31.05.2017.
139	Smt. K.K. Santha	Sanitation Worker	SSLC Failed Rtd. On 3011.2017.
140	Smt. K.P. Devi	Sanitation Worker	VIIIth Std.
141	Smt. Devi Poolakkal	Sanitation Worker	SSLC Failed
142	Smt. E. Visalakshi	Sanitation Worker	SSLC Failed
143	Smt. Saroja T.M	Sanitation Worker	SSLC Failed
144	Smt. Sasikala L.	Sweeper cum Sanitation Worker	SSLC Failed
145	Smt. C.Geetha	Sweeper cum Sanitation Worker	SSLC
146	Smt. C Thanka	Sweeper cum Sanitation Worker	SSLC
147	Smt. Jameela A.K.	Sweeper cum Sanitation Worker	SSLC Failed
148	Sri. K Parameswaran	Bearer cum Room boy	SSLC Failed
149	Sri. P. Abdurahiman	Bearer cum Room boy	SSLC Failed
150	Sri. Unnikrishnan C.	Vehicle Cleaner	SSLC Failed

3.3 TRAINING STATUS DEPARTMENT OF ARCHITECTURE

Sl. No	Name of Faculty members	Details of Training programme
1	P.P.Anilkumar	Attended "Sustainable Approaches to Regional Development, Economic Growth and Regional Planning and Governance" by Dr. Fumihiko Seta, Dept. of Urban Engineering, University of Tokyo, at IIT Roorkee from August 13th to 19th, 2017.

2	Attended 'Designing Smart Cities based on Internet of Things (IoT)' by Prof. (Dr.) Tokunbo Ogunfunmi, Professor of Santa Clara University (SCU), USA & Visiting Professor at the
	University of Texas and Stanford University from 11th Dec. to 15th Dec. 2017 at NIT Agarthala

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl. N	Name of Faculty members	Details of Training programme
1	Siyad, M, Visakh R, Nazeer A.	Presented a research paper on Disease Prediction using Optimal Feature Selection from Epigenetic Data, in a International Conference, Innovations in Power and Advanced Computing Technologies [i-PACT2017]., Vellore, India
2	Ghanwat, P, Chacko Anu Mary	Presented a research paper on Improved Personalized Recommendation System with better user experience, in 6th International Conference on Advances in Computing Communications and Informatics., Manipal
3	K, A, Zachariah R, Yousef MS, Chacko Anu Mary	Presented a research paper on Android Malware Detection a Survey, in IEEE International Conference on Circuits and Systems (ICCS 2017)., Trivandrum
4	Xu, J, Palanisamy B, Tang Y, Madhu Kumar S D	Presented a research paper on Privacy-Preserving Auction Design for Allocating Dynamically Priced Cloud Resources in 3rd {IEEE} International Conference on Collaboration and Internet Computing, {CIC} 2017, San Jose, CA, USA.
5	Gilesh, MP, Madhu Kumar S D, Jacob L, Bellur U	Presented a research paper on Towards a Complete Virtual Data Center Embedding Algorithm Using Hybrid Strategy in 37th {IEEE} International Conference on Distributed Computing Systems, {ICDCS} 2017, Atlanta, GA, USA.
6	Pillai, SP, MadhuKumar SD, Radharamanan T.	Presented a research paper on Consolidating evidence based studies in software cost/effort estimation in Region 10 Conference, TENCON 2017, Penang, Malaysia
7	Chacko, A, MadhuKumar SD.	Presented a research paper on Big data provenance research directions. In Region 10 Conference, TENCON 2017, Penang, Malaysia
8	Jose, B, Ramanan RT, MadhuKumar SD	Presented a research paper on Big data provenance and analytics in telecom contact centers in Region 10 Conference, TENCON 2017, Penang, Malaysia
9	Regi, NT, Shabeera TP, MadhuKumar SD	Presented a research paper on An algorithm for distance-aware VM allocation with guaranteed bandwidth. In IEEE Region 10 Symposium (TENSYMP), Cochin
10	Ojus, OTL, Akash AGJ, MadhuKumar SD, Priya PC	Presented a research paper on A Method for Storage Node Allocation in Erasure Code Based Storage Systems in IEEE 3rd International Conference, Collaboration and Internet Computing (CIC), 2017, San Jose, California, USA.

NIT Calicut 32 Annual Report 2017-18

11		Presented a research paper on HyViDE: A Framework for
	Gilesh, MP, MadhuKumar SD, Lillykutty J.	Virtual Data Center Network Embedding in ACM SAC 2017, Track on Cloud Computing., Marrakesh, Morocco
12	Binesh, J, MadhuKumar SD, Alfredo C.	Presented a research paper on Enhancing Contact Center Performance Using Cloud Computing: A Case Study on Telecom Contact Centers in Second International Conference on Internet of Things, Data and Cloud Computing (ICC'17), Cambridge University, United Kingdom
13	Shabeera, TP, MadhuKumar SD.	Presented a research paper on A HEURISTIC BASED ALGORITHM FOR DISTANCE-AWARE VIRTUAL MACHINE ALLOCATION IN CLOUD in Second International Conference on Internet of Things, Data and Cloud Computing (ICC'17)., Cambridge University, United Kingdom.
14	Akash, GJ, Ojus TL,	Presented a research paper on RAPID: A Fast Data Update Protocol in Erasure Coded
15	MadhuKumar SD, ChandranPriya, Alfredo C	RAPID: A Fast Data Update Protocol in Erasure Coded Storage Systems for Big Data, in 2nd IEEE/ACM International Workshop on Distributed Big Data Management (DBDM 2017), In conjunction with IEEE/ACM CCGRID2017., Madrid, Spain.
16	Subhasree Methirumangalath, Shyam Sundar Kannan, Amal Dev Parakkat and Ramanathan Muthuganapathy	Presented a research paper on Hole detection in a planar point set: An empty disk approach " in Shape Modelling International 2017, University of California Berkeley, USA.
17	Subhasree Methirumangalath, Shyam Sundar Kannan, Amal Dev Parakkat and Ramanathan Muthuganapathy	Presented a research paper on "Reconstruction using a simple triangle removal approach" in SIGGRAPH Asia 2017, Bangkok.
18	K. M. Subhash, P. N. Pournami and P. K. Joseph	Presented a research paper on "Census transform based feature extraction of EMG signals for neuromuscular disease classification" at 2017 IEEE 15th Student Conference on Research and Development (SCOReD), Putrajaya, 2017
19	Savinu Vijay and Pournami P N	Presented a research paper on "Accelerated Feature Descriptor Matching in Images Using Threshold Accepting" at IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET) organized by Electronics & Communication Engineering Department, Sri Sivasubramaniya Nadar College of Engineering, Chennai-603110, India, March 22 - 24, 2018.
20	Mullaguru Hareesh, K Yaswanth, Manghat Sreeja and Saidalavi Kalady	Presented a research paper on Accurate Fork Bomb Detection by Process Name" IEEE international conference on Intelligent Computing, Instrumentation and Control technologies(ICICICT 2017) July 2017, Kannur

NIT Calicut 33 Annual Report 2017-18

21	Sithara Kanakaraj, Madhu S Nair, Saidalavi Kalady	Presented a research paper on SAR Image Super Resolution using Importance Sampling Unscented Kalman Filter" IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing Vol 11 No. 2 PP 562-571
22	Abitha Thankaraj, Aparna Jairaj Nair, N. Vasudevan, Vinod Pathari	Presented a research paper on Misclassifications: The missing link ICACCI 2017: 1719-1722, Udupi, India, 2017.
23	Priya Chandran, Lakshya Garg, Aditya Kumar	Presented a research paper on Multikernel Simulation: A new approach to study rollback sensitive memory architecture in Collaboration and Internet Computing (CIC), 2017 IEEE 3rd International Conference,2017
24	GJ Akash, Ojus Thomas Lee, SD Kumar, Priya Chandran, Alfredo Cuzzocrea	Presented a research paper on RAPID: A Fast Data Update Protocol in Erasure Coded Storage Systems for Big Data in 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing,2017
25	Jeethu V Devasia, Priya Chandran, Garge Shreya	Presented a research paper on parallelizing graph theoretical approaches for identifying causal genes and pathways from very large biological networks in Second International Conference on Internet of things and Cloud Computing, 2017
26	Jeethu V Devasia, Priya Chandran	Presented a research paper on Inferring disease causing genes and their pathways: GpRr method in Journal of Computational Science, 2018/3/28
27	Mumthas S, Lijiya A	Presented a research paper on Transform domain video steganography using RSA, Random DNA Encryption and Huffman Encoding in 7th International Conference on Advances in Computing and Communications, ICACC-2017, 22-24 August, 2017, Cochin, India.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No	Name of Faculty member	Details of Training programme
1	Dr. Elizabeth Elias	The 30th Annual IEEE Canadian conference on Electrical and Computer Engineering, CCECE 2017 in Windsor, Ontario, Canada, 30 Apr to 3 May 2017.
2	Dr. Lillykutty Jacob	1. IEEE SPICES 2017, 8-10 Aug 2017
		2. The Sixteenth International Conference on Networks (ICN 2017), Venice, Italy, Apr 23 - 27;
		3. GIAN course on 5G Key Enabling Technologies, 8 -13 Dec 2017;

		4. IEEE Summit on 5G, IoT, and Cyber Security, 1 July 2017.
3	Dr. P. S. Sathidevi	2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE) at Windsor, Canada 30/04/2017 to 03/05/2017
4	Dr. Deepthi P. P.	1. GIAN Course at IIT Kanpur during 1- 10 July 2017 on Codes for Distributed Storage
		2. GIAN Course at IIT Kanpur during 15-24 Mar 2018 on Network Information Theory
		3. International Conference on Communication Engineering and Technology (ICCET 2018) during 24-26 Feb 2018 at NTU, Singapore
		4. Visit to NUS Singapore on 22 Feb 2018 for research discussions
5	Dr. Sreelekha G.	Short Term Course on Advanced DSP Design Techniques, at IIT Kharagpur during July 10-14, 2017
6	Dr. Dhanaraj K. J.	IEEE Region 10 Conference TENCON 2017 at Penang, Malaysia, during 5-8 Nov, 2017
7	Dr. Ameer P. M.	IEEE Region 10 Conference TENCON 2017 at Penang, Malaysia, during 5-8 Nov, 2017
8	Mr. Raghu C. V.	3rd International Conference on Control, Automation and Robotics, ICCAR 2017 at Nagoya, Japan during 22 – 24 Apr, 2017
9	Mr. Raghu C. V.	3rd international symposium in Robotics and Manufacturing Automation (ROMA), 2017 at Malaysia during 19-21 Sept 2017

DEPARTMENT OF ELECTRICAL ENGINEERING

	THE THE PERSON OF THE PERSON O											
Sl.No	Name of faculty member	Details of Training programme										
1	Dr.Jeevamma Jacob	 Future Technologies Conference (FTC) 2017,technically sponsored by IEEE,held during 29-30 November 2017 at Pan Pacific Hotel Vancouver,BC,Canada 										
2	Mr. Subhash K.M	i. Three day National Workshop on Deep Learning: Bridging Theory and Practice held during February 22-24 2018 at University of Calicut.										

3.4 PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No.	Name	Academic Excellence
1	Mr. Jayakumar E. P.	Acquired Ph. D from NIT Calicut
2	Mr. V. Sakthivel	Pursuing Ph. D (Part Time) (Submitted Thesis) at NIT Calicut
3	Mr. Jaikumar M.G.	Pursuing Ph. D under QIP Scheme at IIT Madras
4	Mr. Raghu C. V.	Pursuing Ph. D under QIP Scheme at IISc Bangalore
5	Mr. Bhuvan B.	Pursuing Ph. D under QIP Scheme at IIT Delhi

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No.	Name	Academic Excellence
1	Mr. Subhash K M	Pursuing Ph. D in Biosignal Processing at NIT Calicut
2	Ms. Hemarani P	Pursuing Ph. D in Industrial Converters at NIT Calicut

SCHOOL OF NANO SCIENCE AND TECHNOLOGY

Sl. No	Name	Academic Excellence
1.	Dr.C.B. Sobhan	Visiting Faculty at the Department of Mechanical Engineering, Georgia Tech University, US

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No.	Name	Academic Excellence
1	Mr. Vineesh Ravi	Acquired Ph. D from NIT Calicut

4.0 TEACHING PROGRAMMES

4.1 Programmes Offered

DEPARTMENT OF ARCHITECTURE

- i) B.Arch.
- ii) M. Plan
- iii) Ph.D.

DEPARTMENT OF BIOTECHNOLOGY

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

DEPARTMENT OF CHEMICAL ENGINEERING

- i) B.Tech. (Chemical Engineering)
- ii) M.Tech (Chemical Engineering)

iii) Ph.D. (Chemical Engineering)

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) M. Tech (High voltage Engineering)
- vii) 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 (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) M.Tech. (Machine Design)

ix) Ph. D

SCHOOL OF NANO SCIENCE AND TECHNOLOGY

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

DEPARTMENT OF PHYSICS

- 1. B.Tech (Engineering Physics)
- 2. M.Sc (Physics)
- 3. Ph.D

SCHOOL OF MANAGEMENT STUDIES

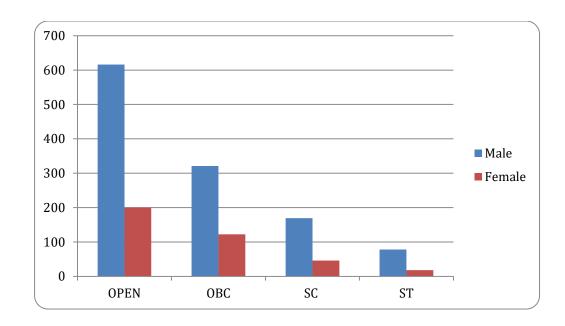
- i) MBA
- ii) Ph.D.

DEPARTMENT OF PHYSICAL EDUCATION

One-credit course in Physical Education (ZZ1093D) for the First year B.Tech and B. Arch students during I & II semesters.

4.2 COURSE-WISE ENROLMENT WITH SEX, CASTE, BREAK UP: 2017-2018

Course	Оре	en	0	BC	S	SC	S	TOTAL		
Course	Male	Female	Male	Female	Male	Female	Male	Female	IOTAL	
B.Tech./B.Arch.	379	86	201	49	103	33	58	9	918	
M.Tech.	169	64	83	34	54	6	18	6	434	
MCA	18	5	11	2	5	2	0	3	46	
M.Sc.Tech.	17	14	11	5	5	4	2	0	58	
Ph.D.	33	31	15	32	2	1	0	0	114	
Total	616	200	321	122	169	46	78	18	1570	



4.3. Admission Statistics-UG/PG Programmes, Course-wise 4.3.1. 1st semester B.Tech/B.Arch Admission 2017 -18

SPECIALISA	OP	OP(PH)	OP(OB)	ОР(ОВ)РН	OP(SC)	OP(SC)PH	OB	OB(PH)	SC	SC(PH)	ST	ST(PH)	NRI	DASA	FOREIGN	MEA(WELF ARE)	TOTAL	MALE	FEMALE	TOTAL
Architecture	18	0	4	1	0	0	12	1	7	0	4	0	0	5	0	0	52	32	20	52
Bio Technology	11	0	2	0	0	0	7	0	5	0	1	0	0	2	1	0	29	12	17	29
Civil	53	1	14	1	0	0	36	1	20	0	10	0	0	13	0	1	150	113	37	150
Chemical	36	2	9	0	0	0	23	1	13	0	6	0	0	7	0	0	97	68	29	97
Computer	59	2	9	0	0	0	36	1	20	1	10	0	0	13	0	0	151	128	23	151
Electrical	64	0	4	1	0	0	37	0	18	0	11	0	0	13	0	0	148	117	31	148
Electronics & Communication	62	2	5	0	0	0	36	1	20	0	10	1	0	13	0	1	151	122	29	151
Engineering Physics	11	0	4	0	0	0	7	0	5	0	1	0	0	3	0	0	31	23	8	31
Mechanical	53	0	12	1	0	1	37	0	21	0	10	0	0	13	0	0	148	145	3	148
Production	18	0	4	1	0	0	14	0	6	0	3	0	0	2	0	0	48	36	12	48
Total	385	7	67	5	0	1	245	5	135	1	66	1	0	84	1	2	1005	796	209	1005

4.3.2. 1st Semester M.Tech. 2017 -2018

Course	Branch/ Code	OP	ОР-РН	OBC	ОВС-РН	\mathbf{SC}	SC-PH	ST	ST-PH	QIP	QIP(PO LY)	Z	SP	TOTAL	MALE	FEMAL E	TOTAL
Urban Planning	ARA	7	0	3	0	2	0	0	0	0	0	0	1	13	7	6	13
Civil	CEA CEB CEC CED CED	48	0	26	0	14	0	6	0	0	0	0	0	94	58	36	94
Computer	CSA CSB	22	0	11	0	6	0	3	0	1	0	0	0	43	30	13	43
Chemical	СНА	6	1	2	0	1	0	0	0	0	0	0	0	10	6	4	10
Electronics & Communication	ECB ECC ECD ECE	36	0	17	0	7	0	4	0	0	0	0	0	64	39	25	64
Electrical	EEA EEB EEC EED EEE	47	1	24	0	13	0	7	0	1	0	1	0	94	71	23	94
Mechanical	MEA MEB MEC MED MEE MEE	60	1	32	0	16	0	3	0	0	0	0	2	114	108	6	114
Nano Science & Technology	NSA	4	0	2	0	1	0	1	0	0	0	0	0	8	8	0	8
Total		230	3	117	0	60	0	24	0	2	0	1	3	440	327	113	440

4.3.3. M.Sc., MCA & Ph.D. 2017 - 2018

Wise, Were a m.b.	2017 2010															
DEPARTME NT	COURSE	OPEN	OBC	ОВС-РН	SC	LS	TOTAL	MALE	FEMALE	TOTAL	QIP	QIP(P)	F.TIME	P.TIME	EXTERNAL	TOTAL
Mathematics(MMA)		10	6	0	3	1	20	11	10	21*						
Physics(PHA)	M.Sc	10	5	0	3	1	19	15	4	19						
Chemistry(CYA)		11	5	0	3	0	19	10	9	19						
Computer	MCA	23	13	0	7	3	46	34	12	46						
Architecture		4	2	0	1	0	7	2	5	7	0	0	5	2	0	7
Biotechnology		3	2	0	0	0	5	2	3	5	0	0	4	0	1	5
Chemical		1	2	0	0	0	3	2	1	3	0	0	3	0	0	3
Civil		12	9	0	0	0	21	7	14	21	1	0	16	4	0	21
Computer Science		12	4	0	1	0	17	4	13	17	0	0	14	3	0	17
Chemistry		5	6	0	0	0	11	0	11	11	0	0	10	1	0	11
Electronics		5	1	0	0	0	6	2	4	6	1	0	4	1	0	6
Electrical	Ph.D	4	2	0	0	0	6	4	2	6	0	0	6	0	0	6
Mathematics		2	6	0	0	0	8	3	5	8	0	0	8	0	0	8
Mechanical		11	8	0	1	0	20	18	2	20	2	0	18	0	0	20
Nano Science & Tech.		3	1	0	0	0	4	3	1	4	0	0	4	0	0	4
Physics		2	4	0	0	0	6	3	3	6	0	0	5	1	0	6
School of Management Studies		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		64	47	0	3	0	114	50	64	114	4	0	97	12	1	114

4.4. Student Intake 2017-18

4.4.1 B.Tech. /B.Arch.

BRAN CH		OP		o	P(P	H)	O	P(Ol	B)	OP	(OB)	PH	C	P (S	C)		OP C)PH	I		OB	}		OB	(PH)
СП	M	F	T	M	F	T	M	F	T	M	F	Tl	M	F	T	M	F	T	M	F	Total	M	F	Total
AR	14	4	18	0	0	0	2	2	4	0	1	1	0	0	0	0	0	0	9	3	12	1	0	1
BT	5	6	11	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0
CE	47	6	53	1	0	1	9	5	14	0	1	1	0	0	0	0	0	0	26	10	36	1	0	1
CH	23	13	36	2	0	2	8	1	9	0	0	0	0	0	0	0	0	0	17	6	23	1	0	1
CS	51	8	59	0	2	2	9	0	9	0	0	0	0	0	0	0	0	0	31	5	36	1	0	1
EE	53	11	64	0	0	0	3	1	4	1	0	1	0	0	0	0	0	0	28	9	37	0	0	0
EC	48	14	62	2	0	2	4	1	5	0	0	0	0	0	0	0	0	0	33	3	36	0	1	1
EP	8	3	11	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0
ME	52	1	53	0	0	0	12	0	12	1	0	1	0	0	0	1	0	1	37	0	37	0	0	0
PE	14	4	18	0	0	0	4	0	4	1	0	1	0	0	0	0	0	0	8	6	14	0	0	0
Total	315	70	385	5	2	7	55	12	67	3	2	5	0	0	0	1	0	1	197	48	245	4	1	5

BRANC		SC			SC (PH			ST		S	Γ (PI	H)]	DASA	4	FO	REI	GN		MEA LFAR	E)	,	ГОТА	L
Н	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	2	5	7	0	0	0	4	0	4	0	0	0	0	5	5	0	0	0	0	0	0	32	20	52
BT	1	4	5	0	0	0	1	0	1	0	0	0	1	1	2	1	0	1	0	0	0	12	17	29
CE	14	6	20	0	0	0	8	2	10	0	0	0	6	7	13	0	0	0	1	0	1	113	37	150
CH	9	4	13	0	0	0	5	1	6	0	0	0	3	4	7	0	0	0	0	0	0	68	29	97
CS	15	5	20	1	0	1	8	2	10	0	0	0	12	1	13	0	0	0	0	0	0	128	23	151
EE	14	4	18	0	0	0	9	2	11	0	0	0	9	4	13	0	0	0	0	0	0	117	31	148
EC	16	4	20	0	0	0	9	1	10	1	0	1	8	5	13	0	0	0	1	0	1	122	29	151
EP	4	1	5	0	0	0	1	0	1	0	0	0	1	2	3	0	0	0	0	0	0	23	8	31
ME	21	0	21	0	0	0	10	0	10	0	0	0	11	2	13	0	0	0	0	0	0	145	3	148
PE	6	0	6	0	0	0	2	1	3	0	0	0	1	1	2	0	0	0	0	0	0	36	12	48
Total	102	33	135	1	0	1	57	9	66	1	0	1	52	32	84	1	0	1	2	0	2	796	209	1005

4.4.2. 1st Semester M.Tech

1 Sen	lester M. Tec											2017	Batch	1									
Sl.No	BRANCH	OPE	EN	OP-	PC	OB	SC	OB PC		SC	C	ST	Γ	QI	P	QI (POI		FI	V	SI		TOT	AL
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	ARA	4	3	0	0	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	7	6
1	CEA	9	2	0	0	4	2	0	0	4	0	0	2	0	0	0	0	0	0	0	0	17	6
2	CEB	9	2	0	0	2	4	0	0	3	1	0	1	0	0	0	0	0	0	0	0	14	8
3	CEC	6	4	0	0	3	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0	12	7
4	CED	8	2	0	0	1	4	0	0	2	0	2	0	0	0	0	0	0	0	0	0	13	6
5	CEE	1	5	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	9
				•	,		,				,	•			,	,			,	•			
1	СНА	2	4	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	4
1	CSA	8	4	0	0	4	2	0	0	2	1	1	0	1	0	0	0	0	0	0	0	16	7
2	CSB	6	4	0	0	4	1	0	0	3	0	1	1	0	0	0	0	0	0	0	0	14	6
1	ECB	9	2	0	0	5	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	17	3
2	ECC	5	6	0	0	2	3	0	0	2	1	2	0	0	0	0	0	0	0	0	0	11	10
3	ECD	3	3	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	6	6
4	ECE	2	6	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6
1	EEA	6	6	0	0	3	2	0	0	1	0	2	0	0	0	0	0	0	0	0	0	12	8
2	EEB	8	2	1	0	4	2	0	0	4	0	1	0	0	0	0	0	1	0	0	0	19	4
3	EEC	10	2	0	0	3	3	0	0	3	0	1	0	0	1	0	0	0	0	0	0	17	6
4	EED	7	1	0	0	4	1	0	0	3	0	1	1	0	0	0	0	0	0	0	0	15	3
5	EEE	4	1	0	0	1	1	0	0	2	0	1	0	0	0	0	0	0	0	0	0	8	2
1	MEA	8	2	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	1	1	17	3
2	MEB	9	1	1	0	7	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	21	1
3	MEC	11	1	0	0	5	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	20	1
4	MED	10	0	0	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	18	0
5	MEE	8	1	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	17	1
6	MEF	9	0	0	0	3	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	15	0

1	NSA	4	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	8	0
	Total	166	64	3	0	83	34	0	0	54	6	18	6	1	1	0	0	1	0	1	2	327	113

4.4.3 M.Tech., M.Sc. (Tech.) & Ph.D.

DDANCH		SC			ST			OPE	1	О	PEN-	PC		OBC		()BC-P	С		TOTA	L
BRANCH	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
AR	1	1	2	0	0	0	4	3	7	0	0	0	2	1	3	0	0	0	7	5	12
CED	12	2	14	3	3	6	33	15	48	0	0	0	10	16	26	0	0	0	58	36	94
CHED	1	0	1	0	0	0	3	4	7	0	0	0	2	0	2	0	0	0	6	4	10
CSD	5	1	6	2	1	3	14	8	22	0	0	0	8	3	11	0	0	0	29	13	42
ECD	5	2	7	3	1	4	19	17	36	0	0	0	12	5	17	0	0	0	39	25	64
EED	13	0	13	6	1	7	36	12	48	0	0	0	15	9	24	0	0	0	70	22	92
MED	16	0	16	3	0	3	56	5	61	0	0	0	32	0	32	0	0	0	107	5	112
NST	1	0	1	1	0	1	4	0	4	0	0	0	2	0	2	0	0	0	8	0	8
Total	54	6	60	18	6	24	169	64	233	0	0	0	83	34	117	0	0	0	324	110	434
MCA	5	2	7	0	3	3	18	5	23	0	0	0	11	2	13	0	0	0	34	12	46
M.Sc.Tech	5	4	9	2	0	2	17	14	31	0	0	0	11	5	16	0	0	0	35	23	58
Ph.D.	2	1	3	0	0	0	33	31	64	0	0	0	15	32	47	0	0	0	50	64	114

4.4.4 Total number of Students of all semesters and all courses as on 31.03.2018

Programme	2017-2018 Admission	2016-2017 Admission	2015-2016 Admission	2014-2015 Admission	2013-2014 Admission
B. Tech	953	900	838	863	859
B. Arch	52	46	44	44	44
M. Tech	440	427	411	414	376
M.C.A	46	46	44	38	42
M. Sc	59	46	57	56	51
MBA	47	41	33	38	33
Ph.D.	114	97	100	117	99
Total	1711	1603	1527	1570	1504

4.5 THE HOSTELS

Accommodation

There are eleven hostels for the men and two hostels for the ladies. The total capacity of all hostels currently available is 5000. Present strength in the hostels is 4985; out of this 3590 are men (as on 31.03.2018).

All the hostels have Common room and Recreational Centre where newspapers, magazines, TV's and indoor sports/games facilities are available. Free twenty four hour internet and computational facilities are available in almost all hostels; it is getting extended to other hostels too. Twenty four hour water and electricity (with DG power backup) is part of all the hostels. Mini canteen, Milma, Amul kiosks, DTP Centre, co-operative stores, text book shop etc. are functioning in Students Amenity Centre. Two power laundry stations are functioning with collection centers at different hostels. The ladies hostel has ladies gym, stitching and tailoring centre, hostel library, fitness parlour, indoor sports centre, DTP centre and extension of co-operative stores. Guest room facilities are available in the hostels for the relatives/guests of hostel inmates on chargeable basis.

Day to day administration and management of the hostels is vested with the Council of Wardens headed by the Chief Warden appointed by the Director; based on the recommendation of Hostel & Mess Committee consisting of the student's representatives. Wardens' council is supported by Stewards/Caretakers/hostel staffs.

Chief Warden: Dr. Santhosh G Thampi

Wardens: (as on 31.03.2018)

- 1. Dr. Manu. R. MED
- 2. Dr. George K. Varghese, CED
- 3. Dr. Ashish Awasthi, MAT
- 4. Dr. Kodi Rangasamy, CED
- 5. Dr. Ghulam Jilani, MED
- 6. Dr .Aji A. Anappara, PHY
- 7. Mr. V Sakthivel. ECE
- 8. Dr. Gangadhara Kiran Kumar L, MED
- 9. Dr. Praveen Sankaran, ECE
- 10. Dr. Sathish Kumar D, CED
- 11. Dr. K Krishnamurthy, CED
- 12. Mr. K Ratnakumar, MED
- 13. Mr. Sunil M S, Physical Edu.
- 14. Dr. A.P.Sudheer, MED
- 15. Dr. M Srinivas, MED
- 16. Mr.B. Rohinikumar, MED
- 17. Dr. Malladi.V.Pavan Kumar, CHED
- 18. Dr. Arun P, MED
- 19. Mr. Sreenath A.M, MED
- 20. Dr. Jayaraj P B, CSED
- 21. Mr. Vineesh Ravi, CHED
- 22. Dr. Sunitha M.S, MAT
- 23. Dr. S.Bhuvaneshwari, CHED
- 24. Dr. Pramada S.K. CED
- 25. Dr. Chithra N R, CED

Hostel Manager (Officiating): Sri. Reejish Kumar M

Stewards:

Sri. Narayanankutty .P
 Sri. Anwar Sadath

Peon: Sri.Chandu. K V

4.6 SCHOLARSHIPS/ASSISTANTSHIPS

Financial Assistance to M.Tech Students:

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

Financial Assistance to Research Scholars:

Teaching Assistantship/Research Assistantship/Scholarships are awarded to eligible full time 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.25, 000/- per month for the first two years and Rs. 28,000/- per month for another three years. 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

As has been the practice, Programs for 2017-18 were planned and executed giving due importance to the new comers to the Institute. More than 100 days during July to November 2017 were spent on fresher orientation program in order to acclimatize them to the NITC environment and to inculcate awareness on the need to pursue activities to keep themselves fit and healthy with in campus and to follow-up in the post-campus life.

The senior-graduate and the post graduate students on their part have thronged the physical education activity centers in big numbers on a voluntary basis. The shortage of Playfields continued to haunt and every attempt was made to provide them to meet the student demand. One systematic and successful method adopted was to provide floodlights on small area games like Tennis, Basketball and Volley ball. However, the existing infrastructure has been utilized to the full and equipment purchased has been exhausted due to the overwhelming use.

4.8. AWARDS

DEPARTMENT OF CIVIL ENGINEERING

SI. No	Name	Award
1.	Dr. Sajith A.S.	Won the best Civil Engineering B.Tech. Project guidance award in the state of Kerala by Association of Engineers Kerala

PHYSICAL EDUCATION

Sl. no	Inter NIT Events	Venue	Dates of tournament	Achievements of NIT Calicut
1.	Football	NIT Agarthala	October 2017	National Champions 2017-18 (third consecutive title)
2.	Basketball	NIT Warangal	January 2018	National Champions 2017-18
3.	Badminton	NIT Warangal	January 2018	National Champions 2017-18
4.	Volleyball	NIT Kurukshetra	February 2018	National Runner-up 2017-18
5.	Volleyball	NIT Kurukshetra	February 2018	National Runner-up 2017-18
6.	Hockey	NITK Surathkal	January 2018	National Third place 2017-18
7.	Handbal	NITK Surathkal	January 2018	National Third place 2017-18
8.	Kabaddi	NITK Surathkal	January 2018	National Third place 2017-18

DEPARTMENT OF ELECTRICAL ENGINEERING

SI. No	Name	Award
1.		Young Scientist Award 2017 (Engineering, Sciences and Technology) of KSCSTE, Kerala State. The Award carries a Chief Minister Gold Medal, Cash award of Rs 50,000/-, a startup research grant of Rs. 50 lakhs and travel support for visit abroad for presenting research work at a conference.
2	Dr.Kumaravel S	US\$2000 from IEEE PES Member Driven Initiatives for the proposal "PES-IEEE-NITC Technology Summit 2017"
3	Dr. Kumaravel S	Outstanding branch counselor award 2017 from IEEE Malabar subsection

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No.	Name	Award
1	Dr. Lillykutty Jacob	Best Teacher Award-2017, IEEE Kerala Section
2	Dr. Sameer S. M.	Distinguished Alumni Award-2017 from TKM College of Engineering.

3	Dr.Sudhish N. George	1. Finalist of KSYSA-2017
		2. Best student paper award: "Denoising of Volumetric MR Image using Low Rank Approximation on Tensor SVD framework",
		Second Int. Conf. on Computer Vision & Image Processing (CVIP-2017), IIT, Roorkee

DEPARTMENT OF MECHANICAL ENGINEERING

Sl	Name	Award
No		
1	Dr R Sridharan	Fellow, Indian Institution of Industrial Engineering
2	Ms. Rhinithaa	Bagged TCS award for best outgoing student
3		Kinematic and static analysis of mobile dual arm robot traversing through a multi stranded wire" bas been selected as the best paper in the international conference on "Control, Mechatronics and Automation (ICCMA 2017)" held in University of Alberta, Canada during October 11-13, 2017
4	Vipul Sehgal	Won the Best Paper award with Cash Price in the theme of Urbanization, industries and Transportation for the paper titled "Design of Retrofittable Diesel Particulate Filter with Regeneration Attributes" in First Shaastra Research Conference conducted in IIT Madras on 5th and 6th January 2018
5	Vimal Kumar G.S and Robin James	won the Second Best Paper award in with Cash Price in the theme of energy for the paper titled "Development of a high productive solar still by enhancing evaporative mass transfer" in First Shaastra Research Conference conducted in IIT Madras on 5th and 6th January 2018

4.9 EXAMINATION DETAILS

A total of 1572 candidates successfully completed their programmes of study. This includes: 95 Ph. D, 348 M.Tech, 13 M. Plan, 45 M. Sc, 36 MCA, 42 MBA, 52 B. Arch. and 941 B.Tech students.

a. Result of B. Tech/B. Arch Students

Pgm. Code	Total Registered	1st class with Distinction	1st Class	2nd Class	Total Pass	Percentage
CE	151	35	72	29	136	90.30
CS	162	37	79	30	146	95.17
EC	166	47	51	46	144	88.49
EE	146	48	63	20	131	93.23
ME	167	42	69	27	138	92.54
PE	48	5	26	10	41	85.71
BT	33	12	7	6	25	84.00

NIT Calicut 49 Annual Report 2017-18

СН	88	24	41	17	82	93.59
EP	34	8	10	6	24	74.07
TOTAL	-	258	418	191	867	-
	57				30	51.16

b. Result of M.Tech, MCA, MBA & Ph.D Students

Pgm. Code	Total Registered	1st class with Distinction	1st Class	2nd Class	Total Pass	Percentage
CE61	20	14	6	0	20	100
CE62	18	13	5	0	18	100
CE63	17	7	10	0	17	100
CE64	20	16	3	0	19	95.00
CE65	9	5	4	0	9	100
CS61	14	11	3	0	14	100
CS62	15	6	9	0	15	100
EE61	19	10	8	0	18	94.74
EE62	19	10	9	0	19	100
EE63	15	8	5	0	13	86.67
EE64	19	6	9	0	15	78.95
EE65	10	8	1	0	9	90.00
EC61	22	8	12	0	20	90.91
EC62	19	14	5	0	19	100
EC63	10	5	4	0	9	90.00
EC64	10	6	4	0	10	100
ME61	12	9	2	0	11	91.67
ME62	14	6	8	0	14	100
ME63	16	7	8	0	15	93.75
ME64	19	9	10	0	19	100
ME65	8	3	5	0	8	100
ME66	11	7	4	0	11	100
NS61	7	3	4	0	7	100
Chemical Engg	9	7	2	0	9	100
TOTAL M.Tech	352	198	140	0	338	96.02
MA62	18	8	7	3	18	100
CY62	19	9	8	0	17	89.47
PH62	18	11	4	0	15	83.33
Total M.Sc	55	28	19	3	50	90.91
MBA	28	6	18	0	24	85.71
MCA	33	5	22	5	32	96.97
M.Plan	9	4	3	0	7	100

Ph.D	-	1	-	-	46	100
TOTAL	477	241	202	8	497	-

4.10.TECHNOLOGY BUSINESS INCUBATOR (TBI)

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

1	Total number of units in Technology Business Incubator	14
2	Number of units joined during 2017–2018	3
3	Number of units graduated from TBI during 2017 - 2018	2
4	Number of units preparing to graduate	2
5	Total number of units so far assisted by TBI	59
6	Total number of employees in the incubated companies	860

Programmes conducted by TBI during 2017-18

- ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 20 Nov to 15 Dec 2017
- FACULTY DEVELOPMENT PROGRAMME ON ENTREPRENEURSHIP conducted during 26 Dec to 06 Jan 2018
- TECHNOLOGY BASED ENTREPRENEURSHIP DEVELOPMENT PROGRAMME IN FOOD PROCESSING conducted during 26 Dec 2017 to 06 Feb 2018
- WOMEN ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 29 Jan to 24 Feb 2018
- TECHNOLOGY BASED ENTREPRENEURSHIP DEVELOPMENT PROGRAMME IN Applied Electronics and Networking conducted during 12 Mar 2017 to 20 Apr 2018
- ENTREPRENEURSHIP DEVELOPMENT PROGRAMME conducted during 26 Mar to 21 Apr 2018
- Organized workshop on "Electronic Product Design" on 04 Oct 2017
- Interaction with Managing Director, KSIDC on "Possibility of different funding schemes" on 09 Sep 2017
- Mentoring and supervision of interface Tatva on 14 Oct 2017
- Participated "Science Window "exhibition of Kerala Rally for Science on 10 Nov 2017 at Malabar Christian College, Kozhikode

NIT Calicut 51 Annual Report 2017-18

4.11. TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

Technical Education Quality Improvement Programme Phase III

Institute has completed the Phase I and Phase II of the Technical Education Quality Improvement Programme of the Government of India by 2016-'17 and henceforth got selected for funding under the Phase III (TEQIP – III) Sub Component 1.3. In this Component, Institute has made the mandatory twinning arrangements with Govt. Engineering College Bharatpur, Rajasthan which is a mentee institute under Sub Component 1.1 of TEQIP-III. Phase III was started from 1st April 2017 and would be concluded by 31st March 2020. All activities like twinning visits, faculty development, student employability training, were planned and the necessary approvals were obtained from the competent authority for further processing. A delegation has visited the mentee institution and conducted the discussions of assistance in securing accreditation and modernizing the laboratories. Startup Cell was formed under TEQIP-III to support student innovations and startups. Two workshops, as given below, were conducted at NIT Calicut under this scheme during the financial year 2017-18 for promoting innovations and startups.

(i) Start UP & IPR Awareness programme for students- 10th February 2018 (Saturday)

The workshop was an in-house Programme. The workshop had covered the lecture sessions of generating ideas for starting own company and awareness of Government Research funding schemes. Sessions on filing Patent applications and about the legal matters in protection of intellectual property rights were also conducted. Face to face programme with industry representatives and alumni entrepreneurs were the main attraction. Total 103 students had attended the programme.

(ii) Two Day National Workshop on Patents & Intellectual Property Rights -16-17 March 2018 Jointly Organized by PIC-Kerala/KSCSTE & NIT Calicut.

The workshop was sponsored by KSCSTE. Sessions of the workshop had covered the topics on Definitions of IPR, Prior-art search, Procedures in IPR/Patent application, IPR infringement & IP auditing in software regime etc. Resource persons were drawn from the Patent Attorneys, Patent Consultants, India Patent Office, KSCSTE and Industries. Few participants were from the TBI and couple of them was from outside the campus. Including students 66.persons participated in the programme.

5.0 RESEARCH AND DEVELOPMENT ACTIVITIES

5.1 Ph.D PROGRAMMES

DEPARTMENT OF ARCHITECTURE

a. Ph. D completed

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1	Experimental Investigation on the Passive Environment Control System of the Traditional Residential Architecture of Kerala for Indoor Thermal Comfort by Dili A S	Dr. T. Zacharia Varghese and Dr. Naseer M.A	Architecture	QIP
2	Evolving a	Dr. Anilkumar P P	Urban Planning	Internal

NIT Calicut 52 Annual Report 2017-18

	Framework for the Impact Evaluation of Residential Land Use in Urban Areas for Sustainable Land Use Planning by Chithra K	and Dr. Naseer M.A		
3	An Algorithmic Framework for Surface Modeling of Population Concentration and Distribution	Dr. P.P.Anilkumar	Urban Planning	Internal
4	Productive Urban Landscapes- A sustainable solution for Organic waste Management for Indian urban areas	Dr. P.P.Anilkumar	Landscape Planning	FT
5	Sacred groves by design: an inquiry into watershed management as spatial determinant	Dr. A. K. KAsthurba	Landscape Planning	PT

b.On-going Ph. D

SL No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1.	A Methodology for Assessment of Walkability to Public Transportation by Rajina Rahiman V	Dr. Naseer M.A	Urban Planning	Part Time
2.	A Methodology for Optimizing the Location of Dry Port for Sustainable Containerized Transportation by Vidya G Mohan	Dr. Naseer M.A	Urban Planning	Part Time
3.	A GIS Based Model for Determination of Land Value in Urban Areas in Kerala by Binoy B V	Dr. Naseer M.A	Urban Planning	Full Time

4.	A Methodology for Assessment of Pedestrian Facilities in Urban Areas by Aromal	Dr. Naseer M.A	Urban Planning	Full Time
5.	Retrofitting the RCC Roofs of Residential Buildings in the Warm Humid Climate	Dr. Naseer M.A	Architecture	Full Time
6.	Built up space vs Infrastructure capacity assessment	Dr. P.P.Anilkumar	Urban Planning	PT
7.	Deliverance of Community Housing in the Aftermath of Natural Disasters	Dr. P.P.Anilkumar	Urban Planning	PT
8.	Land value modeling in Kerala using Remote Sensing and GIS techniques	Dr. P.P.Anilkumar	Urban Planning	FT
9.	Remodeling Sustainable building concepts through analysis of traditional planning principles	Dr. P.P.Anilkumar	Urban Planning	PT
10.	Mapping Urban Sprawl using GIS and Remote sensing	Dr. P.P.Anilkumar	Urban Planning	FT
11	Sustainable masonry blocks	Dr. A.K.Kasthurba	Construction	FT
12	Environmental Planning for Western Ghats	Dr. A.K.Kasthurba	Environmental Planning	FT
13	Conservation of Heritage Buildings in Pondicherry	Dr. A.K.Kasthurba	Conservation	PT
14	Material for R.C.C construction	Dr. A.K.Kasthurba	Construction	PT

DEPARTMENT OF CHEMICAL ENGINEERING

a. Ph. D completed

SI. No	Name	Guide	Area of Specialization	Scheme (QIP/Part time/Full time)
1.	Mr. Vineesh Ravi	Dr. Shiny Joseph	Micro direct methanol fuel cell modelling and simulation	Part time
2.	Mr. Hariharan	Dr. Shiny Joseph	Preparation and characterization of activated carbon from biomass	Full time
3	Mr. R.S ivashankar	Dr. V. Sivasubramanian	Degradation of Dye stuff using Immobilisation and nano particles	Full time
4	Ms. Uma Krishnakumar	Dr. V. Sivasubramanian	Optimization of Biodiesel Production using solid metal oxide catalyst	Full time
5	Mr. Giri Nandagopal	Dr. N. Selvaraju	Microfluidics	Full time
6	Ms. E. Suganya	Dr. Lity Alen Varghese	Biosorption of hexavalent chromium	Full time
7	Ms. J. Kanimozhi	Dr. V. Sivasubramanian	Biopolysachcharide production	Full time
8	Mr. Nithin sreekumar	Dr. N. Selvaraju	Biofuel from microalgae	Full time
9	Mr. E. Nakkeeran	Dr. N. Selvaraju	Chromium removal using biosorbents	Full time
10	Mr. N. Shankar	Dr. V. Sivasubramanian	Process control	Full time
11	Mr. M. Jerold	Dr. V. Sivasubramanian	Biosorption of dyes using algae	Full time
12	Mr. B. Deepanraj	Dr. V. Sivasubramanian (Coguide) Dr. S. Jayaraj (Guide)	Parametric Study On Biogas Production Through Anaerobic Digestion	Full time (Thesis submitted)
13	Mr. K. Vasantharaj	Dr. V. Sivasubramanian	Studies on biological sulfate reduction using sulfidogenic enrichment culture predominantly	Full time (Thesis submitted)

			desulfovibrio sp.	
14	Ms. P. Sreeda	Dr. V. Sivasubramanian	Design and operation of a novel fixed biofilm reactor for the waste treatment	Part time (Thesis submitted)
15	Mr. V. Aneesh	Dr. N. Selvaraju	Process control	Full time (Thesis submitted)
16	Mr. Abdul Jaleel	Dr. K. Aparna	Process control	Full time (Thesis submitted)
17	Mr. N. Mohanraj	Dr. S. Bhuvaneshwari	Electroadsorption	Full time (Thesis submitted)
18	Renu Jose	Dr G Unnikrishnan Dr Lity Alen Varghese	Polymer blends	Full time(Waiting for the defense)

b. On-going Ph. D

SI. No	Name	Guide	Area of Specialization	Scheme (QIP/Part time/Full time)
1.	Saranya N	Dr.V.Sivasubramania n (Co-guide) Dr.N.Selvaraju (Guide)	Biosorption	Full time
2.	Ms.A.B.Sathya	Dr.V.Sivasubramania	Biopolymer production	Full time
3.	Ms. A. Dhanya	Dr.K.Aparna	Study on the degradation of dyes in textile effluent using a photocatalytic reactor	Full time
4.	Keerthi	Dr. Lity Alen Varghese (Co-guide) Dr.N.Selvaraju (Guide)	Air pollution Monitoring	Full time
5.	Mr. Anish Mathew	Dr.Malladi V.Pavan Kumar	Process control in Reactive Distillation column	Part time
6.	Ms. Lovey Jacob	Dr Shiny Joseph Dr Lity Alen	Membrane separation	Full time

		Varghese		
7.	Mr. Abdul Habid Pullichola	Dr.Lity Alen Varghese	Polymer technology	Part time
8.	Mr. A.Surendhar	Dr.V.Sivasubramania n	Application of Computational Fluid Dynamics in Food Preservation	Full time
9.	Ms. Sonsy Heartson	Dr.Shiny Joseph	Fuel cell control	Full time
10.	Mr. Suchith chellappan	Dr.K.Aparna	Biodiesel production	Full time
11.	Mr. C.Vigneshwaran	Dr.V.Sivasubramania	Biosurfactants production	Full time
12.	Ms. Sindhu	Dr.V.Sivasubramania	Biofuels	Part time
13.	Ms. Anju sunny	Dr.K.Aparna	Process control	Full time
14.	Mr. Anish Thomas	Dr.Malladi V. Pavan Kumar	Process control	Full time
15.	Mr. P. Murugan	Dr. S.Bhuvaneshwari	Waste water treatment using membranes	Full time
16.	Ms. Remya Balakrishnan	Dr Lity Alen Varghese Dr S K Manu	Polyurethane foams	Part time
17.	Mr. Surej Rajan	Dr Lity Alen Varghese Dr Shiny Joseph	Boiling heat transfer characteristics of nanofluids	Part time
18.	Mr. Sony George	Dr.Malladi V. Pavan Kumar	Spray drying of food products	Part time
19.	Mr. Haisel Harison	Dr.Shiny Joseph	Boiling heat transfer	Part time
20.	Ms. Aswani M T.	Dr.Malladi V.Pavan Kumar	Bioremediation of Pesticides	Full Time
21	M. Sathish Kumar	Dr.Malladi V.Pavan Kumar	Process Control	Part Time
22	Sumisha A	Dr. K. Haribabu	Microbial fuel cell	Full time
23	Aswathi Asok	Dr. K. Haribabu	Solar cell	Full time
24	Mr. Vishnu Prasad	Dr. K. Haribabu	Application of Nanofluids and Nano PCMs in Heat transfer	Full time

25	Nivedita S	Dr.Shiny Joseph	Membrane separation	Full time
26	Ramya Sankar M S	Dr.V.Sivasubramania	Electrocoagulation	Full time
27	Sinu P	Dr.V.Sivasubramania	Membrane separation	Full time
28.	Nimmi C Shekar	Dr.Lity Alen Varghese	Polymers	Full time
29.	Kavya V R	Dr. Aparna K	Process control	Full time
30.	Vinila	Dr. Aparna K	Process control	Part time
31.	Sreepriya	Dr. Aparna K	Process control	Part time
32.	Gazliya	Dr. Aparna K	Biofuel	Full time
33.	Vidyeswari	Dr. S.Bhuvaneshwari	Microbial Fuel Cell	Full time
34.	Mr. Mohanraj P	Dr. S.Bhuvaneshwari	Electrosorption	Full time
35.	Mr. Eldo Abraham	Dr. Bhuvaneswari (Co-guide) Dr.N.Selvaraju (Guide)	Micro fluidics	Full time
36.	Mr. Karthick S	Dr. K Haribabu	Microbial fuel cell	Full time
37.	Aishwarya	Dr. Shiny Joseph	Membrane separation	Full time
38.	Mr. Nishan Ahammed	Dr. Lity Alen Varghese	Waste water treatment	Full time

DEPARTMENT OF CIVIL ENGINEERING

a. Ph. Ds completed

Fourteen numbers of Ph. Ds have been completed during the 2017-18 period.

b. Ongoing Ph. Ds

Sl. No.	Name	Guide	Area of specialization	Scheme (QIP/PT/FT)
1	M Sivakumar	M.V.L.R. Anjaneyulu	Transportation Engineering	Part Time
2	Manjula N K	T.M.Madhavan Pillai & Praveen Nagarajan	Structural Engineering	Part Time
3	Sabna V	S.Chandrakaran & Santosh.G.Thampi	Environmental Engineering	Part Time
4	Sreela P K	M.V.L.R. Anjaneyulu	Transportation Engineering	QIP - Part Time

5	Sreelekha M G	M.V.L.R. Anjaneyulu & K. Krishnamurthy	Transportation Engineering	Part Time
6	B Venkata Subbaiah	V.Mustafa & Santosh.G.Thampi	Offshore Structures	Part Time
7	Bybin Paul	M.V.L.R. Anjaneyulu	Transportation Engineering	Part Time
8	Safeer Ali Abbas Ali	K. Krishnamurthy	Construction Management	Full Time
9	V S Sanjay Kumar	M.V.L.R. Anjaneyulu	Transportation Engineering	Part Time
10	Shiji P	Kodi Ranga Swamy	Construction Management	Full Time
11	Muneera C P	K. Krishnamurthy	Transportation Engineering	Full Time
12	Anil Joseph	S.Chandrakaran & N.Sankar	Geotechnical Engineering	Part Time
13	Ansu V	M.V.L.R. Anjaneyulu	Transportation Engineering	Part Time
14	Devika Babu	M.V.L.R. Anjaneyulu	Transportation Engineering	Full Time
15	Sivakumar B	K. Krishnamurthy	Transportation Engineering	Part Time
16	Sabitha N M	Santosh.G.Thampi & Sathish Kumar D	Water Resources Enigneering	Part Time
17	Arun Baby Zacharia	M.V.L.R. Anjaneyulu & Harikrishna M	Transportation Engineering	Full Time
18	Mandala Siva Priyanka Yadav	George K. Varghese	Environmental Engineering	Full Time
19	Drisya J	Sathish Kumar D	Water Resources Enigneering	Full Time
20	Sherin K S	S.Chandrakaran & N.Sankar	Geotechnical Engineering	Part Time
21	Neena M Joseph	M.V.L.R. Anjaneyulu & Harikrishna M	Transportation Engineering	Part Time
22	Ciby Jacob Cheriyan	T.M.Madhavan Pillai & Sajith A.S.	Structural Engineering	Full Time
23	Irshad Abdul Azeez P	N.Ganesan & P.V.Indira	Structural Engineering	Full Time
24	Prakash C	Santosh.G.Thampi	Environmental Engineering	Part Time
25	Sandeep M S	A.P.Shashikala & Praveen Nagarajan	Structural Engineering	Part Time
	•	•	•	•

26	Femy M Mak. Krishnamurthyar	S.Chandrakaran & Kodi Ranga Swamy	Geotechnical Engineering	Full Time
27	R Sathya Prakash	K. Krishnamurthy	Transportation Engineering	Full Time
28	Sukanya J Nair	K Sasikumar	Water Resources Enigneering	Full Time
29	Drisya M	K. Krishnamurthy	Transportation Engineering	Full Time
30	Minu Ann Peter	Praveen Nagarajan & Sajith A.S.	Structural Engineering	Full Time
31	Himasree P R	N.Ganesan & P.V.Indira	Structural Engineering	Full Time
32	Muhanned Siddik A	George K. Varghese	Environmental Engineering	Part Time
33	Akhila M	Kodi Ranga Swamy	Environmental Geotechnology	Full Time
34	Sangeetha M	M.V.L.R. Anjaneyulu & Harikrishna M	Transportation Engineering	Full Time
35	K T Vipin	N.Ganesan & P.V.Indira	Structural Engineering	Full Time
36	Rinku Varghese	S.Chandrakaran & Kodi Ranga Swamy	Geotechnical Engineering	Full Time
37	Sathish Kumar V	N.Ganesan & P.V.Indira	Structural Engineering	Full Time
38	Regi P Mohan	Kodi Ranga Swamy	Geotechnical Engineering	Part Time
39	Poonam Mohan	A.P.Shashikala	Structural Engineering	Full Time
40	Unnikrishnan S	V.Mustafa & J.Sudhakumar	Construction Management	Part Time
41	Jisha John	Pramada S. K. & K Sasikumar	Water Resources Enigneering	Full Time
42	Lincy Christy D	T.M.Madhavan Pillai & Praveen Nagarajan	Structural Engineering	Full Time
43	Surya T V	Santosh.G.Thampi	Water Resources Enigneering	Full Time
44	Anand Raj	A.P.Shashikala & Praveen Nagarajan	Offshore Structures	Full Time
45	P Kabbilawsh	Sathish Kumar D & Chitra N R	Water Resources Enigneering	Full Time

46	Kannan C Bhanu	N.Ganesan & P.V.Indira	Structural Engineering	Full Time
47	Prem Mohan	George K. Varghese	Environmental Engineering	Full Time
48	Krishnachandran	J.Sudhakumar	Construction Management	Part Time
49	Saranya P	A.P.Shashikala & Praveen Nagarajan	Structural Engineering	Full Time
50	Akhil K S	S.Chandrakaran & N.Sankar	Geotechnical Engineering	Full Time
51	Geethu Thomas	Kodi Ranga Swamy	Geotechnical Engineering	Full Time
52	Sithara S	Santosh.G.Thampi & Pramada S. K.	Water Resources Enigneering	Full Time
53	Ansa Thasneem	Santosh.G.Thampi & Chitra N R	Water Resources Enigneering	Full Time
54	Mohammed Aslam	Praveen Nagarajan & Mini Remanan	Structural Engineering	Full Time
55	Lekshmi Ashok	Santosh.G.Thampi & George K. Varghese	Environmental Engineering	Full Time
56	J Chithra	Praveen Nagarajan & Sajith A.S.	Structural Engineering	Full Time
57	Ashwini S K	George K. Varghese	Environmental Engineering	Full Time
58	Amal Raj	M.V.L.R. Anjaneyulu	Transportation Engineering	Full Time
59	Ashima J Catherine	S.Chandrakaran	Geotechnical Engineering	Full Time
60	Jincy Rose M A	Chitra N R	Water Resources Enigneering	Full Time
61	Abinaya S	George K. Varghese	Environmental Engineering	Full Time
62	Jishnu V P	N.Sankar	Geotechnical Engineering	Full Time
63	B Satya Narayana Reddy	Pramada S. K.	Water Resources Enigneering	Full Time
64	Gopika Mohan	N.Ganesan & Praveen Nagarajan	Structural Engineering	Full Time
65	Sreedevi Lekshmi	J.Sudhakumar	Concrete Technology	Full Time
66	Bindurani P	N.Ganesan & P.V.Indira	Structural Engineering	QIP

67	Rahla Rabia	Sathish Kumar D	Water Resources Enigneering	Full Time
68	Bennet A Ipe	Sajith A.S.	Structural Engineering	Full Time
69	Trupti Amit Kinjawadekar	A. P. Shashikala & Praveen Nagarajan	Structural Engineering	Part Time
70	S Smitha	Kodi Ranga Swamy	Environmental Engineering	Full Time
71	Lakshmi Priya	George K. Varghese	Environmental Engineering	Part Time
72	Abhiya Abbas Mundol	Sathish Kumar D	Water Resources Enigneering	Part Time
73	Devipriya V P	S.Chandrakaran & Kodi Ranga Swamy	Geotechnical Engineering	Full Time
74	Sethulekshmi V S	K. Krishnamurthy	Transportation Engineering	Full Time
75	Sachin Ramesh V V	Santosh.G.Thampi	Water Resources Enigneering	Full Time
76	Rajindas K P	A.P.Shashikala	Offshore Structures	Full Time
77	Babitha Benjamin	J.Sudhakumar	Concrete Technology	Full Time
78	Prince Thanckachan	T.M.Madhavan Pillai	Structural Engineering	Full Time
79	Jiji Panicker	Praveen Nagarajan & Santosh.G.Thampi	Structural Engineering	Part Time

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

a. Ph. D completed

Sl. No	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1	Ms. Lijiya A	Dr. V.K Govindan	Image Processing	PT, Internal
2	Ms. Pamela Vinitha Eric	Dr. Muralikrishnan K & Dr. Gopakumar G	Bioinformatics	PT
3	Ms. Anu Mary Chacko	Dr. S D Madhukumar	Big Data Security	PT, Internal
4	Mr. Arun K S	Dr. V.K Govindan	Image Processing	FT
5	Ms. Shabeera T P	Dr. S D Madhukumar	Cloud Computing	FT

b. On-going Ph. Ds

Sl. No	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1.	Mr. Shyam P Joy	Dr. Priya Chandran	Information	PT

			Security	
2.	Ms. Pournami P.N.	Dr. V.K. Govindan Dr. K Muralikrishnan	Image Processing	PT, Internal
3.	Mr. Jithin R	Dr. Priya Chandran	Information Security	PT
4.	Mr.Unnikrishnan P	Dr. V.K.Govindan Dr. S D Madhu Kumar	Pattern Recognition	PT
5.	Ms. Nishamol P H	Dr. G. Gopakumar	Bioinformatics	PT
6.	Mr. K Nagaraju	Dr.Sudeep K S	Algorithms & Graph Theory	FT
7.	Ms.Jeethu V Devasia	Dr. Priya Chandran	Algorithms	FT
8.	Ms.Sreejini K S	Dr. V.K.Govindan Dr. K A Abdul Nazeer	Image Processing	PT
9.	Ms Sameera Muhammed Salam	Dr. K Muralikrishnan	Graph Theory	FT
10.	Ms Remya K Sasi	Dr. V.K Govindan Dr. K A Abdul Nazeer	Image Processing	FT
11.	Ms Nandini J Warrier	Dr. K Muralikrishnan	Graph Theory	FT
12.	Ms Daphna Chacko	Dr. K Muralikrishnan	Graph Theory	FT
13.	Ms Anita Brijit Mathew	Dr. S D Madhu Kumar	Cloud Computing	FT
14.	Mr Ojus Thomas Lee	Dr. S D Madhu Kumar, Dr.Priya Chandran	Cloud Computing	PT
15.	Mr Sunil Kumar P V	Dr. G. Gopakumar	Bioinformatics	FT
16.	Mr Sarang Sukumar A	Dr. G. Gopakumar	Bioinformatics	PT
17.	Mr Gilesh M P	Dr. S D Madhu Kumar	Cloud Computing	FT
18.	Ms Mahija K C	Dr. K A Abdul Nazeer	Bioinformatics	FT

19.	Mr Vishak R	Dr. K A Abdul Nazeer	Bioinformatics	FT
20.	Ms Shamna P	Dr. V.K Govindan, Dr. K A Abdul Nazeer	Image Processing	FT
21.	Ms Jeena Kleenankandy	Dr. K A Abdul Nazeer	Natural Language Processing	FT
22.	Mr. Manu Madhavan	Dr. G. Gopakumar	Bioinformatics	FT
23.	Ms. Rani M.R	Dr. Subhashini R	Design and analysis of Fixed parameter tractable algorithms	FT
24.	Mr. Sankaranarayanan P. N	Dr. K A Abdul Nazeer	Biological Data Mining	FT
25.	Ms. Saritha Murali	Dr. Saidalavi kalady	Image Processing and Computer Vision	FT
26.	Ms. Sithara Kanakaraj	Dr. Saidalavi kalady	Image Processing and Computer Vision	FT
27.	Ms. Athira K	Dr. G.Gopakumar	Bioinformatics	FT
28.	Ms. Hridya P R	Dr. Jimmy Jose	Cryptography and Security	FT
29.	Ms. Dhanyamol Antony	Dr. Subashini R	Parameterized Complexity	FT
30.	Ms. Reshma Raj R S	Dr. Saidalavi Kalady & Dr. Jayaraj P B	Chip multicore processors	FT
31.	Ms. Remi Raman	Dr. Subashini R & Dr. Subhasree M	Design and Analysis of fixed- parameter tractable algorithms for computational Geometry problems	FT
32.	Ms. Sruthi C J	Dr. Lijiya A	Image Processing	FT
33.	Ms. Neeta A Eapen	Dr. Subhasree M	Computational Geometry	FT
34.	Ms. Jasila E K	Dr. Saleena N &	Bioinformatics	FT

		Dr. K A Abdul Nazeer		
35.	Mr. Mhatre Swapneel Chandrakant	Dr. Priya Chandran	Computer Architecture (Virtualisation)	FT
36	Mr. Ajish Kumar K S	Dr. Sudeep K S	Graph Theory	FT
37	Mr. Nidheesh N	Dr. K A Abdul Nazeer	Bioinformatics	FT
38	Mr. Jaisooraj J	Dr. S D Madhu Kumar	Internet of Things	FT
39	Ms. Merlin George	Dr. Anu Mary Chacko	Big Data Analytics	FT
40	Ms. O K Reshma	Dr. Saleena N	Text Mining	FT
41	Ms. Shahira K C	Dr. Lijiya A	Image Processing	FT
42	Ms. Lubna A	Dr. Saidalavi kalady	Natural Language Processing	FT
43	Ms. Jisna V A	Dr. Jayaraj P B	Bioinformatics	FT
44	Ms. Anita John	Dr. Jimmy Jose	Cryptography and Security-Analysis and Design of Stream Ciphers	PT
45	Mr. Bijoy M B	Dr. Jayaraj P B	High Performance Computing	PT
46	Mr. Ratheesh V V	Dr. Saidalavi kalady	Image Processing	PT

DEPARTMENT OF ELECTRICAL ENGINEERING

a. Ph. D completed

SI No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Meenu D Nair	Dr. Mukti Barai	Power Electronics	FT
2	Guguloth Ramesh	Dr. T. K. Sunil Kumar	Power Systems	FT

b. Ongoing Ph. Ds

Sl. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Sreekanth M	Dr. Abraham T Mathew	Control Systems	Full Time
2	Mary Reena K E	Dr. Abraham T Mathew	Control Systems	QIP
3	Sujo George	Dr. Ashok S	Adaptive Relaying for Microgrid Protection	Full Time
4	Parthish Kumar Paul	Dr. Jeevamma Jacob	Control Systems	Part Time
5	M Pala Prasad Reddy	Dr. Jeevamma Jacob	Control Systems	Full Time
6	Shalu George	Dr. K S Sivanandan	Control Systems	QIP
7	Jinu K T	Dr. K S Sivanandan	Control Systems	Part Time
8	Ashmi M	Dr. K S Sivanandan	Control Systems	Full Time
9	RehnaNalakath	Dr. M P Nandakumar.	Control Systems, Optimal Control	Full Time
10	K Dheeraj	Dr. M P Nandakumar.	Control Systems, Optimal Control	Full Time
11	Shijoh V	Dr. M. V. Vaidyan	Control Systems	Full Time
12	Anirudh K M	Dr. MuktiBarai	Power Electronics	Full Time
13	Meenu D Nair	Dr. MuktiBarai	Power Electronics	Full Time
14	Vivek G	Dr. MuktiBarai	Power Electronics	Full Time
15	Subhash K M	Dr. Paul Joseph K	Biomedical Signal Processing	Internal
16	Saritha M	Dr. Paul Joseph K. & Dr. Abraham T Mathew	Biomedical image processing	Full Time
17	AhammedMuneer	Dr. Paul Joseph K.	Biomedical image processing	Part Time
18	Nisha P V	Dr. Sindhu T K & Dr. Elizabeth P Cheriyan	Electromagnetic interference	Part Time
19	Devika KB	Dr. Susy Thomas	Control Systems	Full Time
20	Rinu Alice Koshy	Dr. Susy Thomas	Control Systems	Part Time
21	Mini V	Dr. T. K. Sunil Kumar	Power Systems	QIP
22	Priya N	Dr. T. K. Sunil Kumar	Control Systems	Full Time
23	Shinghare D Y	Dr. T. K. Sunil Kumar	Power Systems	QIP (Poly)
24	Suresh P Damodaran	Dr. T. K. Sunil Kumar	Power Systems	QIP

25	FebinaBeevi P	Dr. Jeevamma Jacob & Dr. T. K. Sunil Kumar	Control Systems	Full Time
26	Guguloth Ramesh	Dr. T. K. Sunil Kumar	Power Systems	Full Time
27	SurajDamodaran	Dr. T. K. Sunil Kumar & Dr. A. P. Sudheer	Image processing and its application to robotics	Full Time
28	Joseph Peter	Dr. RijilRamchand	Constant switching frequency hysteresis controllers	Full Time
29	Biju K	Dr.RijilRamchand	Grid interfacing of renewable energy sources using multilevel inverters	Part Time
30	Pratheesh K J	Dr.RijilRamchand, Dr. Jagadanand G	Multi-Level Inverters	Full Time
31	Deepthi S Nair	Dr. Saly George, Dr. Jagadanand G	Torque ripple reduction in BLDC motors	Full Time
32	Nithin Raj	Dr. Saly George, Dr. Jagadanand G	Condition monitoring of Induction Machine	Full Time
33	Abhilash T Vijayan	Dr. Ashok S	Visual Servoing for a Robotic Manipulator	QIP
34	Jino M Pattery	Dr. Elizabeth P. Cheriyan& Dr. RijilRamchand	Power Systems	Part Time
35	Sivaprasad	Dr. Kumaravel S & Dr. S Ashok	Optimal Interfacing strategies for Micro-Grids	Full Time
36	RajashreeRaghavan	Dr. Susy Thomas	Control Systems	QIP
37	M J Laly	Dr. Elizabeth P Cheriyan& Dr. Abraham T Mathew	Control Systems	QIP
38	Sandeep J	Dr. RijilRamchand& Dr. S Ashok	Matrix converter topology for VF Drives	Full Time
39	Rohit K Mathew	Dr.Ashok S & DrKumarvel S.	Reliaiblityvs Resilience of Microgrid	Full Time
40	Haseena K A	Dr. Jeevamma Jacob & Dr. Abraham T Mathew	Control Applications in Power Systems	Full Time
41	Jaya C K	Dr. Sunitha R & Dr. Abraham T Mathew	Control Applications in Power Systems	Full Time
42	Smt.Parvathy	Dr. M. P. Nandakumar	Optimal Control	Full Time
43	Avinash V Nelson	Dr. Preetha P Dr. Sunitha K	Nanodielectrics	Full Time
44	Jineeth Joseph	DrSindhu T K	Condition monitoring of power apparatus	Full Time
45	RohikaaMicky	Dr.Sunitha R &Dr.Ashok. S	Dynamic Security Assessment of Microgrids	Full Time

46	Anjana K G	Dr. MuktiBarai	Power Electronics	Full Time
47	Aswini Kumar Muthavarapu	Dr. MuktiBarai	Power Electronics	Full Time
48	AkhilVinayak B	Dr. Jagadanand G	Fault detection in Induction Motor Drives.	Full Time
49	Nidya M V	Dr. Jeevamma Jacob &Dr. Mija S J	Modelling and Control of 3 dof Helicopter	Full Time
50	Nimmy John T.	Dr.Subha D.P.	Biomedical Engineering	Full Time
51	Binukrishnan	Dr. Mija S. J. & Dr. Elizabeth P. Cheriyan	Power System Control	Full Time
52	Vinu Thomas	Dr. Kumaravel S & Dr. S Ashok	Power & Control System	Full Time
53	Joseph P. Varghese	Dr. Ashok S. & Dr. Kumaravel S.	Transmission Line Congestion Management	Part Time
54	Sigi C. Joseph	Dr. Ashok S.	V2G and V2H applications in Smart grids	Part Time
55	Ravishankar A N	Dr. Ashok S. & Dr. Kumaravel S	Transactive Energy Framework in Micro grids	Full Time
56	Grace Sadhana Samuel	Dr. Ashok S. & Dr. Kumaravel S	Micro grid stability Analysis	Full Time
57	Anjali Anand K	Dr. Saly George, Dr. Jagadanand G	Fault Detection of Machines & Drives	Full Time
58	Jayakrishnan S R	Dr. Elizabeth P Cheriyan, Dr. Sindhu T K	Power Systems	Full Time
59	Retheep Raj	Dr. K S Sivanandan	Biomedical engineering	QIP
60	Femi Thomas	Dr. Mija S J.	Control systems	Full Time
61	Megha G Krishnan	Dr. Kumaravel S, Dr. Ashok S	Industrial Automation	Full Time
62	Mohammed Shafi K P	Dr. RijilRamachand	Power Electronics	Full Time
63	Vidya M S	Dr. Sunitha K, Dr. Ashok S	High Voltage Enfgineering	Full Time
64	Lakshmi Mohan	Dr. Sunitha K, Dr. Sindhu T K	High Voltage Engineering	QIP
65	Aseem	Dr. Sunitha R, Dr. RijilRamchand	Power electronic applications in power systems	QIP
66	Hemarani P	Dr. Saly George, Dr. Ashok S	Power Electronics	Internal
67	Janesh N M	Dr.Ashok S &Dr.Kumaravel S	Wind Energy Engineering	Part Time
68	SubinKoshy	Dr.Sunitha R	Wide Area Measurement based Security Assessment for Smart Grid	Full Time
69	Haritha G	Dr.Ashok S &Dr.Kumaravel S	Stability Improvement of Microgrid Operation	Full Time

70	Pravika M	Dr.Paul Joseph K &Dr.Jeevamma Jacob	Control Applications in Biomedical Engineering	Full Time
71	Emmanuel Babu P	Dr.Kumaravel S	Performance Enhancement of Electric Motors	Part Time
72	Priyalakshmi S	Dr.Subha D P	Bio Signal Processing	Full Time
73	BiswajitDebnath	Dr.Mija S J	Enhanced BELBIC for MIMO System	Full Time
74	SaugatoDey	Dr.Sunil Kumar T K &Dr.Ashok S	3 Axis Platform stabilizer with target detection & Tracking	Internal
75	Gangavarapu Gurukumar	Dr.Kumaravel S	Multi Input DC to DC Converters for Renewable Energy Applications	Full Time
76	Joyce Jacob	Dr.Preetha P &Dr.Sindhu T K	Liquid Nano Dielectrics	Full Time
77	Surya D	Dr. Subha D P	Biomedical engineering	FT
78	Rahul S	Dr. Sunitha R	Power System	FT
79	Rinsha V	Dr. G. Jagadanand	Power Electronics	FT
80	Jacob P Varghese	Dr. Preetha. P & Dr. Sunitha. R	High Voltage Engineering	FT
81	Emil Ninan Skariah	Dr. Sindhu T. K	High Voltage Engineering	FT
82	Athira Raju	Dr. Elizabeth P Cheriyan, Dr. Rijil Ramchand	Power System	FT
83	Smitha B	Dr.Paul K. Joseph	Biomedical Signal Processing	QIP
84	S Gowrishankar	Dr. Sunitha K	High Voltage Engineering	FT

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

a. Ph. Ds completed:

Sl. N o.	Name	Guide	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Bindima T.	Dr. Elizabeth Elias	Design and Implementation of Reconfigurable low complexity two dimensional filters	QIP
2	Anil Jacob	Dr. Lillykutty Jacob	Medical Sensor Networks	FT

3	Jayakumar E. P.	Dr. Sathidevi P. S	Combined acoustic echo and noise cancellation for hands free communication devices	PT
4	K. S. Geethu	Dr. A.V. Babu	Underwater Acoustic Sensor Networks	FT
5	Jilna P.	Dr. Deepthi P.P.	Hardware efficient integrated secure system	FT

b. Ongoing Ph. D

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/ FT)
1	V Sakthivel	Dr. Elizabeth Elias	Uniform and No-uniform Modified DFT Filter banks	РТ
2	Amir A	Dr. Elizabeth Elias & Dr. Bindiya T.S.	Multirate signal Processing	FT
3	I Raghu	Dr. Elizabeth Elias	Multirate signal Processing	FT
4	Mary Reena	Dr. Lillykutty Jacob and Dr. Abraham T Mathew	Wireless Networked Control Systems	QIP
5	Shamna H R	Dr. Lillykutty Jacob	Cooperative Networks	QIP
6	Deepthi Sasidharan	Dr. Lillykutty Jacob	Low Power Lossy Wireless Networks	QIP
7	Gilesh M P	Dr. Lillykutty Jacob and Dr. S D Madhukumar	Cloud Computing	QIP
8	Susan Dominic	Dr. Lillykutty Jacob	Device to Device Networks	FT
9	Emy Mariam George	Dr. Lillykutty Jacob	Coexisting WBANs	FT
10	RemyaJayachand ran	Dr. P C Subramaniam and Dr. Rama Komaragiri	VLSI	FT
11	Nisha K	Dr. Sreelekha G & Dr. Sathidevi P. S	ROP Image Analysis	FT
12	Arunsankar M.S	Dr. Sathidevi P. S	Scalable Speech Coding	FT
13	Athulya Nair	Dr. Sathidevi P. S	Forensic Speaker Recognition	FT
14	Nithin G	Dr. Sathidevi P. S. &	Stereo EEG Analysis	FT

		Dr. Ameer P. M.		
15	Steffy Maria Joseph	Dr. Sathidevi P.S.	DNA Microarray Image compression	FT
16	Shahnaz K V	C K Ali	Wireless Communication	PT
17	Deepak P M	C K Ali	Wireless Communication	FT
18	Syam Chandran K	C K Ali	OFDM and MIMO systems	FT
19	Finto Raphel	Dr. Sameer S. M.	Multimedia Transmission over Wireless Networks	FT
20	Nandakumar R	Dr. Deepthi P.P. & Dr. Sameer S.M.	Light Weight Cryptography	PT
21	Sanoop Kumar P.S.	Dr. Sameer S M.	Wireless Communication	FT
22	Najlah C.P	Dr. Sameer S.M	Wireless Communication	FT
23	Namitha A. S.	Dr. Sameer S. M.	Wireless Communication	FT
24	K. Ram Babu	Dr. A.V. Babu	Relay Assisted Multi-hop Wireless Networks	FT
25	UpamaRajan	Dr. A.V. Babu	Millimeter wave Wireless Networks	QIP
26	Poornima S	Dr. A.V. Babu	Cognitive Relay Networks	FT
27	Sangeetha U	Dr. A.V. Babu	Wireless Networks	QIP
28	Aswathi V	Dr. A.V. Babu	Wireless Networks	FT
29	Amit S Unde	Dr. Deepthi P.P.	Energy efficient secure distributed source coding	FT
30	Lakshmi V S	Dr. Deepthi P.P.	Secure coding for distributed storage	QIP
31	Aneesh M Koya	Dr. Deepthi P.P.	Secure data processing in body area network	FT
32	Sona Alex	Dr. Deepthi P.P. and Dr. Dhanaraj K. J.	Secure Communication for 5G networks	FT
33	V Meena	G Abhilash	Compressed Sensing and Robust Recovery	PT
34	Gayatri Parthasarathi	G Abhilash	Learning Algorithms for Compressed Sensing	FT
35	Arun Varghese	Dr. Sreelekha G	Video Analytics	QIP
36	Supriya	Dr. Sreelekha G	Hardware Architectures for Video	FT

	Unnikrishnan		processing	
37	Hari C V	Dr. Praveen Sankaran	Pattern Classification	PT
38	Rashmi M	Dr. Praveen Sankaran	Pattern Classification	PT
39	Deepa Nair	Dr. Praveen Sankaran	Image Processing	PT
40	Shameer F	Dr. Praveen Sankaran	Pattern Classification	FT
41	Kalpana George	Dr. Praveen Sankaran	Image Processing	FT
42	Nithin Thomas Abraham	Dr. Dhanaraj K. J.	Power Management for low power analog design	FT
43	Abdu Rahiman V	Dr. Sudhish N George	Robust Image Super Resolution	РТ
44	Sameera Mhd Sageer	Dr. Sudhish N George	Medical Image Denoising	FT
45	Nishanth Augustine	Dr. Sudhish N George	(Remote Sensing Image Classification: Preporocessing Stages	РТ
46	Baburaj M	Dr. Sudhish N George	Low Rank Matrix Recovery and its applications in Signal Processing	PT
47	Anju Jose Tom	Dr. Sudhish N George	Moving Object Detection & Tracking	FT
48	Baiju P S	Dr. Sudhish N George	Image and Video Deweathering.	QIP
49	Krishnapriya S	Dr. Suja K.J & Dr. Rama Komaragiri	MEMS	FT
50	Ranjith R	Dr. Suja K.J & Dr. Rama Komaragiri	Semiconductor Device Modeling	FT
51	Lekshmi M. S.	Dr. Suja K.J	MEMS	FT
52	Nisanth A	Dr. Suja K.J	MEMS	FT
53	Sudhi Sudharman	Dr. Bindiya T S	Multirate Signal Processing	FT
54	Hareesh	Dr. Bindiya T S	Multirate Signal Processing	FT
55	Sreelekha K. R.	Dr. Bindiya T S	Multirate Signal Processing	FT
56	Mridula K M	Dr. Ameer P M	Wireless Networks	FT
57	Roy Thankachan	Dr. Ameer P M	Wireless Networks	PT
58	Nidheesh	Dr. Nazeer (CSE) and Dr. Ameer P M	Bioinformatics	QIP

59	Deepak Jose	Dr.Sameer S.M	Wireless Communication	FT

DEPARTMENT OF MECHANICAL ENGINEERING

a. Ph. D completed

Sl. No.	Name	Guide	Thesis title	Scheme
1	Anish M N	Dr. Dhanish P B and Dr. R Sridharan	Development and Application of an Instrument for Measuring Service Quality Offered to International Patients	QIP
2	Rupesh S	Dr. Arun P and Dr. C Muraleedharan	Biomass gasification	FT
3	Jilse Sebastian	Dr. C. Muraleedharan and Dr. Santhiagu	Enzymatic Transesterificatioof Vegetable Oils	QIP
4	Kishor Kumar V.V.	Dr Biju T Kuzhiveli	Parametric optimization and hydrodynamic characterization of micro porous regenerator fillers relevant to Stirling cryocoolers	PT

b. Ongoing Ph. D

Sl. No	Name of the student	Name of guide(s)	Area of Specialization	Scheme
1	Rakesh Hari	Dr. C. Muraleedharan	Entropy estimation during phase change in heat pipes	FT
2	Joel George	Dr. C. Muraleedharan and Dr. Arun P	Experimental Analysis of Fluidized Bed Gasification	QIP
3	Mubarak M	Dr. A. Shaija and Dr. T.V. Suchithra	Expt. investigations on the use of biofuels produced from Salvinia molesta and Chlorella Pyrenoidosa as diesel engine fuel Pyrenoidosa as diesel engine fuel on the use of biofuels produced from fresh water weed and algae as diesel engine fuel	FT
4	Deepan Raj B	Dr. S. Jayaraj Dr. V. Subramaniam	Bio-gasification	FT
5	Rajesh Kana S	Dr. A. Shaija	Expt. investigations on the use of biofuels produced from	FT

NIT Calicut 73 Annual Report 2017-18

			Avocado as diesel engine fuel	
6	Lokesh. B Paradeshi	Dr. S. Jayaraj	Thermal Engineering	FT
7	Derick Abraham	Dr. Biju T Kuzhiveli	Cryogenic cooler	FT
8	Shivaraju (Discontinued)	Dr. Biju T Kuzhiveli	Cryogenics	FT
9	Subramani Narayana Sarma	Dr. Biju T Kuzhiveli	Optimization of modified refrigerator	FT
10	Arun K Raj	Dr. S. Jayaraj	Modeling of PCM based Thermal Energy Systems	FT
11	Vishnu S B	Dr. Biju T Kuzhiveli	Thermal stratification problem in liquid oxygen tank	FT
12	Rahul.S. Arackal	Dr. TJS Jothi	Jet flows and Acoustics	FT
13	Sumesh CK	Dr. T.J. Sarvoththama Jothi	Acoustic studies from airfoils	QIP
14	Arun M G	Dr. T.J. Sarvoththama Jothi	Jet Flow and Acoustics	FT
15	M Ijas Ahmed	Dr. L.G. Kiran Kumar	Thermal Sciences	FT
16	Favas T K	Dr. Ghulam Jilani	Thermal Science	PT
17	Rohinikumar. B.	Dr. C. Muraleedharan	Analysis of solar thermal water pumping system	PT
18	Rajesh T N	Dr. T J Sarvoththama Jothi and Dr. T. Jayachandran (ISRO)	Experimental Studies in Vortex Chamber	PT
19	Sajith K.G.	Dr. C. Muraleedharan	Studies on hybrid solar thermal-pv system	PT
20	PV Manu	Dr. S. Jayaraj	Thermal Science	PT
21	Kishor Kumar V V	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
22	Rajesh VR	Dr. Biju T Kuzhiveli	Thermal Sciences	PT
23	Salumuri. S. L. Rao	Dr. A. Shaija and Dr. S. Jayaraj	Design and development of Fuel Cell	QIP
24	Shaiju M R	Dr. S Jayaraj and Dr. Arun P	Gas turbine diagnostics	PT
25	L. Ramesh Krishnan	Dr. L.G. Kiran Kumar	Air DistributionSystem	FT
26	Bakhirathan A	Dr. L.G. Kiran Kumar	Heat transfer and Fluid flow	FT

27	Dileep K	Dr. S. Jayaraj	Thermal Science	PT
28	G Srinivasa Rao	Dr. A. Shaija	Flame acoustic interaction applicable to gas turbines combustion instabilities	PT
29	Rony Johnson	Dr. S Jayaraj and Dr. Arun P	Solar thermal integration in gas turbine power plants	PT
30	Vinod V	Dr. M.D. Narayanan	Synchronization in mechanical systems	PT
31	Premchand VP	Dr. M.D. Narayanan and Dr. A.S. Sajith, CED	Nonlinear vibration absorbers	PT
32	Joseph Babu	Dr. ML Joy and Dr. K. Prabhakaran Nair	Development of a new grease	FT
33	Jobin Varghese	Dr. P.K. Rajendra kumar and Dr. K.S. Sivanandan	Design	FT
34	Ajith Kuriakose	Dr. M.D. Narayanan	Modeling of complex systems using fractional calculus	FT
35	Shruthi C M	Dr. M.L. Joy and Dr. Sudheer A P	Robotics	FT
36	Ambika PS	Dr. K. Prabhakaran Nair and P.K. Rajendra kumar	Tribology	FT
37	Sabarinath	Dr. K. Prabhakaran Nair and P.K. Rajendra kumar	Tribology	FT
38	Akhil V M	Dr. P K Rajendrakumar Dr. K S Sivanandan, EED	On the dynamics of a pneumatically activated human locomotion support system	FT
39	Aju Zachariah Mani	Dr. Jayadeep U B	case study on wear characterization of nano coated surfaces	FT
40	Amit Aravind	Dr. ML Joy and Dr. K. Prabhakaran Nair	Development of a new lubricant	PT
41	Chacko Preno Koshy	Dr. Rajendrakumar, P.K.	Design	PT
42	Pretheesh K	Dr. Allesu Kanjirathinkal, M A Joseph. R. Ravi	Strengthening of Al castings	PT
43	Saijal KK	Dr. K. Prabhakaran Nair and Dr. ML Joy	Optimization of helicopter rotor	PT
44	Sajeeb A.M.	Dr. Rajendrakumar P.K	Tribology	PT

45	Jithin Velayudan	Dr. M D Narayanan	Non linear dynamics	FT
46	Amudhan A. N.	Dr A P Sudheer	Robotics	FT
47	Shifa Sulaiman .	Dr A P Sudheer	Robotics	FT
48	Navaneeth M. G.	Dr M L Joy	Robotics	FT
49	Manikantan V	Dr. M. A. Joseph and Dr. P K Rajendrakumar	Wear studies of nanocomposite	FT
50	Mervin Joe Thomas	Dr M L Joy & Dr A P Sudheer	Robotics	FT
51	Sreesatha Ram	Dr. U B Jayadeep	Triobology	FT
52	Ladeesh V G	Dr. R. Manu	Electrochemical Discharge Machininig	FT
53	Deepak G. Dilip	Dr. Jose Mathew and Dr Satyananda Panda	Micromachining	FT
54	Vipindas K.	Dr. Jose Mathew	Micromachining	FT
55	Renju Mohan	Dr. R Manu, Dr. Jayadeep U.B.	Fracture Behavior of Friction Stir Welded Joints	FT
56	Jees George	Dr. R. Manu Dr. Jose Mathew	Wire- EDM	FT
57	Vishnu Prasad	Dr. M. A Joseph Dr. K Sekhar	Material Science	FT
58	Anand Krishnan N	Dr. Jose Mathew	Micromachining	FT
59	Jiju V Elias	Dr. Jose Mathew	Micromachining	FT
60	Gowthaman S	Dr. Jose Mathew	Micromachining	FT
61	Nithin Raj P	Dr. M.A. Joseph and Dr. K. Sekhar	Material Science	FT
62	Rakesh Erappa Jinaga	Dr. Jagadeesha T	Synthesis and Application of Magnetorheological Fluid	FT
63	Vasanth Kumar	Dr. K Sekar	Welding	FT
64	K Pratheesh	Dr. M A Joseph, Dr. M Ravi	Al alloy structure modification	РТ
65	Eby David	Dr. R. Manu	Manufacturing Technology	PT
67	Remil George Thomas	Dr. R. Manu	Manufacturing technology	PT
68	Arun P Raj	Dr. P B Dhanish	Metrology	FT

69	Vinod O M	Dr. Dhanish P B	Statistical Process Analysis	QIP
70	Ashik Suresh	Dr. Dhanish	Measurement	FT
71	Vishnu Prasad	Dr. M. A. Joseph & Dr. K. Sekar	Composite Materials	FT
72	Jacob	Dr. Jagadeesha T	Materials Development	FT
73	Vasanthakumar P.	Dr Sekar K	Composite Materials and Welding	FT
74	Shebeer A Rahim	Dr. M A Joseph	Thermo-Mechanical Processing	FT
75	Ratnakumar K	Dr. T. Radha Ramanan and Dr. R. Sridharan	Supply Chain Management	PT
76	Anjana Viswanath	Dr. R. Sridharan	Flow shop scheduling	FT
77	Pradeepmon T G	Dr.R. Sridharan and Dr. Vinay V. Panicker	Quadratic Assignment Problem	PT
78	Jabir E	Dr. R. Sridharan and Dr. V. Vinay Panicker	Green Logistics	FT
79	Solomon Joseph	Dr. R. Sridharan	Cross docking in supply chains	PT
80	Anilkumar E N	Dr. R. Sridharan	Sustainability	QIP/FT
81	Vishnu CR	Dr. R. Sridharan	Supply Chain Management	FT
82	Eldose KK	Dr. R. Sridharan	Supply chain scheduling	PT
83	Ajyuk J Raj	Dr. R. Sridharan and Dr. Vinay V Panicker	Integrated Airline Fleet Assignment and Crew Scheduling Problem	PT
84	Nidhi M. B.	Dr. V. Madhusudanan Pillai	Green supply chain management	PT
85	J. Laxmi Lalitha	Dr. V. Madhusudanan Pillai	Manufacturing execution system	PT
86	Joby George	Dr. V. Madhusudanan Pillai	Analysis of inventory policies in supply chain	PT
87	Kiran Mohan	Dr. V. Madhusudanan Pillai	Ergonomic Design of Agricultural Implements	FT
88	Nimmy.J.S	Dr. V Madhusudanan Pillai	Collaboration in Supply Chain Performance	FT
89	Dony S Kurian	Dr. V Madhusudanan Pillai	Machine Learning in Supply Chain Management	FT
90	Anoop K. P.	Dr. Vinay V. Panicker	Food grain Supply Chain	FT
	I.	I	1	

91	Francis J Emmatty	Dr Vinay V Panicker	Ergonomics/ Human Factors Engineering	QIP
92	N. Jayasree	Dr. T. Radha Ramanan and Dr. R. Sridharan	Forecasting	QIP-PT
93	Ganesh M R	Dr. T. Radha Ramanan	Industrial Engineering	FT
94	Umarali K	Dr. T. Radha Ramanan and Dr. R. Sridharan	Scheduling	PT
95	Jobin M.V.	Dr. T. Radha Ramanan and Dr. R Sridharan	Lean Manufacturing	PT
96	Mithun Paul	Dr. T. Radha Ramanan and Dr. R Sridharan	Scheduling	PT
97	Sreejith B J	Dr. T. Radha Ramanan	Industrial Engineering	PT
98	Alok Kumar Samanta	Dr. G. Varaprasadi	Total Quality Management	FT

DEPARTMENTS OF MATHEMATICS

a. Ph. D completed

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP//Full time)
1	Manjusha O T	M.S.Sunitha	Domination in Fuzzy Graphs	Part time
2	Priyadarsan K P	Satyananda Panda	Flow and heat transfer analysis of second-grade fluid	Part time
3	Boby P Mathew	Sunil Jacob John	Rough sets and topology of rough universe	Part time

Ongoing Ph. D

	, ngoing 1 ii. D				
Sl.N o.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)	
1	Ms. Saleena A. J.	Dr. Jessy John C	Time Series Modelling	Full Time	
2	Bajeel.P.N	Dr. Mahesh Kumar	Reliability of Systems	Full time	
3	Naveen.P	Dr. Chithra.A.V	Algebraic Graph Theory	Full time	
5	VijithaMukundan	Dr.AshishAwasthi	Computational methods for nonlinear partial differential equations	Full time	

6	Siju.K.C	Dr. Mahesh Kumar	Stochastic Process and Reliability Analysis	Full time
7	Lakshmi C	Dr. AshishAwasthi	Splines based numerical methods for nonlinear partial differential equations	Full time
8	Dhanyamol M.V	Dr. Sunil Mathew	Convexity in weighted graphs	Full time
9	Shijina V	Dr. Sunil Jacob John	Generalized Set Theory – Multiple Sets.	Full time
10	Gayathri Varma	Dr. Sunil Jacob John	Generalized Set Theory – Rough Sets.	Full time
11	Anjali N	Dr. Sunil Mathew	Connectivity in Weighted Graphs	Full time
12	Lisna P.C	Dr. M.S.Sunitha.	On b- coloring of Graphs	Full time
13	Ramyamol PC	Dr. Mahesh Kumar	Reliability Acceptance sampling plans	Full time
14	Eda Suresh Reddy	Dr. Satyananda Panda	Shape Optimization	Full time
15	Aswin V.S	Dr. Ashish Awasthi	Numerical Analysis and Numerical methods of differential equations	Full time
16	Aswathy R.K	Dr. Sunil Mathew	Fractal and Chaos	Full time
17	Kiran Kumar Patra	Dr. Satyananda Panda	Thin Fluid Film Dynamics	Full time
18	Sameeha Rehmani	Dr. M.S. Sunitha	Fuzzy graphs	Full time
19	Ratheesh K.P	Dr. Sunil Jacob John	Soft Sets	Full time
20	Jamsheena P	Dr.Chithra A V	Graph Theory	Full time
21	Bibin Mathew	Dr. Sunil Jacob John	Rough Graphs	Full time
21	Praveen M	Dr. Sunil Mathew		Full time
23	V Dhanya Varma	Dr. Suresh Kumar Nadupuri	Numerical study of heat and mass transfer in fluidized beds	Full time
24	Dibu.A.S	Dr.M.J Jacob	Insurance Risk Modelling	Full time
25	Sameer Poongadan	Dr. Lineesh M C	Time Series Analysis	Full Time
26	Prajeesh.A.V	Dr. Krishnan Paramasivam		Full time

27	Binu M	Dr. Sunil Mathew	Connectivity in Fuzzy Graphs	Full time
28	Mithun A T	Dr. Lineesh M C	Wavelet Theory	Full Time(CSIR- JRF)
29	Yasser K. T.	Dr. Sanjay P. K.	Harmonic Analysis	Full Time(CSIR- JRF)
30	Prajesh T	Dr. S. Panda	Fluid-structure Interaction	Full-Time
31	Shinto K G	Dr. Sushama C M	Integer DEA Models	Part time
32	Shija.G	Dr. M.J.Jacob	Stochastic Processes	Part time
33	Chitralekha K	Dr. Jessy John C	Time Series Modelling and Forecasting	Part time
34	ShanasBabu P	Dr. Chithra A V	Graph Theory	Part time
35	Deepa V	Dr. Sunil Jacob John	Soft sets	Part time
36	Shinoy George	Dr. Sushama C M	Common Weights in DEA	Part time
37	RinjuBalu K.K.	Dr. Sunil Mathew	Fractal Theory	Part time
38	Jincy.N	Dr. Sunil Mathew	Graph Theory	Part time
39	Dhanya V Mukundan	Dr Satyananda Panda	Fiber Dynamics	Part time
40	Jaya Paul	Dr. Sunil Jacob John	Type Two Fuzzy and Multi sets	Part time
41	Mubeen M	Dr. V. Narayanan	Wavelets Analysis	Part time
42	Dharshanlal M Nair	Dr. Sunil Mathew	Weighted Graph Theory	Part time
43	Jahfar.K.T	Dr. Chithra .AV	Spectral Graph Theory	Part time
44	Praveena	Dr. M S Sunitha	Spectral Graph Theory	Full Time
45	Suma P	Dr. Sunil Jacob John	Multiset Theory	Part time
46	Priyadarsan K P	Dr. Satyananda Panda	CFD	Part time
47	Deepak P	Dr. Satyananda Panda	Structural Dynamics, Modeling and Simulation	Part time
48	Bhanupriya	Dr. M S Sunitha	Injective coloring of graphs	Full Time
49	Rajish Kumar	Dr. Sunil Jacob John	Multiset Theory	Part Time
50	K.M. Abdushukoor	Dr. C.M.Sushama	Mathematical Programming.	Part Time

51	Asha Sebastian	Dr. M S Sunitha	Fractals and Graphs	Part Time
52	Chithralekha K.	Dr Jessy John	Multivariate Time Series Modelling	Part Time

DEPARTMENT OF CHEMISTRY

a. Ph. Ds completed

Sl. No	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1	Yogananadhan.G	Dr. C. Lakshmi	Organic chemistry	External
2	AbhineeshBabu	Dr. C. Lakshmi	Organic chemistry	FT
3	Fasalu Rahman K	Dr. C. Arunkumar	Bio-inorganic Chemistry	FT
4	Nimisha K.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
5	Sangeetha C.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
6	Anusha C.	Dr. Parameswaran P	Computational Chemistry	FT
7	Nijesh K.	Dr. Parameswaran P	Computational Chemistry	PT
8	Indu P	Dr. Parameswaran P	Computational Chemistry	FT
9	Sheeja	Dr. Sujith A	Polymer science & Technology	FT
10	Roy.K.J	Dr. Sujith A	Polymer science & Technology	PT
11	Ramesh J.	Dr. Arunkumar C	Bio-inorganic Chemistry	FT
12	Reshmi C.R.	Dr. A. Sujith	Polymer Science & Technology	FT

b. On-going Ph. Ds

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Divya T.T.	Dr. Lakshmi C	Bio-organic chemistry	FT
2	Bindu M.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
3	Amritha B.	Dr. SuniVasudevan	Bioinorganic Chemistry	FT
4	JanishaJayadevan	Dr. G.	Polymer Science &	FT

		Unnikrishnan	Technology	
5	Tesi Thomas	Dr. Sujith A	Polymer science & Technology	PT
6	Nishad K.V.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
7	Amitha G.S	Dr. SuniVasudevan	Bioinorganic Chemistry	FT
8	DijoPrassannan.	Dr. Arunkumar C	Bio-inorganic Chemistry	FT
9	Shebi.A	Dr. Lisa Sreejith	Soft materials	FT
10	Sabarish.R	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
11	Renu Jose	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
12	Manoj.M	Dr. Sujith A	Polymer science & Technology	PT
13	Jithinraj.T.K	Dr. Lakshmi C	Bio-organic chemistry	FT
14	Vintu M.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
15	Manaf O.	Dr. Sujith A	Polymer Science & Technology	FT
16	Anitha S.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
17	Sunitha K.	Dr. G. Unnikrishnan	Polymer Science & Technology	РТ
18	Ms. Suja P. Sundaran	Dr. Sujith A	Polymer Science & Technology	FT
19	Mrs. Muhasina P. V.	Dr. Parameswaran P	Computational Chemistry	FT
20	Ms. Anjana George	Dr. Parameswaran P	Computational Chemistry	PT
21	Mr. Satheesh Kumar B.	Dr. G. Unnikrishnan	Polymer Science & Technology	PT
22	Mr. Saeed P. A.	Dr. Sujith A	Polymer Science & Technology	FT
23	Mr. Muhammed Adnan P. K.	Dr. Lisa Sreejith	Surface Chemistry	FT

24	Ms. Rarima R.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
25	Ms. Sagitha P.	Dr. A. Sujith	Polymer Science & Technology	FT
26	Ms. Lashmi	Dr. G. Unnikrishnan	Polymer Science & Technology	External
27	Ms. Monisha M	Dr. C. Arunkumar	Bio-inorganic Chemistry	FT
28	Mr. Shafeeq V. H.	Dr. G. Unnikrishnan	Polymer Science & Technology	FT
29	Ms. Sneha P.	Dr. Parameswaran P	Computational Chemistry	FT
30	Mrs. Saharuba P. M.	Dr. A. Sujith	Polymer Science & Technology	External
31	Ms. Rinsha C. H.	Dr. Parameswaran P	Computational Chemistry	FT
32	Ms. Tanya Maria D'Rozario	Dr. Lisa Sreejith	Soft materials	FT
33	Ms. Diana Mathew	Dr. C. Arunkumar	Bio-inorganic Chemistry	FT
34	Ms. Parvathy P.	Dr. Parameswaran	Computational Chemistry	FT
35	Ms. Sreelaya V	Dr. Lakshmi c.	Bio-organic chemistry	FT
36	Ms. Athulyadas	Dr. C. Arunkumar	Bio-inorganic Chemistry	FT
37	Mrs. Smitha M.	Dr. A. Sujith	Polymer Science & Technology	PT
38	Mrs. Rasha Rahman P. K.	Dr. Lakshmi C./ Dr. Mini Mol M.	Polymer nano composites	FT
39	Ms. Vidhya C. V.	Dr. Suni Vasudevan	Bio-inorganic Chemistry	FT
40	Ms. Shahila Muhammed	Dr. Parameswaran P	Computational Chemistry	FT
41	Mrs. Sehra Shurooque Kanneth	Dr. Lakshmi C.	Bio-organic chemistry	FT

DEPARTMENT OF PHYSICS

a. Ph.D. completed

Sl. No	Name	Guide	Area of specialization	Scheme (QIP/ FT/PT
1	Divyasree M C	Dr Chandrasekharan K.	Nonlinear optics	Full time
2	Aiyshabi P K	Dr. Raghu Chatanathodi	Electronic Structure Calculation	Part Time
3	Julin Joseph	Dr.Aji A. Anappara	Condensed Matter Physics/Material Science	Full Time
4	Prajith .K	Dr.Aji A. Anappara	Condensed Matter Physics/Material Science	Full Time

b. Ongoing Ph.D.

0.	Ongoing I n.D.	I		
Sl. No	Name	Guide	Area of specialization	Scheme
1	Vijisha V	Dr Chandrasekharan K	Nonlinear photonic crystal	Full Time
2	Shiju E	Dr Chandrasekharan K	Nonlinear optics	Full Time (under project)
3	Vasudevan K	Dr Chandrasekharan K	Nonlinear photonic crystal	Full Time
4	Siji A J	Dr Chandrasekharan K	Nonlinear optics	Part Time
5	Nikhil P P	Dr Chandrasekharan K	Nonlinear photonic crystal	Full Time
6	Lakshmikanth K G	Dr. Raghu Chatanathodi	Electronic Structure for Surfaces and Adsorption	Part Time
7	Daughty John	Dr. Raghu Chatanathodi	Electronic Structure of Low dimensional systems	Part Time
8	Bijoy N	Dr. Raghu Chatanathodi	Adsorption on Magnetic surfaces	Full Time
9	Aparna M	Dr. Raghu Chatanathodi	Dielectric properties of organic thin films	Full Time
10	Saju .k.John	Dr.Aji A. Anappara	Condensed Matter Physics/Material Science	Full Time
11	Nishaina	Dr.Aji A. Anappara	Condensed Matter Physics/Material Science	Full Time
12	Santhikrishna U	Dr.P.K.Madhavan Unni	Face Transition, Critical Point Phenomena	Full Time
13	Naseer	Dr.P.K.Madhavan Unni	Face Transition, Critical Point Phenomena	Full Time
14	Shamjid	Dr. Vari Sivaji Reddy	Organic Solar cells	Full Time
15	Abhijith	Dr. Vari Sivaji Reddy	Organic Solar cells	Full Time

16	Jayan Manuel	Dr. P.Predeep	Organic Electronics	Full Time
17	Rose Mary Davis	Dr. P.Predeep	Organic Electronics	Full Time
18	Pratheek	Dr. P.Predeep	Organic Electronics	Full Time
19	Saranya Babu	Dr. P.Predeep	Organic Electronics	Part Time
20	Kulkarni Prabhanjan Dilip	Dr. P.Predeep	Sesors	External
21	Jalaja M.A	Dr. P.Predeep	Solar Cells	External
22	Arun R	Dr. M. K. Ravi Varma	Spectroscopy	Full Time
23	Suhail Kuttoth	Dr. M. K. Ravi Varma	Spectroscopy	Full time
24	Aiswarya S	Dr. M. K. Ravi Varma	Spectroscopy	Full Time
25	Shebin John	Dr. M. K. Ravi Varma	Atmospheric Aerosol	Part Time
26	Anoop	Dr. M. K. Ravi Varma	Spectroscopy	Full Time

DEPARTMENT OF PHYSICAL EDUCATION

Existing & proposed: Dr. A .M. Najeeb has been supervising 07 scholars in outside universities: 02 submitted, 1 awarded (Karpagam University),1 being awarded (Bharathiar University). 5 scholars being supervised.

SCHOOL OF MANAGEMENT STUDIES

a.Ph. D Completed

Sl. No	Name	Guide	Area of Specialization	Scheme(QIP/P art Time/Full Time)
1	Shobitha Poulose	Dr.N Sudarsan & Dr.Manoranjan Dhal(IIM Kozhikode)	Human Resourse Management	Full Time
2	Salwa C H	Dr.T Radharamanan & Dr.Sudarsan	Marketing	Full Time

On-going Ph. Ds

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/PT/FT)
1	Pratap Kumar S	Dr.K Muhammad	Strategic Management	Part Time
		Shafi & Dr.T		
		Radharamanan		
2	Lisbeth Mry John	Dr.K Muhammad	Human Resouse	Full TIme
		Shafi	Management	

3	Biplab Bhattacherjee	Dr.K Muhammad	Finance & Systems	Full TIme
		Shafi		
4	Lisbeth Mary John	Dr.K Muhammad	Human Resources	Full Time
		Shafi	Management	
5	Shanujas V	Dr. T Radha	Human Resources	Full TIme
		Ramanan	Management	
6	Biju Mathew	Dr. Sunitha S	Economics	FIP(Part Time)
7	Sreekumar P Pillai	Dr. T Radha	System	Part Time
		Ramanan and Dr.		
		Madhu Kumar S D		
8	Binesh Jose	Dr. T Radha	Strategic Management	Part Time
		Ramanan and		
		Dr. Madhu Kumar S		
		D		
9	Preethi M	Dr. T Radha	Technology Transfer	Part Time
		Ramanan &		
		Dr.N.Sudarsan		

SCHOOL OF BIOTECHNOLOGY

Ph.D

Sl.N o	Name	Guide	Area of Specialisation	Scheme(QIP/P art Time/Full time)
1	Sinoy Sugunan	Dr.Rajanikant .GK	Bioinformatics	Full Time
2	Suvanish Kumar	Dr.Rajanikant .GK	Bioinformatics	Full Time
3	Anna Saju Kynadi	Dr.Suchithra TV	Bioplastics	Full Time
4	Ganapathy.G	Dr.Aswathi Nair & Dr.Anaul Kabir(Co Guide)	Plant Biotechnology	Full Time
5	Divya	Dr.A Santhiagu	Bioprocess Technology	Full Time

a. On-going Ph. D

SI .N o	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Praveen Kumar Reddy	Dr. Md. Anaul Kabir	Molecular Biology-Gene Regulation	Full Time
2	M WasimUddin	Dr. Md. Anaul Kabir	Molecular Biology-Drug Response in Candida albicans	Full Time
3	Dileep. P	Dr. Md. Anaul Kabir	Molecular Biology-Sorbose Gene Regulation	Full Time
4	Darshan Rajesh Dhabalia	Dr. Md. Anaul Kabir	Molecular Biology-Gene Characterization	Full Time
5	Udaya Prakash	Dr. Md. Anaul Kabir	Molecular Biology & Bio	Full Time

			informatics-Drug resistance in Candida albicans	
6	Ankita Dube	Dr. Md. Anaul Kabir	Molecular Biology-Protein folding	Full Time
7	Yuvaraj. K.R	Dr. Santhiagu. A	Herbal Biotechnology	Full Time
8	Saravana Perumal	Dr. Santhiagu. A	Bioprocess technology	Full Time
9	Joji. K	Dr. Santhiagu. A	Bioprocess technology	Full Time
10	NishaSalim	Dr. Santhiagu. A	Bioprocess technology	Full Time
11	Adarsh. V.K	Dr. Santhiagu. A	Bioinformatics& Drug Discovery	Full Time
12	Manjusha C M	Dr. Santhiagu. A	Molecular Biology & Bioprocess Technology	Full Time
13	Bincy. B.c	Dr. Santhiagu. A	Drug Discovery & Synthesis	Full Time
14	Soumiya S	Dr. Santhiagu A	Molecular Biology & Bioprocess Engineering	Full Time
15	Jobin Ravi	Dr. Santhiagu A	Drug Design &Development	Full Time
16	SreekalaNampoothiri	Dr. Rajanikant. G.K	Bioinformatics	Full Time
17	Charles K Davis	Dr. Rajanikant. G.K	Bioinformatics	Full Time
18	Jyotirekha Das	Dr. Rajanikant. G.K	Neuroscience	Full Time
19	Neelakandan	Dr. Rajanikant. G.K	Bioinformatics & Neuroscience	Full Time
20	Gokul .S	Dr. Rajanikant G K	Bioinformatics & Neuroscience	Full Time
21	Lakshmi Mohan	Dr. Rathinasamy	Phytochemicals in cancer treatment	Full Time
22	Jomon Sebastian	Dr. Rathinasamy	Computational studies	Full Time
23	Darpan Raghav	Dr. Rathinasamy	Microtubules & motor proteins	Full Time
24	Sushobhan mahanty	Dr. Rathinasamy	Drug targeting cell division	Full Time
25	Shabeeba Ashraf	Dr. Rathinasamy	Anticancer drugs	Full Time
26	Keerthi Divakaran	Dr. Aswati Nair	Plant Biotechnology	Full Time
27	Princy. C.P	Dr. Aswati Nair	Plant Biotechnology	Full Time
28	Sharmila Raj. T	Dr. Aswati Nair	Plant Biotechnology	Full Time
29	Sareena.C	Dr. Suchithra T.V	Antimicrobial compounds	Full Time
30	Ilshad Sabah	Dr. Suchithra T.V	Microbiology & Bioprospecting	Full Time
31	Aswani T	Dr. Suchithra T.V	Microbiology & Bioprospecting	Full Time
32	Benu George	Dr.Suchithra T.V	Bioprocespecting (Bioadhesives)	Full Time
33	Reshmi Ssi	Dr.Suchithra T.V	Bioremediation(Phenol Degradation)	Full Time
34	Ramya Reveendran	Dr.Suchithra T.V	Microbiology	Part Time

SCHOOL OF NANO SCIENCE & TECHNOLOGY

a. PhD's completed:

а.	PnD's completea:		T	I
Sl. No	Name	Guide	Area of Specialization	Scheme (QIP/PART TIME/ FT)
1	Sooraj K. Prabha	Dr.Sarith P. Sathian	Gas Surface Interaction in Nanosystems	Full Time
2	Manjusha Mathew	Dr.N. Sandhyarani	Nanomaterial based biosensors	Full Time
3	NanduGopan	Dr.Sarith P. Sathian	Studies on Liquid Nanostructures	Full Time
4	Parvathy R Chandran	Dr.Sandhyarani N	Targeted drug delivery	Full Time
5	Jeetu S. Babu	Dr.Sarith P. Sathian	Thermal & Fluid Transport through Carbon Nanotubes	Full time
6	Kulwant Singh	Dr.Soney Varghese	Piezoresistive MEMS	Full Time
7	Mallikarjuna Rao Darla	Dr.Soney Varghese	Synthesis & characerization of liquid crystals	Full Time
8	Uvais V. N.	Dr.Soney Varghese	Ferroelectric nonvolatile memory devices	Full time
9	Abdul Rasheed	Dr.N. Sandhyarani	Early Stage Diagnosis of Cancer	Full time
10	Joe Francis T.	Dr.Sarith P. Sathian	Fluid Transport through Nanoscale Systems	Part time
11	RenyThankam Thomas	Dr.N. Sandhyarani	Nanomaterials for environmental remediation	Full time
12	Raji K.	Dr.C. B. Sobhan	Carbon Nano Tubes	Full time
13	Anjan R. Nair	Dr.Sarith P. Sathian	DSMC Study of solid rocket motor exhaust plume	Full time
14	Ajin C. Sajeevan	Dr.Sajith V	Synthesis of Catalytic Nano particles and its application as Fuel additives	Full time
15	Robin Joice	Dr.Soney Varghese	Study & optimization of typical unit processes for advanced packaging of MEMS devices	Full time
16	S Balamurugan	Dr.V.Sajith	Investigation on the Effect of Catalytic Nano particles in fuels on Combustion using optical measurement Techniques	Full time
17	Subash CK	Dr.Soney Varghese	Piezoelectric polymer nanocomposite for Pressure sensors and Energy harvesting Applications	Full time
18	Rahul TK	Dr.N.Sandhyarani	Chemically modified titania inverse opal photocatalysts for solar light driven hydrogen production	Full time

b. Ongoing PhD

o. Ongoing PhD				
Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP//Full time)
1	NairThulasi Radhakrishnan	N. Sandhyarani	Development of Nano electrocatalysts for fuel cell applications	Full Time
2	Loksani BhanuPrakash	Soney Varghese	Multiscalenanocomposite for structural applications	Full time
3	Nimmy John	N. Sandhyarani	Liquid crystal display	Full time
4	Arjun Ajith Mohan	N. Sandhyarani	Development of efficient bio fuel cell	Full Time
5	Manu mohan	C. B. Sobhan	Heat transfer studies using Interferometry	Full Time
6	Anish R Nath	N. Sandhyarani	Nanomaterial based energy storage devices	Full Time
7	Vinay T V	Soney Varghese	Nanofluidics	Full time
8	Preseetha K P	Soney Varghese	Nonlinear optics	Full time
9	BiyasPosha	N. Sandhyarani	Development of sensitive biosensors using nanomaterials	Full Time
10	PanchalBhargav	Soney Varghese	MEMS	Full time
11	Radhika panicker	C. B. Sobhan	Synthesis of carbon based material for electronics application	Full time
12	Neeshma.R	C. B. Sobhan	Nano Enhanced Phase Change Materials.	Full time
13	Sreenidhi .P.R	Soney Varghese	Energy harvesting devices	Full time
14	Chinglenthoiba John Chingakham	Sajith V.	Heterogeneous Catalyst for the ransesterification of biodiesel	Full time
15	Nubla.k	N. Sandhyarani	Elecrocatalyst development for direct methanol fuel cell application	Full time
16	Farzeena C	Subramanyan Namboodiri V and N. Sandhyarani	Optical switching using nanostructured materials	Full time
17	Mathew Joseph	Sajith V.	Nano phase change materials	

			for heat transfer applications	Full time
18	Geo Sebastian	Shijo Thomas	Design of solar desalination system with enhanced productivity.	Full Time
19	Albin Joseph	Shijo Thomas	Investigation on concentrated parabolic solar collector using Nano fluids.	Full Time
20	Preseetha Paul	Soney Varghese	Pyroelectric energy harvesting devices	Part Time
21	Jamsheed K	Soney Varghese	Design and Development of Curcumin Nanoparticles and Nanoconjugates to Enhance Bio-availability	Part Time
22	Arun Kumar V	Sarith P Sathian and Sajith V	Computational Studies On the Evaporation of Nanodroplets	Part Time
23	Varun R	N. Sandhyarani	Targetted drug delivery of cisplatin	External
24	Divya D.	Shijo Thomas	CO2 adsorption in nanofluids	Part Time
25	JaisonJhon	Sajith.V	Corona discharge particulate filter	Part Time
26	Vibin Antony	Sajith.V	Convective heat transfer studies in Corona discharge systems	Part Time
27	Madhu	C. B. Sobhan	Multiscale modeling of convection in nanofluids	Part Time

5.2 PROPOSED PLAN FOR RESEARCH

DEPARTMENT OF CIVIL ENGINEERING

- The 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. The 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. Environmental Forensics, Environmental Risks and Environmental Policy
 - 2. Optimal Design of Vertical Cellular Breakwater Based on Multi-Objective Optimization

- 3. Investigation on Fibre Reinforced Polymer Strengthened Tubular Joints Subjected to Axial Compressive Load
- 4. Studies on Fibre Reinforced Rubberized Concrete Deep Beams
- 5. Studies on impact behaviour of rubber concrete structural elements
- 6. Stability of Ship using Principle of Computational Fluid Dynamics
- 7. Studies on the use of Steel-Fibre Reinforced GGBS Concrete in Typical D- Regions
- 8. Analysis of Urban Transport Network
- 9. Development of Pedestrian Crash Prediction Models
- 10. Analysis of Time Waste in Construction Projects
- 11. Economic Evaluation of Urban Traffic Congestion Relief Measures
- 12. Prioritization Accident Black Spots for Improvement on Economic Criteria
- 13. Pedestrian Behaviour Analysis in Urban Area
- 14. Level of Service Analysis of Urban Corridor
- 15. Capacity and Level of Service of Roundabouts
- 16. Safety Evaluation of Roads
- 17. Capacity and Level of Service of Two Lane Two way Non-urban Roads
- 18. Analysis of nonlinear vibration absorbers coupled to multi-degree of freedom system
- 19. Structural Control using nonlinear vibration absorbers
- 20. Performance evaluation of diagrid structural systems
- 21. Strength and Behaviour of Reinforced Geopolymer Concrete Frames Under Reverse Cyclic Loading
- 22. Strength and Behaviour of Reinforced Concrete Multi-storied Frames with different infills
- 23. Sustainable Development of Bamboo Reinforced Concrete composites
- 24. Studies on Ferro-Geopolymer Composite sections under Flexure
- 25. Strength and Behaviour of Hybrid Fibre Reinforced Ternary Blend Geopolymer Concrete structural elements
- 26. Studies on High Performance Fibre Reinforced Cement Concrete Shear Walls with Openings
- 27. Studies on Development of Ferro cement as a substitute for timber and steel
- 28. Spatial Decision Support Systems for watershed management.
- 29. 29. Urban flood modelling
- 30. 30. Climate change studies
- 31. Application of new cementitious materials for structural applications
- 32. 32. Environmental flows, Risk and Reliability Assessment Related to Dam Safety

DEPARTMENT OF CHEMICAL ENGINEERING

- To develop an efficient reverse osmosis membrane for various applications in water purification
- To develop a catalyst for the thermal pyrolysis of the plastic and biological system
- To develop an innovative system to meet the demands of future in wastewater treatment using chemical and biological systems
- To develop an eco friendly water based adhesive
- To develop mathematical and experimental techniques in monitoring of pollutants, treatment of effluents and recovering energy and resource from effluent.
- To develop advance control schemes for reactive distillation columns and fluid catalytic cracking unit
- To develop a novel photo catalyst for application in dye effluent treatment
- To develop a microfluidic photocatalytic reactor for photocatalytic degradation of various dey
- To develop a microfluidic reactor for synthesis of noble photocatalyst for dye degradation
- To develop a polymer nanocomposite for electronic encapsulation
- To develop an integrated solar-low pressure membrane hybrid system for energy efficient desalination process.

DEPARTMENT OF ELECTRICAL ENGINEERING

Department has identified six major areas for research and development and planned to enhance the research activities. There are 84 research scholars working presently in the Department under the guidance of faculty members. Department has also undertaken sponsored research activities for strengthening the areas of expertise. There are six major sponsored research projects ongoing with faculty members in the Department by DRDO, CPRI, CDAC, DST, KSCSTE. The faculty members from the department submitted the proposals for the following Centre of Excellences under Institute of Eminence (IoE) scheme of Govt. of India; 'Centre of Rehabilitation and Bio-signal Research', 'Centre of Excellence in Smart Nano materials, Systems and Devices', 'Centre of Excellence in Security and Privacy Technologies', 'Centre for Innovative Technologies for Smart Cities' and 'Research Innovation Hub in Intelligent Robotics and Automation'. A new post graduate programme of Biomedical Engineering has been proposed under IoE scheme.

Faculty members in the Department are proposing to submit research proposals to various funding agencies in the following area: Nano Dielectrics, IoT in smart grid applications, Multilevel Inverters for renewable energy integration, Biomedical Signal processing etc.

DEPARTMENT OF CHEMISTRY

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

Bio-Inorganic Chemistry team focuses on developing transition metal based coordination complexes for binding interaction studies with mammalian DNA. This will give more insight into the mechanism and modes of binding, which will in turn facilitate development of new generation drugs with site specific activities.

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

Polymer research group mainly focuses on the development and characterization of multi – phase polymer systems. This includes blends and short natural fiber reinforced polymer composites. The group is also interested in polymer – based nano composites. The development and characterization of polymer membranes for the separation of liquid mixtures, including azeotropes, forms the major research interest in the next two years.

Soft Materials research group will concentrate on the study of the possible structural transitions in micellar media, which can have applications in various fields of interest. To materialize a molecular DLVO incorporating surfactants with zeolites, polymers, latex, their characterization, a biocompatible packing material from natural resources and a temperature tunable optical sensor/filter are the plans for the coming year. The group also focuses on developing energy conversion technology from waste materials. Developing an eco friendly solution for the safe use of plastic products of daily purpose is another area that is actively pursued.

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. Raghu Chatanathodi - Electronic Structure based materials modeling, DFT calculations for molecules andsolids, surface physics, Quantum simulations of materials.

Dr. M K Ravi Varma works Cavity-enhanced Spectroscopy (b) Integrating Nephelometery

Dr P K Madhavanunni - Realisation of Quarduple Critical Point (QCP) in the quaternary system Methyl Ethyl Ketone +sec-Butyl Alcohol and Water. Light Scattering studies close to the QCP. Developing static light scattering setup for light scattering study close to a liquid-liquid critical point.

Dr. VariSivaji Reddy - Organic/polymer solar cells, Plasmonic nanostructures for efficiency enhancement of polymer solar cells, Organic LEDs and bistable memory devices.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Sl.No.	Proposed Plan	Details
1	Dr. Lillikutty Jacob plans to carry out research on "5G Cellular Networks"	To address many challenges in the various key technologies of the forthcoming 5G Cellular Networks
2	Dr. Sameer S. M. plans to set up a research lab	Plan to set up a DST-FIST lab from the level 1 grant from DST Govt. of India for conducting cutting edge research in the area of 5G wireless communication and signal processing
3	Dr. Deepthi P.P., Dr. Sameer S. M., Dr. Dhanaraj K.J., Dr. Sreelekha G. and Dr. P.S. Sathidevi plan for a product development project	Awaiting the result of the project proposals for the development of LIDAR System and a secure biometric system submitted to DST under IMPRINT II scheme for funding
4	Guide one PhD student in Signal Theory/Compressed Sensing and Sparse Signal Processing	Apply the Information-Theoretic Framework developed by the current PhD students being guided for the compressive acquisition of signals and for solving inverse problems. This work is of the interdisciplinary nature with applications in Imaging, Denoising, and data classification.
5	Guide one PhD student in Signal Theory/ Machine Learning for Signal Processing	Develop Algorithms for Machine Learning for signal theoretic applications of the interdisciplinary nature. The attempt is to develop new mathematical framework for machine learning invoking concepts of Hardy spaces. This work can lead to solutions of inverse problems in neuroscience and the development of self-learning prosthetic limbs.
6	Dr. Sathidevi P.S. and Dr. Ameer P. M. plan to research on Signal processing for epilepsy detection	Awaiting the result of the project proposal for a Epilepsy Detection and Prediction submitted to DST under IMPRINT II scheme for funding
7	Dr. Deepthi P.P, Dr. Sameer S. M.,	Awaiting the result of the project proposal on

NIT Calicut 93 Annual Report 2017-18

	Dr. Dhanaraj K.J, Dr. Sreelekha G. and Dr. P.S. Sathidevi plan to do research for secure health monitoring	Low Cost Privacy- Preserving Remote Health Monitoring System submitted to DieTY	
8	Dr. Dhanaraj K.J. plans to research on Interdisciplinary projects	Awaiting the result of the project proposal for IntelligentTransportation Systems submitted to Kerala State Council for Science, Technology and Environment (KSCSTE) for funding Have plan to submit a project proposal in the area of electronic system design for metrology applications to DST	
9	Dr. Sudhish N. Geroge plans to do research on Intelligent Video Surveillance	Awaiting the result of a project proposal submitted to DST in the category of IMPRINT-II on Intelligent video surveillance system	
10	Dr. Bindiya T. S. plans to design and implement low power reconfigurable filter / filter bank architectures	Introduce new architectures, which are highly useful in portable devices and biomedical applications. Reconfigurability, Power consumption, implementation complexity and area are the major requirements of any advanced portable computing systems, wireless communication applications and biomedical applications. To meet the demand of modern signal processing, emphasis is given to the development of low power reconfigurable and high performance systems with minimum hardware. The research aims to achieve these targets both at the algorithmic level and implementation level.	
11	Dr. Deepthi P.P., Dr. Vinod Pathari, Dr. Praveen Sankaran for a Centre of Excellence	Awaiting the result of the expression of interest on Multilayer Integrated Hardware and Software Content Filtering System using Machine Learning submitted to Ministry of Home Affairs	

DEPARTMENT OF MECHANICAL ENGINEERING

- Computational studies in mechanics and related fields (Dr. U B Jayadeep)
- Studies of leakages between surfaces (Dr. P B Dhanish)
- Development of devices working on Smart materials (Dr. Jagadeesha T)
- Research on Biomass gasification, biodiesel production, and solar energy utilization (Dr. C. Muraleedharan)
- Experimental and theoretical studies on fluidized bed gasification of biomass (Dr Arun P.)
- Several software packages and experimental setups have been developed and are being used as teaching laboratory exercises for both under graduate Production Engineering and post graduate Industrial Engineering and Management programmes. It is proposed to file the copyrights and patent based on the software packages and experiments. Proposal has been submitted under IMPRINT-2 programme on the topic 'Development of ICT Enabled Business Models and E-Learning Tools for SMEs and Academies' (Dr V Madhusudanan Pillai).

NIT Calicut 94 Annual Report 2017-18

- To establish the thermal comfort standards based on adaptive comfort theory for warm-humid climatic zone of India and later to extend the same work for other climatic zones of India (Dr Gangadhara Kiran Kumar L)
- To develop the user friendly products in consultation with farmers. Presently, the work is going on for the development of Climbot for plucking coconuts. (Dr Gangadhara Kiran Kumar L)
- DST-FIST has sanctioned an amount of Rs 2.51 Crores during November 2016 to MED for setting up a Centre for Precision Measurements and Nano-Mechanical Testing. The project is of 5 year duration. To strengthen the PG teaching & research, the following equipments have been sanctioned a) Optical Profiler, b) High Speed Camera, c) Thermal Imager and d) Nanoindenter. Using the existing laboratories like Advanced Manufacturing Centre, Sophisticated Instruments Centre and augmented the existing Labs like Metrology Laboratory, Production Engg. Laboratory, CAD-CAM Centre, etc. with many latest machines/CAD Workstations and latest CAD-CAM Software, like Siemens Nx, CATIA, Creo, Solidworks, Mastercam, Ansys, Abagus, and MSC-Adams, the intake of Ph.D. students will be increased in coming years and new research proposals will be submitted to various funding agencies. The proposal submitted in July 2017 to DST-FIST EMR/2017/00463 on "Modeling, Simulation and Experimental Investigation of Tool Wear, Cutting Force and Surface Characteristics during Micromachining of Inconel 718 and Ti-6Al- 4V using non-textured and textured cutting tools" with proposed budget of Rs 99 Lakhs is under consideration with SERB. Already, one DST joint project in association with NIT Mizoram worth Rs 23 Lakhs has been sanctioned. Consultancy/testing services is planned to be carried out with the new sophisticated facilities. (Dr. Jose Mathew)

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 NANO SCIENCE AND TECHNOLOGY

Interferrometric investigations of thermal phenomena, Phase change materials for cooling, Discrete simulations of thermal phenomena, Growth of Nanomaterials and Organic thin films using CVD, Thermal Evaporation, Laser Ablation and chemical synthesis. Characterization using SEM, AFM, current-voltage measurements, Nanofluids for Solar Thermal Applications, CO2 adsorption in nanomaterials, Biodegradable metals, Affordable healthcare.

5.3 INSTITUTE – INDUSTRY COLLABORATION

Department and student's community organized ADIZYA 2017, workshops and student competitions among various schools of architecture in connection with the Institute technical festival called TATVA 2017.

DEPARTMENT OF CIVIL ENGINEERING

	DEPARTMENT OF CIVIL ENGINEERING				
Sl. No.	Organisation				
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				
7	L & T, ECC division				
8	Steel Complex Ltd. P.B No. 42, Feroke, 673631, Calicut				
9	Kerala State Electricity Board				
10	Kerala Water Authority				
11	Malabar Institute of Medical Science Ltd. Calicut-16				
12	The Assistant Engineer, N H Bypass Junction Nellikode, Civil Station, Kozhikode				
13	The Secretary, Uralungal Labour Contract Co-Operative Society Ltd. Vatakara.				
14	IVRCL Infrastructures & Projects Ltd, Indraneelam, Madathil Lane, Chevayoor (P.O), Kozhikode-17				
15	Minor irrigation division, Kasargode				
16	M/S Aban Constructions (P) Ltd. KWA - JBIC Drinking Water Project, Perumannamuzhi(Post), Kozhikode-673528				
17	Mangalore port trust				
18	The Assistant Executive Engineer, Office of the Assistant Executive Engineer, KRP Subdivision No.II, Vazhavatta.				
19	Kalamassery Municipality, Cochin				
20	Mahe Municipality				
21	National High way authority of India Kalamassery, Eanakulam - 683 104				
22	Prasar Bharathi Broad Casting Corporation of India, O/o the Additional Director General(E), Chennai				
23	Aluva Muncipality, Aluva - 683101				
24	Kochi Metro Rail Project, Eastern Entry Tower, Eranakulam Southern Railway Station Kochi - 686 016				
25	The Muncipal Secretary, Cherthala				
26	The Regional Engineer, Kerala State Nirmidhi Kendra, Regional Nirmidhi Kendra, Kozhikode				
27	The Asst. Executive Engineer, Fishery Harbour Project, Sub-Sub Division, Habour Engineering Dept., Koyilandy				
28	M/S KITKO, Cochin				
29	Palakkad District Panchayat				
30	Kottakkal Municipality, Malappuram Dist.				

31	Centre for Water Resources Development and Management, Calicut	
32	Kozhikode District Panchayat, Calicut	
33	Food corporation of India, Regional office, Thiruvananthapuram	
34	CSIR-Central Road Research Institute, New Delhi	
35	Road safety council, Kozhikode district	
36	Regional Town & Country Planning Office, Kozhikode	
37	Town Planner, Regional town&country Planning office, Kozhikode	
38	Kannur International Airport Ltd., Registered Office, Parvathy T.C 36/1, Chacka, NH Bypass, Thiruvananthapuram 695 624	
39	Mr. Abdul Sathar, Managing Director, Technospan Structures Pvt. Ltd., No.5, Second Floor, A V Bureux, Green Layout, Bangalore.	
40	Hindustan Profab Ltd, Thycaud, Trivandrum	
41	Office of the Divisional Forest Officer, Timber sales Division, Vanasree Complex, Mathottam, Arakinar 673 028	
42	Office of the executive Engineer, Harbour Engineering Division, Kozhikode, Puthiyappa.	
43	Cochin International Airport, Cochin	
44	Many other Govt., Semi Govt. and Private Organisations	

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl. No.	Name	Firm & Description of the work
1	SD-WAN Research with Aryaka Network Solutions	Aryaka Networks, USA and NIT Calicut team up for collaborative research. An MOU has been signed between NIT Calicut and Aryaka Networks Pvt Limited (www.aryaka.com), a California based global SD-WAN solutions company, for research collaboration in the area of Software defined Networks.
2	Memorandum of Understanding with TCS for academic collaboration (2013)	Academic Collaboration with Tata Consultancy services (TCS) as part of Academic Interface Programme (AIP) Partial delivery of the Software Engineering course Student internships Best Outgoing Student Award Best Student Project Award Faculty Development Programmes Workshops for students (4 per year)
3	SAP Labs, Bangalore (2013)	CSED, NITC is a part of SAP University Alliance Programme. ·Invited Lectures ·Research collaboration (in the area of Software Testing) Student Internships

NIT Calicut 97 Annual Report 2017-18

4	Part of IBM University Relations	·Workshops for students ·Student internships ·Sponsoring Technical events (Tathva)

DEPARTMENT OF CHEMISTRY

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

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No.	Name	Firm & Description of the work		
1	ABB Bangalore	Four M. Tech. students of Industrial Power and Automation and One M. Tech. student of Power Systems are currently doing M. Tech. project under paid internship.		
2	Entuple Technologies Bangalore	Extensive training is provided to NITC students (in house and factory) in the areas of Xilinx integration, EMI issues, FPGA based controllers etc. Two M. Tech. students of Industrial Power and Automation are currently doing M. Tech. project under internship.		
3	Vi Microsystems	One M. Tech. student of Industrial Power and Automation are currently doing M. Tech. project under internship.		
4	Robert Bosch Coimbatore	One M. Tech. student of Industrial Power and Automation and Two M. Tech. students of Power Systems are currently doing M. Tech. project under paid internship.		
5	GE India Industrial Private Limited, Bangalore	One M. Tech. student of Instrumentation and Control System stream at completed M.Tech Project under internship.		

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING.

Sl. No.	Title of the Project	Firm & Description of work		
1	ROP Image Analysis	MOU with i2i Telesolutions and Telemedicines Pvt. Ltd. Bangalore (In Progress), 2017. Coordinators Dr. P.S. Sathidevi and Dr. Sreelekha G.		
2	Modernization of Embedded Systems Lab	University Alliance with Sapience Consulting, A Texas Instruments University Program Partner, India , Coordinator: Ms. LylaB.Das		
3	Computer aided detection of Bone tumor and tumor like conditions from plain radiograph	Regional Cancer Centre, Thiruvananthapuram Develop computer diagnosis methodology of tumor and tumor like conditions from plain radio-graphs. Coordinator: Dr. Praveen Sankaran		

NIT Calicut 98 Annual Report 2017-18

4	Project on LiDAR	Awaiting the result of the project proposal on "Design of LIDAR System" in collaboration with Texas Instruments, Bangalore submitted to DST under IMPRINT II scheme for funding. Coordinators: Dr. Sameer S. M., Dr. Dhanaraj K.J., Dr. Deepthi P.P., Dr.	
		Sreelekha G. and Dr. P.S. Sathidevi	

DEPARTMENT OF PHYSICS

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

DEPARTMENT OF PHYSICAL EDUCATION

Sl. No.	Name	Firm & Description of the work	
1.		 a) Indian Institute of Management Kozhikode. Used all our sports facilities during 2017-18. b) Board of control for cricket in India used our cricket stadium. c) National Cricket Board for Blind in India. d) Sports Council for Deaf & Dumb in Kerala. 	

SCHOOL OF NANOTECHNOLOGY

Sl. No.	Name	Firm & Description of the work		
1	Dr.SajithV.,ShijoThoma s and Dr.C.B . Sobhan	National Thermal Power Corporation, "Development of stable nanofluids for heat exchanger for improved cooling in thermal power plants" [56.6 Lakhs]		
2	Dr.Sajith V and Dr.Shijo Thomas	."Development of nano lubricants for diesel engines", Combat Vehicles Research and Development Establishment, (CVRDE), DRDO [39.39 lakhs]		

6.0 THE COUNCIL, BOG, AND OTHER COMMITTEES

6.1 INSTITUTE'S COUNCIL

As per Section 14 of the *National Institutes of Technology, Science Education and Research* Act; 2007, 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;

- (b) the Deputy Director, ex officio;
- (c) the Professors appointed or recognised as such by the Institute for the purpose of imparting instructions in the Institute;
- (d) three persons, one of whom shall be a woman, not being employees of the Institute, to be nominated by the Chairperson in consultation with the Director, from amongst educationists of repute, one each from the field of science, engineering and humanities; and
- (e) such other members of the staff as may be laid down in the Statutes.

6.2 BOARD OF GOVERNORS

As per Section 11 of the *National Institutes of Technology, Science Education and Research* Act; 2007, The Board of every *Institute mentioned* shall consist of the following members, namely:-

- (a) the Chairperson to be nominated by the Visitor;
- (b) the Director, ex officio;
- (c) 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;
- (d) 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 technologists or industrialists of repute;
- (e) 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*;
- (f) one professor and one assistant professor or a lecturer of the Institute to be nominated by the Senate.
- (g) the Director of the Indian Institute of Technology in whose zone the Institute is located, or his nominee, not below the rank of a Professor.

6.3 FINANCE COMMITTEE

As per Clause 10 of the First Statutes of the Institute, there shall be a Finance Committee consisting of the following members, namely:-

- (i) the Chairperson of the Board of Governors, ex-officio Chairman;
- (ii) the Director, ex-officio member;
- (iii) Joint Secretary dealing with National Institutes of Technology or his nominee and Financial Advisor (Human Resource Development) or his nominee;
- (iv) two persons nominated by the Board from amongst its members; and
- (v) the Registrar, ex-officio, Member-Secretary:

6.4 BUILDING AND WORKS COMMITTEE

As per Clause 12 of the First Statutes of the Institute, there shall be a Building and Works Committee, consisting of following members, namely:-

- (i) the Director, ex-officio Chairperson;
- (ii) Director or Deputy Secretary or his nominee dealing with the National Institutes of Technology in the Ministry and Director or Deputy Secretary or his nominee dealing with Finance of National Institutes of Technology in the Ministry as ex-officio members of the Central Government;
- (iii) one member nominated by the Board of Governors;
- (iv) Registrar, ex-officio, Member Secretary;
- (v) Dean, planning and development or similar position Member; and
- (vi) 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:

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 & Stationery + 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			
Particulars	2014-2015	2015-2016	2016-2017	2017-2018
Govt. of India –Grant (Non-Plan)	6000	-	7230	7388
State Govt. Grant (Non-Plan)	-	-	-	-
Govt. of India Grant (Plan- General)	975	3000	4900	5952
Govt.of India (Plan-OSC)	-	-	-	-

8.2. EXPENDITURE POSITION

		Rs. in lakhs			
Particulars	2014-15	2015-2016	2016-2017	2017-2018 (Provisional)	
Expenditure- (a) Under Plan(General)	2649.10	3131.34	2456.29	3483.81	
Expenditure -(b) Under Plan(OSC)		-	-	-	
Expenditure-Under Non-Plan	7904.74	9735.52	10273.42	11029.67	

9.0 CENTRAL FACILITIES AND SERVICES

9.1 COMPUTING & IT SERVICES

9.1.1 CENTRAL COMPUTER CENTRE

Central Computer Centre (CCC) is the central facility in NIT Calicut which caters for the computing requirements of the whole community of this institution. The Centre has state of the art infrastructure with three fully operational terminals spanning over two floors of the building. Decision Support System (DSS) of the institute also operate from the Computer Centre building. The Centre has nearly 200 client machines for usage. CCC hosts some of the high end servers and a parallel processing cluster machine. Servers include four DELL PowerEdge T620 which has a dual Hexa-core processor and HP ProLiant Rack server which has a dual Quad-core processor. A state of the art Super Computing Facility with 20 Tera FLOPS computing power meet the research needs of the institute. This Hybrid cluster contains 1 master node and 8 compute nodes (out of which 6 nodes are GPU enabled) are interconnected through infiniband. Each GPU compute nodes contains 2 Tesla K20 GPU

cards. All Compute nodes carry dual E5-2640 Intel chip as processors. The Facility can be accessible by all the departments and schools anywhere in the campus through networking. All Post graduate, Ph. D scholars and UG students (those who have computationally intensive projects) are using this facility for research activities. Some of the computational software's and packages for the other departments run from the servers maintained in the CCC as well. The centre possesses a bundle of software, packages for diversified applications. Centre is fully air-conditioned and has UPS power backup for the whole setup. The Centre works 16 hours a day (7am – 12am) 7 days a week except national holidays unless instructed otherwise.

9.1.2 CAMPUS NETWORKING CENTRE

The Campus Networking Centre (CNC) is the Central Facility providing the software, hardware and networking support to the entire student and staff community of NITC Campus spread around 400 acres . CNC manages the Internet connectivity (both wired and wireless), Institute website, IP Phones and also provide hardware, software and all other IT related solutions for the entire Institute. The campus is interconnected with about 30 KMs of fibre optic backbone network with 80 routed internal networks, managed by the Unified Threat Management system. The Centre is equipped with Firewall, Authentication Server, Log Analyser, Routers, Core Distribution switches, Domain Name Server, Web Server, Proxy Servers, Antivirus central server and IP Phone Server etc. Presently the network is served by 1 Gbps of Internet connectivity provided by BSNL under NKN scheme of MHRD and 20 Mbps by RELIANCE. All the hostels are served with Internet connectivity through wired mode. The Institute website is managed by CNC. CNC functions on a 24x7 basis 365 days without any holidays. IP Phones are installed in all academic and administrative sections. The IP Phones and IP Phone servers are also implemented, configured and managed by CNC. Hardware maintenance unit of CNC provides quality service support to minimize system downtime in the entire campus. The services include installation, troubleshooting and maintenance of computer and peripheral devices, software and operating system installations.

9.2 WORKSHOP

CENTRAL WORKSHOP - FACILITIES AND WORKS UNDERTAKEN

Central workshop of the Institute is maintained by the Department of Mechanical Engineering and Dr. R. Manu is the Faculty in-charge of the Workshop. The Workshop is divided into seven sections and the equipment's, tools and machines available are as follows:

1. Machine Shop

Lathes-30

Milling machine – 2

Shaping machine – 5

Vertical Slotting machine – 1

Grinding machine -2 (Bench and angle grinding)

Drilling machine -2

CNC -2 (Turing and milling centers- MAKE ACE – Procured under TEQIP II)

2. Carpentry section

Hand tools − 15 sets

Wood cutting machine -1

Universal cutting machine -1

Wood turning lathe -5

Universal cutting machine -1

Tool grinder -1

Electric sander -1

Blade sharpening machine -1

Belt disc sander -1

Rotary drilling machine -1

Jig saw machine -1

3. Welding section

Motor generator welding set -1

Arc welding set -1

Submerged arc welding – 1

TIG/MIG welding -1

Hand drill -1

Arc welding set – 4

Gas welding set -2

Grinder -1

Portable flame cutter – 1

Transformer/rectifier welding unit -1

4. Fitting section

Hand tools – 15 sets

Fitting benches – 13

Bench grinder -1

Surface plate -2

Band saw machine -1

Heavy duty drill machine -1

All-purpose saw -1

Multi-purpose mini hand drill grinder 1

5. Sheet metal section

Bending machine -1

Power cutting/shear -1

Spot welding machine -2

Edge folding machine -1

Circle cutting machine -1

Fly press-1

Pipe bending machine -1

Portable electric shearer -1

Riveting machine -1

Sander -1

Nibbling machine -1

6. Black smithy

Anvil - 8

Forges - 6

Universal cutting machine -1

Metal cutting machine-1

Power hammer 01

Blower -2

Pipe bending machine -01

Pneumatics forging power hammer -1

7. Foundry

Facility for sand preparation

Diesel fired furnace -1

Hand tools set - 15

Ladles - 2

Crucibles - 2

Hand moulding machine -1

Shell moulding machine -1 Resistance furnace -1 Al. stir casting -1

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 am to 11 pm on all days except Sundays and Public Holidays.

9.3.1 CENTRAL LIBRARY

CENTRAL LIBRARY offers its services to more than 8,000 users comprising of undergraduate, postgraduate students, research scholars, faculty and employees from various Departments of the Institute/ Centres/Sections. The Library uses open source software KOHA for its operations. Collection is fully RFID tagged and offers Web OPAC service throughout internet.

Current Print Holdings:-

(a) Print Books

Sl. No.	Category	Books at the end of the year 2017-18	Books added during the year 2017-18	Total books as on 31st March 2018
1.	General books	105182	1688	106870
2.	Books for SC/ST	15408	642	16050
3.	Reference books	6462	1711	8173
	Total	127052	4041	131093

(b) Print Journals / Magazines/ Dailies

SI. No.	Category	Print Journals / Magazines/Dailie s at the end of the year 2017-18	Print Journals/ Magazines /Dailies added during the year 2017-18	Total Print Journals/ Magazines/ Dailies as on 31 st March 2018
1.	National	27	27	24
2.	International (P+O)	NIL	3784	3784
3.	Dailies/ Weekly	17	18	18
	Total	44	3829	3826

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, members can access the Nalanda from the entire campus.

Other services:

- Web-OPAC: Allowing access from inside as well as outside the campus
- DSpace: For the projects / theses 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.
- NPTEL(National Program on Technology Enhanced Learning): 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.
- Turnitin online plagiarism checker for the use of researchers of the institute.
- Eduserver: An educational server on the open source moodle platform is customized for the faculty of all departments to run their courses. This server will be accessible outside NITC too. This will provide facility for faculty to offer common and additional online topics/subjects as part of the curriculum including on-line tutorials, evaluation and simulation etc.

• EDUSERVER

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

List of courses offered by the Eduserver during Academic year 2017-2018

Civil Engineering

CE6102 Structural dynamics CE3001 Structural Analysis II

Chemical Engineering

CH4021 Energy Technology CH6003 Advanced Fluid Dynamics and Heat Transfer

Chemistry

CY6304 Group Theory and Principles of Quantum mechanics

Electrical Engineering

EE2009 Electrical Measurements and Machines

EE6401 Energy Auditing & Management

EE6491 Industrial Power & Automation Laboratory

EE3006 Power Systems II

EE4093 Seminar

EE6404 Industrial Load Modelling & Control

EE6204 Digital Protection of Power systems

Electronics and Communication Engineering

EC3036 VLSI Circuits & Systems

EC3091 Electronic Circuits Lab II

EC2022 Electromagnetic Field Theory

Mathematics

MA1001 Mathematics I

MA7202 Functional Analysis

MA7266 Statistical Methods for Quality Management

MA3028 Statistical Method for Management

MA8001 Advanced Mathematics I

Ma6322 measure and Probability MA6323 Graph Theory

Mechanical Engineering

ME1001 Introduction to mechanical Engineering

ME6302 Metal forming

ME6693 CAD Laboratory

MF 6612 Materials Selection in Mechanical Design

School of Biotechnology

BT3091 Immunology Laboratory BT2008 BioStatistics

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

E-Resources-subscription

Category	Total as on March 2017	Total as on 31st March 2018
Online e-Journals (through ESS consortia)	1485	4412
E-books	2413	2432
E-Journals	3348	3178
E-Databases	3	3
Standards (ASTM, BIS)	31647	31647
NITC Resources (Faculty reports, Students' thesis, Course notes)	2159	3368
Total	41055	45040
Journal Back Vol.s	14,411	14,411
Grand Total	55466	59451

Major Hardware / Facilities of Digital Library

3 Dell Precision T3610 Workstations

Dell Poweredge T620 Server

3 Dell Poweredge T320 Server

36 Dell Optiplex 7010 Client Machines

3 HP ProOne 400 Client Machines

16 IP Camera, Network video recorder, 28 port Dlink switch

Brother DCP-7065DN Laser Printer

Datamax Barcode Printer

30 KVA Socomec MASBC UPS

5 Cisco SRS 2024 switches

9.3.4 Programmes organized by ETL during 2017 – 18

- EBook awareness session by Pearson on 24.08.2017
- Presentation to discuss knovel/ Engineering village by Elsevier on 01.09.2017
- Elsevier backfile collections from Elsevier on 08.09.2017
- Scopus live demo on 28.09.2017
- A workshop on Knimbus by GIST on 26.10.2017

9.3.5. Staff position

Chairperson (ETL) : Dr. Jeevamma Jacob Vice Chairman (ETL) : Dr. Jayadeep U B

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

Sweety Mathew	Librarian Gr.III (Librarian In – charge)
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

Supporting office staff

Siamala I	Sanitary worker(Rtd. on 31.05.2017)
Vinod K P	Watchman cum Gardner

Project Digital Library Technical Assistants : 2
Project Digital Library Computer Assistants : 3
Adhoc Library Assistants : 12
Adhoc Library Helpers : 7
Adhoc Office Assistants : 2

9.4 LABORATORIES

DEPARTMENT OF ARCHITECTURE

- 1. Building Science Lab
- 2. CADD Lab
- 3. Creative Arts Lab
- 4. IMD Lab
- 5. Geoinformatics 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. Surveying Lab.
- 7. Offshore Structures Lab
- 8. Water Resources Engineering Lab
- 9. Environmental Engineering Lab
- 10. CAD Lab

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

- 1. Software systems laboratory
- 2. Network systems laboratory

- 3. Hardware & Embedded systems laboratory
- 4. Big data and Bio computing Laboratory
- 5. Cloud computing laboratory
- 6. Machine learning laboratory
- 7. Image processing and Multimedia laboratory
- 8. Secure computing laboratory

DEPARTMENT OF ELECTRICAL ENGINEERING

UG Laboratories

- 1. Electrical Workshop
- 2. Electronics Workshop
- 3. Electronics Laboratory
- 4. Electrical Measurements Laboratory
- 5. Electrical Machines Laboratory
- 6. Control Systems Laboratory
- 7. UG Power Electronics Laboratory

PG/Research Laboratories

- 1. Electrical Simulation Laboratory
- 2. Power Systems Laboratory
- 3. Power Electronics Laboratory
- 4. DCS Applications Laboratory
- 5. Process Automation Laboratory
- 6. Embedded Systems Applications Laboratory
- 7. Power Electronics Research Laboratory
- 8. Advanced Control Systems Laboratory
- 9. Power Systems & Power electronics Real-Time Simulation Laboratory
- 10. High Voltage Engineering Laboratory
- 11. Bio-Signal Processing Laboratory
- 12. Non-destructive testing Laboratory
- 13. Instrumentation Systems Laboratory
- 14. Centre for Testing and Consultancy

Sponsored Research Laboratories

- 1. LVDC Microgrid Laboratory (CDAC)
- 2. Distributed Energy Research Laboratory (DST-FIST)

Following new laboratory is proposed:

1. Industrial Drives Laboratory

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

- 1. Electronics Circuits Lab
- 2. Communication Lab
- 3. Integrated Circuits Lab
- 4. Digital Signal Processing Lab
- 5. Embedded Systems Lab
- 6. Electronics Workshop
- 7. Microelectronics and VLSI Lab
- 8. Telecommunication Lab
- 9. Research Lab I & II
- 10. Signal Processing and Communication (SPCom) Lab

- 11. R & D Lab
- 12. Project Lab
- 13. PSoC Lab

DEPARTMENT OF MECHANICAL ENGINEERING

- 1 Metrology laboratory
- 2 Industrial Engineering laboratory
- 3 Production Engineering laboratory
- 4 Heat Engines laboratory
- 5 Thermal Science laboratory
- 6 Vibration, Acoustics & Tribology laboratory
- 7 Fluid Mechanics and Fluid Machinery laboratory
- 8 Solar Energy Centre
- 9 Mechatronics and Robotics laboratory
- 10 CAD/CAM Centre
- 11 Computer Aided Graphics & Design laboratory
- 12 Material Sciences laboratory
- 13 Advanced Manufacturing Centre
- 14 Sophisticated Instruments Centre
- 15 Center for Advanced studies in Cryogenics (CASC)
- 16 Fuel Cell Laboratory
- 17 Heat Treatment Laboratory
- 18 Central Workshop
- 19 Design Innovation Centre
- 20 Energy Management Laboratory
- 21 Supply Chain and System Simulation Laboratory
- 22 Mechanisms Laboratory
- 23 Green energy laboratory
- 24 Jets and flow acoustics laboratory

DEPARTMENT OF CHEMISTRY

- 1. B.Tech Laboratory-I & -II
- 2. PG Physical Chemistry Laboratory
- 3. PG Instrumentation Laboratory
- 4. Sophisticated Instrumentation Laboratory (.)
- 5. Thermal Analysis Laboratory (with DSC, TGA, FTIR, UV etc)
- 6. Computational laboratory (Common facility)
- 7. Polymer Science & Technology Research Laboratory
- 8. Soft Materials Research Laboratory
- 9. Materials Research Laboratory
- 10. Bio-organic Research Laboratory
- 11. Bio-inorganic Materials Research Laboratory
- 12. Inorganic and Bioinorganic Research Laboratory
- 13. 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
- 13. Applied Optics and Instrumentation Lab
- 14. Organic and Nano electronics laboratory
- 15. Photonic Materials and Devices Laboratory

DEPARTMENT OF CHEMICAL ENGINEERING

- 1. Instrumental Analysis Laboratory
- 2. Chemical Technology Laboratory
- 3. Fluid Mechanics Laboratory
- 4. Mechanical Operations Laboratory
- 5. Mass Transfer Laboratory
- 6. Heat Transfer Laboratory
- 7. Environmental Engineering Laboratory
- 8. Chemical Reaction Engineering Laboratory
- 9. Process control Laboratory
- 10. Research Laboratory
- 11. Project Laboratory
- 12. Software Laboratory

SCHOOL OF BIOTECHNOLOGY

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

SCHOOL OF NANO SCIENCE & TECHNOLOGY

- 1. Microscopy centre
- 2. Nanotechnology Research Laboratory
- 3. Nano Science Research Laboratory
- 4. Fuels and Combustion Research Laboratory
- 5. Computational Nanotechnology Research Laboratory
- 6. Nanomaterials and Devices Research Laboratory

9.5 HOSPITAL, POST OFFICE, SHOPPING CENTRE

HOSPITAL

Institute has a Health Centre providing the medical needs of students, staff and their families. Following are the staff details:

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
- 3. Dr.Sreejith.C is appointed as R.M.O on Adhoc basis

Paramedical Staff

- a) Sri. Abraham.P. Pharmacist
- b) Smt. Sasikala.L Sanitation Worker

Adhoc Staff

a) Staff Nurse -2
b) Lab-Technician -1
c) Nursing Assistant cum Attender -0

NIT Health centre Medical laboratory.

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

Bank, Post Office and Telephone Exchange

There is a branch of State Bank of India, an India Post Office, Telegraph Office and a BSNL 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)

Sl.no.	Name of the Game facility	No. of facilities
1.	25 m. Non-standard swimming pool	1
2.	25 station multi gymnasium	1
3.	Hockey field - standard	1
4.	Cricket Stadium with Turf match & practice wickets –	1
5.	Football field - standard	1
6.	Basketball - concrete outdoor - standard - Flood lighted	2
7	Volley ball - standard- outdoor - Flood Lighted	1
8.	Tennis Complex- clay courts - standard - Flood Lighted	3
9.	Tennis Court Synthetic - standard - Flood Lighted	1
10.	Handball Court - standard	1
11.	Multi-purpose Auditorium for Indoor games (non standard)	1

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.
- 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. 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

- 1. Tibial External Fixator Assembly—A new biomechanical configuration for improved treatment of fractures of the tibia
- 2. 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. Sindhu T K

9.7.3 Advanced Manufacturing Centre & Sophisticated Instruments Centre

The major machines available at Advanced Manufacturing Centre/CAD-CAM Centre include, CNC Micro Machining Centre, Rapid Prototyping Machine, 4 axis CNC Vertical Machining Centre, CNC Turning Centre, CNC WEDM, CNC Die sinking EDM, Cutting Tool Dynamometers and Mini Dynamometers. Various CAD/CAM packages available are Creo, CATIA, Solidworks, Siemens NX, MSC Adams, ANSYS, ABAQUS, etc. Free training programs to our students are conducted every semester during evening hours.

The newly added DST-FIST Centre for Precision Measurements and Nanomechanical Testing which was set up at a cost of Rs 2.53 crore, housed with sophisticated machines like Optical Profiler, Nanoindenter, High Speed Camera, and Thermal Imager. Sophisticated Instruments Centre housed with 5 axes CNC CMM, Profilometers and various other measuring instruments.

9.7.4 Microscopy Centre

Microscopic Centre established in 2009 and managed by school of Nano Science and Technology. Centre is equipped with advanced microscopic equipment's like Scanning Electron Microscope (SEM) and Scanning Probe microscope (SPM). Centre is actively contributing to the research and consultancy of the institute. Centre is equipped with Hitachi make SU 6600 Variable Pressure Field Scanning Electron Microscope having Secondary Electron Imaging (SE), Backscattered Electron Imaging (BSE) and Energy dispersive spectroscopy (Horiba EMAX.137 ev) for elemental analysis. Scanning probe microscopy includes a Park XE-100 Atomic Force Microscope (AFM) having capability of performing various analysis like Electrostatic microscopy, Magnetic force microscopy, Lateral Force microscopy, Conductive AFM, Nanolithography, Nanoindentation etc.

Centre is analyzing variety of samples from different department of the institute as well as the facility is open for consultancy service. Different academic, Industrial and R&D organizations from all over the country was using the facility under consultancy basis. Centre is always promoting the industry, R&D interactions with our institute

9.7.3 ENGINEERING UNIT FOR CIVIL AND ELECTRICAL WORKS

Civil Works

Sl. No	Name of Work	Status
1	Maintenance works to B hostel mess hall and kitchen	Completed
2	Maintenance works to D hostel mess hall and kitchen	Completed
3	Providing connecting passage from B block to mess hall of Mega hostel-I	Completed
4	Reconditioning works of septic tanks at A&PG-I hostels	Completed
5	Providing partition for server room in room no:- 303 B in Industrial engineering laboratory of SNST block	Completed
6	Internal painting works of PG-I and A hostel	Completed
7	Maintenance works to C hostel mess and kitchen	Completed
8	Construction of work area, gas room, toilet and leach pit connected with D hostel and C hostel kitchen	Completed
9	Construction of an additional floor over centre for testing and calibration lab near production engineering block for EED	Completed
10	Pandal and stage decoration works in OAT in connection with convocation 2017-18	Completed
11	Providing partition in room no. 307 of biotechnology lab	Completed

Electrical Works

Sl. No	Name of Work	Status
1	Providing light and plug points at engine room of fuel & combustion research lab and additional plug points and UPS points at Tribology & vibration lab of MED at SNST building	Completed
2	Modification of electrical installation at MB 201, MB 202, providing electric connection for air conditioners at MB 207, CSED 202, additional UPS points at MB 210 and electric connection for air conditioners & server at IT lab complex 305	Completed
4	Replacing the old ceiling fans at various laboratories of EED and CED	Completed
5	Providing additional UPS plug points at Instrumentation analysis lab of Chemical engineering department	Completed
6	Providing LED street light fittings at Architecture building and SNST building (Temporary arrangement)	Completed
7	Providing electric connection to furniture(Desks) of class room 102, 104 & 105 of MBA academic block	Completed
8	Providing exhaust fans at Nano science research lab	Completed
9	Repairing of motor starters and panel boards of old and new pump houses	Completed
10	Maintenance of existing street poles including replacing the damaged metallic junction boxes, plinth and painting of poles towards residential areas	Completed
11	Providing electric connection to 500KN servo actuator in Structures lab of CED	Completed

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. The School will be celebrating its Silver Jubilee during the academic year 2017-18. The school is affiliated to the Central Board of Secondary Education, New Delhi with code No.930100. School is being managed by REC SPECTRA (Society for Promotion of Educational, Cultural and Training Activities), a charitable society registered under the Societies' Act (1860), the members of which are the faculty members of the institute. Most of the infrastructure facilities of the school like land, buildings, laboratories, playground, etc. have been made available by the institute. The School has always excelled in academics since its inception and could achieve 100% pass both in Class X and XII CBSE Examinations. Digitally enabled classroom facilities and the School Band have been provided to strengthen the academic and co-scholastic abilities of the students. The School celebrated its 25th Annual Day on 13th January 2018.

Office Bearers as on 31-03-2018

• Dr. Sivaji Chakravorti, Director NITC, Chairman, REC SPECTRA

- Dr. K. Sasikumar, Vice Chairman, REC SPECTRA & Specified the School Managing Committee.
- Dr. A. Santhiagu, Secretary, REC SPECTRA & Samp; Manager cum Correspondent, Spring Valley School.
- Dr. Sunil Mathew, Vice President, School Managing Committee.
- Dr. Sindhu T.K., Joint Secretary cum Treasurer, REC SPECTRA
- Prof. Unnikrishnan Nambeesan, Senior Principal
- Smt. Shiny A., Principal

10 NOTABLE ACHIEVEMENTS

10.1 PAST ACHIEVEMENTS

DEPARTMENT OF ARCHITECTURE

- Started a new PG program in 2015 in Urban Planning
- Conducted several short term courses and summer/winter term courses sponsored by TEQIP, AICTE and IEI.
- Conducted two International Conference on Reinventing Design Pedagogy and Contextual Aesthetics in 2015 and in 2017.
- Established Geoinformatics Laboratory.
- Owns three excellent centers:
- Building Science Laboratory.
- CAAD Laboratory
- Interactive Media Design Laboratory
- Carried out large number of consultancy works and also plays a major role in industry- institute interaction.
- Carried out large number of research projects.
- Published several papers in National and International Journals and National and International conferences
- Organized several Workshops and Short Term Courses by the faculty of the Department.

DEPARTMENT OF CIVIL ENGINEERING

- The department had taken up training of local unemployed youth for self-employment under the Nehru Rozgar Yoganas (NRY) funded by Kerala Urban Development Finance Corporation. The training was given in Plumbing, Carpentry, Masonry and Landscaping. About 300 youths were trained under this programme
- The Department had four centres of excellence
 - a. Vehicle Motion Analyser Laboratory
 - b. Non Destructive Testing Laboratory
 - c. Biomechanics Laboratory
 - d. Centre for Transportation Research (CTR)
- The Department has already conducted more than 43 summer/winter schools sponsored by Indian Society for Technical Education and All India Council for Technical Education.
- The Department has organised in collaboration with Department of Training and Placement, more than 60 Short Term Courses in different fields of Civil Engineering
- The Department has already produced 32 Ph.D Scholars in different fields of specialisation
- The Department has carried out more than 41 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 has generates on an average Rs. 25 lakhs per year through testing and consultancy

- The Faculty of the Department published papers in the National and International Journals and National and 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 ferrocement 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
- Involved 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 TEOIP
- 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
- Guided preparation of Master Plan for Avala Kuttoth Higher secondary school Along with Dr M.A. Naseer of Department of Architecture which was taken by the Institute as a social service project by the students of NITC

DEPARTMENT OF ELECTRICAL ENGINEERING

Sl.	Name	Number
No.		
	Publications	
	International Journals	490
	National Journals	4

	International Conferences	624
	National Conferences	44
(a)	Books	7
	Book Chapters	8
	Patents Granted	3
	Patents Filed	6
	Proceedings	41
(b)	Community Services	1. Conducted 9 Training Camp to School students in Science, Mathematics etc.
		2. Feasibility Analysis of Solar power for Attapadi tribal area is done and report submitted to Govt. of Kerala.
		3. Field survey is done in Wayanad Ghats for lighting Calicut-Bangalore highway and report submitted to District Administration.
		4. Visited the orphanage sree sadhasiva sadanam, Calicut and distribute cloth, learning material for children.
(c)	Other academic and administrative services	Faculty members are nominated as Technical Chair to various International Conferences, Academic Advisory Board Members of Various Universities and State level and national level Committees
(d)	Conference/ Summer/Winter Schools/Short term courses/Workshops conducted	83
(e)	lExpert lectures delivered in conferences/ Seminars/ Workshops by faculty	283
(f)	Details of faculty who acquired higher qualification	Dr Kumaravel S. – Post Doctoral Fellowship in Power Converter Applications in Power Systems from University College Dublin, Ireland, 2016
(g)	Consultancy and testing	Consultancy Projects: 14
		Testing Assignments: 423
(h)	Participation in Conferences/Seminars/Workshops/Other training Programmes	191
(i)	Sponsored R & D Projects	6 Projects are currently undergoing

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the Faculty/Staff member	Details of Past achievements
Dr. T.J. Sarvoththama Jothi	JNCASR Visiting Fellowship 2013-2014 Institution of Engineers, India (IEI) Young Engineers Award 2012-2013 Awarded Indian National Science Academy (INSA) Visiting Fellowship 2012-2013 BK 21 fellowship for pursuing post-doctoral research work at KAIST, S. Korea.
Dr. V. Madhusudanan Pillai	· Invitation received to visit the Innovation Exhibition and Interaction with the Grassroots innovators during FINE 2018 and the innovation activities submitted have been shortlisted for presentation at Rashtrapati Bhavan. Accordingly, visited the Innovation Exhibition and Interacted with the Grassroots innovators on 20th and 21st March, 2018. Research works carried out by research scholars under my guidance have been presented at West Hall, Rashtrapati Bhavan, on 20th March, 2018, New Delhi as part of Festival of Innovation and Entrepreneurship (FINE 2018).
Dr. Jose Mathew	Received a grant of Rs. 2.51 Cr from DST under FIST program to set up a centre for "Precision Measurements and Nanomechanical Testing" in 2015 Best all-round performance award among NITC faculty during 2005-06 [Instituted by NIT Calicut and was the first award winner.] Conducted International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 8) at NIT Calicut during Dec. 13-15, 2013 and was the Organizing Secretary for the same. ISTE- Certificate of Achievement 2008 National award (First Prize) for having guided the Best M.Tech. Thesis in Mechanical Engineering for the thesis titled "Theoretical and Experimental Investigations on Mechanical Micro Machining (M3)" submitted by Sooraj V.S. ISTE - Certificate of Achievement 2012 National award (First Prize) for having guided the Best M.Tech. Thesis in Mechanical Engineering for the thesis titled "Multi-Objective Optimization of Process Parameters in Micro drilling Using Vibration Assisted Micro EDM" submitted by Deepak G. Dilip. DST International Travel Support (full amount) Scheme award for attending ASME International Conference at Chicago, USA during November 2012. Coordinator for NITC-NITK Joint National Workshop on Strategies to Attain Excellence in Impact Making Research and Development (SAEIMRD) held at NIT Calicut during Feb. 3-4, 2012 A new 'Sophisticated Instruments Centre' was setup in the Department of Mechanical Engineering with the financial assistance of MHRD with a total cost of about Rs 60 lakhs during

NIT Calicut 119 Annual Report 2017-18

2002, which caters regular UG/PG student needs and has facilities for carrying out measurements of industrial products/undertake consultancy projects.

Has undertaken 5 MHRD MODROB projects, 2 FRG projects Has contributed in a big way to the modernization of Metrology Lab, CAD/CAM Centre, Production Engineering Lab., etc. and has introduced many new experiments.

The new machines added include, Micro Machining Centre, Rapid Prototyping Machine, Cutting Tool Dynamometers and Mini dynamometers, 4 axis CNC Vertical Machining Centre, CNC Turning Centre, etc.

· LabVIEW Software and various CAD/CAM packages like ANSYS, ABAQUS, Pro/E, CATIA, ESPRIT, PREDATOR, Creo, Mastercam, SolidWorks, Siemens NX, MSC Adams, etc. were added to the CAD /CAM Lab

DEPARTMENT OF PHYSICS

Dr. Predeep P

- During the last 10 years 8 major sponsored projects were completed. A research lab on organic and
 molecular electronics and photonics with state of the art facilities has been set up. Organized 6 selffinanced short term training programmes, four government sponsored training programmes, two
 international conferences, and One National Conferences.
- Organized one international training course on Organic Solar cells under the GIAN programe
- Published two books on Optoelectronics by an international publisher and one book chapter during this period.
- Filed six Patent applications during this period.
- Got two international fellowships from Spanish and French Govts., and an engagement as visiting professor at Institute of Materials, University of Nantes, France. Visited EPFL, Switzerland, and Tunisia as a member of the Indo-Tunisia scientific collaboration delegation of DST, and Germany.
- Invited for talks at IIT Kanpur, IISc, Bangalore, German House, Delhi, University of Cologne joint programme, Delhi University, Rajasthan University, NIT Suratkal, NIT Jaipur, NEHU, a number of Engineering Colleges, and Universities. Etc.

Dr. Chandrasekharan K

- Developed a research lab- laser and nonlinear optics lab
- Received Rs 70 lakhs through different R & D projects

SCHOOL OF NANO SCIENCE AND TECHNOLOGY

- One international text book and filed 2 patents
- The school has obtained an R&D funding of about Rs. 3.5 Crores so far through 10 major funded projects from the Government (DST, DBT, DAE, DRDO, CSIR, KSCSTE, CVRDE) and industries (HPCL, Tata Steel, NTPC)
- The Department has conducted 4 Faculty Development programmes and 1 Workshop on Nanotechnology
- Dr.Sajith. V received best Young Teacher award of NIT Calicut, for the performance during the year 2007 – 08
- Dr.Sajith V and Dr.Shijo Thomas received Dronacharya Award for the Best Faculty Advisor of the teams participated in the BAJA SAE India 2012 Competition

NIT Calicut 120 Annual Report 2017-18

• Dr. Sajith V received the SDTRAE fellowship in 2015.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

- Organized the International Symposium on Biocomputing (ISB 2010) at Calicut, Kerala, jointly with the Indiana University Purdue University Indianapolis (IUPUI), USA, with cooperation from the Association for Computing Machinery (ACM).
- Organized the Indo-US Workshop on Biocomputing (ISB 2011) at Calicut, Kerala, jointly with the Indiana University Purdue University Indianapolis (IUPUI), USA, with cooperation from the IUSSTF and NSF.
- Organized the IEEE International Conference on Signal Processing, Informatics, Control and Energy Systems (IEEE SPICES) jointly with the Departments of Electrical Engineering and Electronics and Communication Engineering, NIT Calicut in February 2015.
- Dr. S.D Madhu Kumar has been selected as 'Big Data' Track- Co-Chair for the IEEE International Conference Recent Advances in Intelligent Computing Systems (RAICS 2013)
- Dr. Muralikrishnan K won the 'Best Ph. D Thesis Award' from the Indian Institute of Science (IISc), Bangalore in the year 2008.
- Dr. S.D Madhu Kumar has been selected as an External Examiner for evaluating the Computer Science courses offered by the colleges under Glasgow Caledonian University, UK.
- Dr. S.D Madhu Kumar gave the keynote address in the International Conference on Advances in Computing, Communications and Information Science (ACCIS'14) at TKM College of Engineering Kollam.
- Dr. S.D Madhu Kumar has served as Algorithms Tracks Co-Chair along with Dr.Priya Chandran and Dr.K Murali Krishnan for Seventh International Conference on Contemporary Computing (IC3 2014)-
- Dr. S.D Madhu Kumar has served as Program Chair for the International Workshop on Access Control Policies, Models and Mechanisms (ACPM-2014), Delhi.
- Dr.S.D Madhu Kumar has been selected as Vice Chair- ACM Trivandrum Professional Chapter.
- Dr. S.D Madhu Kumar has served as Publications and Web Support Chair for the IEEE Malabar Subsection (2014) and Vice Chairman (2016 onwards).
- Dr. S.D Madhu Kumar has served as Publicity Co-Chair for the ACM DEBS 2014.
- Dr. S.D Madhu Kumar has served as Cloud Computing Track co-Chair for the ACM SAC 2014.
- Dr. S.D Madhu Kumar has served as TPC Member for the 3rd International Workshop on Collaborative Cloud (CollabCloud 2014) of 10th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing, Miami, Florida, United States
- A paper by titled "A Computational Method for Drug Repositioning using Publicly Available Gene Expression Data" authored by Shabana K M, Abdul Nazeer K A, Meeta Pradhan and Mathew J Palakal won the "Best paper Award" in the 4th IEEE International Conference on Computational Advances in Bio and Medical Sciences (ICCABS-2014) held at Florida, USA in June 2014.
- Two of the three members of the Organizing Committee of ACM SAC-2016, Piza, Italy Cloud Computing Track, are from this department Dr. Priya Chandran (Professor) and Dr. Madhukumar S D (Associate Professor)
- Dr. S.D Madhu Kumar has been selected as Cloud Computing Track co-Chair for the ACM SAC 2016
- Dr. S.D Madhu Kumar has served as PC Member of IEEE International Conference Recent Advances in Intelligent Computing Systems (RAICS 2015
- Dr. S.D Madhu Kumar has served as Steering Committee member of the International Conference on Computing and Network Communications (CoCoNet'15)
- Dr. S.D Madhu Kumar has served as Keynote Speaker of Lecture Workshop on Internet of Things at GRD College Coimbatore- 2015

- Dr. S.D Madhu Kumar had given a Keynote Speech at the International Conference on Data Science Analytics and Applications (DaSAA'16), Gunindy Engineering College, Chennai.
- Dr. S.D Madhu Kumar gave a Keynote speech at ICIA 2016, Coimbatore
- Dr. S.D Madhu Kumar has served as TPC Member in International Workshop on Internet-scale Clouds and Big Data (ISCBD 2016) Pittsburgh, PA, USA.
- Dr. S.D Madhukumar has served as TPC Member of PerfloT: Workshop on Performance Evaluation of IoT Applications, France
- Dr. S.D Madhukumar has served as TPC Member 2nd IEEE International Conference on Anti-Cyber Crime (ICACC)'2017, Abha, Kingdom of Saudi Arabia
- Dr. S.D Madhukumar served as TPC Member -IEEE TenSymP 2017, Cochin
- Dr. S.D Madhukumar has served as TPC Member Symposium on Pervasive Systems, Algorithms, and Networks (IEEE I-SPAN 2017), Exeter, England
- Dr. S.D Madhukumar has been selected as Secretary, CREC Silver Jubilee Endowment Trust (2016 onwards)
- Dr. S.D Madhukumar and Dr. Priya Chandran have been selected as Track Chairs of ACM SAC 2017 Cloud Computing Track

DEPARTMENT OF CHEMICAL ENGINEERING

NAME	Number/Details
International and National Journals	135
International and National Conferences	108
Books	2
Book Chapters	4
Other academic and administrative services	Faculty members are nominated as Technical Chai to various national Conferences. Faculty members worked as reviewers for various book chapters and books

- Dr. Selvaraju received Kerala state Young scientist award 2014, Hiyoshi Think of Ecology Award
- Department has bagged 4 funded research projects from KSCSTE, SERB, DST and MHRD
- The department has established sophisticated instruments lab.
- Department faculty working as technical reviewers for more than 50 international Journals
- Department faculty has been invited for delivering lectures in various FDP's conducted at different universities and colleges across the country
- Department faculty also got the invitations to review Postgraduate and PhD thesis from various government and private universities
- Department organized the following in the previous years

CONFERENCES AND WORKSHOP

- International Conference on Energy and Environment: Global Challenges-2018 March 9 & 10, 2018. A Five Day GIAN Course on Multidimensional Engineering Approaches for resolving complex Environmental Issues December 19-23, 2016
- Two days National workshop on "Advanced Optimization Techniques in Chemical Process
- industries" April 2015
 Two days National workshop on "Advanced Mathematical Approaches in Chemical and Environmental Engineering Using Matlab and Simulink" February 2015
 Two days National Conference on "Recent Trends in Alternate Energy RTAE2011" June 2011
 The days National Conference on "Piological Wastewater Treatment towards Green Environment –
- Two days National Conference on "Biological Wastewater Treatment towards Green Environment -January 2011

FACULTY DEVELOPMENT PROGRAMS

- Advance Techniques in Energy and Wastewater treatment (2018) Theory and Applications of Adsorption Processes (TAAP 2016) Novel Separation Technologies NST 2015

- Emerging trends in chemical and environmental engineering (ETCEE-2014).
- Changing scenario in energy& environment (CSEE-2013).

- Recent research trends in chemical and environmental engineering in May 2013.
- Modeling and Simulation in Chemical and Environmental Engineering in 2012

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

- B.Tech ECE programme offered by Department of Electronics and Communication Engineering got accredited for 6 years by National Board of Accreditation (NBA).
- The department has conducted several workshops short term courses and summer/winter term courses.
- The department has conducted own international Conference on its own in 2011 and one international conference combined with EEE and CSE departments in 2015.
- The department has also carried out a number of research projects.
- The faculty of the department has large number of published papers in National/ International Journals and National/ International conferences.
- The department is a member of SMDP project by Government of India.

10.2 ACHIEVEMENTS THAT TOOK PLACE DURING THE YEAR 2017-2018

Publications (Department wise)

Sl.	Dept/School	Journals	International Conferences	National	Total
No				Conferences	
1	ARCH	3	3	0	6
2	CED	35	35	5	75
3	CHED	15	15	0	30
4	CHEMISTRY	48	0	0	48
5	CSED	12	29	0	41
6	ECED	52	39	0	91
7	EED	42	70	0	112
8	MATHS	15	1	0	16
9	MED	43	54	21	118
10	PHYSICS	12	1	0	13
11	SBT	8	1	0	9
12	SNST	30	0	0	30
13	SOMS	5	7	0	12
14	PHYSICAL EDN	0	1	0	1
	Total	320	256	26	602

DEPARTMENT OF ARCHITECTURE

a. Publications

i) Journals

Sl No	Name of the Author	Title of the Paper	Publications/ Journals	Vol., Year, p.p
1.	Puthuvayi, Bimal, P. P. Anilkumar.	Productive Landscapes as a Sustainable organic waste management Option in urban areas	Environment, Development and Sustainability	Nov 2017, p.p.1-18
2.	P.K Amritha,	A Stochastic Approach to	Journal of the Indian	46.1 (2018):

	P.P.Anilkumar	Estimate Distribution of Built-Up Area in Regions with Thick Tree Cover	Society of Remote Sensing	145-155
3.	Anjana Bhagyanathan, A.K.Kasthurba	Terrain attributes of sacred grove locations point towards conscious spatial delineation	Current Science	114.5 (2018): 957-959

ii) International Conferences

SI. No.	Name of the Author	Title of Paper	Name of International conference	Details
1	Joshima V M and Dr. Naseer M A	Thermal Performance of Roof Coverings in Warm Humid Climate: Study of Kerala Residential Buildings	International Convention on Performance of Built Environment, February 2018	Convention Proceedings, Page 86-89
2	P.P.Anilkumar	Development of indicators for formulation of disaster preparedness Indices in the Indian context	Studies in Disaster Management, Civil and Architectural Engineering (CSDMCAE -17)	2018-19
3	P.P.Anilkumar	Analysis of the master planning process in india for its failure in factoring in environmental Consideration	International Conference on Green Buildings & Sustainable Engineering (GBSE 2018)	January 2018

b. Community Services:

Master Plan Development for Meppayur Higher Secondary School – Dr Naseer M A and Dr. Sajith A S

c. Other Academic and Administrative Services

Sl. No	Name of Faculty	Academic and Administrative Services
		1. Head of the Department, DAP, from Feb 2015 to June 2017
1.	Dr. Naseer M A	2. Member, BoAC
		3. Invitee to Senate (from Feb 2015-June 2017)

Consultancy and Testing

Sl. No	Nature of Service	Organization	Revenue earned	Status
1	Design of Shopping Complex	Koyilandi Municipality	-	Ongoing

DEPARTMENT OF CHEMICAL ENGINEERING

a. Publications Journals

SI. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p.
1	Sreeda P, Sathya A.B., V.Sivasubramanian	Novel Application of High-Density Polyethylene Mesh as Self-Forming Dynamic Membrane Integrated into a Bioreactor for Wastewater Treatment.		Vol.39, (2017) 1-8.
2	K.Vasantharaj, M.Jerold, B.Deepanraj, M.Velan, V.Sivasubramanian	Assessment of a Sulfidogenic System utilizing Microalgal Biomass of Chlorella pyrenoidosa as an Electron Donor: Taguchi Based Grey Relational Analysis.		(2017) 26545- 26554.
3	B.Deepanraj, V.Sivasubramanian, S.Jayaraj	Effect of Substrate Pretreatment on Biogas Production through Anaerobic Digestion of Food Waste	Int. Hydrogen Energy	(2017) 26522- 26528
4	J.Kanimozhi, I.Ganesh Moorthy, R.Sivashankar, V.Sivasubramanian	Optimization of Dextran Productin by Weisella Cibaria NITCSK4 using Response Surface Methodology-Genetic Algorithim Based Technology	Carbohydrate Polymers	(2017) 174 103-110.
5	M. Jerold, E.V.Vidya Vijay, Ramya Sankar, Naveenji Arun, V. Sivasubramanian	Nanoscale Zerovalent Iron- Sargassum swartzii biocomposites for the removal of malachite green from an aqueous solution	Separation Science and Technology	(2017) 52:6 965-974
6	M. Jerold, V.	Box-Behnken Design	Particulate Science	Vol.36,(201

	Sivasubramanian,	Optimization of Malachite Green dye biosorption Using Nano Zero Valent Iron Sargassum swartzii	and Technology	7) 1-8,386- 393
7	M. Jerold, V. Sivasubramanian, swartzii,	Biosorptive Removal of malachite green from aqueous solution using chemically modified brown marine alga Sargassum	malachite green from aqueous solution using chemically modified brown Water Science and Technology	
8	B. Deepanraj, V. Sivasubramanian, S. Jayaraj	Multi-Response Optimization of Process Parameters in Biogas Production from Food Waste using Taguchi - Grey Relational Analysis	Optimization of Process Parameters in Biogas Production from Food Waste using Taguchi - Grey Energy Conversion and Management	
9	Suchith C., Vaishakh Nair, Sajith V., Aparna K	Synthesis and characterization of biochar based catalyst from sawdust for simultaneous esterification and transesterification	Chinese Journal of Chemical Engineering	2017 (online Published) 6 April 2018
10	Kiran Vishveshvar, M. V. Aravind Krishnan, S. Vishnuprasad, K. Haribabu.	Green Synthesis of Copper Oxide Nanoparticles Using Ixiro coccinea Plant Leaves and its Characterization	BioNanoScience	Vol.8,(2018) p.p.554-558
11	Sumisha S, Haribabu K	Modification of graphite felt using nano polypyrrole and polythiophene for microbialfuel cell applications a comparative study	International Journal of Hydrogen energy	43 (2018) 3308-3316
12	Nivedita S and Shiny Joseph	Effect of unmodified and modified montmorillonite on the properties of PCL based ultrafiltration membrane for water treatment applications	J. Water Process Eng	21 (2018) 61–68.
13	Anish Mathew, M. V. Pavan Kumar	Estimator based inferential control of an ideal quaternary endothermic reactive distillation with feed forward and recoverent neural network	Chemical product and process modelling	Vol.13, Issue.2. 2017

14	Renu Jose,H. B. Ravikumar, L. M. Munirathnamma, Lity Alen Varghese & G Unnikrishnan	Microstructural analysis of Natural Rubber/ Millable Polyurethane Blends Using Positron Annihilation Lifetime Spectroscopy	Polymer- Plastics Technology and Engineering	Vol 57, 2018 – Issue 3
15	Eldho Abraham, Giri Nandagopal Mukunthan Sulochana, Bhuvaneshwari Soundarajan, Selvaraju Narayanasamy	Experimental Investigation on Microfluidic Reactive Extraction of Citric Acid Using Trioctylamine/1- Decanol System in Uniform and Nonuniform Circular Microchannels	Industrial & Engineering Chemistry Research	2017, 56 (38), pp 10845– 10855

ii. International Conferences

SI. No	Name of the Author	Title of Paper	Name of International conference	Details
1	Sivasubramanian V, Jerold M	Box-Behnken Design for the biosorption of cationic Dye from Aqueous solution using a Zero-valent iron Nano Algal Composite.	20 th International conference on sustainable water Recourses Management.	Wembley, London, United Kingdom 16,17 February 2018
2	Shankar.Nalinakshan, Sivasubramanian Velmurugan, Aneesh Vasudevan., Arunachalm K.,	Progressive Crude oil Distillation: An Alternative to Conventional Distillation Process- Evaluation using Process Simulator"	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11 March 2018
3	Jose Peter, Jobin Jose, Amal Thomas, Jefin C Joy, Nivedita S and Shiny Joseph	Synthesis of TiO2 Incorporated Polycaprolactone based Ultrafiltration Membranes for Water Treatment	ICEE 2018	NITC & (9/03/2018, 10/03/2018)
4	Sonsy Heartson, Shiny Joseph and Jeevamma Jacob	Dynamic modelling and numerical analysis of fractional contribution of temperature of solid in solid oxide fuel cell	ICEE 2018	NITC & (9/03/2018, 10/03/2018)

5	Vigneshwaran C, Sivasubramanian V, Vasantharaj K and Krishnanand N	Statistical Media Optimization, Purification and Structural Characterization of Lipopeptide Biosurfactant produced by Brevibacillus AVN 13	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
6	Ramya Sankar M.S., Dr.V.Sivasubramanian ,Vidya Vijay E.V., Jerold M., Kanimozhi J. Sinu P, Shankar N	Congo red dye removal from synthetic wastewater using electrocoagulation: Kinetic study and process performance	International Conference on Energy and Environment Global Challenges	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
7	Dr. Sivasubramanian V, Vidya EV, Dr. Jerold M, Ramya Sankar M.S., Sanjay Lakshmanan	Electrocoagulation Using Commercial Grade Aluminium Electrode in Treating Simulated Crystal Violet from Aqueous Solution	International Conference on Energy and Environment Global Challenges	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
8	K.Vasantharaj, V.Sivasubramanian, C.Vigneshwaran, R.Sivashankar, B Deepanraj	Application of Taguchi Method to Evaluate Sulfidogenesis by a Mixed Sulfate Reducing Bacterial Culture Utilizing Biomass of Green Macroalgae Ulva sp.	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
9	B. Deepanraj, N. Senthilkumar, V. Sivasubramanian, S. Jayaraj	Optimization of Process Parameters affecting Biogas Production from Food Waste using Response Surface Methodology	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
10	Mohanraj p, S Bhuvaneswari.	Synthesis of activated carbon from bael fruit shell for the fabrication of carbon paste electrode to detect cr (vi) ions in	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018

NIT Calicut 128 Annual Report 2017-18

		aqueous solution		
11	Murugan p, S Bhuvaneswari.	Studies on extraction of chromium (vi) using pickering emulsion liquid membrane with amphiphilic silica nanowires (ASNWS) as a surfactant	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
12	Vidhyeswari dilipkumar, S Bhuvaneswari.	Alternative method for generation of electricity during dairy wastewater treatment by microbial fuel cell using nafion and speek as pem	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
13	Suchith Chellappan, Aparna K	Microwave assisted biodiesel production using a novel catalyst based on nanomagnetic biocomposite	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
14	Anju Sunny, Aparna. K	Energy saving strategy for ammonia plant through feed switchover from naphtha to r-lng	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018
15	Yohans Varghese, Vineesh Ravi	Effect of feed temperature on the performance of the direct ethanol fuel cells	International Conference on Energy and Environment Global Challenges"	Department of Chemical Engineering, National Institute of Technology Calicut 10,11March 2018

iii. National Conference : Nil iv. Community Services : Nil

• Other Academic and Administrative Services:

Name of Staff	Academic and Administrative Services

Dr. V. Sivasubramanian	Head of the Department, Faculty advisor, Chairman, Purchase committee member, Chairman – M.Tech Review committee, Faculty In charge – Environmental Lab, Project guide
Dr. Shiny Joseph	Purchase committee member, NBA coordinator, faculty Advisor, Faculty In charge – fluid mechanics lab
Dr. Lity Alen Varghese	Faculty Advisor, Class committee chairperson, Dept Purchase Coordinator, Associate Dean (Academic) till Oct 2017, Co-convener of 12 th convocation, Faculty in charge of Chemical Technology Lab
Dr. Aparna K	Faculty advisor, Library Incharge, LAC member, NBA representative, Project guide, Faculty Incharge – PDC Lab, Project guide for B.Tech, Ph.D
Dr. S. Bhuvaneshwari	Warden Ladies Hostel, Class committee chairman, Faculty advisor, Department timetable in-charge, Department PTA coordinator,
Dr. K. Haribabu	Faculty Incharge – Students Activities, Chemical reaction Engineering Lab, Faculty Advisor, Project review committee member
Dr. M. V. Pavankumar	Faculty Advisor, DCC secretary, Faculty Incharge – Mechanical operations lab, Project guide, Seminar course coordinator, Department Exam cell in-charge
Dr. Vineesh Ravi	Faculty Advisor, Department Library Incharge, Project committee member, Faculty Incharge - Heat transfer Lab, Project Guide, Department purchase coordinator

• Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

Sl.No	Title	Coordinators	Period
1	DRAV – Students Technical Fest	Dr.S. Bhuvaneshwari	February, 2018
2	First International Conference on Energy and Environment, ICEE 2018	Dr.V.Sivasubramanian and Dr.S.Bhuvaneshwari	March 9-10, 2018

• Expert lecturers delivered in Conferences/Seminar/workshops

SI . N o.	Name of Staff	Title of the Programme	Period	Organization
1	Dr.V.Sivasubramani an	International Conference on energy and environment and advanced material for a sustainable future	23/05/2017	Kongu engineering college, Perundurai

DEPARTMENT OF CIVIL ENGINEERING

(a) Publications:

i. Journals

Sl. No	Name of the Authors	Title of paper	Name of Journal/conference	Vol., Year, p.p.
1	Alexander, A.A., Thampi, S.G., and Chithra N. R	Development of hybrid wavelet-ANN model for hourly flood stage forecasting	ISH Journal of Hydraulic Engineering	24(2), 2018, 266- 274
2	Anand Raj, Praveen Nagarajan and A P Shashikala	A Review on the Development of New Materials for Construction of Prestressed Concrete Railway Sleepers	IOP Conf. Series: Materials Science and Engineering	Vol.330, 2018
3	Anjana Bhagyanathan, A. K. Kasthurba, Santosh. G. Thampi,Deepak Dhayanithy	Terrain attributes of sacred grove locations point towards conscious spatial delineation	Current Science	114 (5), pp. 957- 959, 2018
4	Anjana Bhagyanathan, A. K. Kasthurba, Santosh. G. Thampi, Deepak Dhayanithy	Sacred Groves in Peri-Urban Areas: An Opportunity for Resilient Urban Ecosystems	International Journal of Earth Sciences and Engineering	10 (1), pp. 75-82, 2017
5	Chithra, N. R., Santosh. G. Thampi	Downscaling future projections of monthly precipitation in a catchment with varying physiography.	ISH Journal of Hydraulic Engineering	23(2), 2017, 144- 156
6	Dharmesh Lal, N Sankar, S Chandrakaran	Performance of shallow foundations resting on coir geotextile reinforced sand bed	Journal of Soil Mechanics and Foundation Engineering, Springer	60-64, Volume 54, Issue 1, 2017
7	Dharmesh Lal, N Sankar, S Chandrakaran	Effect of reinforcement form on the behaviour of coir geotextile reinforced sand beds	Soils and Foundations, Elsevier	227-336, Volume 57, Issue 2, 2017

	1	T	1	T
8	Dharmesh Lal, N Sankar, S.Chandrakaran	Triaxial test on saturated sands reinforced with coir products	International Journal of Geotechnical Engineering,	1-7, Taylor and Francis (ISSN: 1938-6362), 2017
9	Dharmesh Lal, N Sankar, S.Chandrakaran	Effect of reinforcement form on the behaviour of coir geotextile reinforced sand through triaxial compression tests	International Journal of Geotechnical Engineering, Taylor and Francis (ISSN: 1938-6362)	DOI: 10.1080/ 19386362.2016. 1275428, 1-7, 2017
10	Dharmesh Lal, N Sankar, S.Chandrakaran	Surface Heave Behaviour of Coir Geotextile Reinforced Sand Beds	Journal of The Institution of Engineers (India): Series A (IEI)	Springer (ISSN: 2250-2149) DOI: 10.1007/s40030-017-0190-6, 1-5, 2017
11	Drisya Manghat, Aswathy KV, Krishnamurthy Karuppanagounder	Automobile Level of Service Criteria for Two-Lane Undivided Heterogeneous Urban Corridors	Journal of European Transport	63 & 2017. Paper No.9
12	Drisya, J and Sathish Kumar, D	Automated calibration of a two-dimensional overland flow model by estimating Manning's roughness coefficient using genetic algorithm	Journal of Hydroinformatics	Vol. 20, No. 2, pp 440-456 DOI: 10.2166/hydro.201 7.110
13	Femy.M.Makkar, Sankar N, Chandrakaran S	Performance of 3D geogrid reinforced sand under direct shear mode	International Journal of Geotechnical Engineering Taylor and Francis (ISSN: 1938-6362)	DOI: 10.1080/ 19386362.2017. 1336297, 1-9, 2017
14	Femy.M.Makkar, Sankar N, Chandrakaran S	Behaviour of Model Square Footing Resting on Sand Reinforced with Three-Dimensional Geogrid	International Journal of Geosynthetics and Ground Engineering,	Springer (ISSN: 2199-9260) Vol.3, No.1, 1-10, 2017
15	Greeshma Nizy Eujine, S.Chandrakaran, N Sankar	Accelerated Subgrade Stabilization Using Enzymatic Lime Technique	Journal of Materials in Civil Engineering, ASCE (ISSN: 1943- 5533)	DOI: 10.1061/ (ASCE)MT. 1943- 5533.0001923, 1- 7, 2017
16	Greeshma Nizy	The engineering	Proceedings of ICE-	DOI:
	· · · · · · · · · · · · · · · · · · ·			

NIT Calicut 132 Annual Report 2017-18

	Eujine, S.Chandrakaran, N Sankar	Behaviour of enzymatic lime stabilised soils	Ground Improvement,ICE Publishing (Thomas Telford)	10.1680/jgrim. 16.00014, 1-11, 2017
17	K. Smitha, Santosh G Thampi	Experimental Investigations on Flouride Removal from Water using Nanoalumina- Carbon Nanotubes Blend	Journal of Water Resource and Protection	9, pp. 760-769, 2017
18	Krishnamurthy K Muneera C. P	Performance Evaluation of Urban Links under Heterogeneous Traffic Condition	Journal of European Transport	65 & 2017, Paper No. 3
19	Lamanto T. Somervell, Santosh G. Thampi, Shashikala A. P.	Hydrodynamic characteristics of vertical cellular breakwater	Journal of Waterway, Port, Coastal, and Ocean Engineering, ASCE	143(5), 2017,
20	Lamanto T. Somervell, Santosh G. Thampi, Shashikala A. P.	Estimation of friction coefficient for double walled permeable vertical breakwater	Ocean Engineering	156, pp. 25-37
21	Lamanto T. Somervell, Santosh G. Thampi, Shashikala A. P.	A Novel Approach for the Optimal Design of a Vertical Cellular Breakwater Based on Multi- Objective Optimization	Coastal Engineering Journal	Vol. 59, No. 4, 2017
22	Manjula N K, T. M. Madhavan Pillai, Praveen Nagarajan, K. K. Reshma	Incorporation of Dynamic SSI Effects in the Design Response Spectra	Institution of engineers, India	May- 18,Vol.99,511-517
23	Mohammed Aslam, Praveen Nagarajan,Mini Remanan	Analysis of Piezoelectric Solids using Finite Element Method	IOP Conf. Series: Materials Science and Engineering.	Vol. 330 (2018) 012009, doi:10.1088/1757- 899X/330/1/01200 9
24	P Saranya, Praveen Nagarajan and A P Shashikala,	Eco-friendly GGBS Concrete: A State-of- The-Art Review	IOP Conf. Series: Materials Science and Engineering	Vol.330, 2018
25	Prakash. C., Santosh.	Pharmaceutical	Environmental	

NIT Calicut 133 Annual Report 2017-18

	G. Thampi, Mathava Kumar, and K. M. Mini	products as emerging contaminant in water: relevance for developing nations and identification of critical compounds for Indian environment	Monitoring and Assessment	https://doi.org/10.1 007/s10661-018- 6672-9
26	Prakash. C., Santosh. G. Thampi, Mathava Kumar, and M. Balachandran	Photocatalytic degradation of metformin and amoxicillin in synthetic hospital wastewater: effect of classical parameters	International Journal of Environmental Science and Technology	https://doi.org/10.1 007/s13762-018- 1935-0
27	Prashob P. S, A. P Shashikala, T. P Somasundaran	Behaviour of carbon fiber reinforced polymer strengthened tubular joints	International Journal of Steel and Composite Structures	24, No.4/2017, 383-390
28	S.K.Pramada,S.Mohan & P.K Sreejith	Application of genetic algorithm for the groundwater management	ISH Journal of Hydraulic Engineering	24, 2018, 124-130
29	Safeer Ali Abbas Ali, Arun C and K.Krishnamurthy	A case Study on Implementing NAVFAC P-405 in Indian Construction Sites for Estimating Time and Cost Overrun.	Journal of Construction Engineering and Management, NICMAR	Vol. XXIII, (01), Jan-Mar; 2018
30	Safeer Ali Abbas Ali, Arun C and K.Krishnamurthy	New Approach for Direct and Indirect Time Wastes in Civil Construction Engineering.	International Journal of Civil Engineering and Technology,	Vol. 8 (12), pp 817-832., 2017
31	Sandeep MS, Praveen Nagarajan and A P Shashikala.	Behaviour of Steel Fibre Reinforced Rubberized Continuous Deep Beams	IOP Conf. Series: Materials Science and Engineering	330, 2018
32	Sreelekha M.G, Krishnamurthy K and Anjaneyulu M V L R	Fractal Assessment of Road Transport System	Journal of European Transport	65 & 2017, Paper no. 5
33	V. Sabna, Santosh G. Thampi, S.	Adsorptive removal of cationic and	Water Science & Technology	doi: 10.2166/wst.2018.

NIT Calicut 134 Annual Report 2017-18

	Chandrakaran	anionic dyes using graphene oxide		311
34	V. Sabna, Santosh G. Thampi, S. Chandrakaran	Degradation of rhodamine B with manganese dioxide nanorods	Journal of Water and Health	doi: 10.2166/wh.2018. 102
35	Yashida Nadir, Praveen Nagarajan, Mohammed Ameen	Numerical modelling of glued laminated wood beam	Journal of Structural Engineering, SERC, India	Jan-2018

Conferences

International conference

S.No.	Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
1	Akash Singh Raghuvanshi, Santosh. G. Thampi	Assessment of the Impact of Climate Change on Streamflow Regime	22 nd International Conference on Hydraulics, Water Resources, and Coastal Engineering HYDRO 2018	21-23 December 2017, Ahmedabad
2	Akhil Bhaskar, Akilesh Ramesh, Anirudh Madhusubhanan K., Arshad P., Arun M.G. and Harikrishna M.	Congestion Mitigation Measures on Two Lane Rural Highways – A Case Study	3 rd International Conference on Sustainable Energy and Built Environment (ICES 2017),	March 16 – 17, 2017
3	Akhil. K. S, N. Sankar, S. Chandrakaran	Bamboo as a sustainable soil reinforcement material- A review	International Conference on CEASIDE 2018	GEC Thrissur, Jan 18-20, 2018
4	Akhila M, Sankar N, Kodi Ranga Swamy	Liquefaction susceptibility of dam foundation soil	International Dam Safety Conference–2018	Thiruvananthapuram, Kerala, January 23- 24, 2018
5	Akhila M, Sankar N, Kodi Ranga Swamy	Development of Critical state line from hypo plastic model simulations on triaxial strength of silty sand	International Conference on CEASIDE 2018	GEC Thrissur, Jan 18-20, 2018
6	Akhila M, Sankar N, Kodi Ranga Swamy	Effect of Non-plastic Fines on Liquefaction Susceptibility of Fine Sands	7 th International Conference on Deep Foundation Technologies for Infrastructure Development in India	IIT Madras, October 6-7, 2017

7	Alexander Ashlin, Santosh G. Thampi, Chithra NR	Development of hybrid wavelet-ANN model for hourly flood forecasting.	3 rd International Conference on the Status and Future of the World's Large Rivers, New Delhi, India	18-21 April 2017
8	Anand Raj, Praveen Nagarajan and A P Shashikala	A Review on the Development of New Materials for Construction of Prestressed Concrete Railway Sleepers.	International conference on Recent advances in materials, mechanical and civil engineering, Hyderabad	June 1-2, 2017.
9	Ansa Thasneem S, Chithra N R, Santosh G Thampi	Design Storm Estimation for Small Dams under Climate Change.	International Dam safety Conference, Thiruvananthapuram	Jan 23-24, 2018
10	Ansa Thasneem S, Chithra N R, Santosh G Thampi	Impact of projected climate change on sediment yield in the Chaliyar River Basin, India.	International Soil and Water Assessment Tool Conference, SWAT, IIT Madras	Jan 10-12, 2018
11	Arya Soman, Chithra NR	Impact of climate change on streamflow in the Chaliyar river basin in India using HEC-HMS model.	Asia Oceania Geosciences Society 14 th Annual Meet, SUNTEC Singapore	6-11 August 2017
12	CibyJacob Cherian,T.M.Madha van Pillai and Sajith A.S	Influence of intensity parameters of earthquake on response of reinforced concrete structures,	IOP conference series: Material science and engineering	330(2018)
13	Dharmesh Lal	Triaxial compression of sand reinforced with coir fibres	2 nd International Conference on Advances in Concrete, Structural, and Geotechnical Engineering, ACSGE 2018	BITS Pilani, February 26-28, 2018
14	Dharmesh Lal, N Sankar, S.Chandrakaran	Ann-based model for predicting the bearing capacity of square footing on coir geotextile reinforced soil	International Conference on CEASIDE 2018	GEC Thrissur, Jan 18-20, 2018
15	Divyasree.S, Harikumar.M, N.Sankar, S. Chandrakaran	Finite Element Study on Settlement Reduction Characteristics of Cohesionless Soil Improved with Three Dimensional Plastic Hexapods	2 nd Intl. Conference on Frontiers in Engineering, Applied Sciences and Technology	NIT Trichy, April 27-28, 2018

16	Epapra P, Athira P and Sathish Kumar D	Landuse/ Land Cover Change Detection and Modelling in Bharathapuzha River Basin, Kerala, India	Asia Oceania Geosciences Society 14 th Annual Meet, SUNTEC Singapore	6-11 August 2017
17	Femy.M.Makkar, Sankar N, Chandrakaran S	Bearing capacity improvement of sand reinforced with 3D geogrids of rectangular pattern	International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering, EGRWSE-2018	NIT Jalandhar,March 29-31, 2018
18	Femy.M.Makkar, Sankar N, Chandrakaran S	Determination of interface shear strength of 3D geogrid reinforced fine sand using large scale direct shear test	2 nd International Conference on Advances in Concrete, Structural, and Geotechnical Engineering, ACSGE 2018	BITS Pilani, February 26-28, 2018
19	Femy.M.Makkar, Sankar N, Chandrakaran S	Feasibility of 3D geogrids in the construction and rehabilitation of earth dams	International Dam Safety Conference–2018	Thiruvananthapuram, Kerala, January 23- 24, 2018
20	J. Chithra, Praveen Nagarajan, Sajith A.S.	Simplified method for the transverse bending analysis of twin celled concrete box girder bridges,	IOP conference series: Material science and engineering	330(2018)
21	Jithin K.M, Dharmesh Lal, N.Sankar, S. Chandrakaran	Applications of PLAXIS in Solving GeotechnicalProblems involving Soil Reinforcement	2 nd Intl. Conference on Frontiers in Engineering, Applied Sciences and Technology	NIT Trichy, April 27-28, 2018
22	Kabbilawsh P, Sathish Kumar D, Chithra N R	Comparative performance assessment of Eight univariate data filling techniques in missing precipitation records	38 th Asian conference on Remote sensing, New Delhi	10th January, 2017
23	Lamanto T. Somervell, Santosh G. Thampi, and Shashikala A. P.	Shore protection using double plate vertical porous breakwater	Proceedings of 37th IAHR World Congress, Kuala Lumpur, Malaysia.	August 13 18, 2017
24	Lamanto. T. Somervell, Santosh. G. Thampi, A.P. Shashikala	Shore Protection using Double Plate Vertical Porous Breakwater	37 th IAHR World Congress	13-18 August 2017, Kuala Lumpur
25	M. F. Azjad, Santosh. G. Thampi, S. Chandrakaran	Seepage and Stability Analysis of an Earthen Dam	International Dam Safety Conference 2018	23-24 January 2018 Thiruvananthapuram

26	Minu Ann Peter, Sajith A.S., Praveen Nagarajan	Comparison of the performance of concrete filled steel tubular and hollow steel diagrid building	IOP conference series: Material science and engineering	330(2018)
27	Mohammed Aslam, Praveen Nagarajan, Mini Remanan	Analysis of Piezoelectric Solids using Finite Element Method	International Conference on Recent Advances in Materials, Mechanical and Civil Engineering (ICRAMMCE-2017), MLRITM, Hyderabad, Telangana	June 1-2, 2017.
28	P Saranya, Praveen Nagarajan and A P Shashikala	Eco-friendly GGBS Concrete: A State-of- The-Art Review	International conference on Recent advances in materials, mechanical and civil engineering, Hyderabad	June 1-2, 2017
29	Poonam Mohan, A P Shashikala.	An investigation into the motion and stability behaviour of a Ro-Ro Vessel	International conference on Ship Building and Offshore Engineering- (ICSOE 2K 18)	23-03-2018
30	Rahlarabia M P and Sathish Kumar D	Integrated flood modelling and damage assessment using BIM and GIS	International Dam Safety Conference–2018	Thiruvananthapuram, Kerala, January 23- 24, 2018
31	Sandeep MS, Praveen Nagarajan and A P Shashikala	Behaviour of Steel Fibre Reinforced Rubberized Continuous Deep Beams	International conference on Recent advances in materials, mechanical and civil engineering, Hyderabad	June 1-2, 2017
32	Shashikala A.P, Shankar K Varma	Optimization of Separation Distance between Two Floating Bodies	Twenty Seventh International Ocean and Polar Engineering Conference (ISOPE 2017), San Francisco, California, USA	June 25-30 2017
33	Sithara S Pramada.S.K and Santosh G Thampi	Investigations on the impact of projected sea level rise on the groundwater regime in a coastal aquifer	14 th annual meeting of Asia Oceania Geosciences Society AOGS -2017	6-11 August 2017
34	Sreya M.V , Femy M, N.Sankar, S. Chandrakaran	Determination of Bearing Capacity of Geogrid Reinforced Soil Bed using PLAXIS 3D Software	2 nd Intl. Conference on Frontiers in Engineering, Applied Sciences and Technology	NIT Trichy, April 27-28, 2018
35	Surya T. V., Santosh G. Thampi, Reeshna V.	Performance Evaluation of Vertical Flow Constructed Wetlands in Wastewater Treatment	8 th International Conference on Appropriate Technology	22-25 November, 2018 Porto-Novo, Benin

National Conferences

Sl. No	Name of the Authors	Title of paper	Name of Journal/conference	Details
1	Akash Singh Raghuvanshi, Santosh. G. Thampi	Estimation of Sediment Yield from a Catchment under Projected Climate Change	India Water Week 2017	10-14 November 2017, New Delhi
2	Aleena C, Drisya M and K .Krishnamurthy	Estimating the Travel Time Reliability of Urban Corridors Using GPS Data.	4th Conference on Transportation Systems Engineering and Management, 12- 13, May 2017, Anna University Chennai	May 2017.
3	Chittapu Mounika, K. Krishnamurthy; and MVLR Anjaneyulu	Estimation of Dynamic Passenger Car Unit on Divided Urban Corridor.	4th Conference on Transportation Systems Engineering and Management, 12- 13, May 2017, Anna University Chennai	May 2017.
4	Jisha R R, Muneera C.P; K .Krishnamurthy and MVLR Anjaneyulu	Estimation of Saturation Flow at Signalized Intersections.	4th Conference on Transportation Systems Engineering and Management, 12- 13, May 2017, Anna University Chennai	May 2017.
5	Mohammed Aslam, Praveen Nagarajan, Mini Remanan	Static and Dynamic Analysis of Piezoelectric Bimorph using Finite Element Method	Indian Conference on Applied Mechanics (INCAM) 2017, MNNIT, Allahabad	July 5-7, 2017

(b) Community services

Dr. Sajith A S

- DI. Sajitii A S
 - Preparation of Master Plan for Meppyur (Higher Secondary school) in Calicut is in Progress. NIT Calicut (CED & DAP) is mentoring the activities of planning and execution carried out by KITCO and ULCCS.
- Prepared the master plan for Spring Valley School, NIT Campus as part of the Silver Jubilee Celebrations with the help of Students from DAP and CED. This also involved total station surveying and Master plan drawings
- Carried out survey in Kunnamangalam Gramma Panchayath for the "LIFE Mission" project of Govt. of Kerala as a student project initiative. Submitted the report in January 2018.

Dr. Harikrishna M

- Involved in household survey of Meenangadi Gramapanchayath, in association with 'Niravu' an NGO July 3-10, 2017, as part of activities of National Service Scheme Cell, NIT Calicut.
- Involved in household survey of Koruthodu Gramapanchayath, as part of activities of Unnat Bharat Abhiyan May 15 16, 2017, as part of activities of National Service Scheme Cell, NIT Calicut
- Involved in Blood Donation Drive, Medical Camp, Bed and Book Donation Drive and other Incampus programmes of the National Service Scheme Cell, NIT Calicut

Dr. Santosh G Thampi

- Invitee, Technical Committee, Dam Rehabilitation Improvement Project I (DRIP I), Central Water Commission
- Member, Technical Committee, International Dam Safety Conference 2018
- Member, Regional Technical Expert Committee (Northern Region) on Storm Water Drainage for Evaluation of DPRs under AMRUT, constituted by the Govt. of Kerala
- Reviewer for many peer reviewed journals including Journal of Hydrology, Journal of Hydrology

 Regional Studies, International Journal of Climatology, Hydrologic Processes, Transport in Porous Media, Journal of Porous Media, International Journal for Numerical Methods in Fluids, Special Topics and Reviews in Porous Media, International Research Journal of Agricultural Science and Soil Science, Agricultural Research and Reviews, Journal of the Geological Society of India, Natural Hazards, ISH Journal of Hydraulic Engineering, KSCE Journal of Civil Engineering, Theoretical and Applied Climatology, Science of the Total Environment, Environmental Technology etc

Dr. A P Shashikala

- Technical Member, BOG of Cyberpark.
- Chairperson Research Academic council, Women's Division, KSCSTE
- Member, Board of Studies, NITK Surathkal and CUSAT

(c) Other Academic and administrative services

Name of Faculty	Academic and administrative services
Dr. N. Ganesan	Member in many of the Doctoral Committees
	Member of Senate of NITC
	• CVO
Dr. V Mustafa	Chairman/Member in many of the Doctoral Committees
	Member of Senate of NITC
Dr. T P Somasundaran	Chairman Institute Canteen Committee
	Member of Senate of NITC
	Member, Buildings and Works committee, Central University of
	Kerala, Kasargod, Kerala
	Member, Buildings and Works committee, Malayalam University,
	Tirur, Kerala
Dr. S. Chandrakaran	Dean (Planning and Development), NIT Calicut
	Expert member of TRDM to review water shed projects submitted to
	Govt. of Kerala
	Member of Senate of NITC
	Member in many of the Doctoral Committees
	Reviewer of Indian Geotechnical Journal

	D ' 07 1 0 1
	Reviewer of Journal of structural engineering
	Reviewer of International journal of geotextiles and geomembranes
	Member of Senate of NITC
Dr. T Zacharia Varghese	• I/C of strength of materials, concrete and structural engg. Lab.
	Faculty in charge of ICI Students Chapter, NITC
	Head, Department of Civil Engineering
D. I C. 11. 1	Member of Senate of NITC
Dr. J Sudhakumar	Faculty adviser for students of B.Tech (Civil) 2013 Admission
	Warden, C Hostel
	I/C of Geotechnical Engineering Lab.
	Member of Senate of NITC
Dr. N Sankar	Member in many of the Doctoral Committees
	Coordinator of M. Tech programme in Environmental Geotechnology
	Head, Centre for Transportation Research
	Member of Senate of NITC
	Coordinator of M.Tech programme in Traffic and Transportation Description
	planning Coordinator State Technical Agency Prodhen Montri Cross Sadely
Dr. M V L R	Coordinator, State Technical Agency, Pradhan Mantri Gram Sadak Yojana, National Rural Roads Development Agency
Anjaneyulu	• Member, Advisory Committee, Centre of Excellence in Transportation
	Engineering, National Institute of Technology, Trichy
	Member (AICTE Nominee), Board of Governors, Government Figure 1. Member (AICTE Nominee), Board of Governors, Government
	Engineering College Wayanad
	Member, Consultative Committee, Transportation Research Centre, C. H. G. F. G. T. G.
	College of Engineering, Trivandrum
Sri K Saseendarn	I/C of Geotechnical Engineering Lab assistant
	Department Secretary
Dr. Mohammed Ameen	Member of Senate of NITC
	Member of the Library Advisory Committee of NITC
	Coordinator, Centre for Continuing Education
	Member of Senate of NITC
	Member in many of the Doctoral Committees
	Faculty adviser for students of B.Tech (Civil) 2015 Admission
Dr. P V Indira	PhD Programme Coordinator of the Department
	Chairperson Internal Complaints Committee
	Purchase committee member
	Member of the Board of Examiner for Evaluating Ph. D Thesis for
	Anna University Chennai, Kerala University, JNTU Hyderabad etc
	Course faculty for M Tech. Civil (Offshore Structures)
	Course faculty for B Tech. Civil
	Lab in Charge Offshore Laboratory
	Programme Coordinator- M Tech. Civil (Offshore Structures)-2016
	Admissions
Dr. A P Shashikala	Faculty Advisor- B Tech. Civil- 2014 Admissions
	President, Civil Engineering Association
	Dean (Academic) till October 2017
	Presiding Officer, Internal Complaints Committee
	Committee member for strengthening UG Research
	Committee member for refurbishment of NITC Guest House
	Commutee member for returbishment of NIIC Guest House

NIT Calicut 141 Annual Report 2017-18

	Chairmarcan Madarnization of Chanalaya hall
	 Chairperson, Modernization of Chanakya hall Member, Peer Review Committee for selection of Young Faculty Research Fellow under Visvesvaraya Scheme Chairperson, Adhoc Office Assistant Selection Committee Member, ACoFAR
Dr. T M Madhavan Pillai	 Dean (Faculty Welfare) Head, Centre for Bio-Mechanics Adviser, (WS & FS, Weaker students & Foreign Students), NITC Coordinator SC/ST cell of the Institute, NITC Programme co-ordinator, M.Tech (Structural Engg.), 2014 admission Member of Senate of NITC Departmental information facilitation in-charge for Annual Report etc Faculty Advisor for Civil batch 2015 Member of Building Works Technical Advisory Committee (BWTAC) of the Institute since 25/05/2012 Member of the Board of Examiner for Evaluating Ph. D Thesis for Kerala University Reviewer of International Journal of Structural Engineering and Mechanics, Journal of Structural Engineering, International Journal of Ocean Engineering, The Icfai University Journal of Structural Engg, International Journal of Construction and Building Materials
Dr. Santosh G Thampi	 Chief Warden, NITC Hostels Member in many of the Doctoral Committees Coordinator of M.Tech programme in Water Resources Engineering Member of Senate of NITC Faculty I/C, Water Resources Engineering Laboratory Faculty Advisor for Civil batch 2014
Dr. K Sasikumar	 Faculty advisor for students of B.Tech (Civil) 2016 admissions Member in many of the Doctoral Committees
Dr. Sajith A S	 Faculty Advisor 2016 Admission batch Lab in charge UG CAD Lab, CED, and SM/Concret/Structures lab Convener, Academic Reforms Committee(ARC) of NITC Department Academic coordinator, TEQIP Convener, Water Resources Management Committee of NITC Purchase Coordinator, Modernisation of Labs, TEQIP II
Dr. Praveen Nagarajan	 Programme Cordinator – M.Tech. Structural Engineering, I/C of examinations, Lab I/C – Offshore Engineering, Faculty Advisor – B.Tech. Civil Engineering, Planning for Self Financing Courses, Lab Development
Dr. George K Varghese	 Faculty adviser for students of B.Tech (Civil) 2015 Admission Lab-in charge, Environmental Engineering Lab Warden, A Hostel Faculty in charge for Environmental Engineering Lab Vice Chairperson, UG Admission, NITC Member, Spring Valley School Managing Committee

NIT Calicut 142 Annual Report 2017-18

Dr. Harikrishna M	 SPOC (Single Point of Contact) – NPTEL Local Chapter at NIT Calicut – February 2018 – till date Associate Dean (Academic) – November 8, 2017 – till date Faculty Co-ordinator – CED – Student Mentorship Programme initiated by NITCUSAAA Chapter – 21-08-2017 – till date Programme Co-ordinator – National Service Scheme, March 17, 2017 – till date Faculty Advisor, 2016 Admissions batch, CED, NITC- 27-07-2016 – to date. Faculty i/c of Time table and Room allotment – CED, NITC – 13-05-2015 till date.
Dr.Chitra N R	 Warden, Ladies Hostel Time table in-charge, Department of Civil Engineering Library Advisory Committee (LAC) member Member in the Water Resources Management Committee In-charge of Teaching aids/class rooms, Department of Civil Engineering In-charge of Seminar library, Department of Civil Engineering Faculty Advisor, 2017 batch, B.Tech. Civil
Dr. K Rangaswamy • Faculty Advisor – 2014 admission • I/C of Geotechnical Engineering Lab	
Dr. K Krishna Murthy	 Associate Dean (P&D) Programme Coordinator, M.Tech Traffic And Transportation Planning, 2014 Batch Faculty Advisor, B.Tech Civil, 2014 batch Warden, F Hostel
Sri. M Sivakumar	• Faculty Advisor for Civil batch 2015
Dr. Mini Ramanan	 Faculty Advisor for Civil batch 2016 Asst. Lab in charge of Strength of Materials Lab, Concrete Lab and Structures Lab
Dr. Sathish Kumar D	 Faculty Advisor for Civil batch 2015 Faculty I/C, Surveying Lab Warden, E Hostel Purchase coordinator, Department of Civil Engineering Member, Institute Website Committee Member, Water Resources Management Committee
Dr. Pramada S K	 Faculty Advisor for Civil batch 2016 CEA, Vice president Warden-LH

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

Sl. No.	Title	Coordinators	Duration & Period
1	Research colloquium on Water Resources and Environmental Engineering	Dr. Pramada S K, Dr. Chithra N R, Dr. George K Varghese	24.11.2017, one day

2	One day workshop on National Information System for Climate and Environment Studies (NICES) data products	Dr. Pramada S K, Dr. Chithra N R, Dr. Sathish Kumar D	26.02.2018, one day
3	Skill Development Programme for contractors	Dr A P Shashikala, & Dr Praveen Nagarajan	05-08-2017- 1 day
4	Workshop on Infrastructure Design	Dr Praveen Nagarajan Dr A P Shashikala, & Dr Sajith A S	19-23 March 2018 – 5 days
5	International Conference on Dam Safety	CWC, KWRD, KSEB Ltd., NITC, and CET	23.01.2018 to 24.01.2018

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

Sl. No	Name of Staff	Title of the Programme	Organisation/Date
1	Dr. Chithra N R	Seminar on the Chaliyar river on World Water day	NIT Calicut, 22 March, 2018, one day
2	Dr. Harikrishna M	Numerical Modelling in Civil Engineering'	Viswajyothi College of Engineering, March 13, 2017.
3	Dr. Harikrishna M	"Short - term Programme on 'Choice Modelling	NIT Calicut, March 15-17, 2017
4	Dr. K. Krishnamurthy	Rural Roads Materials Testing & Quality Control	CTR, CED,NIT Calicut,10th to 12th January, 2018
5	Dr. K. Krishnamurthy	Rural Roads Materials Testing & Quality Control	CTR, CED,NIT Calicut,18th to 20th January, 2018
6	Dr. K. Krishnamurthy	Training Programme in Basics of Infrastructure Design	NIT Calicut, CED,5 Days from 19.03.2018 to 23.03.2018
7	Dr. Pramada S K	Application of Genetic Algorithm for the sustainable management of groundwater under visiting faculty scheme	College of engineering Trivandrum,17.02.2018
8	Dr. Pramada S K	"Nature for water" on world water day organized by institution of engineers Kozhikode	Chavara cultural centre Kozhikode,March 22nd 2018
9	Dr. Sajith A.S.	Infrastructure Design' organized for PWD Engineers	Dept. of Civil Engineering, NIT Calicut,5 day workshop(19th – 23rd March 2018)
10	Dr. Santosh G Thampi	State level function organised by the Dept.of Water Resources, Govt. of Kerala in connection with the WORLD WATER DAY 2018	Dept.of Water Resources, Govt. of Kerala in collaboration with Kerala State GWD, and KWA,22 March 2018 at Thiruvananthapuram

11	Dr. Santosh G Thampi	National Workshop on Environmental Modelling	Department of Environmental Sciences, University of Kerala,30- 31 January 2018 at Thiruvananthapuram
12	Dr. Santosh G Thampi	International Dam Safety Conference 2018 (Consolidating and presenting the recommendations of the conference)	Jointly organised by the CW23-24 January 2018 at KovalamC, KWRD, KSEB Ltd., NITC, and CET,
13	Dr. Santosh G Thampi	Workshop on Groundwater Modelling	Central Groundwater Board, Thiruvananthapuram,July 2017 at Kozhikode
14	Dr. Santosh G Thampi	Research Week 2017	Gujarat Technological University, Ahmedabad,2017 at Ahmedabad
15	Dr. Sathish Kumar D	"Nature for water" on world water day	CWRDM, Calicut,22 March, 2018, one day
16	Dr. Shashikala A P	Skill Development Programme for contractors	ULTRATECH Cements,05-08- 2017- 1 day

(f) Details of Faculty, who acquired Higher Qualification: $N\ensuremath{\mathrm{IL}}$

(g) Consultancy and testing

Sl. No	Nature of Service	Organization	Revenue earned (Rs)	Status
1	Testing Services offered in SM lab, GE lab, EE lab and TE lab	Govt. Semi Govt. and Private Organisations	13,72,601	Completed
2	Approval of drawings of the retaining wall to be constructed at Highlands Villa Project at Methottuthazham, Kozhikode.	Calicut Landmark Builders & Developers [India] Pvt. Ltd.	29,500	Completed
3	Rehabilitation of school building of Kendriya Vidyalaya, No.1, Calicut	Ex. Engineer, CPWD	2,00,000	Ongoing
4	Non-destructive testing at RGCB building, Akkulam, Trivandrum	(Client-Director Rajiv Gandhi Centre for BioTechnology)	1,50,000	Completed
5	Renovation of Nhangattiri Bhagavathi temple – Pattambi	(Client – Nhangattiri Bhagavathi Devaswom)	25,000	Completed
6	Renovation of Thalassery Pier	(Client – Ex. Engineer, Harbour	-	Ongoing

		Engineerig)		
7	Design of Trainee's hostel at CWRDM	Client –Ex. Director, CWRDM	4,20,000	Completed
8	Design of 1 lakh litre RCC water tank.	Client –Ex. Director, CWRDM	25,000	Completed
9	Investigation of the land use/land cover type in 18.91 Cents of land in survey No.123/3B3 existed in the year 2008	Client - Ms. Rajalakshmi. Rajeevam, Chevarambalam P O, Calicut	11,500	Completed

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

a. Publications

i. Journals

Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
Nidheesh, N, Nazeer A, Ameer PM.	An enhanced deterministic K-Means clustering algorithm for cancer subtype prediction from gene expression data	Elsevier International Journal of Computers in Biolog and Medicine.	91, 2017, 213-221.
Visakh, R, Abdul Nazeer KA.	DEEP Aligner: Deep encoding of pathways to align epigenetic signatures.	Elsevier International Journal of Computational Biology and Chemistry	72, 2018 87-95.
Anu Mary Chacko, Anish Gupta MS, MadhuKumar SD.	Improving execution speed of incremental runs of MapReduce using provenance	International Journal of Big Data Intelligence.	4(3), 2017, 186-194
Anu Mary Chacko, Alfredo Cuzzocrea	Automatic Big Data Provenance Capture at Middleware Level in Advanced Big Data Frameworks	Connected Environments for the Internet of Things Challenges and Solutions . : Computer Communications and Network (CCN) series	2017,p.p.219-239
Shabeera, TP, Madhu Kumar SD, Salam SM, Krishnan M.K.	Optimizing VM allocation and data placement for data-intensive applications in cloud using ACO metaheuristic algorithm.	Engineering Science andTechnology,an International Journal	20, 2017 616-628

Jimmy Jose, Dipanwita Roy Choudhury	Investigating four neighbourhood cellular automata asbetter cryptographic primitives	Journal of Discrete Mathematical Sciences and Cryptography	20, 2017 No. 8, 1675-1695
Mathew, AB, MadhuKumar SD, Krishnan MK, Salam SM	Efficient query retrieval in Neo4jHA using metaheuristic social data allocation scheme.	Computers & Electrical Engineering.	April.2018,Vol.67, 425-440
Shabeera, TP, MadhuKumar SD, Sameera	Curtailing Job Completion Time in MapReduce Clouds	Computers & Electrical Engineering, International Journal Elsevier.	58, 2017, 190-201.
Arun, KS, Govindan VK, Kumar MSD.	On integrating re-ranking and rank list fusion techniques for image retrieval	International Journal of Data Science and Analytics. : Springer	Aug.2017,Vol.4,p.p .53-81
Subhasree Methirumangalath, Shyam Sundar Kannan, Amal Dev Parakkat and Ramanathan Muthuganapathy	Hole detection in a planar point set: An empty disk approach ", Volume 66, August 2017, pp. 124134	Computers & Graphics,	66, 2017, 124—134
Sithara Kanakaraj, Madhu S Nair, Saidalavi Kalady	SAR Image Super Resolution using Importance Sampling Unscented Kalman Filter	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Vol 11 No. 2 PP 562-571
Jeethu V Devasia, Priya Chandran	Inferring disease causing genes and their pathways: GpRr method	Journal of Computational Science	Vol.26,May 2018,108-117

ii. International Conferences

Name of the Author	Title of Paper	Name of International conference	Place /Year /pp Duration
K. M. Subhash, P. N. Pournami and P. K. Joseph	Census transform based feature extraction of EMG signals for neuromuscular disease classification	2017 IEEE 15th Student Conference on Research and Development (SCOReD), Putrajaya	December 2017
Savinu Vijay and	Accelerated Feature	IEEE International Conference	March 22 -

Pournami P N	Descriptor Matching in Images Using Threshold Accepting	on Wireless Communications, Signal Processing and Networking (WiSPNET 2018)	24,2018
Mullaguru Hareesh, K Yaswanth, Manghat Sreeja and Saidalavi Kalady Accurate Fork Bomb Detection by Process Name		IEEE international conference on Intelligent Computing , Instrumentation and Control technologies(ICICICT 2017)	July 2017 Kannur
Siyad, M, Visakh R, Nazeer A.	Disease Prediction using Optimal Feature Selection from Epigenetic Data	Innovations in Power and Advanced Computing Technologies [i-PACT2017].	2017, Vellore, India
Ghanwat, P, Chacko AM	Improved Personalized Recommendation System with better user experience	6th International Conference on Advances in Computing Communications and Informatics	Manipal,2017
K, A, Zachariah R, Yousef MS, Chacko AM	Android Malware Detection a Survey	IEEE International Conference on Circuits and Systems (ICCS 2017)	Trivandrum, 2017
Xu, J, Palanisamy B, Tang Y, Madhu Kumar SD. Privacy-Preserving Auction Design for Allocating Dynamically Priced Cloud Resources		3rd {IEEE} International Conference on Collaboration and Internet Computing, {CIC} 2017	San Jose, CA, USA.
Gilesh, MP, Madhu Kumar SD, Jacob L, Bellur U Towards a Complete Virtual Data Center Embedding Algorithm Using Hybrid Strategy		37th {IEEE} International Conference on Distributed Computing Systems, {ICDCS} 2017	Atlanta, GA, USA.
Pillai, SP, Madhu Kumar SD, Radharamanan T. Consolidating evidence based studies in software cost/effort estimation		Region 10 Conference, TENCON 2017	Malaysia
Chacko, A, MadhuKumar SD	on Big data provenance research directions	Region 10 Conference, TENCON 2017.	Malaysia
Jose, B, Ramanan RT,MadhuKumar SD Big data provenance and analytics in telecom contact centers		Region 10 Conference, TENCON 2017.	Malaysia
Regi, NT, Shabeera TP, MadhuKumar SD	An algorithm for distance- aware VM allocation with guaranteed bandwidth.	IEEE Region 10 Symposium (TENSYMP).	Cochin, Kerala
Ojus, OTL, Akash AGJ, Allocation in Erasure Code MadhuKumar SD, Priya PC Based Storage Systems		IEEE 3rd International Conference, Collaboration and Internet Computing (CIC), 2017	San Jose , California, USA

Gilesh, MP, MadhuKumar SD, Lillykutty J.	HyViDE: A Framework for Virtual Data Center Network Embedding	ACM SAC 2017, Track on Cloud Computing.	Marrakesh, Morocco
Binesh, J, MadhuKumar SD, Alfredo C. Enhancing Contact Center Performance Using Cloud Computing: A Case Study on Telecom Contact Centers		Second International Conference on Internet of Things, Data and Cloud Computing (ICC'17),	Cambridge University, United Kingdom
Shabeera, TP, MadhuKumar SD	A Heuristic Based Algorithm For Distance- Aware Virtual Machine Allocation In Cloud	Second International Conference on Internet of Things, Data and Cloud Computing (ICC'17).	Cambridge University, United Kingdom
Akash, GJ, Ojus TL, MadhuKumar SD, Chandran Priya, Alfredo C	RAPID: A Fast Data Update Protocol in Erasure Coded Storage Systems for Big Data	2nd IEEE/ACM International Workshop on Distributed Big Data Management (DBDM 2017), In conjunction with IEEE/ACM CCGRID2017.	Madrid, Spain
Subhasree Methirumangalath , Shyam Sundar Kannan, Amal Dev Parakkat and Ramanathan Muthuganapathy Hole detection in a planar point set: An empty disk approach		Shape Modelling International 2017,	University of California Berkeley, USA
Subhasree Methirumangalath , Shyam Sundar Kannan, Amal Dev Parakkat and Ramanathan Muthuganapathy Reconstruction using a simple triangle removal approach		SIGGRAPH Asia	2017, Bangkok
K. M. Subhash, P. N. Pournami and P. K. Joseph	Census transform based feature extraction of EMG signals for neuromuscular disease classification	2017 IEEE 15th Student Conference on Research and Development (SCOReD), Putrajaya,	2017, Malaysia
Savinu Vijay and Pournami P N	Accelerated Feature Descriptor Matching in Images Using Threshold Accepting" at Processing and Networking (WiSPNET)	IEEE International Conference on Wireless Communications, Signal organized by Electronics & Communication Engineering Department, Sri Sivasubramaniya Nadar College of Engineering	March 22 - 24, 2018./Chennai
Mullaguru Hareesh, K Yaswanth,	Accurate Fork Bomb Detection by Process Name	IEEE international conference on Intelligent Computing , Instrumentation and Control	July 2017 Kannur

NIT Calicut 149 Annual Report 2017-18

Manghat Sreeja and Saidalavi Kalady		technologies(ICICICT 2017)	
Sithara Kanakaraj, Madhu S Nair, Saidalavi Kalady SAR Image Super Resolution using Importance Sampling Unscented Kalman Filter		IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	Vol 11 No. 2 PP 562-571
Abitha Thankaraj, Aparna Jairaj Nair, N. Vasudevan, Vinod Pathari Misclassifications: The missing link		International Conference on Advances in Computing, Communications and Informatics (ICACCI)	2017,Udupi , India 1719- 1722
A. R. Jobin, Anand G. Menon, Ashwin Sekhar, Vinay Damodaran,	Key to crossword solving : NLP	International Conference on Advances in Computing, Communications and Informatics (ICACCI)	2017,Udupi , India 929-933
Priya Chandran, Lakshya Garg, Aditya Kumar	Multikernel Simulation: A new approach to study rollback sensitive memory architecture	Collaboration and Internet Computing (CIC), 2017 IEEE 3rd International Conference	2017/10/15 437-442
GJ Akash, Ojus Thomas Lee, SD Kumar, Priya Chandran, Alfredo Cuzzocrea	RAPID: A Fast Data Update Protocol in Erasure Coded Storage Systems for Big Data	17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing	2017/5/14 890-897
Jeethu V Devasia, Priya Chandran, Garge Shreya	Parallelizing graph theoretical approaches for identifying causal genes and pathways from very large biological networks	Second International Conference on Internet of things and Cloud Computing	2017
Mumthas S,Lijiya A	Transform domain video steganography using RSA, Random DNA Encryptiona and Huffman Encoding	7th International Conference on Advances in Computing and Communications, ICACC-2017	22-24 August, 2017,Cochin, India

iii. National Conference: Nil

b. Community Services

The Department of Computer Science & Engineering of NIT Calicut has developed an Online Mess Management System for the CISF Unit of Calicut Airport. The software development project was initiated by Prof. Sivaji Chakravorti, Director NIT Calicut based on the request from Sri. Daniel Dhanaraj, Deputy Commandant of CISF Karipur Unit. Sri.Daniel informed the gathering that he has informed the CISF Head Quarters at New Delhi about this software, and they can potentially utilize this for all the 3000 plus CISF units across the country. The project was successfully carried out by

four MCA students of NIT Calicut - Mr Rishabh Arora, Mr Sarvesh Ambrish, Gaurav Singh and John C A under the guidance of Dr. S .D Madhu Kumar and Sri. M Pandiyanathan. This software was delivered as part of the outreach activities of NIT Calicut. Dr. Sivaji Chakravorti handed over the software package including the source code and user manual to Sri Daniel, CISF, in a function held at NIT Calicut campus on 25-01-2018.

C. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services	
Mr. Saidalavi Kalady	 i. Head of the Department. ii. Administrative responsibility of CNC/CCC (as HoD, CSED) iii. Faculty in charge, Hardware and Embedded Systems Lab 	
Dr. Vineeth Paleri	Institute Level: i. Central Library- LAC Member ii. Secretary, Technology Business Incubator, NIT Calicut	
	Dept. Level: i. Faculty in charge, NBA Accreditation ii. Faculty in charge Examinations iii. Programme Coordinator Ph.D. iv. Faculty in charge of CSED Website v. Central Library- LAC Member	
Dr Priya Chandran	Institute Level: Member of Senate ii. Chairperson/ Member of several doctoral committees. iii. Chairperson Exam vigilance committee Dept. Level: i. Faculty in charge Secure Computing Lab ii. Programme Coordinator M. Tech (CS) and CS(IS) iii. In-charge of Faculty research iv. Faculty in charge of Academic calendar Monitor v. EEE SPICES Track Chair vi. Faculty in charge of Technical Report Publishing vii. Faculty in charge of Dept. PTA Coordination viii. Faculty Advisor of M. Tech CS(IS) -2016 & 2017 Admissions	
Dr. S.D Madhu Kumar	National/ International/ Professional Bodies: - i. TPC Member- Symposium on Pervasive Systems, Algorithms, and Networks (IEEEI-SPAN 2017), Exeter, England. ii. PC Member - 2nd IEEE/ACM International Workshop on Distributed Big Data Management (DBDM 2017) Madrid, Spain- In conjunction with IEEE/ACM CCGRID2017. iii. Track Chair-ACM SAC 2017 Cloud Computing Track	

	iv. Keynote Speaker- National Conference- PRABANDT H'17- Trivandrum
	v. Tutorial Speaker (Big Data Analytics Tools and Techniques) -IEEE SPICES2017 vi. Academic Liaison Chair-IEEE Cloud Computing for Emerging Markets
	vii. Program Chair- 2nd International Workshop on Internet Scale Clouds and Big Data (ISCBD) 2017, San Jose California viii. Chair- IEEE TENCON 2017 - Special session on Big Data Provenance
	ix. Keynote Speaker- ICETEST 2018, GEC Thrissur
Dr. S.D Madhu Kumar	x. Track Chair- ACM SAC 2018 Track on Cloud Computing xi. Co-ordinator-Collaborative Project with Airport Authority of India-CISF Calicut Airport Unit. Member of the Board of Studies (M.Tech) in Computer Science & Engineering, Amrita Viswa Vidya Peedham, 2018.
	xii. Member of the Board of Studies In Computer Science (Under the faculty of Technology), Cochin University of Science & Technology (CUSAT) (2015 onwards) xiii. Research Collaboration / Consultancy with M/s Aryaka Systems, California. Institute Level:
	I. Faculty Convenor- Alumni Meet- Loopback'17 II. Secretary, CREC Silver Jubilee Endowment Trust (2016 onwards)
	Dept. Level:
	 i. Faculty in charge of CSEA ii. Faculty in charge of Cloud Computing Lab iii. Faculty Advisor of M. Tech CS(CSE) -2016 & 2017 Admissions iv. Faculty in charge of Big Data & Bio-computing(BDBC)Lab v. Consultancy & sponsored Research vi. Liaison with industries/JMR Infotech
Dr. K A Abdul Nazeer	National/ International/ Professional Bodies: - (i) External Examiner for Ph.D Defense, JNTU Hyderabad, January 2018 (ii) Member, Doctoral Committee, VIT Vellur (iii) External Examiner for PG Viva Voce Exam, NIT Surathkal Institute Level: (i) Convener, Screening Committee for Student Research Projects (for the award of financial assistance under TEQIP) (ii) Member, Anti Ragging Committee

NIT Calicut 152 Annual Report 2017-18

	(iii) Member, BOAC (iv) Invitee to the Senate (v) UG Admission chairman Dept. Level:		
	 (i) Faculty in charge of Purchase Matters (ii) Faculty in charge, Machine Learning Lab (iii) Faculty in charge, Big Data and Biocomputing Laboratories. (iv) Faculty in Charge of Dept. Information Cell/ RTI (v) Faculty Adviser, , B. Tech II Year (2016 Admissions) 		
Dr. Muralikrishnan K	 i. Faculty Adviser, B. Tech (2013 Admissions) ii. Faculty in charge, Examinations iii. B. Tech Programme Coordinator 		
Dr. Vinod Pathari	Institute Level: Vice Chairman, Education Technology and Library (till Oct 2016)		
	Dept. Level: (i) Faculty Adviser, B. Tech III Year (2015 Admissions) (ii) Faculty in charge, Student Project Archive (iii) Faculty in charge, Technical Report Publishing (iv) Liaison with industries ULCCS (v) Faculty in Charge of Stock update & clearance (vi) Faculty in Charge of IP camera, Fingerprint management system		
Dr. Saleena N	(i) Faculty In-Charge of examinations (ii) Faculty Adviser, , B. Tech I Year (2017 Admissions)		
Ms. Subhasree M.	 (ii) Faculty Adviser, , B. Tech II Year (2016 Admissions) (ii) Department first year coordinator (iii) Faculty in Charge of Dept. Information Cell/ RTI 		
Dr. Subashini R	(i) IEEE SPICES Track Co-chair (ii) Faculty Adviser, B. Tech IV Year (2014 Admissions) (iii) Faculty in charge, NITC-TCS Academic Interface Programme (iv) Faculty in charge, Dept. Time Table, DSS (v) Liaison with Industries/ TCS		
Mr. Sumesh T A	(i) Faculty in charge, Software Systems Lab(ii) Faculty in charge of Wi-Fi Access Points.		
Mr. Sreenu Naik Bhukya	(i) PG1 Hostel Warden & (ii) Faculty Adviser, MCA III Year (2015 Admission)		
Mr. Srinivasa T M	(i) Faculty Adviser, B.Tech I Year (2017 Admission)(ii) Faculty in charge, Hardware and Embedded Systems Lab		

NIT Calicut 153 Annual Report 2017-18

Dr. Lijiya.A	 (i) Faculty Adviser of B. Tech III Year (2015 Admissions) (ii) Faculty in charge of Class Rooms Amenities (iii) Faculty In-Charge of Short Term Courses (iv) Faculty in charge of CSEA (v) Faculty in Charge of CSE Eduserver
Dr. Jimmy Jose	 (i) Faculty Adviser, , B. Tech III Year (2015 Admissions) (ii) Faculty in charge, Dept. Time Table, Class Committee (iii) Faculty in charge of Networks system lab
Ms. Anu Mary Chacko	 (i) Faculty Adviser, B. Tech I year(2017 Admissions) (ii) Faculty in charge of CSED Library (iii) Secretary, Department Consultative Committee (iv) Liaison with Industries/ TCS AIP (v) Student Guidance Cell Department Representative
Ms. Pournami P.N.	(i) Faculty Adviser, MCA II nd Year (2016 Admission) (ii) Faculty-in charge of Image Processing and Multimedia Lab
Dr. Jayaraj P B	 (i) Faculty in Charge of Central Computer Centre (ii) Faculty in Charge of Network Systems Lab (iii) Faculty in charge of Consultancy and Sponsored Research (iv) Faculty Adviser B. Tech II Year (2016 Admissions)
Dr. Sudeep K S	 (i) Faculty Adviser, MCA I Year (2017 Admission) (ii) Faculty-in charge of DSS (iii) Programme Co-ordinator MCA (iv) In-charge of Faculty research (v) Faculty in charge of Technical Report Publishing
Dr. Gopakumar G	 (i) Faculty Adviser, B.Tech IV Year (2014 Admissions) (ii) Faculty in charge, Big Data and Biocomputing Laboratories. (iii) TEQIP Dept. Coordinator (iv) Faculty-in charge of CSED LAN (v) IEEE SPICES Track Co-chair (vi) Faculty in charge of Purchase Matters (vii) Faculty in charge of Consultancy and Sponsored Research (vi) Placement Committee Representative – for year 2017-18

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

Sl. No	Title	Coordinators	Duration & Period
1	The seventh lecture in the Prof. M.N Neelakantan Memorial Lecture on "Internet Routing-	CSEA, NITC (Dr. S D Madhu Kumar, Dr.Lijiya A)	01-02-2018 Wednesday at 4 pm

	Tools and Techniques, a Bird's eye view". Speaker: Mr. Harish R Prabhu, Senior Tech Lead, Ericsson India Global Services, Bangalore		
2	Talk on "Runtime Monitor Synthesis for Automotive Systems" Speaker: Mr. Sangeeth Kochanthara, Research Scholar, Eindhoven University of Technology, Netherlands	CSEA, NITC (Dr. Vineeth Paleri, Dr. S D Madhu Kumar, Dr.Lijiya A)	28-12-2017 at 3:30 p.m
3	A talk by Dr. Rajeev R. Raje, a senior Professor in the Computer and Information Science Dept. of Indiana University Purdue University Indianapolis (IUPUI) on Studies and Research Opportunities at IUPUI. He also discussed the topic - "Current Research Efforts in Developing High Confidence Distributed Software Systems" during the second session of the talk.	CSEA, NITC (Dr. S D Madhu Kumar, Dr.Lijiya A)	2nd January 2018 Time: 4:00 to 5:30pm
4	One Day workshop on Introduction to Data Science and Machine Learning by Flytxt	CSEA, NITC (Dr. S D Madhu Kumar, Dr.Lijiya A)	28th October 2017
5	Dr. Ramesh Chandra Hansdah, Professor, Computer Science & Automation Department of IISc Bangalore interacted with the faculty and students of the department and gave many suggestions for strengthening the academic and research activities of the CSE department.	CSEA, NITC (Dr. S D Madhu Kumar, Dr.Lijiya A)	12th September 2017
6	Dr. Vinod Vasudevan, Chief Executive Officer of FLY TXT, gave a keynote address on the topic "Resurgence of AI- Positive, Negative or Neutral?"	CSEA, NITC (Dr. S D Madhu Kumar, Dr.Lijiya A)	21st August 2017
7	As part of NITC-TCS MoU activities, an Agile workshop was	TCS- NITC Collaboration (Dr. Subashini R)	14th February, 2018

NIT Calicut 155 Annual Report 2017-18

conducted by TCS – Ms. Sulakshana and Ms. Roopa		
--	--	--

e. Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. Jayaraj P.B.	GPU and CUDS programming	April 7, 2017	I.E.S. Engineering College, Chittilappalli Thrissur
2	Dr. Saidalavi Kalady	"Advanced Microprocessors" as part of Visiting Faculty Programme	November 3, 2017	Govt. Enginerring College, Kannur
3	Dr. Vinod Pathari	Introduction to Cryptanalysis	March 22, 2018	Govt. Engineering College Wayanad
4	Dr. Vinod Pathari	Evolution of Software Engineer's Profession	March 22, 2018	Govt. Engineering College Wayanad
5	Dr. K A Abdul Nazeer	Recent Trends in Bioinformatics	February 2018	University of Kerala
6	Dr. K A Abdul Nazeer	Big Data Analytics	May 2017	Institution of Engineers, Calicut
7	Dr. K A Abdul Nazeer	Novel Algorithms for Data Clustering	April 2017	Faculty Development Programme at CSE Dept., NIT Calicut
8	Dr. K A Abdul Nazeer	Data Clustering	May 2017	Faculty Development Programme at School of Management Studies, NIT Calicut

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

- 1. Ms. Anu Mary Chacko, Assistant Professor acquired Ph.D
- 2. Ms. Subhasree M, Assistant Professor acquired Ph.D

(g) Consultancy and testing

Sl. No	Nature of Service	Organization	Revenue earned	Status
1	Research and Consultancy	Aryaka Network Solutions, California	3.45 Lakhs	On-Going

NIT Calicut 156 Annual Report 2017-18

(h) Patents acquired and filed: Nil

(i) Student achievements

Sl. No	Name of Student	Title	Year
1	Sruthi P.G.	Sruthi P.G. of fifth semester B. Tech CSE was selected for Youth Delegation Programme to Russia. Sruthi P. G., was a member of the Indian team for the Russian-Indian Youth Forum, organized by the Russian Federal Agency for Youth Affairs as part of 70th anniversary celebration of Establishment of diplomatic relations between India and Russia, during 3rd July-12th July, 2017. The Indian delegation comprised 46 members including students from IITs, NITs, AIIMS, IIMs, NSS, representatives from nationally acclaimed NGOs, youth leaders and officials from Ministry of Youth Affairs.	2017
2	A. R. Jobin, Anand G. Menon, Ashwin Sekhar, Vinay Damodaran	Presented a paper on Key to crossword solving: NLP in International Conference on Advances in Computing, Communications and Informatics(ICACCI 2017) in Udupi, Mangalore, Karnataka, India.	2017

DEPARTMENT OF ELECTRICAL ENGINEERING

a. Publications

i. Journals

Sl. No.	Name of the Author	Title of Paper	Name of International Journal	Vol, PP, Year
1.	Sivaprasad A, G. G. Kumar, Kumaravel S and Ashok S.	Performance Analysis of a Positive Output Voltage Dual Input DC-DC Converter for Hybrid Energy Application	Journal of Circuits, Systems, and Computers	Vol.27,No.10,Ja n. 2018
2.	Sivaprasad A., G. G. Kumar, Kumaravel S. and Ashok S.	Performance Analysis of Novel Bridge Type Dual Input DC-DC Converters	IEEE Access	Vol. 5, 2017, pp. 15340-15353.
3.	Joseph Peter, K P Mohammed Shafi and Rijil Ramchand	Bus Clamping PWM Based Hysteresis Current Controlled VSI fed Induction Motor Drive with Nearly Constant Switching Frequency	Journal of Power Electronics	Vol. 17, No. 6, pp. 1523-1534, November 2017

4.	Pratheesh K J, Jagadanand G and Rijil Ramchand	A Generalized Switch Matrix Based Space Vector Modulation Technique using Nearest Level Modulation Concept for Neutral Point Clamped Multilevel Inverters	IEEE Transactions on Industrial Electronics	Year: 2017, Volume: PP, Issue: 99 Pages: 1 - 1
5.	Pratheesh K J, Jagadanand G and Rijil Ramchand	A Generalized Space Vector Modulation Scheme Based on Switch Matrix for Cascaded H Bridge Multilevel Inverters		Vol. 18, No. 2, pp. 522-532, March 2018
6.	Sujo P. George and Ashok S	Modified Differential Protection for Transformers in Wind Farms	Journal of Electrical Engineering and Technology, JEET	Vol. 13, No. 1, pp. 78-88, December 2017
7.	Sivaprasad A, Kumaravel S and Ashok S	Development and Performance Analysis of Dual Input DC-DC Converters for DC Microgrid Application	IEEJ Transactions on Electrical and Electronic Engineering	Vol.13,Mar 2018,p.p.1034- 1043
8.	Jayanta Biswas, Meenu D Nair, G Vivek and Mukti Barai		IEEE Transactions on Power Electronics	vol. 36, no. 6, June 2017
9.	Jayanta Biswas, Aniruddha Kamath M and Mukti Barai	Design and Implementation of Analog Controller to Reduce line current distortion of High input Power factor Boost rectifier	of Scientific &	volume 8, issue 7, July-2017
10.	Meenu D Nair, G Vivek, Jayanta Biswas and Mukti Barai	Performance Evaluation of Various Bus Clamped Space Vector Pulse Width Modulation	Journal of Power Electronics	vol. 17, no. 5 September 2017
11.	G Vivek, Jayanta Biswas Meenu D Nair and Mukti Barai	Comparative Study on SVPWM Switching Sequences for VSIs	Journal of Electrical Engineering & Technology	Vol. 13, No.1 December 2017
12.	M.Pala Prasad Reddy and Jeevamma Jacob	Vibration Control of Flexible Link Manipulator Using SDRE Controller and Kalman Filtering	Studies in Informatics and Control	Vol.26, Issue 2 Pp:143-150 June 2017 ISSN:1120-1766
13.	Aniruddha Kamath M., Jayanta Biswas, Anjana K.G and Mukti Barai	A Simple Real-Time DMPPT Algorithm for PV Systems Operating Under Mismatch Conditions	Journal of Power Electronics	Vol.18,No.3,201 8,p.p.826-840
	K.O and wilku darai			

NIT Calicut 158 Annual Report 2017-18

14.	P.Febina Beevi , T.K.Sunil Kumar, Jeevamma Jacob and P.Delina Beevi	Novel Two Degree of Freedom Model Matching Controller for Set-Point Tracking in MIMO Systems	Computers & Electrical Engineering, Elsevier	vol. 61, pp. 1-14, June 2017
15.	P.Febina Beevi, T.K.Sunil Kumar and Jeevamma Jacob	Novel Two Degree of Freedom Model Matching Controller for Desired Tracking and Disturbance Rejection	Studies in Informatics and Control	vol. 26, no.1, pp. 105-114, March 2017
16.	Shridhar Velhal and Susy Thomas	Improved LTVMPC design for steering control of autonomous vehicle	Journal of Physics	IOP conference series 783, 2017, 1-12
17.	Retheep Raj and K S Sivanandan	Elbow joint angle and elbow movement velocity estimation using NARX-multiple layer perceptron neural network model with surface EMG time domain parameters	Rehabilitation	vol. 30, no. 3, pp. 515-525, 2017
18.	Retheep Raj and K S Sivanandan	Comparative study on estimation of elbow kinematics based on EMG time domain parameters using neural network and ANFIS NARX model	Journal of Intelligent & Fuzzy Systems	vol. 32, no. 1, pp. 791-805, 2017
19.	Parthish Kumar Paul and Jeevamma Jacob	On the modeling of twin rotor MIMO system using chirp inputs as test signals	Asian Journal of Control	Vol.19,Apr 2017,p.p.1731- 1740
20.	Nithin Raj, Jagadanand G and Saly George	Fault detection and diagnosis in asymmetric multilevel inverter using artificial neural network	International Journalof Electronics	Pages 559-571, 14 Sep 2017
21.	M Sreekanth, Abraham T Mathew and R Vijayakumar	A novel model-based approach for resistance estimation using rise time and sensorless position control of sub-millimetre shape memory alloy helical spring actuator		Vol 29, Issue 6, 2018
22.	Sivaprasad A, Kumaravel S and Ashok S	Design, Fabrication and Performance Analysis of a Two Input—Single Output DC-DC Converter	Energies	Volume: 5, Number: 9 Pages: 1410 (1- 18), September 2017
23.	Guguloth Ramesh and T.K. Sunil Kumar	Congestion management in restructured power systems	Computers and electrical engineering,	Vo.65,April 2017,p.p.79-89

		for smart cities in India	Elsevier	
24.	T. Nimmy John, Subha D. Puthankattil and Ramshekhar Menon	Analysis of long range dependence in the EEG signals of Alzheimer patients	Cognitive Neurodynamics	April 2018, Volume 12, Issue 2, pp 183– 199
25.	D. Kavitha , T.K. Sindhu and T.N.P. Nambia	Impact of permittivity and concentration of filler nanoparticles on dielectric properties of polymer nanocomposites	IET Sci. Meas. Technol	Vol. 11 Iss. 2, pp. 179- 185,2017
26.	Vinu Thomas, Kumaravel S, Sivaprasad A and Ashok S.	Testing of a Solar-PV/Wind operated AC-DC Microgrid with LabVIEW Controller	International Journal of Power Electronics and Drive Systems (Accepted)	Vol. 9, No. 1, March 2018, pp. 406~413
27.	Sivaprasad A, Kumaravel S and Ashok S.	A Modified Dual Input DC- DC Converter for Hybrid Energy Application	International Journal of Power Electronics and Drive System (IJPEDS)	March 2017, Vol., 8, pp. 81- 92
28.	Subha D. Puthankattil and Paul k. Joseph	Half-wave segment feature extraction of EEG Signals of patients with depression and Performance evaluation of Neural Network classifiers	Journal of Mechanics in Medicine and Biology	17(2),2017, 1750006-1-19
29.	Bairy G. Muralidhar, Lih Oh Shu, Hagiwara Yuki, Puthankattil Subha D., Faust Oliver, Niranjan U. C. and Acharya U. Rajendra	Automated Diagnosis of Depression Electroencephalograph Signals Using Linear Prediction Coding and Higher Order Spectra Features	Journal of Medical Imaging and Health Informatics	7(8) 2017, pp. 1857-1862(6).
30.	Abhilash T. Vijayan and Ashok S.	A MIMO Approach to Supervisory Control in Robot Visual Feedback	International Review on Modelling and Simulations	Vol. 10, No.1, 2017, pp. 16-25.
31.	Devika K B and Susy Thomas	Power Rate Exponential Reaching Law for Enhanced Performance of Sliding Mode Control	International Journal of Control, Automation and systems, Springer	Volume 15, Issue.6, 2017, 2636 – 2645
32.	Rajashree Raghavan and Susy Thomas	Practically Implementable Model Predictive Controller for a Twin Rotor Multi-Input Multi-Output System	Journal of Control, Automation and Electrical Systems (JCAES), Springer	Volume 28, No.3, 2017,358- 370
33.	M Sreekanth, Abraham	A novel model-based	Journal of Intelligent	Vol.29,issue.6,20

	T Mathew and R Vijayakumar	approach for resistance estimation using rise time and sensorless position control of sub-millimetre shape memory alloy helical spring actuator	Material Systems and Structures,	/9/17
34.	R Raj and K S Sivanandan	Elbow joint angle and elbow movement velocity estimation using NARX multiple layer perceptron neural network model with surface EMG time domain parameters	Journal of Back and Musculoskeletal Rehabilitation,	Vol. 30, no. 3, pp. 515-525, 2017
35.	Sivaprasad A., Kumaravel S and Ashok S	A Modified Dual Input DC- DC Converter for Hybrid Energy Application	International Journal of Power Electronics and Drive System,	Vol. 8, Number 1, 2017.
36.	Jayanta Biswas, Anirudh K, Anjana K and M. Barai	Design, Architecture and Real Time Distributed Coordination DMPPT algorithm for PV Systems	IEEE Journal of Emerging Selected Topics in Power Electronics	DOI: 10.1109/JESTPE .2017.2756698 October 2017
37.	Janjanam Naveen and Mukti Barai	Design and Implementation of KY Buck-Boost Converter with Voltage Mode Control	International Journal of Scientific & Engineering Research ISSN 2229-5518	Volume 8, Issue 6, June-2017
38.	Shubham Goyal and MuktiBarai	Modeling, Design and Implementation of High Gain Boost Converter with Voltage-mode Control for PV Systems	International Journal of Scientific & Engineering Research ISSN 2229-5518	Volume 8, Issue 5, May-2017
39.	Meenu D Nair and Mukti Barai	A Novel Advanced Double Switching SVPWM (ADSPWM) Technique for Two Level Inverter,	International Journal of Latest Trends in Engineering and Technology	Vol 8 No 2 2017
40.	P.Febina Beevi, T.K.Sunil Kumar and Jeevamma Jacob	GA tuned Two Degree of Freedom PID Controller for Time Delay Systems	International Journal of Intelligent Systems Technologies and Applications	Volume 17, Issue 1-2
41.	Haseena K A., Jeevamma Jacob and Abraham T Mathew	Fractional-order Lead-Lag Compensator Based Multi- Band Power System Stabilizer Design Using a Hybrid Dynamic GA-PSO Algorithm	IET Generation, Transmission &Distribution	Vol.12,31/07/20 183248-3260,
42.	Raj, Retheep and Sivanandan. K.S.	Elbow joint angle and elbow movement velocity estimation using NARX-multiple layer perceptron neural network	Journal of Back and Musculoskeletal Rehabilitation,	vol. 30, no. 3, pp. 515-525, 2017

model with surface EMG time domain parameters

ii. National Journals:- NIL

$iii. \underline{International Conferences}$

Sl.No	Authors	Title of the Paper	Name of the Conference	Venue and Date
1	Hemant Khare, Vinu Thomas, Kumaravel S. and Ashok S.	Small Signal State Space Analysis of Virtual Synchronous Machine with Cascaded Voltage and Current Control Loops	International conference on Power And Energy System: Towards Sustainable Energy-2018	Amrita University, Bangalore (Accepted)
2	Haritha G, Kumaravel S and Ashok S	Performance Comparison of PI, PID and Fuzzy Logic Controllers In Solid State Transformers for Wind Power Interfacing	ICGEA2018	Nanyang Technological University, Singapore on March 24-26, 2018 (Accepted)
3	T. Vijayakumar, Vinu Thomas, Kumaravel S and Ashok S.	Performance of Virtual Synchronous Machine in Autonomous Mode of Operation	ICREGA'2018	United Arab Emirates, Feb 26, 2018 - Feb 28, 2018 (Accepted)
4.	Kumaravel S. and Ram S. Narayan, Terence O' Donnell and Cathal O'Loughlin	Genetic Algorithm Based PI Tuning of VSC-HVDC System and Implementation using OPAL-RT	TENCON 2017	Penang, Malaysia 2017
5.	Joseph P Varghese, Ashok S and Kumaravel S.	Optimal Siting and Sizing of DGs for Congestion Relief in Transmission Lines	IEEE PES ASPEEC 2017,	IISC, Bangalore, Nov 2017
6.	Gangavarapu Gurkumar, Sivaprasad	Comparative Analysis of PI and Fuzzy Control for a Dual Input DC/DC Converter in Hybrid Energy Application	2017 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES)	Cochin, Kerala 2017
7	Kumar, Sivaprasad A	Comparative Study of PI and One-Cycle Control of a Dual-Input DC/DC Converter	ICEICE 2017	Karur, Tamilnadu.2017
8.	Ashok S and Dr.	Effects of Demand Side Management & Storage on Renewable Energy	Advances in Electrical, Electronics,	Chennai 2017

		Penetration to the Grid	Information, Communication and Bioinformatics-2017 (AEEICB - 2017)	
9		Improved online current-error boundary computation for switching frequency variation control in hysteresis controlled VSI-Fed IM drives	ICPEDC 2017	16-18 March 2017, Chennai
10	Ramchand	Analysis and Validation of Reactive Power Compensation by Transformer less Multilevel Inverter using SPWM and Modified SVPWM Strategies	TENSYMP 2017	14-16 July 2017, Kochi, India
11	Sandeep J, Deepthi S Nair, Saly George, Ashok S, Jagadanand G and Rijil Ramchand,	Sensor-less Algorithm for a Hysteresis Current Controlled VSI Fed PMSM Drive	Annual Conference of the IEEE Industrial Electronics Society (IES)	29 October -01 November 2017, Beijing, China
12	K P Mohammed Shafi, R. Lakshmi, Joseph Peter and Rijil Ramchand	Improved switching frequency variation control in hysteresis controlled VSI-fed induction motor drives for reduced line current	IECON 2017	29 October -01 November 2017, Beijing, China
13	Ashitha T, Shahin A, Elizabeth P Cheriyan and Rijil Ramchand,	FPGA controlled DSTATCOM under distorted grid condition	TENCON 2017	05-08 Novemebr 2017, Penang, Malaysia.
14	Abhilash T.Vijayan and Ashok S	Integrating visual guidance and feedback for an industrial robot	2nd International Conference on Control and Robotics Engineering (ICCRE)	1-3 April 2017, Bangkok, Thailand
15	Sigi C Joseph, Ashok S and P R Dhanesh,	Low voltage direct current(LVDC) nanogrid for home application	IEEE Region 10 Symposium (TENSYMP)	14 Jul – 16 Jul 2017, Le Méridien, Cochin, India
16	Sigi C Joseph, Ashok S and P R Dhanesh	An effective method of power management in DC nanogrid for building application	The International Conference on "Signal Processing, Informatics, Communication and Energy Systems (SPICES)"	August 8-10, 2017, Kollam, Kerala
17	Binvy Tom and Ashok S	Solid state transformer for wind power interfacing	The International Conference on	August 8-10, 2017, Kollam,

			"Signal Processing, Informatics, Communication and Energy Systems (SPICES)"	Kerala.
18	Chaitanya S. Gajbhiye, Megha G Krishnan, Kumaravel S and Ashok S.	Fuzzy – Arduino Based Control Strategy for Human Safety in Industrial Robots	The International Conference on "Signal Processing, Informatics, Communication and Energy Systems (SPICES)"	August 8-10, 2017, Kollam, Kerala.
19	Akhila A.L, Rohikaa Micky, Adnan Mohemmed, Elizabeth. P. Cheriyan and Ashok. S	Implementation of an Algorithm for Phasor Estimation and System Parameters for an FPGA based PMU	The International Conference on "Signal Processing, Informatics, Communication and Energy Systems (SPICES)"	August 8-10, 2017, Kollam, Kerala.
20	Adnan Mohemmed, Rohikaa Micky, Akhila A.L and Ashok. S	Open Source Implementation of IEEE C37.118-2011 Protocol and Serial Communication Interface for an FPGA based Phasor Measurement Unit	IEEE International Conference on Recent Trends in Electronics Information Communication Technology	May 19-20,2017, Bangalore
21	Gokul Krishnan, Emmanuel Babu P, Ashok. S. and Kumaravel S.	Design and control of a non isolated Bidirectional DC-DC converter for Energy Storage Application	IEEE International Conference on Recent Trends In Electronics Information Communication Technology	May 19-20,2017, Bangalore
22	Anoop John, Sibi Krishnan and Ashok. S.	Sensitivity of Design Parameters on SOC and Fuel Efficiency of HEV	IEEE International Conference on computation of Power, Energy, Information and Communication	March 22-23, 2017 Kanchipuram, Tamil Nadu.
23	Ravishankar A.N., Ashok S. and Kumaravel S.	Effects of demand side management and storage on renewable energy penetration to the grid	Third IEEE International Conference on Advances in Electrical, Electronics, Information, Commun ication and Bio- Informatics	Chennai, Feb 27-28, 2017.

			(AEEICB17)	
24	Grace Sadhana S., Ashok S., and Kumaravel S.	Small Signal Stability Analysis of Grid Connected Renewable Energy Resources with the Effect of Uncertain Wind Power Penetration	PECCON-2017	2-4 March 2017, VIT University, Chennai.
25	Thomas	Improved Sliding Mode Controller Performance through Power Rate Exponential Reaching Law	IEE International Conference on Electrical, Computer and Communication Technologies, ICECCT	February 22-24, 2017, Coimbatore, India, pp 127- 133
26		Cyclic Pursuit Of Mobile Robots: A Linear Approach	IEEE SPICES 2017 - The International Conference on "Signal Processing, Informatics, Communication and Energy Systems (SPICES)	August 8-10, 2017, Kollam, Kerala
27	Akhil Vinayak B, Rahim Uddin and Jagadanand G	Inter Phase Fault Detection In Inverter Fed Induction Motor Using Wavelet Transform	IEEE CATCON	16-18 November 2017 at Indian Institute of Technology Ropar Rupnagar, Punjab, India
28	Parthish Kumar Paul and Jeevamma Jacob	Real-time control of a 2-DoF helicopter via Model Matching H∞ Matrix Modulation Approach	FTC 2017	2017 Vancouver, Canada
29	Parthish Kumar Paul and Jeevamma Jacob	Static and Dynamic Linear Modeling of TRMS	IVth Int. Conf. INDIACom, CSGD, New Delhi	2017 New Delhi
30	Ramchand	Analysis and validation of reactive power compensation by transformerless multilevel inverterusing SPWM and modified SVPWM strategies	2017 IEEE Region 10 Symposium (TENSYMP)	Cochin. India
31		Sensorless Direct Torque Controlled BLDC Motor Drive with Kalman Filter Algorithm	Annual Conference of the IEEE Industrial Electronics Society (IECON 2017)	Oct. 29 2017- Nov. 1 2017 Beijing, China
32	Subhash K.M., Pournami P.N.	Census Transform Based Feature Extraction of EMG	IEEE SCOReD 2017	Malaysia 13- 14 December

	I		Γ	
	and Paul K. Joseph	Signals for Neuromuscular Disease Classification		2017
33	Joyce Jacob, Dhanish Mon N and Preetha P	Experimental Validation of Thermal Model of Unfilled and Nanofilled Transformer Oils	9th IEEE PES Asia - Pacific Power and Energy Engineering Conference 2017	Bangalore, 8-10 November 2017
34	Anagha Paleri, Preetha P and Sunitha K	Frequency Response Analysis (FRA) in power transformers :An approach to locate inter-disk SC fault	9th IEEE PES Asia - Pacific Power and Energy Engineering Conference 2017	Bangalore, 8-10 November, 2017.
35	Anirudh M. Kamath and Mukti Barai	A Simple Analog Controller to reduce Line Current Distortion of Single Phase Boost Rectifier,	IEEE SPICES 2017	Kollam, Kerala Aug 2017
36	Abir De and Mukti Barai	An Improved Zero Voltage Switching SVPWM for Three Phase Inverter,	IEEE CPE- POWERENG	Cadiz, Spain, April 2017
37	Anjana K G, Aniruddha K M and Mukti Barai	A Differential Current Compensation Technique for PV Systems under Partially Shaded Condition	IEEE CPE- POWERENG	Cadiz, Spain, April 2017
38	M Aswini Kumar and Mukti Barai	A Novel SVPWM Technique for Capacitor Voltage Balancing in Modular Multilevel Converters (MMCs)	IEEE CPE- POWERENG	Cadiz, Spain, April 2017
39	Barai	A Power Electronic Compensator to Extract Maximum Power from Partially Shaded PV Module	IEEE International Conference on Innovations in Electrical, Electronics, Instrumentation and Media Technology (ICIEEIMT 2017)	Karunya University, Coimbatore, India, Pages 276 – 281 (Best Paper Award)
40	Shubham Goyal and Mukti Barai	Design and Implementation of High Gain Boost Converter with Voltage-mode Control	2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI)	College, Chennai,
41	Anjali Anand K,	Wavelet-Based Open Switch	2017 IEEE	5-8 November

	Nithin Raj, Saly George and Jagadanand G	Fault Diagnosis in Cascaded H-Bridge Multilevel Inverter- fed Induction Motor Drive	TENCON-IEEE region 10 Conference	2017, Penang, Malaysia
42	Akhil Vinayak B Siddharth Varma and Jagadanand G	Precise Wavelet Selection for Condition Monitoring of Inverter-Fed Induction Machine	2017 IEEE SPICES	8 - 10 August 2017 TKM KOLLAM
43	Vinu Thomas, Kumaravel S and Ashok S	Virtual Synchronous Generator and its Comparison to Droop Control in Microgrids	International Conference on Emerging Trends in Engineering, Science & Technology,	January 2018, Thrissur
44	Meenu D Nair, Jayanta Biswas, G Vivek and Mukti Barai	1 1	3rd IEEE I2CT conference for convergence in technology	Accepted in 2017 Pune, 7-8 April 2018
45	P.Febina Beevi , T.K.Sunil Kumar and Jeevamma Jacob	Novel Two Degree of Freedom Model Matching Controller Design by AGTM/AGMP Method for Set-Point Tracking in MIMO Systems	ICIRET 2017	JANUARY 30- 31, Thailand
46	T Nithin, Elizabeth P Cheriyan and Bernard Jose	"FPGA based hardware implementation of solar PV inverter to act as STATCOM",	IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES),	Kollam, Kerala 8-10, August 2017.
47	Chaitanya S Gajbhiye, Megha G Krishnan, S Kumaravel and S. Ashok	Fuzzy - Arduino based control strategy for human safety in industrial robots	2017 IEEE International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES)	8-10 Aug 2017 Kollam, India
48	Suraj Damodaran, T.K Sunil Kumar and A.P Sudheer	Design and Implementation of GA Tuned PID Controller for Desired Interaction and Trajectory Tracking of Wheeled Mobile Robot	Advances in Robotics (AIR 2017)	IIT Delhi. Jun 28, 2017 - Jul 2, 2017

49		Microgrid Stability Improvement by Optimization of Virtual Droop Control Futute Technologies Conference(FTC)- 2017		Pan Pacific Hotel Vancouzver, BC, Canada, 29-30 November 2017
50		State space modelling, analysis and optimization of micogrid droop controller	International Conference on Computer application in Electrical Engineering-Recent Advances (CERA)- 2017	IIT Roorkee, October 5-7, 2017
51	Akhil Mohammed K. K. and Mija S. J.	and stabilization control of a 4- Conference on		Greater Noida, India, 12-13 August 2017
52	Mahesh Yallala and Mija S. J.	ε		Greater Noida, India, 12-13 August 2017
53	Sivakumar T and Mija Design of Second Order S. J. Design of Second Order Sliding Mode Controller for Balancing of Unicycle		International Conference on Innovations in Control, Communication and Information Systems	Greater Noida, India, 12-13 August 2017
54		1		Greater Noida, India, 12-13 August 2017
55	Rahul M., B. Abhiram Vishnu, Pranav T., Nandu C. Reghu, and Mija S. J.	Wheeled Mobile Robot Using Conference for Haptic Robot Convergence in		Pune, India, 7-8 April 2017
56	Kumaravel S.	Effects of Demand Side Management & Storage on Renewable Energy Penetration to the	3rd International Conference on Advances in	Prathyusha Engineering College, Chennai. Feb.

		Grid	Electrical,	27-28,
		Electronics, Information, Communication ar Bio-Informatics (AEEICB17)		2017
57	Parthish Kumar K A, Jeevamma Jacob and Abraham T Mathew	Robust Fractional Order Power System Stabilizer design using Bacteria Foraging Algorithm for Multi-machine Power System	IEEE Future Technologies Conference (FTC) 2017	Vancouver, BC, Canada 29-30 November 2017
58	Tapan vanker G.Guru kumar, Sivaprasad A and Kumaravel S.	Comparative study of PI and Fuzzy control for a Dual input DC/DC converter in Hybrid energy Applications	IEEE SPICES 2017	Kollam, Kerala Aug 2017
59	Jaya C K, Sunitha R and Abraham T Mathew	Reliability Analysis of 11kV Distribution Feeder A case study	ICECDS 2017	SKR Engineering College Poonamallee, Tamil Nadu August 1-2. 2017
60	Tadi Sudheer Reddy and Sunitha R	Impedance matching method for voltage stability analysis using Measured data	International Conference on Computer Application in Electrical Engineering (CERA 17)	October 5-7, 2017, IIT Roorkee
61	Tadi Sudheer Reddy and Sunitha R	Estimation of Voltage stability Margin using Impedance matching method Energy Communication, Data Analytics and Soft Computing (ICECDS 2017)		August 1-2, 2017, Tamil Nadu
62	Abhishek Sharma and Sunitha R	Unintentional Islanding Detection in Microgrid	International Conference on Energy Communication, Data Analytics and Soft Computing (ICECDS 2017)	August 1-2, 2017, Tamil Nadu

63	Jaya C.K., Sunitha R and Abraham T. Mathew	Reliability Analysis of 11kV Distribution feeder: A Case Study	International Conference on Energy Communication, Data Analytics and Soft Computing (ICECDS 2017)	August 1-2, 2017, Tamil Nadu
64		Classification of Forearm Movements from sEMG Time Domain Features Using Machine Learning Algorithms	Novements from sEMG Time omain Features Using	
65	R Lakshmi, Mohammed Shafi, KP Joseph Peter and Rijil Ramchand	1 11		TKM .Kollam 2017
66	Haseena K A, Jeevamma Jacob and Abraham T Mathew	vamma Jacob and Power System Stabilizer Conference (FTC)		2017
67	Anjali Anand K, Nithin Raj, Saly George and Jagadanand G	Wavelet-Based Open Switch Fault Diagnosis in Cascaded H-Bridge Multilevel Inverter- fed Induction Motor Drive	2017 IEEE TENCON-IEEE region 10 Conference	5-8 November 2017, Penang, Malaysia
68	Akhil Vinayak B Siddharth Varma & Jagadanand G	Precise Wavelet Selection for Condition Monitoring of Inverter-Fed Induction Machine	2017 IEEE SPICES	8 - 10 August 2017 TKM KOLLAM
69	Meenu D Nair , Jayanta Biswas , G Vivek and Mukti Barai	An Optimum Hybrid SVPWM Technique for Three level Inverter	IEEE 3rd International Conference for Convergence in Technology (I2CT)	Pune. 7-8 April 2018
70	K. E. M. Reena, A. T. Mathew and L. Jacob	Real-time occupancy based HVAC control using interval	12th IEEE Conference on	2017 pp. 455-460.

intelligent buildings	Industrial Electronics and Applications (ICIEA), Siem Reap, 2017	10.1109/ICIEA.2
-----------------------	---	-----------------

iii. National Conferences :- NIL

b. Community Services

- (i) Visit to the orphanage, Sree Sadashiva Bala Sadanam, Calicut: Distributed clothes, sweets and learning materials for the children.
- (ii) Clean Campus Initiative through Swachchatha Pakwada: Activities like cleaning at Mini Canteen and planting saplings beside road ways and protecting them in critical seasons.

c. Other Academic and Administrative services

Sl. No	Name of faculty	Academic and Administrative Services
1.	Dr. Abraham T Mathew	 Member –Board of Governors, Government Engineering College, Idukki, Kerala Member-Department Advisory Committee, EED, Rajiv Gandhi Institute of Technology, (Govt of Kerala), Kottayam Member-Department Advisory Committee, EED, Government Engineering College, Trichur Member-Department Advisory Committee, EED, Government Engineering College, Palakkad Member- Academic Council, Sahrdaya Institute of Science & Technology, Eranjalakuda, Trichur AICTE Nominee to Board of Governors, MES College of Engineering, Kuttipuram Member-Department Advisory Committee, Muthoot Institute of Technology& Science, Ernakulam Member (AICTE Nominated) in UGC Expert Committee for Inspection of Deemed to be Universities. Reviewer for Journal of Control & Cybernetics Reviewer for Transactions of the Institute of Measurement and Control Reviewer for Journal on Innovative Food Science and Emerging Technologies. Vice President - Automatic Control & Dynamic Optimization Society
2.	Dr. Ashok S	 Member for the project review committee for technical and financial progress of projects and activities under National Mission on Power Electronics Technology- ministry of Electronics information technology, GOI (2013-tilldate) Member for the project review committee for technical and financial progress of projects and activities- advanced automation and process optimization system for 1200 TPD Malabar Cements Ltd. under Department of Electronics information technology, GOI (2014-till date) Member of the technical committee for wind energy programs – Govt. of Kerala (2015- till date)

NIT Calicut 171 Annual Report 2017-18

	1	
		Technical adviser in micro-smart grid projects and associated products by M/s VI microsystem Pvt Ltd Chennai
		Member of AICTE Project Proposal evaluation committee under AQIS scheme
3	Dr. Elizabeth P.	 Member of Institute Convocation Planning Committee Member of Doctoral Committee for KTU
3	Cheriyan	Reviewer for International Journal of Electrical Power and Energy
		Systems Systems
		Reviewer for IEEE Transactions on Industrial Electronics
4	Dr. Jeevamma Jacob	Reviewer for International Journal of Systems, Control and Communications
		Academic Advisory Board member of AISAT, Cochin.
5	Dr. Daul Ioganh V	Academic Advisory Board member of Sahrdaya College of Engineering and
3	Dr. Paul Joseph K.	Technology.
		Associate Editor - Journal of Medical Imaging and Health Informatics
		Member of the International Program Committee of ICSC 2017, held in Batna, Algeria, on May 7-9, 2017
6	Dr. Susy Thomas	Member of the International Program Committee of the International
		Workshop ACD 2017 held in Bucharest on 16-17 November 2017
		• Doctoral Committee Chairperson of Ph. D scholars registered at TK M CE in 2017 under APJ Abdul Kalam Kerala Technical University.
		External examiner for the comprehensive examination of a Ph. D
	D D1 1	student at GCE Kannur.
7	Dr. Rijil Ramchand	• Reviewer for IECON 2017, IEEE ITEC INDIA 2018, NPEC 2017 and
		PICC2018 conferences. Reviewer for IEEE Trans. on Ind. Electron.,
		IEEE Trans. on Power Electron. Etc.Session Chair in the conference PICC2018 at GEC Thrissur.
		Resource Person for Research Colloquium at Rajiv Gandhi Institute of
		Technology, Kottayam.
		• Member, Advisory Committee of National Conference on Energy and Environment Management (EEM 2017).
8	Dr. Jagadanand G	Conducted two Day Workshop on 'Introduction to 'Microprocessors'
		and Microcontrollers' at Adi Shankara Institute of Engineering and
		Technology, Kalady.
		 Member of M.Tech Thesis Evaluation panel of Dr. APJ AK Technical University.
9	Dr. Sindhu T.K.	Board of Studies member for PG in Power System, Amrita
		Vishwaidya Peetham, Amritapuri, Kollam.
		• Reviewer for IEEE TENCON 2017 – flag ship IEEE Region 10 Conference, November 2017
10	Mr. Subhash K.M	Reviewer for The 14th edition of the conference, IEEE INDICON-
		December 2017
		Reviewer for International Journal of IET Generation Transmission
11	Dr. Sunitha. R	and Distribution Reviewer for International Journal of Emerging Electric Power SystemsReviewer for The 14th edition of the
		conference, IEEE INDICON- December 2017
	i	

NIT Calicut 172 Annual Report 2017-18

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

Sl. No.	Title	Coordinators	Duration and Period
1.	TEQIP II Sponsored Faculty Development Programme on Power Management Lab Kit And WEBENCH	Dr. Jagadanand G, Dr. Kumaravel S Dr. Rijil Ramchand	10 th -13 th February 2017
2	National Workshop on "MATLAB and its Applications", organized by IEEE PES NITC Chapter in association with Industrial Power Group	Dr. Ashok S, Dr. S. Kumaravel	7 th -9 th March, 2017.
3.	Technology Workshop on Test and Measurement Systems	Dr. Ashok S, Dr. S. Kumaravel	21st -22nd April, 2017
4	National M.Tech Colloquium, organized by Department of Electrical Engineering	Dr. Ashok S, Dr. Sunil Kumar T.K.	24th -26th May, 2017.
5 4.	MATLAB Simulation & Embedded System Development for Power Electronic Converters – Hands on Training	Dr. S. Kumaravel, Dr. Jagadanand G.	2nd - 7th July 2017
6	Engineer's Day 2017, organized by IEEE PES NITC Chapter in association with Industrial Power Group	Dr. Ashok S	15 th September 2017
7	National Training on "Real Time Simulation in Electrical Domain", organized by IEEE PES NITC Chapter in association with Industrial Power Group, EED	Dr. Ashok S	26 September, 2017
8	PES Quiz Competition 2017, organized by IEEE PES NITC Chapter in association with Industrial Power Group	Dr. Ashok S	3 rd October 2017.
9	Expert Technical Session on "Internet of Things for Smart Grid Applications", organized by IEEE PES NITC Chapter in association with Industrial Power Group, EED	Dr. Ashok S	17th November, 2017
10.	Energy Conservation Day 2017, organized by IEEE PES NITC Chapter in association with Industrial Power Group, EED	Dr. Ashok S	14 th December 2017.
11	OPAL-RT and dSPACE for HIL Applications in Power Systems	Dr. Ashok S, Dr. S. Kumaravel	04 th -08 th December 2017

	National Technology Workshop on "Test and Measurement Systems" organized by IEEE PES NITC Chapter in association with Industrial Power Group, EED	Dr. Ashok S	21 st -22 nd December 2017
--	--	-------------	---

e. Expert lectures delivered in Conferences/ Seminars/ workshops

Sl.No	Name of faculty	Title of the expert lectures delivered	Duration and Period	Organization
1.	Dr. Ashok S.	IOT Applications in Smart Grid	11 th – 13 th January 2018.	Department of Electrical Engineering , MBCET Trivandrum
1.	Dr. Jagadanand G	Introduction to Green Energy, FDP on "Emerging Technologies in Green Energy System"	27th November 2017	NSS college of Engineering, Palakkad
1.	Dr. Kumaravel S.	New Challenges in Occupational Health, Safety and Environment	23 – 27, October 2017	Government Engineering College, Thrissur
		Fundamentals of Electric Circuits, FDTP -CT17	20 - 26 Nov 2017	University College of Engineering Ariyalur
		AICTE sponsored FDP on recent developments in Modelling, Design and Control of Power Converters and Drives	23 Nov 2017	Mepco Schlenk Engineering College, Sivakasi

f. Consultancy and Testing : Consultancy

Cons	•	1				
Sl.	Institution/Agenc	Nature of	Investigator	Year of	Amount	Status
No	y	work	Investigator	Starting	(Lakhs)	Status
	Sreesan Crushers,	Energy	Dr. Ashok S.	2018	0.5	Ongoing
1	Calicut	Utilization Analysis				

Annual Report 2017-18 NIT Calicut 174

2	ULCCS crusher plant	Energy Utilization Analysis	Dr. Ashok S.	2017	1.0	Completed
3	Zamorin's Guruvayurappan college	Energy Utilization Analysis	Dr. Ashok S.	2017	0.5	Completed
4	Kunnamangalam gramapanchayath,, St. Joseph devagiri	Energy Utilization Analysis	Dr. Ashok S.	2017	0.5	Completed
5	Shalom Tele Studio Complex	Energy Utilization Analysis	Dr. Ashok S.	2017	0.5	Completed
6	Devagiri college, Calicut	Energy analysis	Dr. Ashok S.	2017	0.75	Completed

Testing:

resumg					
Sl. No.	TESTING by Electrical Engineering Department				
	Ref. No. & item	Faculties Involved	Receipt No. & Date		
1.	NITC/DEAN(R&C)/A3/ EED/2782/CON/2000(1) Testing charges from KSEB, Asiatech Electronics, Techser, Access Power care system, V guard India Ltd, Commonwealth trust I Pvt Ltd, Siechem wires and cables Calicut,	Dr. Ashok S. and Dr. Sindhu T. K	4.5 Lakhs, 13.02.2017		

Expert Talks Organized

Sl. No.	Details of Expert Talks
1.	Organized (as coordinator) an Expert Technical Session on "Internet of Things for Smart Grid Applications", organized by IEEE PES NITC Chapter in association with Industrial Power Group Department of Electrical Engineering NIT Calicut during 17 th November, 2017.
2.	Distinguished Lecturer Program organized by IEEE PES NITC Chapter in association with IEEE PES Kerala Chapter on 6th Feb, 2018.

h. Patents acquired and filed

Sl. No.	Faculty/Researcher	Title of the Work	Patent / Copy Right Reference Number	Status
1.	Dr. Ashok S. and Dr. Kumaravel S., Siva Prasad A	A Novel Modified Bridge Type Dual Input Source DC- DC Converter Topology	KSCSTE/255/2018- PF-PIC	Patent Filed
2.	Dr. Kumaravel S.	A Novel Super Boost Dual Input Source DC-DC Converter Topology	NIL	Filed
3.	Dr. Ashok S.and Mr. Peter K Abraham	Ultra capacitor based regenerative braking system for a PMSM Drive	No.048/PFPIC/ 2016/KSCSTE	Patent Filed Under Review

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING Accreditation:

Two M.Tech programmes offered by Department of Electronics and Communication Engineering got accredited by National Board of Accreditation (NBA). M.Tech in Signal Processing for 6 years and M.Tech in Electronics Design and Technology for 3 years.

a. Publications

i. Journals

Sl. No.	Author (s)	Title of the Paper	Name of the Journal	Vol., Year & Pages
1	T. Bindima, Elizabeth Elias	Low Complexity Fan Filters using Multiobjective Artificial Bee Colony Optimization Aided McClellan Transformation for Directional Filtering,	IEEE Transactions on Circuits and Systems -II: Express Briefs	Early Access IEEEXplore, DOI: 10.1109/TCSII.2 018.2817592, Mar 2018
2	T Bindima, Elizabeth Elias	Design and Implementation of Low Complexity Two- Dimensional Variable Digital FIR Filters Using Single-Parameter-Tunable 2D Farrow Structure	IEEE Transactions on Circuits and Systems I: Regular Papers	Vol. 65,No2, doi: 10.1109/TCSI.2 017.2724767 Feb 2018, 618- 627
3	T Bindima, Elizabeth Elias	A novel design and implementation technique for low complexity variable digital filters using multi-objective artificial bee	Engineering Applications of Artificial Intelligence, Elsevier	Vol. 59 Issue C, Mar 2017, 133- 147

		colony optimization and a minimal spanning tree approach.		
4	Nisha Haridas, Elizabeth Elias	Reconfigurable Farrow Structure-Based FRM Filters for Wireless Communication Systems.	Circuits, systems and signal processing, Springer	Vol.36, Issue 1, Jan 2017 pp 315–338
5	V.Sakthivel and Elizabeth Elias	Design of hardware- efficient digital hearing aids using non-uniform MDFT filter banks	Signal, Image and Video Processing (Springer)	DOI: 10.1007/s11760- 017-1225-1. Dec 2017
6	Amir A, Bindiya T. S., Elizabeth Elias	Design and Implementation of Reconfigurable Filter Bank Structure for Low Complexity Hearing Aids using 2-level Sound Wave Decomposition	Biomedical Signal Processing and Control, Elsevier	Vol. 43, May 2018, 96-109
7	V.Sakthivel and Elizabeth Elias	Low complexity reconfigurable channelizers using non-uniform filter banks	Computers and Electrical Engineering, Elsevier	Vol.68 Apr 2018, 389- 403
8	I Raghu and Elizabeth Elias	Low Complexity Spectrum Sensing Technique for Cognitive Radio using Farrow Structure Digital Filters	Engineering Science and Technology, an International Journal, Elsevier	10.1016/j.jestch. 2018.04.012 Apr 2018
9	I Raghu and Elizabeth Elias	A low complexity reconfigurable IFIR filter for software defined radio channelizers	International Journal of Electronics and Communications, Elsevier	10.1016/j.aeue.2 018.05.006 May 2018
10	Anil Jacob, Geethu M Kishore, and Lillykutty Jacob	Lifetime and Latency Analysis of IEEE 802.15.6 WBAN With Interrupted Sleep Mechanism	Sadhana – Academy Proceedings in Engineering Sciences (Springer)	Vol. 42, Issue 6, June 2017, pp 865–878
11	H R Shamna and Jacob Lillykutty	An energy and throughput efficient distributed cooperative MAC protocol for multihop wireless networks	Computer Networks (Elsevier)	Vol. 126, 24 Oct 2017, Pages 15- 30
12	Jalaja M J and Lillykutty Jacob	Network Lifetime Aware Data Collection in Underwater Sensor Networks for Delay- Tolerant Applications	Sadhana – Academy Proceedings in Engineering Sciences (Springer)	Vol. 42, Issue 10, Oct 2017, pp 1645–1664

13	Anil Jacob and Lillykutty Jacob	A Green Media Access Method for IEEE 802.15.6 Wireless Body Area Network	Journal of Medical Systems (Springer)	41(11):179, Nov 2017
14	Susan Dominic and Lillykutty Jacob	Distributed Joint Resource Allocation for D2D Communications Underlaying Cellular Networks in Time-Varying Environment	IEEE Communications Letters	10.1109/LCOM M.2017.2771778
15	DeepthiSasidharanan d Lillykutty Jacob	A Framework for the IPv6 Based Implementation of A Reactive Routing Protocol in NS-3: Case Study using LOADng	Simulation Modelling Practice and Theory (Elsevier)	Vol. 82, Mar 2018, Pages 32- 54
16	Susan Dominic and Lillykutty Jacob	Learning Algorithms for Joint Resource Block and Power Allocation in Underlay D2D Networks	Journal of Telecommunication Systems (Springer)	https://doi.org/10 .1007/s11235- 018-0438-0
17	DeepthiSasidharan and Lillykutty Jacob	Improving Network Lifetime and Reliability for Machine Type Communications based on LOADng Routing Protocol	Ad Hoc Networks Journal (Elsevier)	Vol. 73, 1 May 2018, Pages 27- 39
18	M.S.Athulya, P.S.Sathidevi	Speaker Verification from codec distorted speech for forensic investigation through serial combination of classifiers	Elsevier, Digital Investigation	https://doi.org/10 .1016/ j.diin.2018.03.00 5
19	P M Deepak and C.K.Ali	Filter bank SCFDMA: an efficient uplink strategy for future communications	Telecommunication Systems	doi.org/10.1007/ s11235-018- 0463- z(Published online:19 Apr 2018)
20	FintoRaphel& Sameer S. M.	A joint subcarrier and power allocation technique with pro-rata fairness and unequal error protection for video transmission over OFDMA downlink	Computer Communications, Elsevier	Vol.114, 2017, Pages 10-21
21	Namitha A. S., Sameer S. M	A Bandwidth Efficient Selective Mapping Technique for the PAPR Reduction in Spatial	Physical Communication, Elsevier	Vol.25, 2017, Pages 128–138

		Multiplexing MIMO- OFDM Wireless Communication Systems		
22	Namitha A. S., Sameer S. M	An Improved Selective Mapping Technique to Reduce Peak to Average Power Ratio in SISO and SIMO-OFDM Systems Without Side Information	Circuits, Systems, and Signal Processing, Springer	Vol.36, 2017, Pages 4181– 4206
23	P. Muneer& Sameer S. M.	Joint Estimation of Doubly Selective Channels and Carrier Frequency Offsets in High Mobility MIMO- OFDMA Uplink	Wireless Personal Communications, Springer	Vol. 95, 2017, Pages 4113-4130
24	K.S. Deepak and A.V. Babu	Improving Reliability of Emergency Data Frame Transmission in IEEE 802.15.6 Wireless Body Area Networks	IEEE Systems Journal	Issue 99, July. 2017, pp.1 - 12.
25	Poornima S. and A.V. Babu	Performance Analysis of Energy Harvesting Cognitive Relay Networks with Primary Interference	Telecommunication s Systems	Oct. 2017, pp. 1- 15, DOI:10.1007/s1 1235-017-0402- 4
26	Geethu K.S. and A.V. Babu	A Hybrid ARQ scheme Combining Erasure Codes and Selective Retransmissions for Reliable Data Transfer in Underwater Acoustic Sensor Networks	EURASIP Journal on Wireless Communications and Networking	2017:32, DOI 10.1186/s13638- 017-0823-5
27	Geethu K.S. and A.V. Babu	Energy optimal channel attempt rate and packet size for ALOHA based underwater acoustic sensor networks	Telecommunication Systems	Vol. 65, Issue 3, July. 2017, pp. 429–442.
28	Siddharth Shelly and A. V. Babu	Link residual lifetime-based next hop selection scheme for vehicular ad hoc networks	EURASIP Journal on Wireless Communications and Networking	2017:23, DOI:10.1186/s1 3638-017-0810- x.
29	Siddharth Shelly and A. V. Babu	Performance Modeling of Link Duration in Vehicular Ad Hoc Networks Under Weibull Fading Channel	Wireless Personal Communications	Oct. 2017, Vol. 96, Issue 4, pp 6047–6068

		Conditions		
30	KatlaRambabu and A.V. Babu	Relay Placement for Coverage Extension in Cellular Wireless Networks under Composite Fading Model	International Journal of Wireless Information Networks	Dec. 2017, Volume 24, Issue 4, pp 329– 343
31	UpamaRajan M.N. and A.V. Babu	Variable Beam Width Selection for Improving the Throughput of IEEE 802.11ad Wireless LAN in the Contention Based Access Period	International Journal of Wireless Information Networks	Mar 2018, Vol.25, Issue 1, pp 57–71, DOI:10.1007/s1 0776-017-0371- 2
32	A.S. Unde, P.P. Deepthi	Block Compressive Sensing: Individual and Joint Reconstruction of Correlated Images	Journal of Visual Communication and Image Representation, Elsevier	vol. 44, pp. 187 – 197, Apr. 2017.doi: http://dx.doi.org/ 10.1016/j.jvcir.2 017.01.028
33	Amit S. Unde , P.P. Deepthi	Rate-distortion analysis of structured sensing matrices for block compressive sensing of images	Signal Processing: Image Communication (Elsevier)	Vol. 65, pp 115- 127
34	Amit S. Unde, P.P. Deepthi	Fast BCS-FOCUSS and DBCS-FOCUSS with augmented Lagrangian and minimum residual methods	Journal of Visual Communication and Image Representation (Elsevier)	Volume 52, pp 92-100
35	Stuart, C.M. & Deepthi, P.P.	Nonlinear Cryptosystem Based on QC-LDPC Codes for Enhanced Security and Reliability with Low Hardware Complexity and Reduced Key Size	Wireless PersonalCommunic ation (Springer)	Vol. 96: Issue 3, pp:4177-4197. https://doi.org/10 .1007/s11277- 017-4376-z
36	Gayatri Parthasarathy and G Abhilash	Entropy-Based Transform Learning Algorithms	IET Signal Processing	DOI: 10.1049/iet- spr.2017.0337, Online ISSN 1751-9683 Published: 23/11/2017
37	Abhilash Antony, Sreelekha G	Performance enhancement of HEVC lossless mode using sample-based angular and planar predictions	Signal, Image and Video Processing, Springer Publications	Vol. 11, Issue 6, pp 1057–1064, Sept 2017

				,
38	Abhilash Antony, Sreelekha G	HEVC –based Lossless intra coding for efficient still image compression	Multimedia Tools and Applications, Springer Publications	Vol. 76 No. 2, pp.1639–1658, 15 Jan 2017
39	Arun Varghese and Sreelekha G	Sample-based integrated background subtraction and shadow detection	IPSJ Transactions on Computer Vision and Applications, Springer Publications	Dec 2017, DOI 10.1186/s41074- 017-0036-1
40	C. V. Hari, P. Sankaran	A clustered locally linear approach on face manifolds for pose estimation	Pattern analysis and applications	Vol. 20, no. 4, Nov 2017
41	D. Nair, P. Sankaran	Color image dehazing using surround filter and dark channel prior	Visual communication and image representation	50, Jan 2018, 9- 15
42	Hawazin S Khaleel, Sameera Mhd Sageer V, Baburaj M, Sudhish N George	Denoising of Rician corrupted 3D Magnetic Resonance Images using Tensor-SVD	Biomedical Signal Processing and Control, (Elsevier)	Vol. 44, July 2018, pp. 82-95.
43	Sameera Mhd Sageer V, Sudhish N George,	An Approach for Despeckling a Sequence of Ultrasound Images based on Statistical Analysis	Sensing and Imaging: An International Journal (Springer),	Vol. 18, No. 1, pp. 1-29, 2017
44	Baburaj M, Sudhish N George	Twist Tensor Total Variation Regularized- Reweighted Nuclear Norm based Tensor Completion for Video Missing Area Recovery	Information Sciences (Elsevier)	Vol. 423, Jan 2018, pp376-397
45	Abdu Rahiman V, Sudhish N George,	Robust Single Image Super Resolution using Neighbor Embedding and Fusion in Wavelet Domain	Computers & Electrical Engineering (Elsevier), 2017	doi.org/10.1016/j .compeleceng.20 17.09.020.
46	Sameera Mhd Sageer V, Sudhish N George	Ultrasound Image Despeckling using Low Rank Matrix Approximation Approach	Biomedical Signal Processing and Control, (Elsevier)	Vol. 38, Sept 2017, pp. 236– 249.
47	Abdu Rahiman V, Sudhish N George,	Single Image Super Resolution Using Neighbor Embedding and Statistical Prediction Model	Computers & Electrical Engineering (Elsevier)	Vol. 62, Aug 2017, pp. 281- 292
48	Rohit U, Abdu	A robust face hallucination	Multimedia Tools &	Vol. 76, Issue

	Rahiman V, Sudhish N George,	technique based on adaptive learning method	Applications (Springer)	15, pp 16809– 16829, Aug, 2017
49	R. Ranjith, Remya Jayachandran , K.J. Suja , Rama S. Komaragiri	Two dimensional analytical model for a reconfigurable field effect transistor	Superlattices and Microstructures (Elsevier)	114, 2018 & 62- 74
50	Mridula K M, P M Ameer	Localization under anchor node uncertainty for underwater acoustic sensor networks	International Journal of Communication Systems	Vol. 31, Issue 2 Jan 2018
51	N Nidheesh, K A Abdul Nazeer, P M Ameer	An enhanced deterministic K-Means clustering algorithm for cancer subtype prediction from gene expression data	Computers in Biology and Medicine	Vol. 2017 Issue 91, 213-221
52	Mridula K M, P M Ameer	Three-dimensional sensor network connectivity considering border effects and channel randomness with application to underwater networks	IET Communications	Vol. 12, Issue 8,May 2018,p.p.994- 1002

i. International Conference

Sl No	Name of the Author	Title of the paper	Name of International Conference	Details
1	U K Shahanas, Bindima T and Elizabeth Elias	Design of Reconfigurable Directional Filters Using McClellan Transformation and Spectral Approximation in 2D Space	The 30th Annual IEEE Canadian conference on Electrical and Computer Engineering, CCECE 2017	Windsor, Ontario, Canada, 30 Apr- 3 May 2017.
2	I Raghu and Elizabeth Elias	A low complexity reconfigurable interpolated finite impulse response filter for software defined radio channelizer	2018 International Conference on Vision, Image and Signal Processing (ICVISP 2018)	Las Vegas, USA on 27-29 Aug, 2018
3	Gilesh, M.P., Madhu Kumar, S.D., Jacob, L.	HyViDE: A framework for virtual data center network embedding	The 32nd ACM Symposium on Applied Computing	Morocco, 3- 6Apr, 2017
4	Gilesh, M.P., Kumar, S.D.M., Jacob, L., Bellur, U.	Towards a Complete Virtual Data Center Embedding Algorithm	The 37th IEEE International Conference on	Atlanta, USA, 5 – 8June, 2017

		Using Hybrid Strategy	Distributed Computing Systems	
5	Neeta Ann Ninan and Lillykutty Jacob	Mode Selection, Power Adaptation and Channel Assignment in Device-to- Device Communication	The Sixteenth International Conference on Networks (ICN 2017)	Venice, Italy, 23 – 27 Apr, 2017
6	Shamna H R and Lillykutty Jacob	Distributed Cross Layer Cooperative MAC Protocol for Multihop Wireless Networks	The Sixteenth International Conference on Networks (ICN 2017)	Venice, Italy, 23 – 27 Apr, 2017
7	Deepthi Sasidharan and Lillykutty Jacob	Design of Composite Routing Metrics in LOADng Routing Protocol for IoT Applications	The Sixteenth International Conference on Networks (ICN 2017)	Venice, Italy, 23 – 27 Apr, 2017
8	Mary Reena, Abraham T Mathew, and Lillykutty Jacob	HVAC Control Using Interval Type-2 Fuzzy Logic System in Intelligent Buildings	The 12th IEEE Conference on Industrial Electronics and Applications (ICIEA 2017)	18 - 20 June 2017, Cambodia
9	M P Gilesh, S. D. Madhu Kumar, and Lillykutty Jacob	Opportunistic Migration of Virtual Machines for Proactive Resource Management in Cloud Data Centers	IndoSys 2017	IIT Bombay, 25- 26 May 2017
10	Susan Dominic and Lillykutty Jacob	Utility-Based Resource Allocation for Underlay D2D Networks	2017 IEEE Region 10 Symposium (TENSYMP)	Kochi, 14- 16July, 2017
11	Anil Jacob and Lillykutty Jacob	Enhancing Reliability of Emergency Traffic in IEEE 802.15.6 Wireless Body Area Networks	2017 IEEE Region 10 Symposium (TENSYMP)	Kochi, 14- 16July, 2017
12	Aswani Ashokan and Lillykutty Jacob	Distributed Cooperative Spectrum Sensing With Multiple Coalitions and Non-ideal Reporting Channe	IEEE SPICES 2017	Kollam, 8-10 Aug 2017
13	Shamna H R, AmithGopi, Abby P Joby, and Lillykutty Jacob	Joint MAC Layer Relaying and Price Based Resource Allocation in Multihop Wireless Networks	IEEE SPICES 2017	Kollam, 8-10 Aug2017

NIT Calicut 183 Annual Report 2017-18

14	Emy Mariam George and Lillykutty Jacob	Scheduling and Resource Allocation for Coexisting WBANs	The 2nd Asian Students Symposium on Emerging Technologies (ASSET 2018), COMSNETS 2018	Bangalore, 3-9 Jan 2018
15	Susan Dominic and Lillykutty Jacob	Distributed Resource Allocation for Underlay Device-to-Device Communications in 5G Cellular Networks	The 2nd Asian Students Symposium on Emerging Technologies (ASSET 2018), COMSNETS 2018	Bangalore, 3-9 Jan 2018
16	K.L.Nisha, Sreelekha.G, Sathidevi Puthumangalathu Savithri, Poornima Mohanachandran, Anand Vinekar	Fusion of Structure Adaptive Filtering and Mathematical Morphology for Vessel Segmentation in Fundus Images of Infants with Retinopathy of Prematurity	2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE)	Windsor, Canada 30 Apr– 03 May 2017
17	VinayshankarSomalar aNataraj, Athulya M. S., Sathidevi Puthumangalathu Savithri	Single Channel Speech Enhancement Using Adaptive Filtering and Best Correlating Noise Identification	2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE)	Windsor, Canada 30 Apr– 03 May 2017
18	A. Basha, H. Gupta, K. C. Perinbam, L. Sowmya, P. Ghosal and Sameer S. M.	A robot controlled 3D mapping and communication system using ultrasonic sensors, , pp. 3078-3083.	TENCON 2017 - 2017 IEEE Region 10 Conference	Penang, Malaysia, 5-8 Nov, 2017
19	Rishna P and A V Babu	Modified harvest-then- cooperate protocol for relay-assisted cellular networks	2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI)	Mangalore, India, Sept. 2017
20	Upama Rajan M.N. and Babu A.V	Theoretical Maximum Throughput of IEEE 802.11ad Millimetre wave Wireless LAN in the Contention Based Access Period: with two level aggregation	2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET)	Chennai, India, Mar. 2017

NIT Calicut 184 Annual Report 2017-18

21	Hena Thampy and A V Babu	Relay location optimization in cognitive full-duplex relay networks	IEEE Region 10 Symposium (TENSYMP), 2017	Kochi, July 2017
22	S. Deepthi, V.S. Lakshmi, P.P. Deepthi	Image processing in encrypted domain for distributed storage in cloud	2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET),	22-24 Mar 2017, Chennai
23	K. Lajitha Raj, V.S. Lakshmi, P.P. Deepthi	Secure querying of outsourced medical images	2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET),	22-24 Mar 2017, Chennai
24	Gayatri Parthasarathy, and G Abhilash	Transform Learning Algorithm based on the probability of representation of signals	25th European Signal Processing Conference 2017 (EUSIPCO 2017)	Kos Island, Greece, 28 Aug - 2 Sept 2017
25	ShyamaP,AswinPk. LylaB.Das	Indoor localisation using visible light communication and Image processing	IEEE International Conference on Consumer Electronics-ICCE- 2018	Las Vegas,USA,Jan 7-9,2018
26	Jinesh K.B, and K.J. Dhanaraj	A Low Power Architectute of Real Time Stereo Vision Algorithm Using Discrete Cosine Transform	TENCON 2017 IEEE Region 10 Conference	Penang, Malaysia, 5-8 Nov, 2017
27	Baiju P S, P Deepak Jayan, Sudhish N George,	Weighted Nuclear Norm and TV Regularization Based Image Deraining	IEEE National Conference on Communications (NCC -2018),	IIT Hyderabad., Feb. 2018
28	Sameera Mhd Sageer V, Sudhish N George,	Denoising of Medical Ultrasound Images Based on Non-local Similarity: A Low-Rank Approach	IEEE TENCON- 2017	Malaysia., Nov. 2017
29	Anjali Ravindran, Baburaj M, Sudhish N George,	Video Inpainting based on Reweighted Tensor Decomposistion	Second Int. Conf. on Computer Vision & Image Processing (CVIP-2017),	IIT, Roorke, Sept. 2017
30	Hawazin S Khaleel, Sameera V	Denoising of Volumetric MR Image using Low Rank	Second Int. Conf. on Computer Vision	IIT, Roorke, Sept. 2017

NIT Calicut 185 Annual Report 2017-18

	MohdSagheer, Baburaj M, Sudhish N George	Approximation on Tensor SVD framework	& Image Processing (CVIP-2017),	
31	Sruthy S, Sudhish N George,	WiFi Enabled Home Security Surveillance System using Raspberry Pi and IoT Module	IEEE Int. Conf. Signal Processing, Informatics, Communication and Energy Systems (SPICES 2017).	TKM CE Kollam, Aug. 2017
32	S. TarunVarma and B. Bhuvan	Low-power high-bandwidth preamplifier with improved common mode feedback stability	IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC)	Hsinchu, Oct 18- 20, 2017
33	K. Akshay, Parvathy R. Pillai and B. Bhuvan	Optimum length of a pinned photo diode	IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC)	Hsinchu, Oct 18- 20, 2017
34	Raghu C V, Dinesh N S	DC Motor Speed Control using Experience Mapping based Prediction Controller (EMPC)	3rd International Conference on Control, Automation and Robotics, ICCAR 2017	22 – 24 Apr, 2017, Nagoya, Japan
35	Raghu C V, Dinesh N S	EMPC for DC Motor based Tracking applications	3rd international symposium in Robotics and Manufacturing Automation (ROMA), 2017	19-21 Sept 2017, Malaysia
36	Sudhi Sudharman, Bindiya T. S.	Reconfigurable Non- Maximally Decimated Filter Bank Based Wideband Channelizer for VLBI	Canadian Conference on Electrical and Computer Engineering	30 Apr - 3 May 2017, Windsor, Canada
37	Dipanwita Das ; P M Ameer	Energy Efficient Geographic Clustered Multi-hop Routing for Underwater Sensor Networks	TENCON 2017	Penang Malaysia, 5-8 Nov 2017
38	Mridula K M, P M Ameer	Connectivity at Wireless Network Borders Under Superimposed Fading- Shadowing Effects	TENCON 2017	Penang Malaysia, 5-8 Nov 2017

39	Meera Bharathan, Mridula. K. M. and Ameer P M	Range Free Localization in Anisotropic Networks Using Unbiased Distance Model	NCC 2017	IIT Hyderabad, Feb 2018
----	---	--	----------	----------------------------

Books

Sl. No	Name of the Authors, Title of the book, Publisher, Year
1	Lyla b.Das, "Architecture, Programming, and Interfacing of Low-power Processors — ARM7, Cortex-M", Cengage Learning India, 2017

b. Community Services

Name of Staff	Details
	Member, Board of Governors, KTU
	 Member, Board of Governors, GEC, Calicut
	• Expert Member, NBA
	Keynote Speaker in National and International conferences in India
	Reviewer in International Journals (Elsevier, Springer, Taylor and
	Francis, etc.)
	 Member, Board of studies, Mysore University, Karunya University
	 Evaluator of PhD theses of NIT Trichy, Anna University, Bangalore
Dr.Elizabeth Elias	University, JNTU, Hyderabad, NIT Warangal, NIT nagpur
	Delivers expert talks in Engineering Colleges in Kerala, Tamil Nadu,
	Karnataka, and Andhra Pradesh
	• Expert Member, CERD, CET, Trivandrum
	Academic advisory Committee Member, RIT, Kottayam,
	Academic Advisory Committee Member, Tokech College of Engg, Kochi
	Academic Advisory Board Member, Sahradaya College of Engineering,
	Trissur
	Expert Member, Interview board of DRDO in Bangalore, Hyderabad
	IEEE Communication Society Kerala Chapter Chair
	Advisory Committee, Sahrdaya College of Engineering, Kodakara,
	Thrissur
	Advisory Committee, AISAT Kochi
	NAAC Peer Team Member
	 Associate Editor: Sadhana- Academy Proceedings in Engineering Sciences,
	Springer
	Editorial Board Member: International Journal of Distributed Sensor
Dr.Lillykutty Jacob	Networks, Hindawi; International Journal of Network Management, Wiley;
	The Scientific World Journal, Hindawi
	• Reviewer for International journals: IEEE Trans. on Computers, IEEE
	Communication Letters, IEEE Trans. on Communications, IEEE Journal on
	Selected Areas of Communications, IEEE Trans. on Wireless
	Communications, IEEE Trans. on Vehicular Technology, IEEE Trans. on
	Mobile Computing
	• TPC/Reviewer for International Conferences: IEEE INFOCOM, IEEE
	GLOBECOM, IEEE International Conference on Local Computer

NIT Calicut 187 Annual Report 2017-18

	Networks (LCN), IEEE ICC SDLP
	Chair Educational Activities, IEEE Malabar Subsection
Dr.Sathidevi P.S.	 Member, Board of Academic Studies, CUSAT, Kochi
	 Charity activities through SadasivaBalasadanam, Poolakode, Calicut
Dr. A. V. Babu	Member, BOG ,NITC
Dr. Sameer S. M.	Treasurer, IEEE India Council
Di. Saineer S. Wi.	Chairman, IEEE Kerala Section
	 Adviser, WIE, IEEE Malabar Sub-Section
Dr. Deepthi.P. P.	 Board member (TEQIP), GEC Sreekrishnapuram.
	• Member of external research committee, College of Engineering, Vadakara
	 Volunteer in the Green Committee NIT Calicut
	• Reviewer of journals: Signal Processing (ELSEVIER/EURASIP), Springer
Dr. G. Abhilash	(Sadhana, NASA), IET Signal Processing, IET Electronics Letters
	 Advisor to the IEEE Signal Processing Society Student Branch Chapter
	NIT Calicut.
	 Member, BOG, NITC
Ms. Lyla B.Das	 Auditor in the Academic audit committee of National Institute of
	Engineering, Mysore
Mr. R. Suresh	Reviewer for conferences
Dr. Sreelekha G.	School Management Committee Member, Spring Valley School
	 Treasurer, IEEE Malabar Sub-Section
Dr. DhanarajK. J.	 Secretary, Circuits and Systems Society, IEEE Kerala Chapter
	 Performed duty as Observer in JEE main 2017 and NEET 2017 exams
Mr. V. Sakthivel	conducted by CBSE.

C. Other Academic and Administrative services

Name of Staff	Academic and Administrative Services	
	PhD Coordinator, ECED, PhD admissions ECED	
Dr.Elizabeth Elias	• Class committee chairperson – Final year B.Tech (Monsoon and	
	Winter semesters)	
	• Class committee chairperson – M.Tech. Microelectronics and VLSI	
	Design	
Dr.Lillykutty Jacob	• Member of M.Tech (Telecommunication) Project Evaluation	
Di.Linykutty Jacob	Committee	
	• Chairperson - M.Tech Telecommunication Curriculum Revision	
	Member of B.Tech curriculum revision committee	
Dr.P.C. Subramaniam	• Faculty Adviser – Fourth Year B.Tech	
	Dean Academic	
Dr.Sathidevi P.S.	• Member of M.Tech Signal Processing Project Evaluation Committee	
	• President, PTA, NIT Calicut	
	Member of B.Tech Major Project Evaluation Committee	
Dr. C. K. Ali	Chairman Class Committee, second year B.Tech	
DI. C. K. All	Ph.D co-ordinator, ECED	
	Faculty I/C Non-teaching staff matters	
Dr. Sameer S. M. HOD, ECED		
	Institute Time table in charge	
Dr. A. V. Babu	NBA overall Coordinator, ECED	
	Member of department purchase committee	

R&D/Consultancy/Expert Lecture Activities Coordinator, ECEI Faculty in charge of Laboratories: Research labs Member, PG Admission Committee Coordinator- UG project evaluation committee Faculty Adviser - Second year B.Tech Faculty in charge (Integrated Circuits lab, R&D lab) Purchase coordinator and purchase committee member, ECED Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) Class Committee Chairperson - M.Tech (Signal Processing)	D
 Member, PG Admission Committee Coordinator- UG project evaluation committee Faculty Adviser - Second year B.Tech Faculty in charge (Integrated Circuits lab, R&D lab) Purchase coordinator and purchase committee member, ECED Dr. Deepthi P. P. Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Coordinator- UG project evaluation committee Faculty Adviser - Second year B.Tech Faculty in charge (Integrated Circuits lab, R&D lab) Purchase coordinator and purchase committee member, ECED Dr. Deepthi P. P. Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Faculty Adviser - Second year B.Tech Faculty in charge (Integrated Circuits lab, R&D lab) Purchase coordinator and purchase committee member, ECED Dr. Deepthi P. P. Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Faculty in charge (Integrated Circuits lab, R&D lab) Purchase coordinator and purchase committee member, ECED Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Purchase coordinator and purchase committee member, ECED Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
Dr. Deepthi P. P. Faculty Advisor - Third year B.Tech Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Central PG Curriculum Committee member Coordinator - B.Tech Mini projects Coordinator - B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology)	
 Coordinator of UG project Evaluation committee NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 NSS Program Officer Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Department UG Curriculum Committee member Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Department PG Curriculum Committee member Central PG Curriculum Committee member Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Central PG Curriculum Committee member Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
 Dr. G. Abhilash Coordinator – B.Tech Mini projects Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
Coordinator – B.Tech Seminar Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology)	
Member of the Project Monitoring Committee of the Design Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology)	
 Innovation Center. Ms. Lyla B. Das Programme Co-coordinator, M.Tech (Electronics Design Technology) 	
Ms. Lyla B. Das • Programme Co-coordinator, M.Tech (Electronics Design Technology)	
Technology)	
Class Committee Chairmanan M Took (Signal Bracessing)	
• Class Committee Chairperson – M. Tech (Signal Processing)	
Lab In charge- Embedded Systems Lab	
 Coordinator - M.Tech (Electronics Design and Technology) pr 	roject
evaluation	J
Mr. R. Suresh Class Committee Chairman (S6 B.Tech.ECE) Lab-in-Charge, Telecommunication Lab Member - M.Tech (Telecommunication) Project Evaluation Faculty Advisor (B.Tech. 2017 Batch) Member (Institute Information Brochure Committee) Member (UG and PG Syllabus Revision Committee)	
Lab in Charge : VLSI Lab	
Coordinator & Member of Project Evaluation Committee for M	1. Tech
(Micro Electronics and VLSI)	
Mr. Jaikumar M. G. Class committee chairperson - M.Tech (Telecommunication)	
Coordinator - M.Tech admissions	
Overall Programme Coordinator - M.Tech	
Project Manager & Procurement Nodal Officer, TEQIP-II	
 Coordinator, NBA Accreditation, M.Tech (Signal Processing) 	
Programme Co-coordinator, M. Tech (Signal Processing)	
Dr. Sreelekha G. • Class Committee Chairperson - M. Tech (Electronics Design and	d
Technology)	
• Faculty in charge of DSP Lab	
 Information facilitator and liaison officer, ECED 	
Department Council Secretary, ECED	
Placement committee member, ECED	
Member: UG project evaluation committee	
Dr. Praveen Sankaran Faculty Adviser - Third B.Tech ECE	
Warden D hostel	

NIT Calicut 189 Annual Report 2017-18

	ECED PTA Coordinator
	Member - ECED Exam Vigilance Committee Institute and Department LIC Commissions Committee marries and Department LIC Commissions and Department LIC C
	 Institute and Department UG Curriculum Committee member Faculty adviser - Third year B.Tech
	 Faculty adviser - I fird year B. I ech Information facilitator/Liaison officer/Department Website/Social
	Media inn charge, ECED
Dr. Dhanaraj K. J.	 Purchase Coordinator and member of purchase committee, ECED
Dr. Dhaharaj K. J.	Lab in charge (Electronic Circuits Lab)
	Member: PG project evaluation committee (Microelectronics and
	VLSI Design)
	 Convenor of Convocation Planning Committee
	ECEA Faculty in charge
	 Examination Coordinator (ECED)
	• Faculty Adviser for 2016-20 B.Tech ECE batch
	• Faculty In charge of Staff and Department Amenities, ECED
Dr. Sudhish N. George	Member of Project Evaluation Committee- M. Tech (Electronics)
	Design and Technology)
	Joint Secretary cum treasurer CREC PTA
	• Faculty in Charge - Tathva-2017
	Warden B Hostel,
	Member of PG(Signal Processing) Project Evaluation Committee,
	• Faculty adviser - First year B. Tech
N. T. G. 1.1. 1	• Faculty Advisor of 2013-2017 Batch,
Mr. V. Sakthivel	• Faculty in charge of SPCOM Lab,
	ECED Exam Vigilance committee member
	• Course Coordinator ZZ1003 Basic Electrical Sciences.
	Member in Institute level Anti-ragging Committee
	Lab In Charge – PsoC lab
14 D1 D	Member of B.Tech Major project evaluation Committee
Mr. Bhuvan B.	• Faculty in charge-Staff and department amenities
	• Faculty adviser 2016 admission B. Tech batch
	Faculty In charge of Staff and Department Amenities (ECED)
Mr. Raghu C. V.	• Faculty Adviser - Second Year B.Tech
Č	Faculty In charge - Electronics Workshop
	Member, Central Library Advisory Committee
	Dept. Library-in-charge, ECED
D. C	• Faculty in charge of Project Lab
Dr. Suja K. J.	• Faculty Adviser: Fourth year B.Tech
	Member - M.Tech. (Microelectronics and VLSI Design) Project
	Evaluation Committee
	Time Table in Charge, ECED
Da Dindiese T C	Member of Exam Vigilance Committee, ECED
Dr. Bindiya T. S.	• Faculty Advisor of 2013-2017, 2017-2011 Batches
	Member of B.Tech Major Project Evaluation Committee, ECED
	Lab In Charge - Communication Lab
D., A.,	Member of M.Tech (Telecommunication) Project Evaluation
Dr. Ameer P. M.	Committee
	 Faculty Adviser – FourthYearB.Tech
Dr. Jayakumar E. P	Faculty adviser - Third year B.Tech

•	Exam	Coordinator	(ECED))

- Member, Mini project evaluation committee of B.Tech (S6)
- Member, Project Evaluation committee of M.Tech (Electronics Design and Technology).
- Member of Exam Vigilance Committee (ECED)

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

Sl. No	Title	Coordinators	Duration and Period
1.	IEEE Region 10 technical symposium TENSYMP-2017	Technical Programme committee Chair	14 – 16 July 2017
2.	GIAN Course on "Key Enabling Technologies for 5G Wireless Networks"	Dr. Lillykutty Jacob and Dr. A V Babu	08 - 13 Dec 2017
3.	IEEE International Summit on 5G, IoT, and Cyber Security	Dr. Lillykutty Jacob	01 July17
4	Mastery Program for Youths on "Signal Theory: A Foundation for the Design of Signal Processing Systems".	Dr. G Abhilash, Jointly with the Design Innovation Center NIT Calicut	05 - 30 June 2017
5	Roadmap to Success in Engineering Studies 2017	Organizing Committee member (IEEE MSS)	20 May 2017
6	Emerging Trends in the Design of High-Speed ADC's	Dr. G. Abhilash jointly with IEEE Electron Devices Society (NITC Chapter).	24 Feb 2018
7	Two Day Workshop Towards the Development of Tinkering Lab	Ms. Lyla B. Das, Mr. Raghu C.V. Mr. Jagadanand (EED), Dr. Dhanaraj K.J. and Dr. Sudhish N. George in collaboration with Intel, Bangalore	13-14 Jan 2018
8	Two Day Workshop Towards the Development of Tinkering Lab	Ms. Lyla B. Das, Mr. Raghu C.V. Mr. Jagadanand (EED), Dr. Dhanaraj K.J. and Dr. Sudhish N. George in collaboration with Intel, Bangalore	3-4 Feb 2018

NIT Calicut 191 Annual Report 2017-18

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

Sl. No.	Name of Staff	Title of the Programme	Duration & Period	Organization
1	Dr. Elizabeth Elias	FDP on Mathematics for Communication and Signal Processing,	8-13 Jan 2018	MES College of Engineering, Kuttippuram
2	Dr. Elizabeth Elias	FDP on Advanced Digital Signal Processing Algorithms and applications	26-30 June 2017	National Institute of Technology, Calicut,
3	Dr. Lillykutty Jacob	GIAN Course on "Key Enabling Technologies for 5G Wireless Networks"		NIT Calicut
4	Dr. P. S. Sathidevi	FDP on Applications of Signal Processing		
5	Dr. P. S. Sathidevi	Inhouse Symposium on Nano Devices, Energy, Nano Fluids and Materials	27 Nov 2017	NIT CALICUT, SNST Department
6	Dr. Sameer S. M.	GIAN Course on "Key Enabling Technologies for 5G Wireless Networks	08 - 13 Dec 2017	NIT Calicut
7	Dr. Sameer S. M.	Talk on "3G to 5G Wireless Evolution & Internet of Things (IoT)"	7 Dec 2017	Calicut International Airport
8	Dr. A.V.Babu	GIAN Course on "Key Enabling Technologies for 5G Wireless Networks"	08 - 13 Dec 2017	NIT Calicut
9	Dr. Dhanaraj K. J.	Talk on "Professional and Career Opputunities with special focus on Engineering and Science" in IEEE event EMPNEO 1.0	29 July 2017	Model Engineering College, Kochi
10	Mr. Raghu C. V.	Lecture and Demonstration class on Electronic system design in State wide Faculty Development Workshop series on Design Projects	25 July2017	Training program conducted by ICT Academy of Kerala for faculty members from KTU

11	Mr. Raghu C. V.	Lecture on "Aspects on electronic system design using sensors" in Narional Seminar Recent Advances in Post-Harvest Fisheries Engineering	23 Sept 2017	SOFT(I), Cochin and ICAR-CIFT, Cochin
12	Mr. Raghu C. V.	Lecture on "High Speed Digital Design" in short term training program for faculty members on nanoelectronic transistor- based devices and circuits design	6 Dec 2017	Govt. Engineering College, Kannur
13	Mr. Raghu C. V.	Talk on "More than electronics" in the Technology based Entrepreneurship Development Programme (TEDP 2017)	11 Aug 2017	TBI, NIT Calicut
14	Ms. Lyla B. Das	Embedded Connectivity and Tech conference	28-29 Sept, 2017	Bangalore
15	Ms. Lyla B. Das	Workshop on embedded Systems	18-19 Dec, 2017	Lourde Matha college ,Trivandrum

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

Sl. No	Name	Qualification	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Dr. Jayakumar E.P.	Ph.D	Speech signal processing	PT

(g) Patents acquired and filed

Sl N o	Name of Staff	Title	Year
1	Dr. P. S. Sathidevi	CometQ (Applied for CopyRight), Application Number: 3449078 (A software for Medical Purposes particularly for DNA Damage Analysis using Comet Assay Images)	2017
2	Dr. P. C. Subramaniam	N-Stage OTA Buffer Amplifiers with Unity Gain and High Input Dynamic Range and Tunable Gain for Driving Large Resistance Loads Patent Application No. 201741035499	Filed on 06.10.2 017

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

Si. Name of Faculty Title of the Programme Venue Duration of the	S	Sl.	Name of Faculty	Title of the Programme	Venue	Duration of the
--	---	-----	-----------------	------------------------	-------	-----------------

No				Programme
1	Dr. P.S. Sathidevi	2017 IEEE 30th Canadian Conference on Electrical and Computer Engineering (CCECE)	Windsor, Canada	30 Apr – 03 May, 2017
2	Mr. B. Bhuvan	IEEE International conference on Electron Devices and Solid-state circuits	Hsinchu, Taiwan	18 – 20 Oct, 2017
3	Mr. B. Bhuvan	Zopp Workshop	IIT Guwahati	27-28 Oct, 2017
4	Dr. Lillykutty Jacob	The Sixteenth International Conference on Networks (ICN 2017)	Venice, Italy,	23 - 27 Apr, 2017
5	Dr. Dhanaraj K. J.	IEEE Region 10 Conference TENCON 2017	Penang, Malaysia	5-8 Nov, 2017
6	Dr. Ameer P. M.	IEEE Region 10 Conference TENCON 2017	Penang, Malaysia	5-8 Nov, 2017
7	Mr. Raghu C. V.	3rd International Conference on Control, Automation and Robotics, ICCAR 2017	Nagoya, Japan	22 – 24 Apr, 2017
8	Mr. Raghu C. V.	3rd international symposium in Robotics and Manufacturing Automation (ROMA), 2017	Malaysia	19-21 Sept 2017

(i) Student Achivements

- Mr. Harish H. of M.Tech Electronics Design and Technology received Departmental Identification Award for adding new feature coverage for FPGA verification of Debug IP during the internship at Intel, CIG division, Bangalore.
- Many UG students are undergoing MS/PhD studies in higher educational institutes in India and abroad.
- Several UG students graduated over the last three years are undergoing MS/PhD studies in higher educational institute in India and abroad.
- Mr. Ashish Agnihotri, Mr. Asish L, Mr. Aravind Krishnan and Mr. Aswanth T of third year B.Tech ECE got selected for quarter finals in the "DST & Texas Instruments (TI) Inc. India Innovation Challenge Design Contest 2017', anchored by the Indian Institute of Management (IIM), Bangalore."
- Mr. Joel Joy of final year ECE bags the Prof. P. M. Jussay Gold Medal for the year 2018, an award instituted by the NITC Alumni Association for the best outgoing student of NITC.
- Mr. N.G.N. Srinath of third year ECE was the prefinalist in CAMPUS STARS conducted by economic times and got 6thplace in MITS HACKATHON conducted in kochi
- Ms. Navya Dennis of third year ECE represented NITC at T-Summit and won best college prize.
- Ms. Ardra S Joy of thirdyear ECE won first place in Ramayana Recital competition held in connection with the Ramayana month (Aug 2017) by PuthiyakavTemple,Kollam.
- Ms. Reshma Ravi and Ms. ParvathiVinod of final year B.Tech ECE secured second prize in Inter-Nit volleyball tournament held Nit Kurushektra.

- Mr. John k Sunny and Mr. Athul Nair of final year B.Tech ECE secured first prize in vishwajyothi basketball tournament and second prize in Ragam fury basketball tournament.
- Raihan Anwar of second year B.Tech ECE with his basket ball team won FURY'18 championship and was 1. Ms. Anjali S. of 2014 B.Tech ECE batch secured 26thrank in All India Civil Services Exam.
- Mr.Jijo Jose of 2016 B.Tech ECE batch secured 2nd rank in GATE ECE exam 2018
- Mr.A.N.Sasidhar Reddy of third year B.Tech ECE got the first prize for "Best Hardware Project" for the project titled as "A System for Communication and Locomotion for Locked-in Syndrome Patients" under brand category HATCHER'18 sponsored by NeST under contest category of the KSCSTE TEKON-2018 organized jointly by the KSCSTE and the APJ Abdul Kalam Technological University during 23-25 Feb 2018.
- Ms. Aiswariya M, Ms. Anna Rose Dominic, Ms. AnushreeBhat, Ms. Bhagya Shree D and Ms. Lakshmipriya P Mohan have authored a paper titled "Speech Sound Classification and Estimation of Optimal Order of LPC Using Neural Network", which has been accepted for publication and oral presentation by 2018 International Conference on Vision, Image and Signal Processing (ICVISP 2018) to be held in Las Vegas, USA.
- Mr. JinsonThomas of M.Tech Electronics Design and Technology received Departmental Identification Award for exploring Formal Property Verification methods during the internship at Intel, CIG division, Bangalore.
- Mr. Akhil Antony Thomasof M.Tech Electronics Design and Technology received Division Recognition Award for delivering worthy High Performance AXI Network Interface IP during the internship at Intel, CIG division, Bangalore.
- Runners-up in Magnum 2k18 VJCET tournament
- Mr. S. Mohamed Rayaan of second year B.Tech ECE won first position in DumbC in Echoes, IIM Kozhikode annual cultural fest and was finalist in M.V.Kamath Memorial Inter College Debate, Manipal School of Communication
- Ms. Clare Chris Stephen of second year B.Tech ECE and her team were the winners of Inter NIT Basketball Tournament
- Ms. Sesmi Athiyarath of second year B.Tech ECE and her team won the second position in Inter-NIT Volleyball Tournament.
- Mr. Shaykhul Alam of second year B.Tech ECE won the second prize in discuss throw in annual sports meet in NITC.

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	Jayadeep, U.B. and Sobhan, C B	Molecular dynamics study of liquid layering and thermal conductivity enhancement in nano particle suspensions	Heat and mass transfer	Volume 54, 785-791, 2018,
2	Vinay V. Panicker M. Vamshidhar and Sridharan, R.,	Development of an ant colony luidizedon-based heuristic for a location-routing problem in a	International Journal of Value Chain Management	Volume 9, Issue 1, pp 38 – 69,

		two-stage supply chain.		2018
3	Jagadeesha T	Experimental studies in weld nugget strength of resistance spot-welded 316L austenitic stainless steel sheet.	The International Journal of advanced manufacturing Technology	Volume 93, Issue 1–4, pp 505–513, 2017
4	Jagadeesha T. TJS Jothi	Studies on the influence of process parameters on the AISI 316L resistance spot-welded specimens	The International Journal of advanced manufacturing Technology	Volume 93, Issue 1–4, pp 73–88 2017
5	Jabir E., Vinay V. Panicker and Sridharan R.,	Design and Development of a Hybrid Ant Colony-Variable Neighbourhood Search Algorithm for a Multi-Depot Green Vehicle Routing Problem	Transportation Research Part D,	Volume 57, No. 9, pp. 422-452 2017
6	V. Vinod, Bipin Balaram, M. D. Narayanan, Mihir Sen	Effect of configuration symmetry on synchronization in a Van der Pol ring with nonlocal interactions	Nonlinear Dynamics	Volume 89, pp. 2103– 2114, 2017.
7	J. Lijin and T.J.S. Jothi	Aerodynamic Characteristics of an Ogive-Nose Spinning Projectile	Sādhanā	Volume 43, Article No. 63, 2018.
8	Nitish kumar, T.J.S. Jothi, N. Selvaraju	Effect of Nanoparticle Deposition Rate on Critical Heat Flux in Pool Boiling	Journal of Engineering Research	Volume 4, No. 4, 2017
9	J George, P Arun, C Muraleedharan	Assessment of producer gas composition in air gasification of biomass using ANN model	International Journal of Hydrogen Energy	Available online, 1-11 April 2018,
10	J George, P Arun, C Muraleedharan	Effect of Operating Parameters in Air-Steam Gasification	Journal of Advanced Engineering Research	Volume 4(2), pp. 89-93, 2017
11	Irappa Basappa Hunagund, V. Madhusudanan Pillai and U.N.Kempaiah	A simulated annealing algorithm for unequal area dynamic facility layout problems with flexible bay structure	International Journal of Industrial Engineering Computations	Volume 9, No. – 3, pp. 307-330, 2018

	,	1	1	
12	Abdul Nazar K. P. and V. Madhusudanan Pillai	Mixed-model sequencing problem under capacity and machine idle time constraints in JIT production systems	Computers and Industrial Engineering	Volume 118, pp. 226 – 236, 2018
13	Sajan T. John, R. Sridharan, P.N. Ram Kumar and M. Krishnamoorthy	Multi-period reverse logistics network design for used refrigerators	Applied Mathematical Modelling	Volume 54, pp. 311 – 331, 2018
14	Sajan T. John, R. Sridharan and P.N. Ram Kumar	Reverse logistics network design: a case of mobile phones and digital cameras	International Journal of Advanced Manufacturing Technology	Volume 94, Nos. 1–4, pp. 615-631, 2018.
15	Anjana Viswanath, R. Sridharan and P.N. Ram Kumar	Hybrid genetic algorithm for multi-objective flow shop scheduling problem with sequence dependent setup time: parameter design using Taguchi's robust design method	International Journal of Process Management and Benchmarking	(In Press)
16	Prasad Patil, Vishnu C. R., R. Sridharan	Reliable supply chain network design model: Development and analysis	Materials Today	(In Press)
17	Anish M.N., Dhanish P.B. and R. Sridharan	Instrument for measuring service quality and dimensions of service quality affecting image, value and trust in medical tourism area	International Journal of Services and Operations Management	Vol.30,issue. 4,2017
18	Midhun Paul, R. Sridharan and T. Radha Ramanan	Scheduling an Assembly Job Shop Production System with Multiple Objectives: A Simulation Study	International Journal of Industrial and Systems Engineering	Vol.10,Issue. 3,234-251
19	Rajesh V.R., Biju T. Kuzhiveli	Modeling and failure analysis of flexure springs for a Stirling cryocooler	Journal of Engineering Science and Technology	Volume 12, No. 4 2017 pp 888-897
20	Kishor Kumar V.V., Biju T. Kuzhiveli	Prediction of Darcy Permeability and Forchheimer's Coefficient of Porous Structures Relevant to Regenerator of a Stirling Cryocooler Using a Correlation	International Journal of Air-Conditioning and Refrigeration	Volume 25, No.2, 2017 Art.1750014, pp 1-12

		Based Method.		
21	Kishor Kumar V.V., Biju T. Kuzhiveli	Performance Enhancement of a Miniature Stirling Cryocooler with a Multi Mesh Regenerator Design.	Journal of Engineering Science and Technology	Volume 12, No. 6 2017 pp 1514 – 1524
22	Rajesh V.R., Biju T. Kuzhiveli	Effect of geometrical parameters on the performance of linear motor for a Stirling cooler	International Journal of Air-conditioning and Refrigeration	Volume 25, No. 4 2017, 1750031-1 to 1750031-6
23	Biju T. Kuzhiveli	Modeling combined heat transfer in an all solid state optical cryocooler	Material Science and Engineering	Volume 278 2017 012136
24	Rajesh V.R., Biju T. Kuzhiveli	Comparative Analysis of Linear Motor Geometry for Stirling coolers	Material Science and Engineering	Volume 278 2017-012042
25	Kishor Kumar V.V., Biju T. Kuzhiveli	Modelling of a Stirling cryocooler regenerator under steady and steady – periodic flow conditions using a correlation based method	Material Science and Engineering	Volume 278 2017 012046
26	Derick Abraham, Biju T. Kuzhiveli	Numerical analysis of inertance pulse tube cryocooler	Material Science and Engineering	Volume 278 2017 012154
27	Abhilash T.V, Ashok.S, & Sudheer A. P.	A comparative study on the performance of neural networks in visual guidance and feedback applications	AUTOMATIKA, Journal for Control, Measurement, Electronics, Computing and Communications	Pp.336–346, Vol. 58, No. 3, 2018
28	Ladeesh, V.G. and Manu, R.	Effect of machining parameters on edge-chipping during drilling of glass using grinding-aided electrochemical discharge machining (G-ECDM)	Advances in Manufacturing	Vol. 5, 1-10, 2017 DOI: 10.1007/s404 36-017-0194- 5
29	Vipindas, K., and Mathew, J	Modeling of burr thickness in micro-end milling of Ti6Al4V	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	DOI: 10.1177/0954 40541876991 6, 2018
30	Vipindas, K.,	Effect of cutting edge radius on	International Journal of	DOI:

	Anand, K. N., Mathew, J	micro end milling: force analysis, surface roughness, and chip formation	Advanced Manufacturing Technology	10.1007/s001 70-018-1877- 1, 2018
31	Rhinithaa, P.T., Selvakumar, P., Nikhil, S., Deepak, L. K., Mathew, J	Comparative study of roundness evaluation algorithms for coordinate measurement and form data	Precision Engineering,	Vol. 51, pp. 458–467, 2018
32	Vipindas, K., and Mathew, J	Modeling of burr thickness in micro-end milling of Ti6Al4V	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	DOI: 10.1177/0954 40541876991 6, 2018
33	K. Sekar, M. Ravi, K. Jayakumar :	Investigation of Wear and Mechanical Properties of A356-SiCp-Al2O3 Hybrid Composite by Stir and Squeeze casting,	Journal of Chemical and Pharmaceutical Sciences,	Special issue (7), 2017, pp.131-136.
34	K.Sekar, N.Krishna Kumar, P.Vasanthakumar:	Centrifugal Pump as Turbine: Experimental Report,	International Journal of ChemTech Research (USA)	Vol.10, (14), 2017, pp 276-280.
35	K.Sekar, N.Krishna Kumar, P.Vasanthakumar:	Centrifugal Pump as Turbine for Micro-Hydro Power Scheme in Rural Areas of India: A Review,	International Journal of ChemTech Research (USA)	Vol.10, (14), 2017, pp 106-109.
36	K. Kalaiselvan, A. Elango, N. M. Nagarajan, K. Sekar:	Studies on Characteristics of Ti6Al4V/AA2024 Dissimilar Weld Joint Using Laser Beam Focusing from AA2024 Side,	Transactions of the Indian Institute of Metals,	Vol. 70 (1), 2017, pp. 01- 7.
37	K. Kalaiselvan, A. Elango, N.M. Nagarajan, K. Sekar:	Weldability of Ti/Al Dissimilar Sheet Metal Joints Using Nd:YAG Pulsed Laser,	International Journal of Materials	Vol.4,2017, pp.31-35.
38	Dheeraj Tripathi, K. Joseph Babu, K. Prabhakaran Nair,K. Sekar	Chemical Modification of Palm Oil for low temperature applications and study on its Tribological Properties,	Journal of Advanced Engineering Research,	Vol.4(2),201 7, pp.109- 113.
39	K. Kalaiselvan, A. Elango, N.M. Nagarajan, K.	Studies on Interlayer Characteristics of Ti/Al Dissimilar Metal Joints Using	Journal of Manufacturing Technology Research	Vol.9,(1- 2),2017, pp.1-13.

	Sekar, and N. Mathiazhagan	Laser Beam		
40	M. Mubarak, Priyank Gupta, A. Shaija, T.V. Suchithra	Production of Bioethanol from Salvinia Molesta and its Utilization in Single Cylinder SI Engine	Journal of Advanced Engineering Research	Volume 4, Issue 1, 2017, pp.67-72
41	M. Mubarak, A. Shaija, T.V. Suchithra	Enhancement of Biomass Production of Chlorella pyrenoidosa using Response Surface Methodology	Journal of Advanced Engineering Research	Volume 4, Issue 2, 2017, pp.99-103
42	S. Rajesh Kana, A.Shaija, K. Varun Sankar	Diesel Engine Characteristic Studies with Metal Oxide Doped Nanoparticle in Avocado Biodiesel,	Journal of Advanced Engineering Research	Volume 4, Issue 2, 2017, pp.114-118
43	Sundar R. Nath, M. Mubarak, A. Bhowmik, A. Shaija	Effect of photolimitation on growth of microalgae in Tubular photobioreactor,	Journal of Advanced Engineering Research	Volume 5, Issue 1, 2018, pp.1-5

ii. International and National Conference

Sl. No	Name of the Author	Title of Paper	Name of National/Inter.confer ence	Organising Institute, Date(s)
1	Jayadeep, U. B., R Manu	An investigation of mechanical Properties and temperature distribution of micro friction stir welded AL5052 thin sheets	COPEN	62-65, 2017
2	P. A. Raj , A. Bhatti and P. B. Dhanish	Influence of Roundness on Load Carrying Ability of Interference Fits	10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 10)	December 07-09, 2017
3	V.G Salunkhe, Jagadeesha T	Dynamic modeling of a rotor bearing structure and Vibration based surface defect analysis	ICOVP, 13th International Conference on Vibration Problems	29 Nov-2 Dec 2017
4	A.R Mali, Jagadeesha T	Influence of instantaneous defective frequency on speed And life of ball bearing	ICOVP, 13th International Conference on Vibration Problems	29 Nov-2 Dec 2017
5	Rahul, S Arackal	Noise Emissions from Low	The 46th International	Hong Kong

	and T.J.S, Jothi	Reynolds Number Wall Jets	Congress and Exposition on Noise Control Engineering Taming Noise and Moving Quiet, INTER- NOISE 2017	Convention and Exhibition Centre, 27-30 August 2017
6	Sumesh C.K. and T.J.S. Jothi	Flow Induced Noise Studies on a Porous Trailing Surface of a Flat Plate	24th International Congress on Sound and Vibration (ICSV24)	London, 23-27 July 2017.
7	Rahul S. Arackal and T. J. Sarvoththama Jothi	Aero-Acoustics Characteristics of Laminar Jets over a Flat Plate	24th International Congress on Sound and Vibration (ICSV24)	London, 23-27 July 2017.
8	Ijas Hussain and T.J.S. Jothi	Experiments on Vortex Rings: Interaction with Circular Surface	International Conference on Advances in Mechanical Engineering Sciences (ICAMES-17)	P.E.S. College of Engineering, Mandya, 21-22 April, 2017
9	Basil Issac Mathew, Rupesh, Muraleedharan, Arun	Kinetic modeling of biomass gasification with CO2 sorption	Int. Nat. on Dev. In Science, Management &Engg. 2017	Chennai, 15-16 April 2017
10	Jilse Sebastian, C. Muraleedharan, A. Santhiagu,	Experimental evaluation of physical, chemical and combustion characteristics of enzymatic biodiesel,	2nd International conference on Alternative Fuels & Energy (ICAFE2017)	Daegu, South Korea October 2017,
11	Joel George, P Arun, C Muraleedharan	Experimental investigations on air gasification of coffee husk,	24th National and 2nd international Heat and mass transfer conference (IHMTC2017)	BITS Pilani, Hyderabad December 2017
12	Jilse Sebastian, Vishnu Vardhan Reddy M, Muraleedharan C, A Santhiagu	Optimization of energy and materials in acid esterification of rubber seed oil through RSM and ANN,	24th National and 2nd international Heat and mass transfer conference (IHMTC2017)	BITS Pilani, Hyderabad December 2017
13	Joel George, P Arun, C Muraleedharan,	Sustainable energy generation from agricultural crop residues,	International conference on green buildings & sustainable engineering (GBSE2018)	RSET Kochi, Kerala, 2018

14	Albin Joy, Amaljith, Afsal PV, Krishnadath T, Nirmal N, Sam Biju, Melbin Benny, C. Muraleedharan,	Experimental investigation on luidized bed gasifier using saw dust as biomass,	International conference on green buildings & sustainable engineering (GBSE2018)	RSET Kochi, Kerala, 2018
15	Amal Mohan, P. Arun, C. Muraleedharan,	Investigations with Coconut Shell Derived Producer Gas as Fuel in a Diesel Engine,	1st International conference on Energy and Environment	March 2018, NIT Calicut, Kerala
16	Prajwal D. Chawane, Joel George, P. Arun, C Muraleedharan,	Investigation on hydrogen generation in biomass gasification using stoichiometric thermodynamic equilibrium model,	1st International conference on Energy and Environment	March 2018, NIT Calicut, Kerala
17	Melbin Benny, Joel George, C. Muraleedharan, Arun P,	An ANN approach to predict hydrogen composition in producer gas generated by luidized bed gasifier	1st International conference on Energy and Environment	March 2018, NIT Calicut, Kerala
18	Joel G, Arun P, Muraleedharan C	Experimental investigation on the feasibility of sugarcane bagasse for gasification	6th International Conference on Advances in Energy Research (ICAER- 2017),	IIT Bombay 2017
19	Krishnaraj P P, Arun P	Performance Evaluation of an Improved Dual Purpose Solar Collector	6th International Conference on Advances in Energy Research (ICAER- 2017), IIT Bombay	IIT Bombay 2017
20	Arun P	Sizing Curve for Isolated Photovoltaic-Battery Systems using Artificial Neural Networks	2nd International Conference on Green Energy and Applications,	Nanyang Technologica 1 University, Singapore, 2018
21	Kiran Mohan, V Madhusudanan Pillai, Abhinav S, Amal Sunny, Vishnu V Kumar, Rohith Raj O R, Abishek S and	User-Oriented Subjective Ergonomic Evaluation for Work-related Disorders: A Review	15th International Conference on Humanizing Work and Work Environment, HWWE 2017, 8 – 10	Aligarh Muslim University, Aligarh, India, December 2017

NIT Calicut 202 Annual Report 2017-18

	Vahid Mohammad			
22	R. Chandrasekhar Reddy, R. Sridharan	Streamlining Floor Operations in a Fruits & Vegetables Supply Chain Focusing on Customer Service	59th National Convention of Indian Institution of Industrial Engineering & International Conference on Manufacturing and Industrial Engineering (ICMIE-2017)	MGM Jawaharlal Nehru Engineering College Aurangabad, September 2017
23	Jagadeesh K, Sridharan R, Anand G, and Lijo John	Facility Location for Large- Scale Emergencies: Development and Analysis of a Multi-Objective Mathematical Model	59th National Convention of Indian Institution of Industrial Engineering & International Conference on Manufacturing and Industrial Engineering (ICMIE-2017)	MGM Jawaharlal Nehru Engineering College Aurangabad, September 2017
24	Samrekar, A., Vishnu C. R., R. Sridharan	Maintenance strategies for realizing Industry 4.0: An overview	International Conference on Emerging Trends in Engineering, Science and Technology (ICETEST) – PDME 2018	Government Engineering College Trichur, January 2018
25	Prabhat Kumar, Sudheer	Workspace Optimization of 3PRR Parallel manipulator for drilling operation using Genetic Algorithm	3rd International Conference on Advances in Robotics, 28th june to 1st july 2017	In Proceedings of the Advances in Robotics ACM DL, Article No. 17, 2017
26	Mervin Joe Thomas, Sudheer.A.P, M.L.Joy	Development of 4PRR-2P Hybrid Robotic System for Soft Material Cutting	3rd International Conference on Advances in Robotics, 28th june to 1st july 2017	In Proceedings of the Advances in Robotics, ACM DL, Article 22, 2017
27	Narra Sai Krishna, Anand George, Arlene John,	Controller Design for a Skid- Steered Robot and Mapping for Surveillance Applications	3rd International Conference on Advances in Robotics,	In Proceedings of the

NIT Calicut 203 Annual Report 2017-18

	Sudheer.A.P		28/6/17 -1/7/2017	Advances in Robotics, ACM DL, Article 23, 2017
28	Sourabh Moitra, J V Sai Kiran G Sai Guru Raghavendra, Sudheer A P,	Design and Analysis of a Bio- inspired Flapping Wing Robot	3rd International Conference on Advances in Robotics, 28th june to 1st july 2017	In Proceedings of the Advances in Robotics, ACM DL, Article 28, 2017
29	Suraj Damodaran, Sunilkumar.T.K, Sudheer.A.P	Design and Implementation of GA Tuned PID Controller for Desired Interaction and Trajectory Tracking of Wheeled Mobile Robot	3rd International Conference on Advances in Robotics, 28th june to 1st july 2017	In Proceedings of the Advances in Robotics, ACM DL, Article 34, 2017
30	Subin E.K, AshikHameed, Sudheer A P	Android based augmented reality as a social interface for low cost social robots	3rd International Conference on Advances in Robotics, 28th june to 1st july 2017	In Proceedings of the Advances in Robotics, ACM DL, Article 43, 2017
31	Renju Mohan, Jayadeep U.B, Manu R.	An Investigation of Mechanical Properties and Temperature Distribution of Micro Friction Stir Welded Aluminium 5052 Thin Sheets	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6 – 9 December 2017.
32	M. Latheef, Renju Mohan, R.Manu	Study of Mechanical Properties and Temperature Distribution of Dissimilar Friction Stir Welded Aluminium Alloys 1100 and 5052	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6 – 9 December 2017.
33	Arun V., Jees George, Manu R., Jose Mathew	Design and Fabrication of Wire Electrical Discharge Turning Setup and Study of Surface Roughness of WEDT Products	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6 – 9 December 2017.

34	Jees George, Arun V., Manu R., Jose Mathew	Investigation of Areal Surface Roughness during Wire Electric Discharge Turning (WEDT) of Inconel 825	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6-9 December 2017.
35	Ladeesh V. G, Nithin B, Manu R	Effect of internal electrolyte flushing in Electrochemical Discharge Drilling (ECDD) of soda-lime-silica glass	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6 – 9 December 2017.
36	Ladeesh V. G, Manu R,	Electrochemical Discharge Cross Peripheral Grinding (ECD-CPG) of borosilicate glass and its performance evaluation	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6-9 December 2017.
37	Ladeesh V. G, Manu R,	Surface characterization of fluidic channels machined on borosilicate glass using Grinding aided Electrochemical Discharge Machining (G-ECDM) and its performance study,"	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-2017)	IIT Madras, 6-9 December 2017.
38	Dilip, D. G., Nithinraj, M., Panda, S., and Mathew, J.	Effect of SiC Particles in Dielectric on Geometrical and Surface Characteristics during Micro-EDM Drilling	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 239 – 242, 2017
39	Ananthan, S. P., Dilip, D. G., Panda, S., and Mathew, J.	Numerical Simulation and Experimental Investigation of the Crater Surface Profiles Formed During Micro EDM on Inconel 718	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 243-246, 2017
40	Anand, K. N., Ankit, A., Somashekar, K. P., Mathew, J.	Finite Element Modeling and Experimental Investigation of Micro End milling Forces on Aerospace Alloy	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT	pp. 305-308, 2017

NIT Calicut 205 Annual Report 2017-18

			Madras, Dec 6-9.,	
41	Rahul Y, K., Vipindas, K., and Mathew, J	Tool Wear Modeling Through Shape Mapping Method In Micro End Milling Process	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 309-312, 2017
42	Vipindas, K., Bhanupratap, G., and Mathew, J	Investigation On Tool Wear During Micro End Milling Of Ti-6Al-4V	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 313-316, 2017
43	Bhanupratap, G., Vipindas, K., and Mathew, J	Modeling Of Temperature Distribution During Micro End Milling Of Ti-6Al-4V Alloy	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.	pp. 317-320, 2017
44	Elias, J. V., Asams. S., and Mathew, J	Experimental Investigation of the Tool Wear Mechanism during Micro Turning on Ti- 6Al-4V Alloy	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 321-324, 2017
45	Anand, K. N., Ankit, A., Mathew, J	Modeling and Experimental Investigation of Material Microstructure Effects on Cutting Force and Surface Roughness during Micro End milling on Inconel 718	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 345-349, 2017
46	Arun V., Jees G., Manu R., and Mathew, J	Design and Fabrication of Wire Electrical Discharge Turning Setup and Study of Surface Roughness of WEDT Products	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 563-566, 2017
47	Jees G., Arun V., Manu R., and	Investigation of Areal Surface Roughness during Wire	Proceedings of 10th International	pp. 667-670, 2017

	Mathew, J.,	Electric Discharge Turning (WEDT) of Inconel 825	Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	
48	Rhinithaa, P. T., Selvakumar, P., Nikhil, S., Vysyaraju, A., Lawrence, D., and Mathew, J	Comparison of Least Square Fitting Algorithms for the Evaluation of Roundness Error	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 937-940, 2017
49	Dilip, D. G., Nithinraj, M., Panda, S., and Mathew, J.	Effect of SiC Particles in Dielectric on Geometrical and Surface Characteristics during Micro-EDM Drilling	Proceedings of 10th International Conference on Precision, Meso, Micro and Nano Engineering (COPEN-10), IIT Madras, Dec 6-9.,	pp. 239 – 242, 2017
50	Vishnu Prasad, M.A.Joseph, K.Sekar, Mubarak Ali:	Flexural and impact properties of flax fibre reinforced epoxy composite with nano TiO2 addition	Materials today: Proceedings,	2017.
51	Vishnu Prasad, Deepak suresh, M.A.Joseph, K.Sekar	Development of flax fibre reinforced epoxy composite with nano TiO2 addition into matrix to enhance mech. properties,	Materials today: Proceedings,	2017.
52	Vishnu Prasad, M.A.Joseph, K.Sekar, Mubarak Ali:	Flexural and impact properties of flax fibre reinforced epoxy composite with nano TiO2 addition	Materials today: Proceedings,	2017.
53	Nived, A. Shaija, Shreenesh T.V	Design, modelling and experimental analysis on a novel concentrating PV integrated water purification hybrid PV/T system	International Conference on Advances of Mechanical Engineering Sciences(ICAMES)	April 2017
54	Johnson P. Joe, A. Shaija	Determination of length of a triple concentric tube heat exchanger, fabrication and experimental investigation on double tube heat exchanger	Internationl conference on advances of mechanical engineering sciences(ICAMES-17)	April 21st and 22nd, 2017
55	Sundar R. Nath, M. Mubarak, Arka	Predictive model for microalgae growth in	ICHMT International Symposium on	May 28 -June 1, 2017

	Bhowmik, A. Shaija	continious culture tubular photobioreactor: effect of light and temperature	Advances in Computational Heat Transfer, Napoli, Italy	
56	M. Mubarak, A. Shaija, T.V Suchithra	Optimization of ultrasonication method of pretreatment for extracting lipid from Chlorella pyrenoidosa for biodiesel production	7th International Conference on Algae biomass, biofuels and bioproducts, Hyatt Regency, FL, USA	18-21st June 2017
57	Gurrala Srinivasa Rao, A. Shaija	Analysis of flow in afterburner	24thNational and 2ndInternational ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC- 2017), BITS Pilani, Hyderabad	27-30 December,20 17
58	O M Vinod and P B Dhanish	Data-based modeling and continuous adjustment of CNC turning process: A case study	National Conference on Advanced materials. manufacturing and metrology	CSIR, CMERI, Durgapur16- 17 Feb 2018
59	Rajesh Kumar and T.J.S, Jothi	Premixed Flame Propagation Studies in a Tube	25th National Conference On Internal Combustion Engines and Combustion (NCICEC25)	NITK Surathkal, India, December 15-17, 2017.
60	Arun M.G. and T.J.S, Jothi	Experimental Study of Noise Generated in Chevron Nozzles operating at Subsonic Flow Conditions	44th National Conference on Fluid Mechanics and Fluid Power (FMFP 2017)	Amrita Vishwa Vidhyapeetha m, December 14-16, 2017
61	Rahul S Arackal and T.J.S, Jothi	Experimental Study of Noise Emissions from Wall Jets	44th National Conference on Fluid Mechanics and Fluid Power (FMFP 2017)	Amrita Vishwa Vidhyapeetha m, December 14-16, 2017
62	Sumesh CK and T.J.S, Jothi	Aeroacoustic Characterization of NACA 0018 Airfoil	44th National Conference on Fluid Mechanics and Fluid Power (FMFP 2017)	Amrita Vishwa Vidhyapeetha m, December 14-16, 2017
63	Rajesh T.N., T.J. S. Jothi and T. Jayachandran	Studies on Vortex Cooling of a Combustion Chamber	44th National Conference on Fluid Mechanics and Fluid Power (FMFP 2017)	Amrita Vishwa Vidhyapeetha m, December 14-16, 2017

64	Jilse Sebastian, C. Muraleedharan, A Santhiagu	Experimental evaluation of physical, chemical and emission characteristics of enzymatic biodiesel,	25th National Conference on Internal Combustion Engines and Combustion, (NCICEC2017)	NIT Surathkal, Karnataka 2017
65	Joel George, Pradyumna Maharana, P Arun, C. Muraleedharan	Experimental investigation on biomass gasification of ground nut shell in luidized bed gasifier	25th National Conference on Internal Combustion Engines and Combustion, (NCICEC2017)	NIT Surathkal, Karnataka 2017
66	J. Laxmi Lalitha, V. Madhusudanan Pillai	Lot Streaming in a Dynamic Flow Shop with Missing Operations	Industrial and Management Engineering colloquium 2018, April 7-8, 2018, IIT Kanpur, India	Presented
67	R Nikhil, L.G. Kiran Kumar, and T.J.S. Jothi	Experimental and CFD analysis of pressure distribution around a circular cylinder for subcritical Reynolds number	National Conference on Energy, Economy and Environment	16-17 December 2017, NIT Calicut, India
68	M. Mubarak, A.Shaija, T. V.Suchithra	Production, Characterization and Utilization of Biodiesel from Salvinia molesta	25thNational Conference on Internal Combustion Engines and Combustion (25NCICEC 2017), NIT Surathkal	15-17, December 2017
69	S. Rajesh Kana, A. Shaija, H. R Harikrishnan, and M. Hrishikesh	NOx Reduction Methods in Diesel Engine Using Waste Vegetable Oil Biodiesel,	25th National Conference on Internal Combustion Engines and Combustion (25NCICEC 2017), NIT Surathkal	15-17, December 2017.
70	Gurrala Srinivasa Rao, A. Shaija,	Acoustic analysis of afterburner with liner for different air fuel ratios,	25th National Conference on Internal Combustion Engines and Combustion (25NCICEC 2017), NIT Surathkal	15-17, December 2017
71	Gurrala Srinivasa Rao, A. Shaija	Acoustic Analysis of Afterburner for different Nozzle Angles	44th National Conference on Fluid Mechanics and Fluid Power Amrita University, Amritapuri Campus, Kollam, Kerala	14-16, December 2017

72	Vipul Sehgal, A. Shaija	Design of Retrofittable Diesel Particulate Filter with Regeneration Attributes	First Shaastra Research Conference, IIT Madras	5th and 6th January 2018
73	Vimal Kumar G.S, Robin James, A. Shaija	Development of a high productive solar still by enhancing evaporative mass transfer	First Shaastra Research Conference, IIT Madras	5th and 6th January 2018
74	Vipul Sehgal, A. Shaija	Design and fabrication of Retrofittable Diesel Particulate Filter with Regeneration Attributes	105thIndian Science Congress 2018, Manipur University, Canchipur	16- 20th March 2018
75	M. Mubarak, A.Shaija, T. V.Suchithra	Production, Characterization and Utilization of Biodiesel from Salvinia molesta	25thNational Conference on Internal Combustion Engines and Combustion (25NCICEC 2017), NIT Surathkal	15-17, December 2017

b. **Community Services**:

·	Community Services:				
	Name of the Faculty member	Period of services	Description of the work		
	V. Madhusudanan Pillai	December 28, 2017	Programme committee member of the 11 th ISDSI international conference held at IIM Trichy		
		17th February 2018	Chaired a technical session in the Research Conference on Operations and Supply chain Management (RCOSCM,18), Symbiosis Institute of Operations Management (SIOM), Nashik, Maharashtra		
		Since September 2016	Vice Chairman, Indian Institution of Industrial Engineering Kozhikode Chapter		
1		April 2017 – March 2018	Reviewer of many reputed international journals like Computers & industrial Engineering, International Journal of Operational Research, International Journal of Services and Operations Management, etc.		
		13 th March 2018 27 – 28 September 2017	Conducted workshops using Supply Chain Role Play Game and Vendor Managed Inventory-based Supply Chain Role Play Game software packages in the following institutions · NIT SOMS, · Adi Shankara Institute of Engineering and Technology, Kalady		

2	Dr Gangadhara Kiran Kumar L	December 2013 to May 2017	· Conducting classes for poor, helping orphanages, old age homes etc. as part of NSS.
3	Dr Vinay V Panicker	1 st April 2017 – 31 st March 2018	Reviewer for the following Journals: 1. International Journal of Production Research 2. Journal of Manufacturing Technology Management 3. Journal of Operations Research - 4OR 4. Sadhana Journal 5. Arabian Journal for Science and Engineering 6. International Journal of Services and Operations Management 7. IIIE Industrial Engineering Journal Resource Person for Faculty Development Programmes/ Workshops in the following areas: 1. Statistical Analysis 2. Supply Chain Management 3. Optimization Techniques Secretary of Indian Institution of Industrial Engineering (IIIE) Kozhikode Chapter

c. Other Academic and Administrative Service

SL. No	Name of Staff	Academic and Administrative Services
1	Dr. Jayadeep UB	 Vice chairman, ETL, NITC Faculty coordinator, DIC, NITC.
2	Dr. Dhanish	Coordinator NITC examination
3	C. Muraleedharan	 Chairman, Committee to frame NITC Academic Ordinances and Regulations
4	Dr Arun P	Associate Dean (R&C),Warden
5	Dr. V. Madhusudanan Pillai	 Head, School of Management studies, since August 2017 Faculty-in-charge Industrial Engg. Lab & IE Computational Lab, since 2011 Faculty Advisor of B.Tech. PE students (2015 Admission) Member - Campus Accommodation Allocation Committee
6	Dr Gangadhara Kiran Kumar L	 Fluid Mechanics Lab - In – Charge Member of the Industry Institute Interaction Cell (IIIC), B.Tech Project Evaluation Committee Member, Warden (NITC Hostels).
7	Dr Vinay V Panicker	 Deputy Chairperson (PG Admissions) (2013 – continuing) Faculty in-charge of Industrial & Planning Forum

	T	
		 (2015-continuing) Assistant Faculty-in-charge Industrial Engg. Lab & IE Computational Lab, since 2016 Faculty Advisor for Under Graduate— Mechanical Engineering Students (Batch 2014-2018) Secretary for the Department Consultative Committee (MED) (till 31st August 2017) Department Information Facilitator and webpage in-charge (from 1st September 2017 onwards) Member, M.Tech. (Industrial Engineering & Management) Project Evaluation Committee Member, Department B.Tech. Curriculum Committee Member, Department M.Tech. Curriculum Committee Guidance for five Research Scholars, three M.Tech students and three B.Tech projects
8	Mr. Ratna Kumar K	 Department PTA Coordinator Faculty Advisor to Second Year B.Tech Mechanical Warden, G-Hostel Member, B.Tech Project Evaluation Committee Member, M.Tech (Material Science And Technology) Project Evaluation Committee
9	Dr. Biju T. Kuzhiveli	 Taught various credit courses, labs, term paper, Faculty adviser, Student registrations, Students LoR for foreign university admission, Interaction with sponsoring agencies for sponsored projects, Interim reports, Collaboration for R&D activities with IISc, IITM Guided various M.Tech and B.Tech projects
10	Dr. Jose Mathew	NBA Institute Additional Coordinator, DST FIST Coordinator, Programme Coordinator for M.Tech. Manufacturing Technology, MED purchase Committee Member, Faculty in Charge of Advanced Manufacturing Centre, CAD-CAM Centre, SIC, etc.
11	Dr. K Sekar	 Chairman of II Year B.Tech Mechanical Engineering 2017 to till date. Faculty-in-charge, Materials Science Laboratory, MED, NITC, 2010 to till date Department Time Table Committee for B.Tech & M.Tech/ Ph.D, 2017 to till date. Faculty-in-charge, Production Engineering Laboratory MED, NITC, 2017 to till date Project Evaluation Committee for M.Tech - Materials Science and Technology, 2007 to till date External Examiner of Various University for M.Tech /Ph.D Thesis Evaluation & Viva-Voce, 2016 to till date. Doctoral Committee Member for Ph.D - in different field, 2015 to till date

NIT Calicut 212 Annual Report 2017-18

		•	Co-Coordinator of M.Tech - Materials Science and Technology, 2016 to till date.
12	Dr. A Shaija	•	B.Tech Project Co-coordinator since 2015 Secretary, PTA, NIT Calicut since July 2016 Faculty Advisor, 2nd Year Mechanical Engg. students Class Committee Chairman, 3rd year Production Engg. M.Tech Energy Engineering Project evaluation committee member

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

Sl. No	Coordinators	Title	Duration & Period
1	Dr. M L Joy Dr. Prabhakaran Nair	GIAN course on Tribology	12-16 Feb 2018
2	Dr. R. Sridharan Dr. G. Varaprasad	\mathcal{E}	24-02-2018 to 28-02-2018
3	Dr. Jose Mathew	CAD / CAM Advanced Training Programs	Winter and Monson Semesters & vacation period

e Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	U B Jayadeep	GIAN (Tribology) 2017	12-16 Feb 2018	NIT Calicut
2	P B Danish	STTP On research methodology	26 Feb 2018	NIT Calicut
3	Dr. Jagadeesha T	Coating Technology for industries Sponsored by DST_SERB	21-4-2017	Kongu university
4	Dr V Madhusudanan Pillai	Conducted a session of a colloquium as a part of 11 th ISDSI International Conference.	Dec 28, 2017	IIM Trichy
5	Dr V Madhusudanan Pillai	Keynote speech in the Research Conference on Operations and Supply chain Management (RCOSCM,18)	17th February 2018	Symbiosis Institute of Operations Management (SIOM), Nashik, Maharashtra
6	Dr V Madhusudanan Pillai	A session on Genetic Algorithm for the short-term training program on	27 th February 2018	NIT Calicut

NIT Calicut 213 Annual Report 2017-18

		Research methodology for science, engineering and management		
7	Dr V Madhusudanan Pillai	One day session on supply chain operation simulation using supply chain role play game is conducted as a part of the FDP on Supply Chain Modelling and Analysis	21st December 2017	Sree Narayana Gurukulam College of Engineering, Kadayiruppu, Ernakulam.
8	Dr R Sridharan	Research Conclave on Business, Economics and Social Sciences organized by SCMS, Cochin on 23-03- 2018. 18-12-2017.	23-03-2018	SCMS, Cochin, Kerala
9	Dr R Sridharan	Faculty Development Programme on Research Methodology	16-03-2018 to 17-03-2018	Indian Naval Academy, Ezhimala, Kerala
10	Dr R Sridharan	Faculty Development Programme on Supply Chain Modeling and Analysis	18-12-2017	SNGCT, Kerala
11	Dr Vinay V Panicker	One day session on 'Ergonomic considerations in Human Machine Interactions' as a part of an FDP on Recent Advances in Robotics and Automation	29 th November 2017	Vimal Jyothi Engineering College, Chemperi, Kannur.
12	Dr Vinay V Panicker	One day session on 'Models and Methods for Supply Chain Management' as a part of an FDP on Supply Chain Modelling and Analysis funded by KTU	20 th December 2017	Sree Narayana Gurukulam College of Engineering, Kadayiruppu, Ernakulam.
13	Dr Vinay V Panicker	A session on 'Hypotheses Testing' for the short-term training programme on Research methodology for science, engineering and management	26 th February 2018	NIT Calicut
14	Dr. K Sekar	Seminar talk on Development of new machines and nano composite materials- in the Department of Manufacturing		VIT Vellore

Invited talk on Product design and Manufacturing – International Congress Conference on Building an Inclusive Leadership Ecosystem for Global Business	August18, 2017,	Dept of Management Studies, Nehru Institute of Technology. Coimbatore
Invited talk on Design And Development of new Automated Machine and Nano Composite Materials— FDP on Recent Advances in Robotics and Automation(RARA-2017	November 30, 2017	Dept of Mechanical Engineering, Vimal Jyothi Engineering College, , Chemperi, Kannur- Kerala, India.

f. Details of Faculty, who acquired Higher Qualification:

SI. No	Name of Staff	Qualification Acquired	Organization
	NIL		

g. Consultancy and testing:

N o	Firm & Description of the work	Nature of Service	Date	Revenue earned	Status
1	KSEB Sub-Regional Store,Kozhikode	Testing	22-06-2017	7360.00	Completed
2	K.K. Builders Peravoor Kannur. C/o CPWD, IIM Campus .Kunnamangalam	Testing	05-07-2017	8496.00	Completed
3	KSEB Sub-Regional Store, Kozhikode	Testing	01-08-2017	4720.00	Completed
4	KSEB Sub-Regional Store,Kozhikode	Testing	11-09-2017	9440.00	Completed
5	KMCT Dental College, Dr Simna S	Testing	11-10-2017	2714.00	Completed
6	KSEB Sub-Regional Store,Kozhikode	Testing	29-11-2017	7788.00	Completed
7	Wisdom Trading Company, Karuvampoyil,Koduvally	Testing	20-12-2017	590.00	Completed
8	Mahe Institute of Dental Science and Hospital, Dr Hareendran Silna	Testing	02-01-2018	2950.00	Completed
9	KSEB Sub-Regional Store,Kozhikode	Testing	03-01-2018	1770.00	Completed
10	Mahe Institute of Dental Science and Hospital Dr Hareendran Silna	Testing	09-01-2018	2950.00	Completed

11	KSEB Sub-Regional Store, Vadakara	Testing	25-01-2018	20768.00	Completed
12	Government Nursing College, Kozhikode.	Testing	06-02-2018	826.00	Completed
13	Mahe Institute of Dental Science and Hospital Dr Sruthi Viswanath	Testing	27-02-2018	2950.00	Completed
14	College of Engineering, Munnar, Kerala- Mr. Jewel Thomas Mathew	Testing	12-03-2018	886.00	Completed
15	Hill Track Constructions PVT Ltd., Wayanad C/o CPWD	Testing	22-03-2018	2360.00	Completed
16	Various Govt. Organisation, Govt. Educational Institutions, Others Institutions	Testing	2017-2018	3,00,000	On-going

Other Special Achievement

Dr. M D Narayanan: As a part of teaching the course ME2013 Mechanics of Machinery in the Winter Semester 2017-18, a set of video lectures of the faculty was made and circulated to students. There were a total of 23 videos ranging from 7 min to 30 min duration. This effort is to enhance the overall effectiveness of the course delivery.

Patents and best paper award

Name of the faculty members	Achievement	Details
Dr. Sudheer,	Patent	Robot for High Voltage Electrical Transmission
Dr. M. L. Joy and		Line Inspection
others		Application No.201641027854 A
		Date of filing of Application: 16/08/2016
		Publication Date: 23/02/2018
Dr. Manu R	Patent	Multi – Mode Friction Stir Welding Tool
Dr. Jayadeep U B		Indian Patent Application Number:
		201741036108. Filed on 11/10/2017
Mr. Bhanupratap Gaur	M. Tech (2015 – 2017)	Got admission to PhD at IIT Bombay
Ms. Rhinithaa	B.Tech Mechanical	Bagged TCS award for best outgoing student
	Engineering (2013-2017)	under Dr. Jose Mathew's guidance.
Mr. Dheeraj Tripathi	Final year M.Tech	Best Paper and Presentation Award at National
	Machine Design	Conference, Energy under the supervision of Dr.
		K. Prabhakaran Nair and Dr. K. Sekar –MED NIT

Other departmental achievements

a) Dr. Jose Mathew

Purchased 3D optical profilometer, High speed camera and Thermal imager under DST FIST fund to MED at a total cost of Rs 1.38 crores. Purchase of Nanointender, costing about 1 crore is under process. External examiner to evaluate a PhD thesis at IIT Madras (March 2018) and NIT Trichy (Jan. 2018).

Sl No.	Item	Place and time				
	Subject Expert					
1	Cochin University of Science and Technology Subject	Jan 31, 2018				
	Expert- Professor post					
2	Cochin University of Science and Technology Subject	Oct. 07, 2017				
	Expert- Asst. Professor post					
	PhD Examiner					
1	IIT Madras, MED	March, 2018				
2	NIT Trichy, PED	Dec. 2017				

- NBA- Institute Coordinator 2012 onwards
- National Advisory Committee member of International Conferences AIMTDR, 2018.
- Was MED-Coordinator for World Bank Projects, Faculty in Charge- MED Time Table, Audio Visual Club, Warden-Student Hostels, Faculty in Charge of various Labs (CAD-CAM Centre, Advanced Manufacturing Centre, Metrology Lab., Sophisticated Instruments Centre- most are continuing) Project Coordinator for various MHRD projects, Dept., Coordinator for CEP and All India Workshops, etc. Was Secretary to NITC Faculty Association, executive member, etc.

Sl.No.	Professional Society	Year
1	Fellow, IEI	2003 onwards
2	LM ,ISTE	1991 onwards
3	AM, ASME	1991

b) Dr. A. Shaija

- Editorial member of "Iraqi Journal for Mechanical and Materials Engineering"
- Reviewer Algal Research
- Reviewer Resource-Efficient Technologies
- Reviewer Environmental Science and Pollution Research
- Reviewer Waste and Biomass Valorization (WAVE)-Springer
- Reviewer Aerosol and Air Quality Research -
- Reviewer International Journal of Hydrogen energy
- Judging Committee member TECHFEST 2017 jointly organized by KSCSTE, Govt.of Kerala and APJ Abdul Kalam KTU at MA College of Engg. Kothamangalam on 13 & 14 January, 2017., inaugurated by the Governer of Kerala, Shri Justice (Retd) P. Sathasivam
- Judging Committee member TECHFEST 2018 jointly organized by KSCSTE, Govt.of Kerala and APJ Abdul Kalam KTU at Sahradaya College of Engineering & Technology on February 23 -25 February, 2018., inaugurated by the Governer of Kerala, Shri Justice (Retd) P. Sathasivam

j Books published: NIL

DEPARTMENT OF MATHEMATICS

a. Publications

i.Journals

Sl				
No ·	Name of the Author	Title of Paper	Name of Journal	Vol., year, page no.
1.	Shinto K.G. And Sushama C.M	A Triangular Fuzzy DEA model for efficiency Evaluation	International Journal of Pure an Applied Mathematics(Scopus indexed)	Vol 115, No. 4 (2017) 747-758
2.	Shinto K.G. and Sushama C.M	Target Setting Triangular Fuzzy for inefficient DMUs for an Acceptable level of Efficient Performance	Global Journal of Pure and Applied Mathematics, V	Vol. 13, Issue 6 (2017) 1893-190
3.	Shinoy George, Sushama C.M. and Ajalesh Balachandran Nair	Efficiencies of Dipolymer Rubber Blends (EPDM) using Common Weight Data Envelopment Analysis	Materials Research,(SCIE)	20(6)1722-1728 (2017)(SCIE)
4.	V Jeffrey Simon V.Shinoy George, Sushama C.M etal.	Digital Radio over Fiber system with OFDM O-ACI Reduction and its Performance Evaluation	Journal of Telecommunication, Electronic and Computer Engineering . (Scopus indexed)	Vol.10. No.1 (89- 98)2018
5.	P C Lisna and M S Sunitha	b-Chromatic Sum of Mycielskian of Paths,	Electronic Notes in Discrete Mathematics(Elsevier)(Sc opus indexed)	63 (2017) 407–414
6.	Sameeha Rehmani and M S Sunitha	Minimum Geodetic Fuzzy Subgraph	Electronic Notes in Discrete Mathematics (Elsevier)(Scopus indexed)	63 (2017) 415–424
7.	Manjusha O T M S Sunitha	COVERINGS,MA TCHINGS AND PAIRED DOMINATION IN FUZZY GRAPHS USING STRONG ARCS	Iranian Journal of Fuzzy Systems (SCI)	Accepted (Sep. 2017)
8.	Ganeshsree	Decision Making	Journal of	Vol.9, Issue1-3,

NIT Calicut 218 Annual Report 2017-18

	Selvachandran, Sunil Jacob John, Abdul Razak Salleh,	Based on the Aggregation Operator and the Intuitionistic Fuzzy Reduction Method of Intuitionistic Fuzzy Parameterized Intuitionistic Fuzzy Soft Sets,	Telecommunication, Electronic and Computer Engineering (Scopus)	2017.
9.	Ratheesh KP, Sunil Jacob John	On the objects and Morphisms in the category of soft sets,	International Journal of Pure and Applied Mathematics, (Scopus)	Volume 117 No. 11 2017, 447-453.
10.	Shijina V, Sunil Jacob John,	Topological Structure of Multiple Sets	International Journal of Pure and Applied Mathematics, Scopus	Vol. 117, 261-269, 2017.
11.	Gayathri Varma, Sunil Jacob John	Multi-fuzzy Rough Sets based on Implicators and Continuous t- norms,	Fuzzy Information and Engineering (Elsevier) Scopus	Volume 9, Issue 4, December 2017, 515- 537
12.	P.N. Bajeel, Mahesh Kumar	Reliability test plan for a series system with variable failure rates	International Journal of Quality & Reliability Management, Emarald, (Scopus indexed)	Vol. 34 Issue: 6, ,pp.849-861, doi: 10.1108/IJQRM-07- 2016-0104 (2017)
13.	M. Kumar and P N Bajeel	Design of component reliability test plan for a series system having time dependent testing cost with the presence of covariates	Computational Statistics, Spinger, SCI	DOI 10.1007/s00180- 017-0758-7 (2017)
14.	Siju K C. and M. Kumar	Bayesian estimation of reliability using time-to-failure distribution of parametric degradation models	Journal of Statistical Computation and Simulation, Taylor and Francis, SCI	VOL. 88, NO. 9, 1717–1748 https://doi.org/10.108 0/00949655.2018.144 5743 (2017)
15.	Jamsheena.P and Chithra.A.V.	A note on the product graph of Zn	Contemporary studies in Discrete Mathematics	Accepted(Vol.2,Issue 2,June 2018)

NIT Calicut 219 Annual Report 2017-18

ii. International Conferences

Sl. No.	Name of the Author	Title of Paper	Name of International conference	Details
1	K K Patra, S. Panda and M. Sellier	Free surface dynamics of thin MHD second-grade fluid over a heated nonlinear stretching sheet	International Conference on Applications of Mathematics to Nonlinear Sciences. Electron. J. Diff. Eqns., Conference	24(2017), pp.85-101.

b.Community Services

SI. No.	Name of Staff	Details
1	Dr. Sunil Jacob John	HOD Mathematics Guided one M. Sc. Mathematics Final Project One PhD awarded and two submitted under the guidance
2	Dr. M S Sunitha	DC Member of students of Maths and other Departments Warden, Ladies Hostel Chairperson, Department Purchase Committee Member, Anti Ragging Committee Nominee to the board of studies of Math & Stat of Vimala College, Thissur(Autonomous)From 28-12-2015
3	Dr. Chithra.A.V.	Exam Vigilance committee member of MAT Guided two M.Sc final project and one B.Tech.project One Ph.D submitted under the guidance Member of Department Purchase Committee Member, Anti Ragging Committee

c. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services		
Dr. Sunil Jacob John	 DC Member of Ph. D Candidates form MAT and other Departments of the Institute. Adjudicated many Ph. D Thesis of other Universities Member of Board of Examiners for other Universities Reviewer of Mathematical Reviews (American Mathematical society) and Many other Journals including Springer and Elsevier. 		
Dr. Jessy John C	 Officiated as DC Member of Ph. D Candidates form MAT as well as other Departments of the Institute. Senator of the Institute Valued Ph. D Thesis of other University Question Paper Setter for other University Gives counseling to needy students and colleagues Reviewer of research Papers 		

	7. Accreditation duty	
Dr. M S Sunitha	Reviewer – MR - [Reviewer number: 1209I7] Referee of International Journals : FSS, INS, IEEE TFS, SOCO,NCAA etc. Resource person for National/International Conferences inside and outside Kerala External member of Board of Examination of Kerala, MG, Calicut and Kannur Universities	
Dr S. Panda	 Associate Dean (FW) Asso. EditorMathematika Reviewer of Springer and Elsevier Journals External member of board of examinationVIT, Vellore Adjudicated many Ph. D Thesis of other Universities 	
1. DC member of Ph.D candidates from MAT and other Department Institute Dr. Chithra.A.V. 2. Member of Board of studies in Mathematics PG Calicut univer 3. Question Paper Setter for other University 4. Adjudicated many Ph. D Thesis of other Universities		

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

Sl. No	Coordinators	Title	Duration & Period
1	Dr. S.Panda	GIAN course on "Meshfree Particle method for solving fluid dynamics problems"	Dec. 18-22, 2017
2	Dr. S. Panda	Introduction to Symmetries of Differential Equations By Prof. Peter Leach, Professor Emeritus, School of Mathematics, Statistics and Computer Science, University of Kwazulu-Natal, Durban	Feb. 4-24, 2018

e. Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No	Name of Staff	Title of the Programme	Duration and Period	Organization
		International Conference on Computational Modelling & Simulation- 2017(ICCMS-2017),		University of Colombo, Sri Lanka

DEPARTMENT OF CHEMISTRY

a. Publications

Jour<u>nal</u>

Sl. No	Title	Journal	Author
1.	Maleic Anhydride-g-Low Density Polyethylene: Modification of LDPE Molecular Structure by - irradiation	AIP Conf. Proc	Dr. A. Sujith, et.al.
2.	Nanochitosan enriched poly E- caprolactone electrospun wound dressing membranes: A fine tuning of physicochemical properties, hemocompatibility and curcumin release profile	International journal of Biological Macromolecules 0141-8130	Dr. A. Sujith, et.al.
3	Polymer Thermo-Responsive Gate Membranes	MOJ Poly Sci 2017, 1(2): 0008	Dr. A. Sujith, et.al.
4	Fabrication of superhydrophobic polycaprotacton/beeswax electrospun membranes for high-efficiency oil/water separation	RSC RSC Adv., 2017,7,20982-2102	Dr. A. Sujith, et.al.
5	A gateway to tune the mechanical properties and surface features of silicone rubber	Polym.compos., DOI: 10.1002/pc.24445(Impact Factor: 2.32Citation: 1)	M. Bindu M, G. Unnikrishnan
6	Investigation and fine-tuning of optoelectrical features of tertiary aminophenyl-activated poly(1,3,4-oxadiazole) conjugated system	Polym. Bull.,2017, DOI 10.1007/s00289-017-2190-0(Impact Factor: 1.43)	K. Nimisha, G. Unnikrishnan, E. Shiju, K. Chandrasekharan
7	Poly(L-lactide-cp- caprolactone)/collagen electrospun mat: potential for wound dressing and controlled drug delivery	International Journal of Polymeric Materials and Polymeric Biomaterials 2017, vol.66,NO13, 645-657	Dr. A. Sujith, et.al.
8	Study of scrambling in porphyrin forming reactions: synthesis, structrure, photophysical, electrochemical	Polyhedron 128(2017) 85 - 94	Dr. C. Arunkumar, et. al

	and antimicrobial studies		
9	Chemically modified natural rubber latex – poly(vinyl alcohol) blend membranes for organic dye release	React. Funct. Polym. 2017, 112, 22-32 (Impact Factor: 3.1, Citation: 1).	J. Jayadevan, R. Alex, G. Unnikrishnan
10.	Poly(vinyl chloride) Asymmetric membrane modified withg poly (ethylemne glycol): effect of additive concentration on the morphology performance	Polymer –plastics technology and engineering 2017,vol.56, No.9,1017-1025	Dr. A. Sujith, et.al.
11.	Deproteinised natural rubber latex grafted poly(dimethylaminoethyl methacrylate)- poly(vinyl alcohol) blend membranes: synthesis, properties and application	Int. J. Biol. Macromol, 2017, 107, 1821-1834(Impact Factor: 3.67)	J. Janisha, R. Alex, G. Unnikrishnan
12.	Synthesis and characterization of low dimensional bioactive monetite by solvent exchange method	Materials letters	Dr. G. Unnikrishnan, et. al.
13.	Chitosan Immobilized cotton fibres for antibacterial textile materials	Polymers from renewable resources, vol. 8, No. 2, 2017	Dr. A. Sujith, et.al.
14	Polyethylene-g-starch nanoparticle biocomposites: Physicochemical properties and biodegradation studies	Polymer composites - 2017	Dr. A. Sujith, et.al.
15	Cure, Mechanical and swelling properties of Biocomposites from Chicken Feather Fibre and Acrylonitrile Butadiene Rubber	Journal of Polymers and the Environment	Dr. A. Sujith, et.al.
16	Asymmetric membranes based on poly(vinyl chloride): effect of molecular weight of additive and solvent power on the morphology and performance	Journal of Mater Science DOI 10.1007/s10853-017- 0807-1	Dr. A. Sujith, et.al.
17	Effect of unsaturation on physicochemical properties of maleic anhydride-grafted acrylonitrile butadiene styrene terpolymer	Journal of Elastomers & Plastics	Dr. A. Sujith, et.al.

NIT Calicut 223 Annual Report 2017-18

_			
18	Electrospun nanofibrous membranes for water purification	Polymer Reviews	Suja P Sundaran, Reshmi C.R., Sagitha P
19	Semicomductive properties of zinc(II)- porphyrinic coordination arrays	Journal of Porphyrins and Phthalocyanines 2017; 21: 144-151	Dr. C. Arunkumar, et. al.
20	Pentafluorophenyl dipyrrin as probe for transition metal ion detection and bioremediation in Bacillus subt6lis and bacillus cereus	New J. Chem., 2017,41,11190-11200	Dr. C. Arunkumar, et. al.
21	Fluorinated meso-tetraaryl Pt(II) – porphyrins: structure, photophysical, electrochemical, and phosphorescent oxygen sensing studies	New J. Chem.,2017, 41,4908-4917	Dr. C. Arunkumar, et. al.
22	Green synthesized PLLA/silver nanoparticle probe for sensing of hydrogen peroxide in biological samples	Materials Letters217 (2018) 33-38	Dr. Lisa Sreejith, et.al.
23	CO ₂ derived hydrogen bonding spacer: enhanced toughness, transparency, elongation and non-covalent interactions in epoxy-hydroxyurethene networks	Journal of Materials Chemistry A	S.Anitha, K.P. Vijayalakshmi, G.Unnikrishnan, Santhoshkumar
24	Transport features of nanohydroxylapatite (n-HA) embedded silicone rubber (SR) systems: influence of SR/n-HA interaction, degree of reinforcement and morphology	Phys. Chem. Chem. Phys., 2017,00,1-11	Dr. G. Unnikrishnan, et. al.
25	Structural, spectroscopic and electrochemical investigations on fluorinated meso-tetraaryl porphyrins	J Porphyrins Phthalocyanines, 2017, 21, 622-631.	Dr. C. Arunkumar, et. al.
26	Benign route for the modification and characterization of poly(lactic acid) (PLA) scaffolds for medicinal application	J. Appl. Polym. Sci. (Wiley)	Dr. Lisa Sreejith, et.al.
27	Fabrication of PLA/Ag nanofibers by green synthesis method using Momordica	Colloids Surf. A. (Elsevier)	Dr. Lisa Sreejith, et.al.

NIT Calicut 224 Annual Report 2017-18

	charantia fruit extract for wound dressing applications		
28	Styrene butadiene rubber as a viscosity improver: Experimental investigations and quantum chemical studies	J. Tribol.	Sabarinath, S. N.; Prabhakaran N. K.; Rajendrakumar P. K; Parameswaran, P.
29	Ring contraction of metallabenzooxirene to metal carbonyl complexes – a comparative study with the Wolff rearrangement of oxirene and benzooxirene	Dalton Trans.	Anusha, C.; De, S.; Parameswaran, P.
30	Catalyst free boron carbon bond cleavage and facile formation of five-membered PNBCC heterocycles	Dalton Trans.	Dasgupta, R.; Panda, A.; Pal, S.; Muhasina, P -V.; De, S.; Parameswaran, P.; Khan, S.
31	Trapping a Silicon (I) Radical with Carbenes: A Cationic cAAC–Silicon (I) Radical and an NHC– Parent-Silyliumylidene Cation	Ang Angew. Chem.	Li, Y.; Chan, YC.; Leong, BX.; Li, Y.; Richards, E.; Purushothaman, I.; De, S.; Parameswaran, P.; So, C -W.
32	One-Pot Catalytic Synthesis of gem-Diazides and Their Direct Conversion into Safe Materials	Eur. J. Org. Chem.	Sameul, PP.; Kundu, S.; Mohapatra, C.; George, A.; De, S.; Parameswaran, P.; Roesky, H.
33	Differential reactivity of 3H-indole styrylcyanines: Intermolecular $[4\pi + 2\pi]$ cycloaddition vs. proton - Shift coupled six - Electron electrocyclization	Tetrahedron	Thottiparambil, A.,Purushothaman, I.,De, S., Parameswaran, P., Beegum, P. S., Antharjanam, P. K. S., Chakkumkumarath, L.
34	Effect of Transition Metal Fragments on the Reverse Fritsch-Buttenberg-Wiechell Type Ring Contraction Reaction of Metallabenzynes to Metal-Carbene Complexes	J. Phys. Chem. A	Anusha, C.,De, S. and Parameswaran, P.
35	Different Donor-Acceptor Interactions of Carbene Ligands in Heteroleptic Divalent Group- 14 Compounds, LEL' (E = C- Sn; L = N-heterocyclic Carbene; L' = Cyclic	Chem. Eur. J.	Purushothaman, I., De, S. and Parameswaran, P.

NIT Calicut 225 Annual Report 2017-18

	Alkyl(Amino) Carbene)		
36	Tailored designing of Polyurethane based fouling- tolerant nanofibrous membrane for water treatment	New Journal of Chemistry	Suja P. Sundaran, Reshmi C.R., A. Sujith
37	Polyethylene-g-Starch Nanoparticle Biocomposites: Physico-Chemical Properties and Biodegradation Studies	Polymer Composites	Sheeja, Manaf, Juraij, A. Sujith
38	PVA/PDADMAC/ZSM-5 zeolite hybrid matrix membranes for dye adsorption: Fabrication, characterization, adsorption, kinetics and antimicrobial properties	J. Environ. Chem. Eng., 2018(In Press)	R.Sabarish, G. Unnikrishnan
39	Polybenzimidazole - nanocompositemembranes: Enhanced proton conductivity with low content of amine- functionalized nanoparticles	Polymer, 2018 (In Press)(Impact Factor: 3.68)	Satheesh Kumar,Dona Mathew, G. Unnikrishnan, Tushar Jana, Santhoshkumar
40	Schiff base-assisted surface patterning of polylactide–zinc oxide films: generation, characterization and biocompatibility evaluation	J. Mater. Sci., 2018, 51, https://doi.org/10.1007/s1085 3-018-2338-9(Impact Factor: 2.59)	R. Rarima, R. Asaletha, G. Unnikrishnan
41	Modulation of dielectric and viscoelastic features of silicone rubber (SR) by nanohydroxylapatite (n-HA) embedding	New J. Chem., 2018, 42, 6441-6448.(Impact Factor: 3.27)	M. Bindu, G. Unnikrishnan
42	Comb Polymer Network of Polydimethylsiloxane with a Novolac Stem: Synthesis via Click Coupling and Surface Morphology Architecturing by Solvents	Macromolecules , 2017, 50, 9656–9665(Impact Factor: 5.835)	K. Sunitha, S. Bhuvaneswari, Dona Mathew, G. Unnikrishnan, and C. P. Reghunadhan Nair
43	Transport features of nanohydroxylapatite (n-HA) embedded silicone rubber (SR) systems: Influence of SR/n-HA interaction, degree of reinforcement and morphology	Phys. Chem. Chem. Phys., 2017, 19, 25380— 25390(Impact Factor: 4.123)	M. Bindu, G. Unnikrishnan
44	Synthesis and characterization of low dimensional bioactive	Mater. Lett.2017, 209,19- 22(Impact Factor: 2.57)	K.V. Nishad, S. Sureshbabu,

NIT Calicut 226 Annual Report 2017-18

	monetite by solvent exchange method		ManojKomath, G. Unnikrishnan
45	Synthesis, Characterization and Catalytic Activity of Hierarchical ZSM-5 Templated by Carboxymethyl Cellulose	Powder Technol., 2017, 320, 12–419(Impact Factor: 2.94)	R. Sabarish, G. Unnikrishnan
46	Hot corrosion studies on plasma sprayed bi-layered YSZ/La2Ce2O7 thermal barriercoating fabricated from synthesized powders	J Alloys Compd., 2017,DOI: 10.1016/j.jallcom.2017.04.02 2(Impact Factor: 3.13)	P.G. Lashmi, P.V. Ananthapadmanabhan, Y. Chakravarthy, G. Unnikrishnan, N.Balaji, S.T. Aruna
47	Microstructural Analysis of Natural Rubber/Millable Polyurethane Blends Using Positron Annihilation Lifetime Spectroscopy	Polym.Plast. Technol. Eng., 2017, DOI: 10.1080/03602559.2017.132 0717(Impact Factor: 1.23)	R. Jose, H. B. Ravikumar, L. M. Munirathnamma, LityAlen Varghese, G. Unnikrishnan
48	Spherical cellulose nanoparticles from pandanus: liquid crystalline properties and thermal analysis	Cellulose Chem. Technol. 2017, Accepted.(Impact Factor: 0.833)	C.Sangeetha, G. Unnikrishnan, S. Thomas

b) Community Services: Nil

c) Other Academic and Administrative Services

SI. No.	Name of Staff	Academic and Administrative Services
1	Dr. G. Unnikrishnan	Exam cell in charge, Dean (SW)
2	Dr. Lakshmi C.	Stores & Purchase in charge, Thermal analysis lab in charge, Instrumentation lab in charge
3	Dr. Lisa Sreejith	HOD
4	Dr. A. Sujith	B. Tech Theory Coordinator, B. Tech Supplementary Coordinator, Training & placement in charge
5	Dr. Suni Vasudevan	Ph. D. Coordinator, Library in charge, PG Lab in charge
6	Dr. C. Arunkumar	M. Sc. Coordinator, II M. Sc. Faculty advisor, Time table in charge
7	Dr. Parameswaran P	M. Sc. Coordinator, I M. Sc. Faculty advisor, Dept. Computer centre in charge, Dept. website manager

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

Sl. No	Title	Coordinators	Duration & Period
1	Faculty Development Program	Dr. P. Parameswaran, Dr. C. Raghu, Dr. C. Jayaraj	9 th March-11 th March, 2017

- e) Expert lectures delivered in conferences/seminars/workshops: Nil
- f) Details of faculty who acquired higher qualification: Nil
- g) Consultancy and Testing: Nil

h) Participation in conferences / seminars / workshops / other training programmes

Sl. No	Title	Title of the program	Duration & Period
1	Fabrication of PLA/Ag Nanofibers by Green Synthesis Method for Wound Dressing Applications	POLYCON-2017 Dept. of polymer science & technology, SJCE college,Mysuru	15 th & 16 th September 2017
2	Green synthesized PLA/Ag nanoparticle probe for sensing of H ₂ O ₂ in biological samples	EFFCS-2017 Farook college, Kozhikode, Kerala	23 th & 25 th September 2017
3	Preparation and characterization of Gelatin/SDS/ Alginate Hydrogel film for controlled drug delivery	EFFCS-2017 Farook college, Kozhikode, Kerala	23 th & 25 th September 2017
4	Science Academics Lecture Workshop on Computational Quantum Chemistry	Indian Academy of Sciences in association with Post Graduate and Research, Department of Chemistry, Sacred Heart College (Autonomous), Thevara	5 th -7 th January, 2017
5	Emerging Frontiers in Chemical Sciences	Farook College	23 rd -25 th September, 2017
6	Eigth Asia Pacific Conference on Theoretical and Computational Chemistry	IIT Bombay	15 th -17 th December, 2017
7	Electrospun polyurethane/graphene oxide nanofibrous	SRM University (ICONN 2017)	9/8/17-11/8/17

	membranes for water purification		
8	Water Mediated Approach To Conductive Poly(methylmethacrylate)- Polypyrrole (PMMA-PPy) Composites	SRM University (ICONN 2017)	9/8/17-11/8/17
9	Synthesis of Hierarchical 3D ZnO Nanostructures Through Simple Precipitation Method	SRM University (ICONN 2017)	9/8/17-11/8/17
10	Blood Compatibility Evaluation of PU/Dextran Nanofibrous Membrane for wound dressing applications	Department of Chemistry Farook college, International Conference on Emerging Frontiers in Chemical Science (EFCS)	23/9/17-25/9/17
11	Graphene oxide modified Polyurethane nanofibrous membrane as efficient dye adsorbent	Department of Chemistry Farook college, International Conference on Emerging Frontiers in Chemical Science (EFCS)	23/9/17-25/9/17
12	A Facile In situ Approach to Conductive Poly(methylmethacrylate)- Polypyrrole (PMMA-PPy) nanocomposites	Department of Chemistry Farook college, International Conference on Emerging Frontiers in Chemical Science (EFCS	23/9/17-25/9/17
13	Development of MA-g- ABS/ZnO Polymer Nanocomposite for Antimicrobial Materials	APM	2/2/18-4/2/18
14	Fabrication of PLA/Ag Nanofibers by Green Synthesis Method for Wound Dressing Applications	POLYCON-2017 Dept. of polymer science & technology, SJCE college,Mysuru	15 th & 16 th September 2017
15	Green synthesized PLA/Ag nanoparticle probe for sensing of H ₂ O ₂ in biological samples	EFFCS-2017 Farook college, Kozhikode, Kerala	23 th & 25 th September 2017
16	Preparation and characterization of Gelatin/SDS/ Alginate Hydrogel film for controlled drug delivery	EFFCS-2017 Farook college, Kozhikode, Kerala	23 th & 25 th September 2017
17	Science Academics Lecture	Indian Academy of Sciences in	5th-7th January, 2017

	Workshop on Computational Quantum Chemistry	association with Post Graduate and Research, Department of Chemistry, Sacred Heart College (Autonomous), Thevara	
18	Emerging Frontiers in Chemical Sciences	Farook College	23 rd -25 th September, 2017
19	Eigth Asia Pacific Conference on Theoretical and Computational Chemistry	IIT Bombay	15 th -17 th December, 2017
20	Silicone Rubber/Nano- Hydroxylapatite Systems: A Promising Candidate For Biomedical Applications	30 th Kerala Science congress	28-30 th January 2018
21	Conducting polymer nanocomposites opportunities in bulk hetero junction photovoltaics: A review	SRM University, Chennai	9-11 th August, 2017
22	Synthesis of ZSM-5 Zeolite Using Surfactant as Mesoporous Structuring Agents and its Catalytic Activity Studies	30 th Kerala Science congress	28-30 th January 2018
23	Structural, electronic, and optical properties of a novel indolocarbazole-thiophene based conjugated polymer	EFFCS-2017 Farook college, Kozhikode, Kerala	23 rd -25 th September, 2017
24	Conduction mechanism of a novel indolocarbazole- thiophene based conjugated polymer diode	30 th Kerala Science congress	28-30 th January 2018
25	Enhancement in fluorescent and thermal property of novel copper complexes by doping into PMMA film	POLYCON 2017	15-16 September 2017

DEPARTMENT OF PHYSICS

a. Publications

i. Journals

SI. No	Name of the Author	Title of Paper	Name of Journal	Vol., Year, p.p
1	K. Chandrasekharan	Surface Plasmon Assisted Enhancement in the Nonlinear Optical Properties of Phenothiazine by Gold Nanoparticle.	J. Phys. Chem. C,	121 (48), pp 26976–26986, 2017.
2	K. Chandrasekharan	ZnSe/PVP nanocomposites: Synthesis, structural and nonlinear optical analysis	Mater. Chem. Phys.,	197, pp. 208– 214, 2017.
3	K. Chandrasekharan	Enhanced nonlinear optical response from dihydroxy (5,10,15,20-tetraphenyl porphyrinato)tin(IV) or SnTPP in a fully plastic photonic crystal microcavity.	Phys. Chem. Chem. Phys	19, no. 43, pp. 29641–29646, 2017.
4	K. Chandrasekharan	Effect of ferroelectric nanoparticles in the alignment layer of twisted nematic liquid crystal display.	Opt. Mater. (Amst).	67, pp. 7–13, 2017.
5	K. Chandrasekharan	Investigation and fine- tuning of optoelectrical features of tertiary aminophenyl-activated poly(1,3,4-oxadiazole) conjugated system.	Polym. Bull.	pp1–19, 2017
6	K. G. Lakshmikanth, P. I Ayishabi and Raghu Chatanathodi	Ab initio DFT studies of adsorption characteristics of benzene on close-packed surfaces of transition metals	Computational Materials Science	137 (2017), 10
7	P. K. Ayishabi and Ragh Chatanathodi	Adsorption of benzene on low index surfaces of platinum in the presence of van der Waals interactions	Surface Science	664 (2017), 8
8	Saju K. John, Daughty John, N. Bijoy, Raghu Chatanathodi and Aji A. Anappara	Magnesium diboride: An effective light-to-heat conversion material in solid-state	Applied Physics Lette	(2017), 033901
9	Prajith k,Shanthanu Aggarwal,Aji A.Anappara,Chandrabha Narayana,Harish C.Barshilia	biosensing platform	Actuators B:Chemical	254,2018,264
10	Julin Joseph, Aji A Anappara	Ellagic acid – functionalized fluorescent carbon dots for ultrasensitive and selective	Journal of Luminescence	192,2017,761

		detection of mercuric ions via		
		quenching		
11	Nishaina Sahadev,	Enhanced photothermal effect	Journal of Applied	122,2017,
	Aji A. Anappara	in reduced grapheme oxide in	Physics	185103
		solid - state		
12	Prajith Karadan, Santanu	Charge transport studies on S	Applied Physics A	123,2017,681
	Parida, Aravind Kumar,	Nanopillars for photodetector		
	Aji A. Anappara, Sandip	fabricated using vapor phase		
	Dhara,	metal -assisted chemical		
	Harish C Barshilia	etching		

(ii). International Conference

SI. No	Name of the Authors	Title of Paper	Name of International Conference	Vol., Year, p.p
1	U. Santhi Krishna, P. K. Madhavan Unni	Critical Behavior in the Syste Cyclopentanone + Water + Secondary Butyl Alcohol	2 nd International Conference on Condensed Matter and Applied Physics	AIP Conferenc Proceedings, Vol. 1953, 040009 (2018)

b. Community Services:- Nil

C. Other Academic and Administrative Services

Sl. N	Name of Staff	Academic and Administrative Services		
1	Dr Chandrasekharan K.	Head of the Department of Physics		
2	Dr.Aji A. Anappara	Ph .D Co-Ordinator		
		Faculty advisor & Class Committee Chairman(M.Sc.Physics 2017-19 batch) Warden: First Year Hostel (PG-I) Course Co-ordinator of physics(PH1001D/PH1001) Course for First year B.Tech.(All branches)		
3	Dr. P.K.Madhavan Unni	1. Teaching: PH2002: Thermodynamics, S3 B. Tech (EP) PH6307: Statistical Mechanics, S2 M. Sc. PH7213: Atomic & Molecular Phy, S3 M. Sc. PH3006: Experimental Techniques in Physics, S5 B. Tech (EP) PH2091: Physics Lab-II (General Physics), S3 B. Tech (EP) PH6384: Electromagnetics Lab, S2 M. Sc. PH4051: Seminar, S7 B. Tech (EP) PH4052: Project, S7 B. Tech (EP) PH4053: Project, S8 B. Tech (EP)		

2. Administrative/coordinatorship/others
1. Faculty Advisor, 2014 B.Tech(EP) Batch 2. First year B. Tech. Co-ordinator, 3. Class Committee Chairman S7, S8-BTech (EP) 4. Course Coordinator for PH4051 (Seminar, S7 B. Tech. (EP)) 5. Course Coordinator for PH4052 (Project, S7 B. Tech (EP)) 6. Course Coordinator for PH4053 (Project S8 B. Tech(EP))
(

- d). Conferences/Summer/Winter School/Short term Courses/ Workshops conducted Nil
- e). Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
	Dr Chandrasekharan	Science and Technology of	7-9 February 2018	University of
	K	new materials sustainable		Calicut
		future		

- f). Details of Faculty, who acquired Higher Qualification: Nil
- g). Consultancy and testing Nil

SCHOOL OF NANO SCIENCE & TECHNOLOGY

a. Publications

i.Journals

SI. No.	Name of the Author	Title of Paper	Name of Journal	Vol, Year, pp.
1	TN Banuprasad, TV Vinay, C K Subash, S Varghese, SD George, SN Varanakkottu	Fast Transport of water droplets over a thermoswitchable surface using rewritable wettability gradient	ACS Applied Materials and Interfaces	2017 , 9(33), 28046-28054
2	Cherumannil Karumuthil, S.; Rajeev, S. P.; Varghese	Piezo-Tribo Nanoenergy Harvester Using Hybrid Polydimethyl Siloxane Based Nanocomposite.	Nano Energy	2017 , <i>40</i> , 487–494.
3	Manos Anyfantakis, Subramanyan Namboodiri Varanakkottu, Sergi Rudiuk, Mathieu Morel and Damien Baigl	Evaporative Optical Marangoni Assembly (eOMA): tailoring the three diamensional morphology of individual deposits of nanoparticles from sessile drops	ACS Applied Materials and Interfaces	2017 , 9(42), 37435- 37445.
4	Abdul Rasheed P and N. Sandhyarani	Carbon nanostructures as immobilization platform for DNA: A review on current	Biosensors and Bioelectronics	2017, 97, 226–237.

NIT Calicut 233 Annual Report 2017-18

		progress in electrochemical DNA sensors		
5	Abdul Rasheed P, Thulasi Radhakrishnan, Sindhu R Nambiar, Reny Thankam Thomas, and N. Sandhyarani	Graphitic carbon nitride as immobilization platform for ssDNA in a genosensor	Sensors and Actuators B	2017 ,250, 162-168
6	Sajith Vandana, Vidya Kochat, Jonghoon Lee, Vikas Varshney, Sadegh Yazdi, Jianfeng Shen, Suppanat Koolowattana, Soumya Vinod, Robert Vajtai, Ajit K Roy, Chandra Sekhar Tiwari and P M Ajayan	2D Heterostructure coatings of hBN- MoS2 layers for corrosion resisitance	Jounral of Physics D : Applied Physics	2017 ,50,0 45301.
7	J. Vialetto, M. Hayakawa, N. Kavokine, M. Takinoue, SN Varanakkottu, S. Rudiuk, M. Anyfantakis, M. Morel,D. Baigl	Magnetic actuation of discrete liquid entities with a deformable paramagnetic liquid substrate	Angewandte Chemie International Edition	2017, 56(52):16 565- 16570.
8	Thulasi Radhakrishnan, N. Sandhyarani	Three Dimensional assembly of electrocatalytic platinum nanostructures on reduced graphene oxide – An electrochemical approach for high performance catalyst for methanol oxidation	International Journal of Hydrogen Energy	2017 , 42, 7014-7022.
9	John V, N.; Shiju, E.; Arun, R.; Ravi Varma, M. K.; Chandrasekharan, K.; Sandhyarani, N.; Varghese	Effect of Ferroelectric Nanoparticles in the Alignment Layer of Twisted Nematic Liquid Crystal Display	Opt. Mater	2017 , <i>67</i> , 7–13.
10	Thamarasseril Vijayan Vinay, Theneyur Narayanaswamy Banuprasad, Sajan Daniel George, Soney Varghese, Subramanyan Namboodiri Varanakkottu	Additive-Free Tunable Transport and Assembly of Floating Objects at Water-Air- Interface Using Bubble- Mediated Capillary Forces	Advanced Materials Interfaces	2017 , 4(7).
11	Abdul Rasheed P and N. Sandhyarani	Electrochemical DNA sensors based on the use of gold nanoparticles: a review on recent developments	Micro Chimica Acta	2017 , 184(4), 981-1000.

12	Rahul T K, N. Sandhyarani	In situ gold loaded fluorinated titania inverse opal photocatalysts for enhanced solar-light-driven hydrogen production	Chem Nano Mat.	2017 , 3, 503-510
13	Rajeev, S. P.; Cherumannil Karumuthil, S.; Valiyaneerilakkal, U.; Varghese	Nanoscale Static Voltage Generation and Its Surface Potential Decay Using Scanning Probe Microscopy	Micro Nano Lett	2017 , <i>12</i> (12), 928–933
14	S.Balamurugan, B.Gayathri, C.B.Sobhan and V.Sajith	Measurment of open flame temperature of nanoparticle additive dispersed diesel using Digital interferometry,	Combustion Science and Technology	2017, doi: https://do i.org/10.1 080/0010 2202.201 7.133350 1
15	Shijo Thomas, C.B.Sobhan	Stability and Transient Performance of Vertical Heater Vertical Cooler Natural Circulation Loops with Metal Oxide Nanoparticle Suspensions	Heat Transfer Engineering	2017, doi: https://do i.org/10.1 080/0145 7632.201 7.133885 9
16	N. S. Anas, Shijo Thomas, C. B. Sobhan, G. P. Peterson	An Experimental Investigation of the Adsorption Performance of Carbon Nanotube-Activated Carbon Mixtures	International Journal of Air Conditioning and Refrigeration	2017 , 25(2).
17	C. B. Sobhan, Shijo Thomas, G. P. Peterson	Microscale Transport Pheomena in Bio-Engineering Applications – Recent Advances	Journal of Advances in Nanomterials	2017, 2 (1).
18	Robin Joyce, Minu George, Lokasani Bhanuprakash, Deepak Kumar Panwar, Ravi Raj Bhatia, Soney Varghese and Jamil Akhtar	Investigation on the effects of low-temperature anodic bonding and its reliability for MEMS packaging using destructive and non-destructive techniques	Journal of Materials Science: Materials in Electronics	2017, doi: https://do i.org/10.1 007/s108 54-017- 7908-0.
19	, Jamil Akhtar, DeepakKumar,Soney Vargs PanwarMoShakil	Single layer thin photoresist soft etch mask for MEMS applications	Microsystem Technologies	2017, doi: https://do

NIT Calicut 235 Annual Report 2017-18

				i.org/10.1 007/s005 42-017- 3609-0
20	S.Balamurugan and V.Sajith	Experimental investigation on the stability and abrasive action of cerium oxide nanoparticle dispersed diesel	Energy	2017 , 131,113 - 124.
21	Jithu Paul, A. K. Madhu, U. B. Jayadeep, C. B. Sobhan, G. P. Peterson	A Molecular Dynamics Study of Liquid Layering and Thermal Conductivity Enhancement in Nanoparticle Suspensions	Heat and Mass Transfer	2017 , 54(3),785 -791
22	T Hanas and T S Sampath Kuma	Tailoring biodegradation of fine grained AZ31 Alloy implants by Nano fibrous coatings.	Materials Today Proceedings	2017 (4) 6697– 6703
23	Biyas Posha, Sindhu R Nambiar, N. Sandhyarani	Gold atomic cluster mediated electrochemical aptasensor for the detection of lipopolysaccharide	Biosensors and Bioelectronics	2018, 101, 199–205.
24	Rahul, T. K.; Mohan, M.; Sandhyarani, N	Enhanced Solar Hydrogen Evolution over <i>In Situ</i> Gold– Platinum Bimetallic Nanoparticle-Loaded Ti ³⁺ Self- Doped Titania Photocatalysts	ACS Sustain. Chem. Eng	2018 , <i>6</i> (3), 3049–3059.
25	Bhanuprakash, L.; Ali, A.; Mokkoth, R.; Varghese	Mode I and Mode II Interlaminar Fracture Behavior of E-Glass Fiber Reinforced Epoxy Composites Modified with Reduced Exfoliated Graphite Oxide.	Polym. Compos	2018, doi: https://do i.org/10.1 002/pc.24 809
26	T. Hanas; Sampath Kumar, T. S.; Perumal, G.; Doble, M.; Ramakrishna	Electrospun PCL/HA Coated Friction Stir Processed AZ31/HA Composites for Degradable Implant Applications.	J. Mater. Process. Technol	2018 , 252, 398–406
27	Rahul, T. K.; Sandhyarani, N	Plasmonic and Photonic Effects on Hydrogen Evolution over Chemically Modified Titania Inverse Opals	Chem Nano Mat.	Vol.4,Iss ue 7Mar 2018,642 -648

28	R. L. Rag, C. B. Sobhan, G. P. Peterson	Computational Analysis of Wire Bonded Micro Heat Pipe: Influence of Thermo physical Parameters	AIAA J Thermophysics and Heat Transfer	2018
29	Suchith Chellappan, Vasihakh Nair, Sajith V and Aparna K	Synthesis, optimization and characterization of biochar based catalyst from saw dust for simultaneous esterification and transesterification	Chinese Journal of Chemical Engineering	2018
30	Suchith Chellappan, Vaishakh Nair, Sajith V and Aparna K	Experimental validation of bichar based green bronsted acid catalysts for is multaneous esterification and trans esterification of biodiesel production	Bio Source Technology Reports	Vol.2,Ju ne.2018,3 8-44

b. Other academic and administrative services:

	academic and administrative services:			
Sl. No.	Name of Staff	Academic and Administrative Services		
		1.Head, SNST		
1	Dr.N. Sandhyarani	2.Time table in charge – SNST		
		3. Member, Purchase Committee, SNST		
		1.Professor, SNST		
		2.Dean (Alumni Affairs and International Relations)		
2	Dr.C. B. Sobhan	3. Laboratationsory in Charge, Nanotechnology Research Laboratory		
		4.PhD Coordinator-SNST		
		5.Member, Purchase Committee, SNST		
		1.Associate Dean(Planning & Development)		
	Dr.Sajith V.	2. Faculty Advisor, SAE Collegiate Club, NITC		
3		3. Time table in charge, SNST		
		4. Member, Purchase Committee, SNST		
		5. Lab-in-Charge, Optical Measurement Laboratory		
4	Dr. Canay Varahaga	1.SEM and SPM Manager		
4	Dr.Soney Varghese	2.Member, Purchase Committee, SNST		
		1.Program Cordinator - M.Tech Nanotechlogy		
		2.Lab-In-Charge - Nanomaterials Research Laboratory		
		3.Lab-In-Charge- PG Laboratory, SNST		
5	Mr.Hanas T.	4. Faculty Advisor - School of Nano Science and Technology Association		
3	IVII.IIalias I.	5.Member - Library Advisory Committee, SNST Nominee		
		6.Secretary - DCC, SNST		
		7. Faculty-In-Charge of Insitute Vehicles		
		8.Member - TEQIP III Phase Purchase committee		
6	Mr Shijo Thomas	1.Faculty Advisor, SAE India Collegiate Club,NITC		
U	Mr.Shijo Thomas	2.Member, Purchase Committee, SNST		

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

Sl. No	Title	Coordinators	Duration & Period
	Nanotechnology - Basics & Applications	Dr.Sajith V, Dr.C.B.Sobhan ,Dr.S.Jayaraj	25th to 30th July 2016

f. Details of Faculty, who acquired Higher Qualification

1. Shijo Thomas, PhD, NIT Calicut, August-2017

SCHOOL OF MANAGEMENT STUDIES

a. Publications

i. Journals

SI. No.	Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
1	Dr.N.Sudarsan	Assessing the influence of work life balance dimension among nurses in the healthcare sector	Journal of Management Development	Vol.36,2017,p.p 427-437
2	Dr.Muhammad Shafi	Network mining based elucidation of the dynamics of cross-market clustering and connectedness in Asian region:An MST and hierarchical clustering approach.	Journal of King Saud University Computer and Information Sciences	Nov 2017
3	Dr.Muhammad Shafi	Investigating the Evolution of Linkage Dynamics among Equity Markets Using Network Models and Measures:The Case of Asian Equity Market Integration.	Data (MDPI)	2017,2(4)41;
4	Dr.Sunitha S	Co.integration and causality between macroeconomic variables and life insurance demand in India.	International Journal of Emerging Markets (Emerald) 12(4),pp 727-74]	Vol.12,Issue 4,p.p 727-741,2017
5	Dr.Sunitha S	Impact of operating cost components on airline efficiency in India: A DEA approach.	Asia Pacific Journal of Management (Elsevier) 2018,pp 1-10	Feb 2018

ii. International Conference

SI. No.	Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
		Network based	5th International	
1	Dr.Muhammad	Educidation of The	Conference on	11-13 dec 2017
1	Shafi	Dynamics of Cross-	Business Analisis and	11-13 dec 2017
		marker Connectedness In	Intelligence,IIM	

		Asia.	Bangalore(ICBAI-2017)	
2	Dr.Muhammad Shafi	A study of Pro Social Rule Breaking Behavior among the employees of State Bank of India.	International Conference on Strategi in Volatile and Ucertain Environment for Emerging Markets,DoMS,IIT Delhi.	July 2017
3	Dr.Muhammad Shafi	Investigation of temporally variant cross-market dependency structures amongst world market indices, with a special reference to Indian market: A winner-take-all correlation network based approach.	2nd International Business & Finance Conference,at Centre for Management Studies,Jamia Milia Islamia	21 Feb 2018
4	Dr.Muhammad Shafi	Investigation of Pro-social Rule Breaking Behaviors Among Frontline Executives as job Resource and Demands.	AHRD International Research Conference in Asia,Indian Institute of Management,Ahmedab a	8-10 Nov 2017
5	Dr.Muhammad Shafi	Post Graduate Business Education:Tracing through Different Learning Method in Controversial Subjects Teaching.	3rd International Conference on Education Management and Administration,Kuala Lumpur(ICEMA 2018)	26-28 Jan 2018
6	Dr.Sunitha S	A predictive framework for financial iliteracy in Kerala,India.	International Conference on Financial Markets and Corporate Finance,VGSOM,IIT Kharagpur	7-8 July 2017
7	Dr.Sunitha S	Irrational buying of life insurance:Evidence from the state of Kerala.	International Conference on Financial Markets and Corporate Finance,VGSOM,IIT Kharagpur.	7-8 July 2017

- b. Community Services: Nil
- c. Other Academic and Administrative Services: Nil
- d. Conferences/Summer/Winter School/Short term Courses/ Workshops conducted

Sl. No	Title	Coordinators	Duration & Period
1	National workshop on "applied data science and business analytics using R" (self-financing)	Dr. Muhammad Shafi Dr. T Radha Ramanan	12-17 th March 2017

e. Expert lecturers delivered in Conferences/Seminar/workshops

SCHOOL OF BIO TECHNOLOGY

a) Journal

Sl No:	Name of the Journal	Title of the Paper	Author(s) Name	Vol.,year, page no.
1	Current Proteomics	Structure-based pharmacophore clustering of multi-conformation proteins: Application to identify novel and diverse CypD inhibitors.	Fayaz SM, Rajanikant GK.	14;2017:224-33
2	CNS & Neurological Disorders - Drug Targets	Commentary: Endophenotypes as disease modifiers: Decoding the biology of Alzheimer disease by genome-wide association studies.	Neelakandan AR, Rajanikant GK.	17;2018:1-3
3	CNS & Neurological Disorders - Drug Targets	Commentary: BAY 1436032: A novel pan-mutant IDH1 inhibitor extends survival of mice with experimental brain tumors.	Gokul S, Rajanikant GK.	16;2018:1-2
4	Molecular Neurobiology	Rodent Gymnastics: Neurobehavioral assays in ischemic stroke.	Nampoothiri SS, Potluri T, Subramanian H, Krishnamurthy RG.	54;2017:6750-61
5	Int J Biol Macromol.	Biochemical and Biophysical characterization of curcumin binding to human mitotic kinesin Eg5: Insights into the inhibitory mechanism of curcumin on Eg5	Raghav D, Sebastian J, Rathinasamy K	109, 2018, 1189– 1208
6	Natural Product Research	Antibacterial and anticancer activity of the purified cashew nut shell liquid: implications in cancer chemotherapy and wound healing.	M Ashraf S, Rathinasamy K.	Year 2017 doi: 10.1080/14786419 .2017.1380022. [Epub ahead of print]
7	Chemosphere	In vitro evaluation of the cytotoxic and bactericidal mechanism of the commonly used pesticide triphenyltin hydroxide,	Mahanty, S., Raghav, D., and Rathinasamy, K.	183, (2017), 339- 352.
8	Biochemistry	Berberine induces toxicity in HeLa cells through perturbation of microtubule polymerization by	Raghav, D. Ashraf, S.M., Mohan, L., and	56, (2017), 2594- 2611

binding to tubulin at a unique site,	Rathinasamy, K.	
--------------------------------------	--------------------	--

International Conferences

SI. No.	Name of the Authors	Title of Paper	Name of International Conference	Vol., Year, p.p
		Influence of	International Conference	
	Pankaj,	temperature on	cum Exhibition on	
1	Jilse Sebastian, C	chemical kinetics of	Renewable and	12-13 th April,
1	Muraleedharan	alkali	Sustainable Energy	2017.
	And A Santhiagu	transesterification of	(ICRSE-2017),	
		rubber seed oil	Coimbatore, India,	

b. Community Services: Nil

c. Other Academic and administrative services :

Name of Staff	Academic and Administrative Services
Dr. Rajanikant G. K.	HOD, Faculty Coordinator – Dept. Purchase, Class Committee Chairman
Dr Md Anaul Kabir	Faculty in – charge, official language unit
Dr. Rathinasamy K	Class committee Chairman
Dr. Rathinasamy K	Department Time table coordinator

b. Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. Rajanikant G. K.	International Conference of Toxicology and Clinical Pharmacology	Rome, Italy, December 14-16, 2017	
2	Dr. Rathinasamy K	Recent Trends and Future Perspectives of Animal Cell culture Techniques	One day	K.S.Rangasamy College of Technology, Tiruchengode

PHYSICAL EDUCATION DEPARTMENT

a) Publications

i. International Conference

Name of the Author	Title of Paper	Name of International conference	
Dr. A M Najeeb	"Olympic Values Education Programme for Good Governance"	12 th International Session for Educators of Higher Institutes of Physical	May- June - 2017.

Internation	conducted by nal Olympic
Academy	Athens Greece.

Achievements

Games and Sports:

The academic constraints did prevent lots of our proficient squads from participating in important tournaments outside the campus. Yet during the year 2017-'18, the following NITC teams underwent specialist training including by professional coaches and brought home the following laurels.

No.	Discipline	Training camps	Tournaments participated	Achievements	Remarks
01	Foot ball	01 camp	a. All India Inter NIT Games at NIT Agarthala	National Champions	Creditable performances as we were exhibit against good NIT sides. We got hat-trick consecutively three times All India Champions from 2015-2016, NIT Rourkela, 2016-17, 2017-2018
02	Handball	none	a. All India Inter NIT Games at NITK Surathkal.b. Reveira Sports Fest at	1st Runner-up Runner-up	Achieved against professional sides.
03	Kabaddi	01 camp	VIT Velloor a. All India Inter NIT Games at NITK Surathkal.	1st Runner-up	Achieved against professional sides.
02	Hockey	01 camp	a. All India Inter NIT Games at NITK Surathkal.	Runner-up	Achieved against professional sides.
03	Badminton	01 camp	a. All India Inter NIT Games at Game at, NIT Warangal	National Champions	Availability of 1 Indoors wooden court in Koduvally and our Auditorium with professional coaching

NIT Calicut 242 Annual Report 2017-18

					has enhanced participation.
04	Table tennis	01 camp	a. All India Inter NIT Games at NIT Srinagar	National Champion. (W)	The opening of new arena in Auditorium with professional
			. All India Inter NIT Games at NIT Srinagar	First Runner-up (M)	coaching has done the team good.
05.	Cricket	01 camp	a. All India Inter NIT Games at NIT Calicut	none	
06.	Volley ball	01 camps	a All India Inter NIT Games at NIT Kurukshetra (Men)	Runner-Up Runner-Up	Achieved against professional sides.
			b. All India Inter NIT Games at NIT Kurukshetra (Women)		
07.	Basket ball	01camp	a. All India Inter NIT Games at NIT Warangal (Women) b. All India Inter NIT Games at NIT Warangal (Men) c. All Kerala Inter Engineering Basketball Tournament Fury Ragam 2018 at NIT Calicut (Men) d. All Kerala Inter Engineering Basketball Tournament Fury Ragam 2018 at NIT Calicut (Women) e. All Kerala InterEngineering College Ever Rolling	National Champion (W) Quarter Final (M) Champions Runner- up	Pitted against professional sides.

			Trophy Basketball Tournament at Viswajyothi College of Engineering and Technology Vazhakulam		
08.	Tennis	none	a. All India Inter NIT Games at NIT Warangal	Semi Final (M)	Achieved against professional sides.
09.	Chess	None	a. All India Inter NIT Games at NIT Srinagar	Second Runner- up	Commendable achievement.

Individual Glories brought by NIT Calicut Students during 2017-2018

No.	Discipline	Tournaments participated	Achievements	Names of Sports stars
01	Table tennis	All India Inter NIT Games at NIT Srinagar	Individual Champion	Shivani Kota, ECED
02.	Hockey	a. All India Inter NIT Games at NITK Surathkal.	Best Midfielder	Sarojkumar MED
03	Handball	a. All India Inter NIT Games at NITK Surathkal.	Best Defender	Rahul Raju PE
		a. All India Inter NIT Games at NITK Surathkal		
04	Kabaddi		Best Rider	Ajith kumar CED
		a. All India Inter NIT Games Weight Lifting at NIT Kurukshetra	Gold Medal	Himanshu Raj CSED
05	Power Lifting & Weight Lifting	b. All India Inter NIT Games Power Lifting at NIT Kurukshetra	Bronze	Himanshu Raj CSED
			Gold Medal	

		c.BITS Goa Sports Fest Power Lifting		Himanshu Raj CSED
06	Body Building	All India Inter NIT Games at NIT Kurukshetra	Silver Medal	Rohan Ingole PE
07	Basketball	a. All Kerala Inter Engineering Basketball Tournament Fury Ragam 2018 at NIT Calicut (Men)	Best Player	Athul Nair ECED
		b. All Kerala Inter Engineering Basketball Tournament Fury Ragam 2018 at NIT Calicut (Women)	Best Player	Gayathri B. BIOTECH
		c. All Kerala InterEngineering College Ever Rolling Trophy Basketball Tournament at Viswajyothi College of Engineering and Technology Vazhakulam	Best Emerging Player	Moin Subair MED

II. In-Campus Mass participation program:

The campus "Willow Cup" cricket tournament on Twenty 20 format was organized during March 2018 in which over 300 students participated.

Sri. Sunil M.S held the following positions during 2017-18:

- i) Organizing Secretary, All India Inter NIT Cricket Tournament 2017-'18 held at NIT Calicut.
- ii) Team Manager of the NIT Calicut Team in the All India Inter NIT Football, Kho- Kho., & Yoga Championship 2017- 18 held at NIT Agarthala.

- iii) Team Manager of the NIT Calicut Team in the All India Inter NIT Hockey, Handball., Kabaddi, Aquatics Championship 2017-18 held at NIT K Surathkal
- iv) Team Manager of the NIT Calicut Team in the All India Inter NIT Table Tennis, & Chess Championship 2017-18 held at NIT Srinagar.
- v) Convener of the Security & Safety Committee of 13th Convocation-NIT Calicut held at Open Air Theatre.

11.0 ANNEXURES

11.1 INSTITUTE'S SENATE

- Dr. Sivaji Chakravorti, Director & Chairman, Ex-Officio
- Dr. Sathi Devi P S, Dean (Academics)
- Dr. M V L R Anjaneyulu, Dean (P&D)
- Dr. T M Madhavan Pillai, Dean (FW)
- Dr. Unnikrishnan, Dean (SW)
- Dr. Ashok S, Dean (R&C)
- Dr. C B Sobhan, Dean (AA&IR)
- Prof. Srinivasan Natarajan, SSCU, IISc., Bangalore External member
- Prof. Rajat Acharyya, Dean & Professor, Jadavpur University External Member
- Dr. Ligy Philip, Professor, CED, IIT Madras External Member
- Dr. Anil Kumar P P, Professor, DAP
- Dr. Naseer M A, Professor, DAP
- Dr. Kasturba A K, Professor, DAP
- Dr. J.Sudha Kumar, Professor, CED
- Dr. Chandrakaran S, Professor (HAG), CED
- Dr. Indira P V, Professor (HAG), CED
- Dr. Mohammed Ameen A M, Professor, CED
- Dr. N Ganesan, Professor (HAG), CED
- Dr. Sankar N, Professor, CED
- Dr. Santhosh G Thambi, Professor (HAG), CED
- Dr. Shashikala A P, Professor, CED
- Dr. Shiny Joseph, Professor, CHED
- Dr. Sivasubramanian V, Professor, CHED
- Dr. Abdul Nazeer K A, Professor, CSED
- Dr. Madhu Kumar S D, Professor, CSED
- Dr. Priya Chandran, Professor, CSED
- Dr. Vineeth Kumar P, Professor, CSED
- Dr. Lisa Sreejith, Professor, CY
- Dr. Ali C.K, Professor, ECED
- Dr. Babu A V, Professor, ECED
- Dr. Deepthi P P, Professor, ECED
- Dr. Elizabeth Elias, Professor (HAG), ECED
- Dr. Lillykutty Jacob, Professor (HAG), ECED
- Dr. P C Subramanian, Professor, ECED
- Dr. Sameer S M, Professor, T&P
- Dr. Abraham T Mathew, Professor, EED
- Dr. Elizabeth P Cheriyan, Professor, EED
- Dr. Jeevama Jacob, Professor, EED
- Dr. Paul Joseph K, Professor (HAG), EED
- Dr. Saly George, Professor, EED

- Dr. Susy Thomas, Professor, EED
- Dr. M S Sunitha, Professor, Maths
- Dr. Jacob M J, Professor, Maths
- Dr. Jessy John C, Professor, Maths
- Dr. A Shaija, Professor, MED
- Dr. Biju T Kuzhiveli, Professor, MED
- Dr. Ghulam Jilani, Professor, MED
- Dr. Jayaraj S, Professor (HAG), MED
- Dr. Jose Mathew, Professor (HAG), MED
- Dr. Joseph M A, Professor, MED
- Dr. Joy M L, Professor, MED
- Dr. Madhusudanan Pillai V, Professor, MED
- Dr. Muraleedharan C, Professor (HAG), MED
- Dr. P K Rajendra Kumar, Professor, MED
- Dr. R Sridharan, Professor (HAG), MED
- Dr. Ravi Varma Mundakkara Kovilakam, Professor, PHY
- Dr. Chandrasekharan K, Professor, PHY
- Dr. Predeep P, Professor (HAG), PHY
- Dr. A Santhiagu, Professor, SBT
- Dr. Md. Anaul Kabir, Professor, SBT
- Dr. Rajanikant G Krishnamurthy, Professor, SBT
- Dr. N Sandhyarani, Professor, SNST
- Dr. T K Suresh Babu, Professor, SoMS
- Dr.Lity Alen Varghese, Head, CHED, Invitee
- Dr.Saleena N, Head, CSED, Invitee
- Dr. Sunil Jacob John, Head, Maths, Invitee
- Dr. Parameswaran Pattiyil, Head, CY, Invitee
- Lt Col Pankajakshan.K (Retd) Registrar & Secretary

11.2 BOARD OF GOVERNORS

Chairperson	Director (Chairperson I/c)		
Ex. Officio	o Dr.Sivaji Chakravorti, Director, National Institute of Technology, Calicut		
Member			
Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical		
	Education, Department of Higher Education, Ministry of Human Resource		
	Development		
Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource		
	Development		
Member	Prof.Manju Bansal, Professor, IISc, Bangalore; Founder Institute of Bioinformatics and		
	Applied Biotechnology (NIT Council Nominee)		
Member	Prof.Mythili Ramaswamy, Dean, TIFR Centre for Applied Mathematics, Bangalore (
	NIT Council Nominee)		
Member	Adv.P.M.SureshBabu, Matha, Kuthiravattom, Calicut (State Govt. Nominee)		
Member	Dr.P.M.Abdul Majeed, Grace Villa,NIT Campus.P.O, Calicut (State Govt. Nominee)		
Member	Dr. J.Sudhakumar, Professor & Head, Department of Civil Engineering, NIT Calicut.		
	(Nominee of Senate)		
Member	Dr.A.V.Babu, Professor, Department of Electronics & Communication Engineering,		
	NIT Calicut. (Nominee of Senate)		
Secretary	Lt Col Pankajakshan, Registrar, National Institute of Technology Calicut		

NIT Calicut 247 Annual Report 2017-18

11.3 FINANCE, BUILDING AND WORKS AND OTHER COMMITTEES

Finance Committee:

Chairperson	Director (Chairperson I/c)					
Ex. Officio	Dr. Sivaji Chakravorti, Director, National Institute of Technology, Calicut					
Member						
Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical					
	Education, Department of Higher Education, Ministry of Human Resource					
	Development					
Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource					
	Development					
Member	Dr. A.V.Babu, Professor, Department of Electronics & Communication Engineering,					
	NIT Calicut. (representing Board of Governors)					
Member Secretary	Lt Col Pankajakshan, Registrar, National Institute of Technology Calicut					

Building & Works Committee:

Chairperson, ex-officio	Dr.Sivaji Chakravorti, Director, National Institute of Technology, Calicut				
Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical				
	Education, Department of Higher Education, Ministry of Human Resource				
	Development				
Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource				
	Development				
Member	Dr.MVLR Anjaneyulu, Dean (Planning & Development), NIT Calicut				
Member	Chief Engineer, RICK Kerala State, Trivandrum (Expert From Civil Engineering				
	KPWD)				
Member	Executive Engineer, CPWD, Calicut Central Division (Electrical), Kallai, Calicut				
	(Expert from Electrical Engineering Wing CPWD)				
Member	Dr.J.Sudhakumar, Professor & Head, Department of Civil Engineering, NIT Calicut.				
	(representing Board of Governors)				
Member Secretary	Lt Col Pankajakshan, Registrar, National Institute of Technology Calicut				

11.4. RESEARCH PROJECTS AND CONSULTATION JOBS

DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No.	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Rs)	Status
1	Modification of counter electrode in the performance of dye sensitized solar cells		Kscste:- Kerala State Council For Science, Technology & Environment (Student's Project)	Jan 2018	· ·	Awaiting for result
2	Production of	Dr.K.Aparna	Kerala state	Jan 2018	2700000	Awaiting for

lignocellulosic bioethanol from agrowaste by	council for science.technol	result
consolidated bioprocess	ogy & Environment	

DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No.	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1.	Effect of wall surface roughness and trailing vortices on acoustic emissions in wall jets	Mr. Rahul S Arackal and T.J.S. Jothi	KSCSTE, Kerala	2018	4,40,000	ongoing
2	Investigation on bio- hydrogen production by thermo-chemical method in fluidized bed gasifier under catalytic support and its utilization	Arun P	Ministry of New and Renewable Energy	2013	0	Project completed and report submitted in May 2017
	Development and analysis of model for green operations in supply chain management	Dr. V Madhusudanan Pillai	KSCSTE	2014	9.3 Lakhs	Ongoing

DEPARTMENT OF CIVIL ENGINEERING

SIN o	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount	Status
1	Development of steel fibre reinforced GGBS concrete and its applications in seismic-resistant design	P. Saranya, Praveen Nagarajan and A P Shashikala,	KSCSTE	2016	5,00,000	Ongoing
2	Capacity Building in Dam Safety, Rehabilitation, and Improvement	Dr. Sathish Kumar. D. (Co-coordinator), Participating Faculty	CENTRAL WATER COMMISSIO N, Ministry of Water Resources, River Development, and Ganga Rejuvenation	2017	2,50,00,000	Ongoing

NIT Calicut 249 Annual Report 2017-18

	Rangaswamy, Dr. S. Chandrakaran, Consultants Dr. V. Mustafa, Dr. P.		
	Syamala		

DEPARTMENT OF ELECTRICAL ENGINEERING(a) Sponsored R & D Projects

Sl N o	Title of the Project	Investigators	Sponsorin g Agency	Year of Starting	Amount (Lakhs)	Status
1	Development of Smart Controller for Switched Reluctance Motor	Dr. Ashok S.	KSCSTE	2016	17	Ongoing
2	Development of Solid State Transformer as Wind Power Interfacing Device	Dr. Ashok S.	CPRI Bangalore	2016	28	Ongoing
3	Development of cost effective 3 axis intelligent platform stabilization system	Dr. Ashok S. & Dr. T. K. Sunil Kumar	DRDO	2015	37	Ongoing
4	Security Assessment of Microgrids in Isolated and in Grid Connected Mode	Dr. Ashok S. Dr.Sunitha R.	CDAC- NaMPET	2015	15	Ongoing
5	Development of Composite Insulators for High Energy Storage (Super Capacitor) Applications	Dr. Sindhu T.K .	DST	2012	24	Ongoing
6	Non-linear Analysis of EEG Signals of Patients with Alzheimer Disease	Dr. Subha D. P.	DST	2012	18	Ongoing
7	Development of nanocomposites for electromagnetic shielding applications	Dr Sunitha K Dr Sindhu T K	DST under IMPRINT II	2012	23 Lakhs	Submitted

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No.	Title of the Project	Investigators	Sponsorin g Agency	Year of Starting	Amount (Rs)	Status
1	DST –FIST funded Project (Level – I category) for augmenting the research	Dr. Sameer S.M, Dr. A.V. Babu, Dr. Sathidevi P.S., Dr. Dhanaraj K. J.	DST	2018	216 L	Ongoing

	facilities in Wireless Communication and Signal Processing areas					
2	SMDP-C2SD	DR. P. C. SUBRAMANIAM & MR. BHUVAN B.	MEITY	2015	150 L	Ongoing
3	MOTOR CYCLE ACCIDENT DETECTION ON ANDROID MOBILE PHONE	DR. AMEER P M	DESIGN AND INNOVATIO N CENTER, NIT CALICUT	2017	1L	Ongoing

DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs)	Status
1	Effect of wall surface roughness and trailing vortices on acoustic emissions in wall jets	Mr. Rahul S Arackal and T.J.S. Jothi	KSCSTE, Kerala	2018	4,40,000	ongoing
2	Investigation on bio- hydrogen production by thermo-chemical method in fluidized bed gasifier under catalytic support and its utilization	C Muraleedharan, Arun P	Ministry of New and Renewable Energy	2013	37,73,450	Project completed and report submitted in May 2017
3	Development and analysis of model for green operations in supply chain management	Dr. V Madhusudanan Pillai	KSCSTE	2014	9.3 Lakhs	Ongoing

DEPARTMENT OF PHYSICS

Sl. No.	Title of the project	Investigators	Sponsori ng Agency	Year of starting	Amount (Lakhs)	Status
	"Investigation of Optical Nonlinearity by Defect	Dr.Chandrasekharan K	DST (Govt. of	2013	31	Ongoing
1.	State in One	K	India)			
	Dimensional Photonic Crystal"		Project			
	"Multi-wavelength	Dr M K Ravivarma		2017	31.4	Ongoing
2.	integrating		KSCSTE			
۷.	nephelometer for		Project			
	characterising					

	tropospheric aerosol"					
	"Enhancement of third-	Dr.Chandrasekharan	DST	2013	20.75	Ongoing
	order optical	K	(Govt of			
3	nonlinearity in photonic		Kerala,			
	crystal cavity for optical		KSCSTE			
	switching ")			

DEPARTMENT OF CHEMISTRY

Sl. No	Title of the Project	Investigators	Sponsorin g agency	Year of starting	Amount (Lakhs)	Status
1	Naked Carbon as a Bridging Ligand in Bimetallic Ruthenium Complexes - A Theoretical Study on the Formation, Stability, Bonding and Reactivity	Dr. P. Parameswaran(PI) Dr. S. Susmita (Co-PI)	DST	2016	34.25-	Ongoing
2	High Valent Trans- metalloporphyrins with Glycosidic Linkages: Synthesis, Photophysical Electrochemical Studies, Cellular Targeting and Bio-imaging applications	Dr. C. Arunkumar	DST	2016	44	Ongoing
3	Design, Synthesis and evaluation of solid- emissive far red-near IR fluorophore	Dr. Lakshmi C.	DST	2016	39.996	Ongoing
4	Development and characterization hierarchical zeolites for fine chemical synthesis	Dr. G. Unnikrishnan	DST	2012	50.09	Ongoing
5	Development of nanocomposites from EVA, chitin, Fibres	Dr. G. Unnikrishnan	British Council	2009	1 lakhs+ GBP	Dissemina tion activities continues

SCHOOL OF NANO SCIENCE & TECHNOLOGY

Sl. No	Title of the project	Investigators	Sponsoring agency	Year of starting	Amount (Lakhs.)	Status
1	Development of stable nanofluids for heat	Dr.SajithV, Dr.Shijo	NTPC Energy Technology	2016	56.6 lakhs	ongoing

	exchanger for improved cooling in thermal power plants	Thomas, Dr.C.B.Sobhan	Research Alliance (NETRA)			
2	Development of nano lubricants for diesel engines",	Dr.SajithV, Dr. Shijo Thomas,	Combat Vehicles Research and Development Establishment (CVRDE), DRDO	2016	39.39 lakhs	Ongoing
3	Stimuli responsive microfluidics	Dr. SubramanyanN amboodiri V	DST	2016	14.98 Lakhs	Ongoing
4	Optofluidic platform for controlled droplet manipulation	Dr. SubramanyanN amboodiri V	SERB	2018	33.17 Lakhs	Ongoing
5	Advanced Fibre Reinforced Polymer Nano Composites	Dr.Soney Varghese	KSCSTE	2016	15.07 Lakhs	Ongoing

SCHOOL OF BIOTECHNOLOGY

Sl. No	Title of the Project	Sponsoring agency	Year of starting	Amount (Rs)	Status
1	Transcript profiling of differentially expressed gene(s) involved in the downstream step(s) leading to artemisinin biosynthesis on GA3 induction	KSCSTE	2012	16.00 lakhs	Ongoing
2	Characterizing the interactions of chlorpromazine with the mitotic kinesin Eg5 and tubulin: Implications in cancer chemotherapy	DST (SERC) SR/SO/BB-13 /2009	started in 2014 3 Years	38,05,068	Ongoing
3	Design and In vitro evaluation of the neuroprotective effects of HIF-prolyl hydroxylase inhibitors against ischemic stroke	DBT	3 years	50.19 Lakhs	Ongoing
4	Bioinformatics	DBT	N.A.	27 Lakhs	Ongoing

	Infrastructure Facility				
5	Inhibition of mitochondrial Dynamin related protein-1 activity confers neuroprotection against ischemia	DBT	3 years	35.14 Lakhs	Ongoing
6	Development of recombinant sphingomonas paucimobilis for gellan gum production: Characterization and application of recombinant gellan gum in nanoparticle based drug delivery systems	KSCSTE	3yrs	24,25,600	Ongoing
7	A genetic approach towards understanding the function of chaperonin CCT complex using yeast Saccharomyces cerevisiae as a model system	CSIR	3 Yrs	12.00 Lakhs	Completed

11.5 FACULTY POSITION (As on 31.03.2018) Professor

Electronics & Communication

	Professor	Asso. Professor	Asst.Professor	Total
Architecture	•			
Sanctioned				23
In Position	0	3	4	7
Vacant				16
Chemical				
Sanctioned				27
In Position	0	3	5	8
Vacant				19
Civil				T
Sanctioned				64
In Position	10	4	10	24
Vacant				40
Camanatan				
Computer Sanctioned				58
In Position	2	5	13	20
Vacant				38
		·		
Electrical Engine	eering			
Sanctioned				62
In Position	7	5	11	23
Vacant				39

Sanctioned				60
In Position	4	9	10	23
Vacant				37
Mathematics				
Sanctioned				25
In Position	2	6	07	15
Vacant				10
Mechanical			T	
Sanctioned				81
In Position	9	5	16	31
Vacant				50
Physics & Chemis	stry			T
Sanctioned				42
In Position	3	4	7	14
Vacant				28
School of Bio Teo	chnology			
Sanctioned				16
In Position	0	3	3	6
Vacant				10
0.1. 1. 03.6	. 0. 1			
School of Manage	ement Studies		1	1.6
Sanctioned				16
In Position	0	0	3	3
Vacant				13
C-11-CNC				
Sanctioned Sanctioned	cience and Technology	<u>'</u>	<u> </u>	6
In Position	1	1	1	6
	1	1	4	0
Vacant	mont & Dhysical Educa	tion		U
Sanctioned	nent & Physical Educa	11011		3
In Position	1	1	1	3
Vacant	1	1	1	0
v acam				U
Total				
Sanctioned	69	138	276	483
In Position	39	49	94	182
Vacant	30	89	182	301
, acam	1 50	07	102	501

11.6 ADMINISTRATIVE AND OTHER STAFF ADMINISTRATIVE STAFF-OFFICERS

Sl. No.	Sl. No. Designation Name	
INSTIT	TUTE OFFICE	
1	Registrar	Lt. Col. Pankajakshan K (Retd) 01.04.2017 to tilldate

Sri. K P Swaminathan from 01.04.2017 to 27.03.2017. Sri.Gejo. C V from 28.03.2017 to till date	2	Dy Registrar (Estt.)	Sri. Bharat Singh Rawat, 01.04.2017 to till date	
5 Dy Registrar (Academic) Dr. Raghunadhan T – current year Internal Audit Officer Sri. V Muraleedharan (Sr. Audit Officer, on deputation from AG's office) E K Cyril (Officer on Special Duty) from AG"s office Asst. Registrar Ashok Kumar Dev,21.08.2017 to till date Asha Gopalan 16.08.2017 to till date Saravanan S 16.08.2017 to till date 8 Financial Assistant Vacant 10 Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian Vacant 14 Librarian Vacant 15 Lady Medical Officer Vacant 16 Resident Medical Officer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	3	Dy Registrar (Finance)		
Internal Audit Officer Sri. V Muraleedharan (Sr. Audit Officer, on deputation from AG's office) E K Cyril (Officer on Special Duty) from AG's office Asst. Registrar Ashok Kumar Dev,21.08.2017 to till date Asha Gopalan 16.08.2017 to till date Saravanan S16.08.2017 to till date Sreeda S 18.08.2017 to till date Sreeda S 18.08.2017 to till date 8 Financial Assistant Vacant 9 Senior Superintendent Vacant 10 Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian Vacant 14 Resident Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	4	Deputy Registrar (S & P)	Sri. K M Muralikrishnan from 01.04.2017 to till date	
Asst. Registrar Ashok Kumar Dev,21.08.2017 to till date Asha Gopalan 16.08.2017 to till date Asha Gopalan 16.08.2017 to till date Saravanan S 16.08.2017 to till date Sreeda S 18.08.2017 to till date Senior Superintendent Vacant Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	5	Dy Registrar (Academic)	Dr. Raghunadhan T – current year	
Asha Gopalan 16.08.2017 to till date Saravanan S 16.08.2017 to till date Saravanan S 16.08.2017 to till date 8 Financial Assistant Vacant 9 Senior Superintendent Vacant 10 Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	6	Internal Audit Officer	AG's office)	
9 Senior Superintendent Vacant 10 Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	7	Asst. Registrar	Asha Gopalan 16.08.2017 to till date Saravanan S 16.08.2017 to till date	
10 Senior Superintendent Smt. Rugmini.C.P LIBRARY 11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	8	Financial Assistant	Vacant	
LIBRARY 11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	9	Senior Superintendent	Vacant	
11 Librarian Vacant 12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	10	Senior Superintendent	Smt. Rugmini.C.P	
12 Librarian (Gr.II) Vacant HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	LIBRA	RY		
HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	11	Librarian	Vacant	
HOSPITAL 13 Lady Medical Officer Vacant 14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	12	Librarian (Gr.II)	Vacant	
14 Resident Medical Officer Dr. (Smt.) A.A. Celine ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	HOSPI	TAL		
ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	13	Lady Medical Officer	Vacant	
ENGINEERING UNIT 15 Asst. Exe. Engineer Vacant Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	14		Dr. (Smt.) A.A. Celine	
Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	ENGIN	EERING UNIT	•	
Divisional Accountant Prasad M V HOSTEL OFFICE 16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date	15	Asst. Exe. Engineer	Vacant	
16 Hostel Manager Reejish Kumar M (in-charge)01.04.2017 to till date			Prasad M V	
	HOSTI	<u> </u>		
			Reejish Kumar M (in-charge)01.04.2017 to till date	
	TPL		` ,	

NON TEACHING STAFF STRENGTH

Sl. No	Designation	Sanctioned
COLI	LEGE & DEPARTMENTAL OF	FICES
1	Junior Superintendent	3
2	P.A. to Director	vacant
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			
ENG	ENGINEERING UNIT				
1	Assistant Executive Engineer	Vacant			
2	Assistant Engineer (Electrical)	1			
3	Assistant Engineer (Civil)	2			
4	Overseer Gr.I /Sr. Mechanic	2			
5	Draftsman Gr. I.	1			
6	Overseer Grade III	2			
7	Mechanic (Water supply), Plumber/ Mason Trade	6			
8	Mechanic (EMU)	5			
9	Senior Mechanic (Engg. Unit)	9			
10	Senior Mechanic (EMU)	5			
i. Ll	BRARY				
1	Librarian Gr. III	1			
2	Librarian Gr. IV	9			
3	Attender, Library	6			
4	Bookbinder	1			
5	Graphic Artist	1			
6	Offset Machine Operator	1			
7	Digital Library Technician	1			
ii. H	IOSPITAL				
1	Staff nurse	2			
2	Pharmacist	1			
3	Attender Hospital	1			
iii. I	HOSTEL				
1	Stewards	5			
2	Matron-Ladies Hostel	1			
iv. (GUEST HOUSE				
1	Guest House Manager	1			
2	Cook-cum-butler	1			
3	Bearers-cum-Room boy	2			
v. C	OLLEGE VEHICLES SECTION	N			
1	Driver	4			
2	Vehicle Cleaner	2			
	WATCH AND WARD STAFF				
1	Sergeant	1			
2	Watchmen	6			
3	Watchman-cum-Gardener	16			
4	Gardener	1			
	SANITATION				
1	Sanitation Worker	16			
2	Sweeper-cum-Sanitation worker	6			
3	Part-time Sweeper	25			

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.T. Mathew, Dean (R&C) 2. Gejo C V, Deputy Registrar (Finance)	TEQIP-III Initial training for handholding on PFMS system	29 th May 2017	IIT Delhi
Bharat Singh Rawat, Deputy Registrar(Establishment)	1.Workshopon Payfixation 2.Workshop on E-Office	12 th July 2017 to 14 th July 2017 7 th to 8 th September 2017	ISTM, New Delhi ISTM, New Delhi
Ashok Dev Kumar Assistant Registrar (Finance)	Workshop on Financial Management	5 th to 9 th February 2018	ISTM, New Delhi

11.8. SCHOLARSHIPS & AWARDS

CREC Silver Jubilee Endowment Trust Scholarships

CREC Silver Jubilee Endowment Trust (SJET) of the Institute, a registered body with the Director as Chairman, Deans & Heads of Departments as ex-officio and other nominated members as Trustees, currently awarded 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 invites 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.

Sl.No.	SCHOLARSHIPS
1.	Prof. A. O. Kunjipaulo Endowment Scholarship
2.	Class of 1992 Computer Engineering Alumni Scholarship
3.	RECCAA, Singapore Scholarship
4.	RECCAA, USA Scholarship
5.	RECCAA, Bahrain Scholarship
6.	REC 1st Batch Scholarship
7.	RECCAA, Mumbai Scholarships (2 Nos.)
8.	CSAI (Class of 2000) Scholarships (4 Nos.)
9.	REC 76 – 81 Batch Scholarships (2 Nos.)
10.	10 years of XXXII nd Batch (CREC 96) Scholarship
11.	REC Calicut 1982 Batch Scholarship
12.	NITC (REC) 1983 Batch Scholarship
13.	REC Calicut, Class of '84 Trust Scholarship

NIT Calicut 258 Annual Report 2017-18

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.	MariveetilRaghunath Memorial Endowment Scholarship
21.	1984-88 Batch of REC/NITC Scholarship

In addition to the above scholarships, PTA awarded scholarships worth Rs2 lakh to 27 students and NITC Hostels awarded 21 scholarships ((Rs1.05 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 noloss basis. Dr. P. S. Sathidevi, Dean (Academic) and Professor, Department of Electronics and Communication Engineering, Dr. A. Shaija, Professor, Department of Mechanical Engineering and Dr. Sudhish N George, Assistant Professor, Department of Electronics and Communication Engineering are in the positions of President, Secretary, and Joint Secretary cum Treasurer, of CREC-PTA, respectively. During the year 2017-18, PTA provided financial assistance to many needy students of NITC and co-ordinated parent teacher meetings at department level and institute level. Some of the major activities are listed below:

- 1. Cash awards (Rs.5,000/- each) were given to all the branch toppers during the Convocation day of the Institute held on October 23 2017. An amount of Rs. 1,95,000/- was utilized for this purpose.
- 2. Scholarships were given to financially needy students under SJET Trust scholarship scheme. An amount of Rs. 124000/- was utilized for this purpose.
- 3. Travel fellowships were given to several students for presenting papers in international conferences held in India. Total amount of Rs. 15000/- was awarded as PTA Travel Fellowship.
- 4. PTA assisted the student volunteers of the Central Library on duty in the study room by paying a honorarium of Rs. 72780/-
- 5. The PTA gave financial assistance to needy students. An amount of Rs.59000/- was spent for this purpose.
- 6. Cash awards (Rs. 1000/- each) were given to the best B. Tech/B.Arch projects. An amount of Rs. 9,000/- was utilized for this purpose.
- 7. An expert lecture was organized for first year B. Tech/B. Arch students and their parents by Mr. Vipin V Roldant, a renowned Psychologist on 21st October 2017. A special session of the same resource person was also arranged for PG students on the same day itself.
- 8. An expert lecture on the topic "Finding Fulfilment in Research and Life" by Prof. Devdas Menon, Professor, IIT Madras was organized for faculty members and research scholars on 27th October 2017.
- 9. The Annual General Body meeting held was held on 10-02-2018 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 National Service Scheme (NSS) Cell of National Institute of Technology Calicut (NITC) provided ample opportunities for its volunteers to participate in the various events and activities for the greater good of the community. Through its drives and fundraisers, NSS Cell has provided for the needy, while

through its events, NSS has fostered creativity and fun for school Children, be it through cultural activities or promoting knowledge.

- 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.
- A notable venture was the DATRI stem cell donor's registration camp, which was also conducted as a part of 'Aavishkar'. About 600 students registered in the four-hour long drive. Stem cell donation is considered as the most effective treatment for the diseases such as leukaemia (blood cancer), lymphoma, sickle cell anaemia, and thalassemia. But the chances to find a compatible donor are almost impossible without a co-ordinated registry. DATRI blood stem cell donor's registry offers a dedicated service for blood stem cell donation, to finding exact HLA match for fatal blood disorder patients. The data of a blood stem cell donor is retained in the database of stel cell donors.
- Two blood donation camps (one in each semester) were also conducted by the Blood Donors Forum, NITC (BDF, NITC). BDF, NITC is a small but efficient unit run by NSS cell of NITC with less than 10 members in it. BDF, NITC is able to co-ordinate and send donors to various hospitals in and around Calicut for blood donation according to the requests received. An app is also developed which contains the blood group and phone numbers of all the students in NITC. App is able to sort the students according to their blood groups. All together BDF, NITC completed 292 (more than 108 Litres) units of successful blood donation.
- A stall was also set up under the cell in association with Baby Memorial Hospital, Calicut during the NITC technical fest Tathva. The primary objective of this was to make students, both from and outside NITC aware about the importance of first aid and CPR. Hands on training was given to the students by the staff from the Baby Memorial Hospital, Kozhikode, in the stall.
- A medical camp was organized by the volunteers in association with Malabar Gold and IQRA hospital, Vellimadukunnun at Karassery, Kozhikode, which is a backward area near the Institute. More than 100 people from the locality were provided free medical check-ups. Moreover, free medicines were offered to the financially backward patients on the submission of relevant documents proving the same.
- 'Notebook' is a school kit collection drive organised under the well-known team 'Sanchari'. The school
 kits collected were given to school children from financially backward communities during the time of
 school reopening. NSS cell also contributed to this initiative by donating a considerable number of
 school kits. Team Sanchari also pointed out that NSS, NITC is the most active organisation in this
 venture while considering the number of kits collected by them.
- NSS cell also conducted a two-day camp at Kakadampoyil GLP school. The camp was conducted to renovate the present condition of the school. Some of the activities were cleaning the school premises, renovating the garden and creating a waste composting system. The volunteers also actively

participated in preparing the field for farming tapioca and green gram. A field trip to Chembothimala was also undertaken under the guidance of 'Chakravalam Nature Centre'. The volunteers took an oath to protect the environment.

- A successful bed donation drive was also held in which about 200 beds were donated to the Jeeva Jyoti
 Charitable Trust, Wayanad and Chathamangalam palliative care unit. Students can make good use of
 old beds by donating to those in need of a comfortable setting, as well as, minimize environmental
 impact by not throwing out the beds.
- A library was opened under the NSS cell in which the students can take the book for a nominal fee. The books in the Library were mostly the prescribed text books in the syllabus for various branches. Those students who could not afford to buy a new book make use of this facility.
- NSS also conducted 'Sneharagam', an event that invited specially-abled children from various schools to participate and enjoy a variety of cultural activities. The cultural activities included dancing and singing, and interactive activities. NSS volunteers were a part of the event and helped in the organisation of the events. Moreover, they also helped in the preparation of food for the children. Moreover, it was a kind-hearted activity that brought the volunteers and children closer to each other. In addition, gifts were also given to the children at the end of the programme, as a souvenir for the fun and frolic they had at 'Sneharagam'.
- NSS volunteers also visited an old age home "Santhwanam", where the volunteers spent quality time with the senior residents of the old age home.
- A well-known aspect of NSS Cell of NITC is the 'Special project' initiative. Several activities are done under this initiative during every year. In the previous academic year, projects mainly included recycling of plastic bottles, beautification of the walls of nearby government schools, visits and conducting classes at various orphanages etc.
- As part of the activities of the Unnat Bharat Abhiyan, a programme of the Ministry of Human Resource Development, GOI to uplift the rural masses by intervention from Institutes of Higher Learning, a team of NSS volunteers visited four Panchayaths in Kottayam district, from June 20th to June 23rd 2018. The team members interviewed the panchayath officials to understand the problems faced by the residents of the Panchayaths and also undertook a household survey from more than 100 households from the different wards of each Panchayath.
- Classes on a weekly are conducted by the NSS volunteers to the students of Government AUPS, Puthoor, Kozhikode, which is situated near to the campus under the 'Let's Teach' initiative. Basic science, Mathematics and English are taught to the students during every weekends as per their request. Classes are mainly aimed at improving the academic skills of the students of the school.
- 'Rally for Rivers' is a nationwide awareness campaign to save the Indian rivers by planting trees every 1 meter along both sides of the banks. There are three major steps for this project, with the first one being publicity, which the NSS volunteers helped by going to different places in Calicut, such as Baby Memorial Hospital, Ojin Bakery, and Mananchira CSI Church, to name a few, where there was media coverage.
- The most well-known aspect of NSS is farm work. During the months of February, March and April, tomatoes, brinjals and lady's fingers were planted, in addition to tapioca, banana plantain and papayas.

The harvested items are sold to faculty or nearby shops at reasonable prices. In addition to financial advantages, the farm work also poses an instillment of hard work and effort. By making the work hours mandatory, many students come out of their usual past time of books and internet and get involved in something as beautiful and innocent as giving life to plants thereby beautifying the NITC campus.

• 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 2017-18 was conducted at Chundale in Wayanad from 02/12/2017 to 08/12/2017 where in 2nd, 3rd and final year students the Institute participated. The major works undertaken includes cleaning of canal leading to a tributary of river Kabani in Lakkidi, Waynad. The NSS volunteers also conducted a session for the school students regarding the working mechanism and construction of Drones. Other works also included the visit to the tribal colonies, classes on the ill effects of drug usage to the volunteers, vegetable plantation in the School, cleaning the area around School. It can be rightfully said that the National Service Scheme Cell, National Institute of Technology Calicut has contributed in a substantial manner to make the society in which they live, a lot better.

11.11 Training & Placement statistics

DETAILS OF PLACEMENT 2017-18

NO	Date	COMPANY	TOTA L UG	AR	MC A	PG	TOTAL	Effective Total
1	14.07.17	Goldman Sachs31L	3				3	3
2	21.07.17	Dell 10L	4				4	7
3	23.07.17 24.07.17	Bajaj 8.2L	3				3	10
4	24.07.17	JP Morgan12L	9				9	19
5	20.07.17 24.07.17	Direct i28/15L	1				1	20
6	20.07.17 24.07.17	Direct i28/15L	0				0	20
7	21.07.17 26.07.17	Morgan stanly 16/17L	3			2	5	25
8	26.07.17	L&T 5L	3				3	28
9	24.07.17 27.07.17	Amazon 27L	1		1		2	30
10	27.07.17 28.07.17	Cisco 15/16L	7				7	37
11	25.07.17 29.07.17	Oracle Appl 22/22.5L	11			1	12	49
12	27.07.17	Oracle ST	3			1	4	53

	29.07.17	22/22.5L					
13	29.07.17 30.07.17	Qualcomm 16.6/17.8	5		3	8	61
14	31.07.17 01.08.17	Tesco 17L	1			1	62
15	28.07.17 02.08.17	Appdynamics 18L	1			1	63
16	01.08.17 02.08.17	Dell 11.5L			6	6	69
17	02.07.17	Microsoft17	1			1	70
18	02.08.17 03.07.17	Soc Gen 12.5L	4			4	74
#	04.08.17	L&T 5L	1			1	75
19	04.08.17	Informatica 11.5L	0		2	2	77
20	04.08.17 05.08.17	Cavium network11L	6		2	8	85
21	06.08.17	Sandvine 10L	5			5	90
22	06.08.17 07.08.17	Micro focus 11.5L	3		1	4	94
23	03.08.17 08.08.17	Deustsche Bank 12L	6			6	100
24	01.08.17 09.08.17	JP Chase12L	7	1		8	108
25	03.08.17 10.08.17	G E 10L	1		2	3	111
26	10.08.17 11.08.17	Target 12.5L	13	2		15	126
27	11.08.17	Reliance ppo 6L	5			5	131
28	11.08.17	Deloitte6 L	5			5	136
29	11.08.17	Wipro PDC6L	4			4	140
30	17.08.17	Mediateck 12.3L	0		2	2	142
31	19.08.17 20.08.17	H P 12.8L	10		2	12	154

32	21.08.17	Cerner 6L		7		7	161
33	21.08.17 22.08.17	ZS Asso 7.5L	5			5	166
##	22.08.17	G E 10L			1	1	167
34	23.08.17 24.08.17	ExonMobil 9L	7			7	174
35	24.08.17	SAP 10L	1			1	175
36	28.08.17	Amades Lab 8.5L	3			3	178
37	29.08.17	Path Parner 9L	4			4	182
38	30.08.17	One Conver 6/6.5L	3		2	5	187
39	30.08.17 31.08.17	L&T Const 5.2/5.4L	13			13	200
40	31.08.17	Benz 7.5L			1	1	201
41	31.08.17	L&T Info 9L	3			3	204
42	01.09.17	Finisar 10L	2			2	206
43	06.09.17 07.09.17	Thermofisher 8L	2		1	3	209
44	07.09.17	Atkins 5.2L			1	1	210
45	07.09.17 08.07.17	Itron 8/9L	4		2	6	216
46	11.09.17	CGI 7.2L	5			5	221
47	12.09.17	Tally 6L	7			7	228
48	13.09.17	Netcracker 6L	8	3	1	12	240
49	14.09.17 15.09.17	Capgemini 6L	20		1	21	261
50	18.09.17	Latent View Anal. 6L	2			2	263
51	15.09.17 19.09.17	Reliance Ind 7.5L	22			22	285
52	15.09.17 19.09.17	Reliance IT Ind 7.5L	4			4	289

	ı	1					1	
53	20.09.17	Amdocs 8L	1		1		2	291
54	20.09.17 21.09.17	L&T HEngg 4.9L	9				9	300
55	21.09.17	Impact Anal 5.5L	3				3	303
56	03.10.17	Infosys PP8L	1				1	304
57	04.10.17	C DOT 11	4				4	308
58	03.10.17 05.10.17	Sch Electric 5.5L	6				6	314
59	## PPO	Linkdin 22L	1				1	315
60#	07.10.17	Microsoft					#	315
61	10.10.17	Wipro turbo 6L	8				8	323
62	10.10.17 11.10.17	GGK Tech 5L	5				5	328
63	12.10.17	Indian Navy 11L	-				-	328
64	05.10.17 12.10.17	Adobe 39.12L	2			1	3	331
65	13.10.17 16.10.17	Honeywell 7/8L	1			1	2	333
66	17.10.17	D quotient 4L	2				2	335
67	## 30/05/17	Bosch 5.5L	0				0	335
68	19.10.17 20.10.17	Federal Bank 8L				2	2	337
69	20.10.17	Hexagon 5.5L	5				5	342
#	23.10.17	Cerner 6L			1		1	343
70	26.10.17	Maruthi 6.5L	8				8	351
71	01.11.17 02.11.17	NXP sem 10L	4				4	355
72	02.11.17	Delta power 5/7L	6			2	8	363
73	03.11.17	Halftick 6L	1				1	364
74	03.11.17 16.11.17	Philips Carbon 5L	2				2	366
		•		•				

		1	1	1		1	1
75	17.11.17	Ashok Leyland5.5L	6			6	372
##	18.11.17	L&T Const 5.2/5.4L	6			6	378
76	20.11.17	Mihap Comm 10L	0			0	378
77	20.11.17	TIME 6L					
78	21.11.17	Sobha Devl 12L	3			3	381
79	23.11.17	Fitjee 9L	6		5	11	392
80	23.11.17	Oracle OFC 6.5L	10	1	1	12	404
81	30.11.17	Atkins 5L			2	2	406
82	12.12.17	Vedanta 6.5L	8			8	414
83	12.12.17 14.12.17	Tata Moters 6.5L	18			18	432
84	14.12.1718.12. 17	Nokia 7/7.5L	5	4	1	10	442
85	19.12.17	HSBC 12/7L	0			0	442
86	26.12.17	Rel Jio 4.5L	3			3	445
87	26.12.17	Murugappa G 4.25L				-	-
88	26.12.17	BlueOptima 7L	0			0	445
89*	28.12.17	Nvidia 35K				(3)	445
90*	02.01.18	Intel 28K				(10)	445
91	02.01.18 03.01.18	ADP 5L	5			5	450
92	04.01.18	Tavant 4.8L	6	2	1	9	459
93*	08.01.18	Intel Big Core 28K				(6)	459
94	09.01.18	Tejas 8L	0		0	0	459
95	15.01.18	TCS MBA 6L			4	4	463
96	15.01.18	TCS BPO 6L			1	1	464
97	15.01.18	Leighton 4.8L	3			3	467
98	15.01.18	Cypress 28k				(2)	467
99	16.01.18	M&M 7L	2			2	469
100	16.01.18	KITCO 3.6L				-	-

#77 16.01.18 Time 6L 1 1 2 471		ı		1			1	1
102 30.01.18	#77	16.01.18	Time 6L	1		1	2	471
103 31.01.18	101	17.01.18	MRF 6.4L				-	471
104 02.02.18	102	30.01.18	Wipro M Tech 6L			2	2	473
105	103	31.01.18	Accenture 8L	3			3	476
106 06.02.18 Presi University7L 4 4 482 ## 26.12.17	104	02.02.18	Tatahitachi 6L	2			2	478
## 26.12.17	105	06.02.18	ESAF 5L				-	-
### 07.02.18 Murugapapa G 4.25L 3 485 107 12.02.18 Zoho 4.8L 1 1 486 108 13.02.18 Thermax 5L 2 2 488 109 15.02.18 IOCL 14L 9 9 497 110 09.02.18 19.02.18 Cognizant 6L 3 3 500 111 22.02.18 MIC College 4.2L 6 6 506 112 22.02.18 HDFC 6L 3(6) 3 509 113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 523 4 527 #* 06.03.	106	06.02.18	Presi University7L			4	4	482
108 13.02.18 15.02.18 Thermax SL 2 488 109 15.02.18 IOCL 14L 9 9 497 110 09.02.18 19.02.18 Cognizant 6L 3 3 500 111 22.02.18 MIC College 4.2L 6 6 506 112 22.02.18 HDFC 6L 3(6) 3 509 113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 06.02.18 ESAF	##		Murugappa G 4.25L	3			3	485
108 15.02.18 5L 2 488 109 15.02.18 IOCL 14L 9 9 497 110 09.02.18 19.02.18 Cognizant 6L 3 3 500 111 22.02.18 MIC College 4.2L 6 6 506 112 22.02.18 HDFC 6L 3(6) 3 509 113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 06.02.18 ESAF 5L 1 1 1 530 117 15.03.18 16.03.18 HPCL 16	107	12.02.18	Zoho 4.8L	1			1	486
110 09.02.18 19.02.18 Cognizant 6L 3 3 500 111 22.02.18 MIC College 4.2L 6 6 506 112 22.02.18 HDFC 6L 3(6) 3 509 113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 16.03.18 HPCL 16.5L 5 535	108			2			2	488
110	109	15.02.18	IOCL 14L	9			9	497
112 22.02.18 HDFC 6L 3(6) 3 509 113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 HPCL 16.5L 5 5 535	110		Cognizant 6L	3			3	500
113 23.02.18 Renault 5L - - 114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 HPCL 16.5L 5 5 535	111	22.02.18	MIC College 4.2L			6	6	506
114 24.02.18 I Primed 4.6L 6 8 515 ## 27.02.18 CISCO 45/55 (8) - 115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 16.03.18 HPCL 16.5L 5 535	112	22.02.18	HDFC 6L			3(6)	3	509
## 27.02.18 CISCO 45/55	113	23.02.18	Renault 5L				-	-
115 27.02.18 Continental 6.4L 1 516 ## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 HPCL 16.5L 5 535	114	24.02.18	I Primed 4.6L	6			8	515
## 05.03.18 KITCO 3.6L 0 2 1 3 519 ## 05.03.18 MRF 6.4L 4 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 16.03.18 HPCL 16.5L 5 535	##	27.02.18	CISCO 45/55				(8)	-
## 05.03.18 MRF 6.4L 4 523 116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 16.03.18 HPCL 16.5L 5 535	115	27.02.18	Continental 6.4L				1	516
116 05.03.18 Perfect Acd 5.5-6L 4 4 527 #* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 16.03.18 HPCL 16.5L 5 5 535	##	05.03.18	KITCO 3.6L	0	2	1	3	519
#* 06.03.18 Mediatec40K (5) 527 ## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18	##	05.03.18	MRF 6.4L	4			4	523
## 08.03.18 C Dot 11L 2 2 529 ## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 HPCL 16.5L 5 5 535	116	05.03.18	Perfect Acd 5.5-6L	4			4	527
## 06.02.18 ESAF 5L 1 1 530 117 15.03.18 HPCL 16.5L 5 5 535	#*	06.03.18	Mediatec40K				(5)	527
117 15.03.18 HPCL 16.5L 5 5 535	##	08.03.18	C Dot 11L	2			2	529
117 16.03.18 HPCL 16.5L 5	##	06.02.18	ESAF 5L			1	1	530
118 17.03.18 ITD Ce 3.2L 12 12 547	117		HPCL 16.5L	5			5	535
<u> </u>	118	17.03.18	ITD Ce 3.2L	12			12	547

119	17.03.18	Shriram Group 5L				0	0	547
120	17.03.18	Dolcera6L				0	0	547
121	19.03.18	Cadence 9L				2	2	549
##	19.03.18	MRF6.4L	2				2	551
##	19.03.18	Thermofisher25K					(5)	551
##	20.03.18	Renault 5L	2				2	553
122	20.03.18	TCS HR mba 5.5L				1	1	554
123	20.03.18 26.03.18	Texas Inst 18.4L/40k	2				2(2)	556
##	09.04.18	Wipro 15K					(6)	556
124	10.04.18 16.04.18	Indigo paints 4.5L				1	1	557
125	12.04.18 23.04.18	SouthIndian Bank 9L				5	5	562
126	24.04.18	CG Ltd 8.5L				2	2	564
127	02.05.18	Adnabu 4L	2				2	566
128	28.04.18	GR Edge4L	2				2	568
129	03.05.18	PRDC 5L				1	1	569
130	07.05.18	Sacpl 4L				1	1	570
131	18.05.18	MBS 4L				1	1	571
##	##	L&TCon5.2L	4				4	575
132	29.05.18	BPCL 16.5L	8				8	583
133	08.06.18	Intel 13L				13	13	596
134	09.06.18	ARMIET 6L				3	3	599
			471	2	23	103	599	599

() internship offers; # result/additional offer; PG means M Tech, MBA and M Sc

PAID INT	ERNSHIP: 2017-18*			
24.07.17	Bajaj	20000	me 2	2
26.07.17	Morgan Stanly	40000	cs 4	6
27.07.17	Amazon	40000	cs 4	10
09.08.17	JP Chase	35000	cs 7+ CS2	19
07.10.17	Microsoft	45000	cs 3	22

28.12.17	Nvidia	35000	PG EC 3	25
02.01.18	Intel	28000	PG EC 10	35
08.01.18	Intel Big core	28000	PG EC 6	41
15.01.18	Cypress	24000	PG EC 2	43
12.02.18	Thermax	10000	ME 1	44
16.02.18	Mihup commu	20000	CS1	45
27.02.18	CISCO	45/55000	CS4 PG CS3	52
27.02.18	HDFC	20000	MBA 6	58
05.03.18	Reliance	20000	CH7, EE3	68
06.03.18	Mediatech	40000	PG EC 5	73
19.03.18	Thermofisher	25000	cs 5	78
26.03.18	Texas	40000	ec1ee1	80
06.04.18	Wipro	15000	4cs, 2 ec	86
12.04.18	Schnider Elect	25000	PG EE PE2	88
27.02.18	CISCO	45/55000	cs1	89
17.04.18	Intel	28000	PG EC SP1	90
17.04.18	Amdocs	22000	cs2	92
05.06.18	Bosch	12000	PG EE PE2, PS4	98
11.06.18	Intel	28000	PG EC 1	99

AUDIT CERTIFICATE AND AUDIT REPORT 2017-2018

Separate Audit Report of the Comptroller & Auditor General of India on the Accounts of the National Institute of Technology, Calicut for the year ended 31 March 2018

We have audited the attached Balance Sheet of the National Institute of Technology, Calicut as at 31 March 2018, 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 Institute's management.

Our responsibility is to express an opinion on these financial statements based on our audit. However, we are not able to form an opinion on the accounts of National Institute of Technology, Calicut for the year 2017-18 in view of the below:

- 1. The Institute has shown eight current accounts in its books of Accounts instead of 15 Current Accounts certified by the Banks as on 31 March 2018. The certified closing balance of the seven current accounts not included in annual accounts was ₹ 14.24 crore, while for the eight included accounts bank has certified balance of ₹ 10.66 crores as against a negative balance of ₹ 20.55 crores shown in the accounts (schedule 7).
- 2. The Institute has shown 31 savings bank accounts in its books of Accounts instead of 39 savings bank accounts certified by the Banks as on 31 March 2018. The certified closing balance of the 8 savings bank accounts not included in the annual accounts was ₹ 0.87 lakhs, while for the 31 included accounts, the bank has certified balance of ₹ 50.11 crores as against a balance of ₹ 108.67 crores shown in the accounts (schedule 7).
- 3. Out of 122 Savings bank Accounts (including 83 Project accounts) maintained by the NIT, balances of only 17 Accounts were reconciled with the pass book and balances of 105 Bank Accounts are yet to be reconciled
- 4. The certified closing balance of the 83 Project Accounts (SB Accounts) is ₹ 7.85 crore as against a balance of ₹ 10.66 crore shown in the books of accounts (Schedule 3 A)
- 5. The Suspense Account in the Current Liabilities and Provisions (Schedule 3) includes balances under five Suspense Accounts amounting to ₹ 16.72 crore. Though the irregular keeping of huge amounts under Suspense Account was commented upon in previous SARs, no corrective action has been taken by the Institute.
- 6. The total closing balance of Earmarked Fund/Endowment Fund (Schedule 2) is shown as ₹144.63 crore whereas as the Balance Sheet figure is ₹136.44 crore. The difference of ₹. 8.18 crore is yet to be reconciled.
- 7. Note No 5 (Schedule 24) and annual accounts shows the FD /Term Deposit balance of ₹215.11 crore with nationalized banks. However Annexure A (iii & v) of accounts states that ₹221.38 crore¹ were taken in books of accounts of Institute. The difference of ₹6.27 crore is yet to be reconciled. Further ₹1.11 crore FD was not taken in the books of accounts.

For and on behalf of the C& AG of India Principal Director of Audit (Central) Chennai

Place: Chennai Date: 7.52019-

¹ (□178.08 crore for term Deposit+ □43.30 for Multiple Deposit accounts)

ANNUAL ACCOUNTS

2017-2018

				24		

NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT BALANCE SHEET AS AT 31.03.2018

(Amount	in	Puncos
(AIIIOUIIL	111	Kupees

COLIDOES OF FUNDS		T	(Amount in Rupees)
SOURCES OF FUNDS CAPITAL FUND	Schedule	Current Year	Previous Year
	. 1	5,81,36,31,023.76	5,62,69,69,546.26
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	2	1,36,44,67,299.85	1,21,67,23,758.50
CURRENT LIABILITIES & PROVISIONS	3	79,77,88,117.91	72,11,93,599.44
RESERVES AND SURPLUS		7,69,000.00	7,69,000.00
			7,03,000.00
TOTAL		7,97,66,55,441.52	7,56,56,55,904.20
APPLICATION OF FUNDS			, , , , , , , ,
FIXED ASSETS			
Tangible Assets		1,87,31,74,315.50	1,95,93,21,688.00
Intangible Assets	4	29,70,937.30	
Capital Work-In-Progress		1,55,98,52,538.00	56,41,052.00
		2,33,30,32,338.00	1,48,72,32,997.00
INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS	8	(6	
Long Term		18,63,53,119.00	22 20 00 605 00
Short term	5		22,28,90,695.00
INVESTMENTS- OTHERS	6	1,32,94,26,330.40	1,34,71,69,870.00
CURRENT ASSETS	7	1 52 20 07 101 22	4.00.07.04
LOANS, ADVANCES & DEPOSITS	0	1,52,36,07,101.23	1,03,07,31,947.61
TOTAL	8	1,50,12,71,100.09	1,51,26,67,654.59
TOTAL		7,97,66,55,441.52	7,56,56,55,904.20

Deputy Registrar (Finance) National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थाप कालिकट National Institute of Technology Calicut कालिकट / Calicut

निदेशक I DIRECTOK राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

National Institute of Technology Calicut एन.ई.टी. काँपस (पी.ओ) कालिकट, केरल - 673601, भारत NIT Campus (P.O), Calicut, Kerala - FT. 201, India

Chairperson, Board of Governors National Institute of Technology Calicut NIT Campus (P.O), Calicut, Kerala - 673 601, India

NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31.03.2018

(Amount in Rupees)

PARTICULARS	Schedule	Current Year	Previous Year
INCOME			
Academic Receipts	9	37,73,18,884.23	42,59,93,934.05
Grants/Donations/Subsidies	10	56,38,00,000.00	72,30,00,000.00
Income from investments	11	2,32,40,023.00	2,59,08,431.00
Interest earned	12	42,79,297.00	56,37,352.00
Other Incomes	13	3,05,96,618.34	2,92,31,179.50
Prior Period Income	14	4,68,73,713.47	1,74,97,685.00
TOTAL (A)		1,04,61,08,536.04	1,22,72,68,581.55
EXPENDITURE			
Staff Payments & Benefits (Establishment expenses)	15	69,29,35,301.00	68,63,53,845.16
Academic Expenses	16	24,88,15,437.00	23,60,84,994.00
Administrative and General Expenses	17	7,86,37,395.00	6,93,03,511.50
Transportation Expenses	18	17,54,546.41	15,63,015.09
Repairs & Maintenance	19	8,06,86,237.00	3,37,04,499.00
Finance costs	20	1,38,505.00	3,32,039.00
Depreciation/Amortization	4	17,97,96,675.20	20,12,62,381.00
Other Expenses	21	5,88,83,399.00	6,02,27,743.00
Prior Period Expenses	22	4,00,97,661.00	(8,97,850.00
TOTAL (B)		1,38,17,45,156.61	1,28,79,34,177.75
Balance being excess of Income over Expenditure (A-B)		(33,56,36,620.57)	(6,06,65,596.20
Less/(Add): Unitilised Non Plan Grant transferred to Liabilities/			
(Assets)	3C		(30,43,41,903.75
Foreign Exchange gain/ loss			2 2 3 3 0220 2000000 0000
Add:Transfers from Capital Grants		17,97,96,675.45	
Balance Being Surplus / (Deficit) Carried to Capital Fund		(15,58,39,945.12)	44,50,86,063.75

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

कुल स्थिव TREGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

निदेशक / DIRECTOR
राष्ट्रीय प्रौधोगिकी संस्थान कालिकर National Institute of Technology Callegt

Chairperson,
Board of Governors
National Institute of Technology Calicut

SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31.03.2018

SCHEDULE -1 CAPITAL FUND

(Amount in Rupees)

Particulars	Current Year	Previous Year
Balance at the beginning of the year	5,62,69,69,546.26	5,13,23,48,065.71
Add: Contributions towards Capital Fund	-	3,13,23,40,003.71
Add: Grants from UGC, GOI & State Govt. to the extent utilized for capital		-
expenditure	77,02,00,000.00	49,00,00,000.00
Add: Assets purchased out of earmarked funds	-	13,00,00,000.00
Add: Assets purchased out of Sponsored Projects, where ownership vests in the	+8	
institution	1,27,72,390.00	28,69,134.00
Add: Assets donated/Gifts received	-	-
Add: Interest on Term Deposits and Savings account	4,36,70,598.10	1,24,31,993.00
Less: Bank charges	2,986.00	(14,949.00)
Less: Transfer to earmarked funds - TEQIP	-	1,00,00,000.00
Add/(Less): Excess/(Deficit) of Income over Expenditure transferred from		2,00,00,000.00
Income and Expenditure account	(15,58,39,945.12)	44,50,86,063.75
Total	6,29,77,69,603.24	6,07,27,50,205.46
Less/ (Add): Unspent Plan Fund transferred to Liabilites	-	24,43,70,903.00
Less: Transfers from Capital Fund	48,41,38,579.48	20,14,09,756.20
Balance at the year end	5,81,36,31,023.76	5,62,69,69,546.26

- Junes

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut कालिकट / Calicut निदेशक / DIRECTOR राष्ट्रीय ग्रीधोगिकी संस्थान माहित्य

National institute of Technology Lains एन.ई.टी. कॉंग्स (थी.ओ) क्रांतिकर केरल काइका

NIT Campus (P.O), Calicus Mereta

Chairperson,
Board of Governors

National Institute of Technology Calicut
NIT Campus (P.O), Calicut, Kerala - 673 601, India

SCHEDULE 2 - DESIGNATED/EARMARKED/ENDOWMENT FUNDS

															(Amount in Rupee
										35550000071				TO	TAL
Particulars	TEQIP	TEQIP-II	TEQIP-II (Equipment Modernisation Grant)	TEQIP-II Reserves	TEQIP-III	GPF	CPF	FBS	GROWTH FUND	STUDENTS FUND	GYMKHANA	ТВІ	H.W.D	Current Year	Previous Year
		To a series						62 624 00	87,15,59,448.00	2,93,02,824.00	(43,321.00)	1,88,26,627.00	28 35 593 00	1,21,67,23,758.50	1,10,13,33,354.0
) Opening balance of the funds	24,72,589.00	86,03,052.50	1,34,06,881.00	1,00,00,000.00		24,78,51,454.00		62,624.00			3,57,152.00	91,30,591.00	5,48,000.00	21,89,82,787.00	16,15,11,586.0
) Additions during the year	-	1,40,75,653.00	•	-	10,01,488.00	3,92,92,457.00	2,26,81,321.00	-	11,89,25,909.00	1,29,70,216.00	3,57,152.00	91,30,391.00	3,40,000.00	22,05,02,707.00	20,20,22,000.0
:) Income from investments made out				-		2,12,63,327.72	3,38,741.63		3,05,31,465.00	1,12,524.00	-	3,31,007.00	-	5,25,77,065.35	4,87,80,267.0
f) Accrued interest on nvestments/Advances						2,70,97,087.00	6,46,731.00		5,40,93,692.00			0.00	-	8,18,37,510.00	1,92,14,243.0
e) Interest on Savings Bank A/c	-			1,49,540.00	1	(4,30,440.00)	(20,865.00)	-	(4,77,106.00)			0.00		(7,78,871.00)	28,85,797.0
Other additions	- :			-			•	-	10,000.00	-	- 1	0.00	-	10,000.00	57,84,130.0
0.00						however									
Total(A)	24,72,589.00	2,26,78,705.50	1,34,06,881.00	1,01,49,540.00	10,01,488.00	33,50,73,885.72	3,54,91,915.63	62,624.00	1,07,46,43,408.00	4,23,85,564.00	3,13,831.00	2,82,88,225.00	33,83,593.00	1,56,93,52,249.85	1,33,95,09,377.0
в.															
Utilisation/Expenditure towards			21											1,89,33,486.00	3,49,72,179.0
i) Capital Expenditure	-	1,89,33,486.00		-	-	-			2.75.070.00		4,74,712.00	1,37,06,884.00	7,20,269.00	10,41,13,954.00	8,78,13,439.5
ii) Revenue Expenditure	1,89,500.00	(1,12,756.00)	1,38,62,657.00		10,01,488.00	3,89,56,744.00	2,40,65,606.00	- 1	3,75,879.00	1,08,72,971.00	4,74,712.00	1,57,00,004.00	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
			1 20 52 557 00		10,01,488.00	3,89,56,744.00	2,40,65,606.00		3,75,879.00	1,08,72,971.00	4,74,712.00	1,37,06,884.00	7,20,269.00	12,30,47,440.00	12,27,85,618.5
Total(B)	1,89,500.00	1,88,20,730.00	1,38,62,657.00	•	10,01,488.00	3,63,30,744.00	2,-0,00,000.00		7.2/2.2.2	1					
	72 02 000 00 1	38,57,975.50	(4 55 776 00)	1,01,49,540.00	0.00	29,61,17,141.72	1,14,26,309.63	62,624.00	1,07,42,67,529.00	3,15,12,593.00	(1,60,881.00)	1,45,81,341.00	26,63,324.00	1,44,63,04,809.85	1,21,67,23,758.5
Closing balance at the year end (A-B)	22,83,089.00	30,37,373.30	(-1,55,770.00)	-,0-, 10,040.00											

.

SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS

(Amount in Rupees)

	(Amount in Rupees		
Particulars		Current Year	Previous Year
A. CURRENT LIABILITIES			
1. Deposits from staff			
2. Deposits from students		2,24,39,714.00	1,97,35,214.00
3. Sundry Creditors			
a) For Goods & Services		39,413.00	35,633.00
b) Others		6,90,801.00	5,99,219.00
4. Deposits - Others (including EMD, Security Deposit)		2,14,97,192.70	2,26,33,514.50
Statutory Liabilities (GPF,TDS,WC TAX,CPF,GIS,NPS):			2,20,33,314.30
a) Overdue			
b) Others		7,41,083.83	7,86,754.72
6. Other current Liabilities		7,41,005.05	7,80,734.72
a) Salaries		1,88,37,298.00	2,25,05,798.00
b) Receipts against sponsored projects		10,65,51,197.50	9,01,42,681.50
c) Receipts against sponsored fellowships & scholarships		2,87,31,311.25	1,80,54,401.50
d) Unutilised Grants		2,07,31,311.23	1,80,34,401.30
e) Grants in advance			-
f) Tuition fee		46,22,604.53	46 22 604 52
g) Other liabilities		17,59,66,723.10	46,22,604.53
	Total (A)	38,01,17,338.91	14,89,29,114.10
B. PROVISIONS	rotal (A)	36,01,17,336.31	32,80,44,934.85
1. For Taxation		2	
2. Gratuity		17 70 50 715 00	15 60 01 640 00
3. Superannuation/Pension		17,70,58,715.00	15,60,01,648.00
4. Accumulated Leave Encashment	1	1,85,380.00	93,65,387.00
5. Expenses payable		19,85,20,868.00	16,06,94,536.00
6. Trade Warranties/Claims		4,19,05,816.00	6,70,87,093.59
7. Others		-	-
	Total (B)	41 76 70 770 00	- 30.31.40.664.70
Total (A+B)	iotal (b)	41,76,70,779.00	39,31,48,664.59
Total (ATD)		79,77,88,117.91	72,11,93,599.44

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

कुल सचिव RESISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut कालिकट / Calicut

निदेशक / DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कातिकट National Institute

Board of Governors

SCHEDULE 3A- SPONSORED PROJECTS

		Opening B	alance				Closing Balance		
1.Sr. No	2. Name of the Project	3. Credit	4. Debit	5. Receipts during the year	6. Total	7. Expenditure during the year	8. Credit	9. Debit	
1	Linear & Non Linear Optical (Dst)	-	11,153.00		(11,153.00)	-	573	11,153.00	
	Stable Isotopic Investigation	1,98,524.00	-1		1,98,524.00	-	1,98,524.00		
	Experimental Investigation	2,60,895.00	-	-	2,60,895.00	-	2,60,895.00		
	Development Of Transparent Conducting Polymer Films For Electrode	3,03,928.00	1-1	-	3,03,928.00	-	3,03,928.00		
	Information Security Education	5,09,237.00	-	F	5,09,237.00	-	5,09,237.00		
te	Multifunctional Plasmonic Nanoparticles - Nano Composites - Targeted Drug Delivery	5,429.00	(4)	-	5,429.00	=	5,429.00	-	
7	Strengthen The Research Facilities In Networking And Security Area	100.00	-	-	100.00		100.00		
8	Enhancement Of The Sensivity Of Peptide Nanotube Based Biosensors	18,808.00	-		18,808.00	-	18,808.00		
9	Developmemt Of An Interoperable Spatial Database Of Road Network For Clt	15,08,674.00	_	-	15,08,674.00	-	15,08,674.00		
10	Fast Development Of Chitosan Reinforced Polymer Nanocomposites	8,914.00		-	8,914.00	-	8,914.00	1 2	
11	Development Of Tools & Techniques For Modeling & Analysis	31,60,016.00		(-)	31,60,016.00	-	31,60,016.00	-	
12	Strengthen The Research And Post Graduate In Area Power Quality	14,03,213.00	×-	12	14,03,213.00	-	14,03,213.00		
	Thermo Responsive Ion Track Membrance	2,168.00	= ,	-	2,168.00	-	2,168.00		
	Fast Track Project Treatment Of Effrluent Using Biomembran Techniques	-	2,640.00	-	(2,640.00)	-		2,640.0	
15		1,18,522.00	-		1,18,522.00	-	1,18,522.00	v	
16	Design Development And Optimization Of Miniature And Micro	5,14,936.00	-	-	5,14,936.00	-	5,14,936.00	-	
17		10,799.00	-	2,064.00	12,863.00	-	12,863.00	-	
18	Molecular And Functional Charactarization Of Putative- Zingiber Zerumbt-Ginger	95,417.00	-	-	95,417.00	-	95,417.00	-	
	Regulation Of L- Sorbose Utilization In Human Fungal Pathogen Candida Albicans	11,66,075.00	-	-	11,66,075.00	-	11,66,075.00	2	
	Molecular Cloning And Characterization Of Terpene Synthas- Zingiber Zerumbet	1,00,990.00	-	-	1,00,990.00	-	1,00,990.00	-	
	Simulation Of Solid Rocket Exhaust Plumes DevImpt. Of Activity Based Models For Forecasting Of Travel Demand	-	848.00	16.00	(832.00)	1,118.00	-	1,950.00	

		Opening B	Balance				Closing Balance	
1.Sr. No	2. Name of the Project	3. Credit	4. Debit 5. Receipts during the year		6. Total	7. Expenditure during the year	8. Credit	9. Debit
23	Developmet Of A Toolbox For Evaluation And Identification Of Urban Road Safty Improvement Measures	4,292.00						
24	Investigation Of Distributed Generation Stm. Integration	4,292.00		34.00	4,326.00	2,376.00	1,950.00	
25	Identification And Characterization Of Phytochemicals From Indian Medicinal Herbs	-	57,932.00	57,932.00	-	-		-
26 1	Design & Devlp. Of Electro-Magnatically Driven Miniature- Ir Sensor Array Phase I	779.00	-	21.00	800.00	564.00		-
27	Development Of Pro-Flurophore Scaffolds To Probe Peptide Aggregation And-Transition	7,66,111.00	_	61,595.00	8,27,706.00	62,852.00	7,64,854.00	-
28 (Study On Long Term Performance Pavements With Coir Geotextiles	20,07,074.00	-	74,693.00	20,81,767.00	5,516.00	20,76,251.00	
29	Use Of Coir Pith For Airport Soft Ground Arrestor System Pufa Therapy Ameliorates Cognitive Impairment And	39,72,467.00	_	1,47,956.00	41,20,423.00	_	41,20,423.00	_
30 N	Miochodrial Dysfunction In Caeno Productivity Monitoring And Wage Analysis For Nreg Works		_		-	-	-	
31	Production Management System	- 445,000,00	22,530.00	-	(22,530.00)	-	-	22,530.
33 E	Establishment Of Bif - Btbi	4,16,900.00 9,737.00		-	4,16,900.00	-	4,16,900.00	
34 H	Electron C Structure Studies Of Adsorption Of Unsatured Hydrocarbons	-	_	-	9,737.00	-	9,737.00	-
	Combination Of Therapy In Ischmic	30,039.00	-		30,039.00	-		
36 P	Cavity - Enhanced Absorbtion Spectroscopy For Trace Gas collutant Monitoring	2,122.00	-	_	2,122.00	-	30,039.00	
37 A	lovel Functionalized Porphyrinic Coordination rrays,Polymers And Frameworks	-	13,344.00	_	(13,344.00)		2,122.00	12.244
TI	unable Hierarchical Zeolities Using Polymer Macro- heoreatical Study Onysis By Methane Mono-Oxygenase	27,65,053.00	-	-	27,65,053.00	-	27,65,053.00	13,344.
39 II N 40 CI	he Enzymatic Castal loval Triazole Vridged Metalloporphyrins Formed Via Click		-	-		-		
N	onlinear Analysis Of Eeg Signals Of Patients With	-	40,792.00		(40,792.00)		-	40,792.
De	esign Uranium Based Catalist For Activation And unctionaliation A Computational Quantum	14,01,259.00	-	-	14,01,259.00	-	14,01,259.00	
43 De	esign And In Vitro Evaluation - Hif Prolyil Hydroxilase	27,636.00	-	-	27,636.00	-	27,636.00	<u>-</u>
	leamide As Novel Neuroprotectant Against Ischemic roke	8,14,582.00 3,73,524.00		35,272.00	8,49,854.00		8,49,854.00	-
As	ssessment Of Effectiveness Of Nh-47 Gye Pass Road In	1,25,295.00		-	3,73,524.00 1,25,295.00		3,73,524.00	-

		Opening B	alance				Closing Balance	
1.Sr. No	2. Name of the Project	3. Credit	4. Debit	5. Receipts during the year	6. Total	7. Expenditure during the year	8. Credit	9. Debit
-	Biodegradability Enhancement Of Low Density Polyethylene		NAME OF THE PERSON		(00.000.00)			80,229.00
46	By Using Biopolymet Nano-	-	80,229.00	-	(80,229.00)			60,229.00
	Nrb Project - Design And Development Of A Protocol Stack			*	47 600 00		17 (00 00	9
	For Underwater.	17,698.00	-	-	17,698.00		17,698.00 14,35,865.00	
48	Project Antibiotics Removal From Waste Water	14,35,865.00	-	-	14,35,865.00	-		
49	A Genetic Approach Towards Understanding	4,26,645.00	-	-	4,26,645.00	2 20 474 00	4,26,645.00	
50	Fast Track Project	5,23,618.00	-	19,503.00	5,43,121.00	2,38,474.00	3,04,647.00	
51	Poly (3,4Ethylenedioxthiophene) Poly(Methyl Methacrylate)	28,476.00	-	12,876.00	41,352.00		41,352.00	
	Investigation On Bio-Hydrogen Production By Thermo- Chemical Method	1,60,943.00	_	5,995.00	1,66,938.00	_	1,66,938.00	
	Cenre For Transportation Research	1,27,01,020.00	-	3,22,849.00	1,30,23,869.00	37,95,647.00	92,28,222.00	
	Development Of Bistable Memory Devices Based On Organic Semi-Conductors	5,52,686.00		1 to	5,52,686.00	-	5,52,686.00	-
	Rational Design And Synthesis Of Metalloprophyrin- Lanthanoid Hybrid Material For Dna Binding	14,67,015.00	D	-	14,67,015.00	81,217.00	13,85,798.00	_
	Photo Switchable K Ion Channel Blockers	21,156.00	-	12,38,871.00	12,60,027.00	11,40,475.00	1,19,552.00	-
50	Experimental And Deterministic Model Studies In							
57	Regeneration Of Microbial Biosorbents After Heavy Metal	19,603.50	12 7	-	19,603.50	-	19,603.50	-
58	Devt Of Low Cost Elastomeric Fullerene Derivatives Using Electron And Gamma Irradiation For Organic Electronic	-	1,00,126.00	8,02,909.00	7,02,783.00	74,089.00	6,28,694.00	-
-	Design And Implementation Of Secure Communication System	7,780.00	<u>u</u>	289.00	8,069.00	-	8,069.00	-
59	Inhibiation Of Mitochondrial Dynamin Relates Protein One		28,07,018.00	-	(28,07,018.00)	-	-	28,07,018.00
	High Energy Density Photochemical Fules Based On Nanomaterial Hybrids	34,30,088.00	-	21,179.00	34,51,267.00	-	34,51,267.00	-
6	Transparent Flexible And Conducting Electrodes Based On Graphene- Nanometal Hybrids	-	6,26,770.00	-	(6,26,770.00)	-		6,26,770.00
	Ruthenium (11) Osmium (11) And Gold (111)Alkaloids:	4474.045.00	_	_	14,71,815.00	_	14,71,815.00	-
6	Active Targets For Dna Intercalation Interactions	14,71,815.00	-	5,636.00	3,96,421.00		1,09,390.00	-
6	4 Investigation Of Optical Nonlinearity By Defect State In One	3,90,785.00		2,44,389.00	7,42,553.00		-	13.00
	Characterizing The Interactons Of Chlorpromazine With The	4,98,164.00	-	26,951.00	12,93,081.00		70,484.00	-
6	6 Design And Fabrication Of Anechoic Test Facility And	12,66,130.00	-	20,931.00	12,55,001.00	12,22,007.100		
6	Ultrasensitive,Rapid & Low Cost Detection Of Cancer 7 Biomakers	910.00	-	25.00	935.00	528.00	407.00	
6	Development Of Nanocomposites Ethylene	7,85,540.00		27,201.00	8,12,741.00		7,45,741.00	-
	9 Investigation-Scrap Tyre Shreds -Cement Concrete	62,308.00	-	-	62,308.00	-	62,308.00	-
	Investigation Of Performance	_	_	-	-		= =	-
	0 1 Development Of Attached Media-Treatment Of Domestic -	61,301.00	<u> </u>	-	61,301.00	-	61,301.00	-

		Opening B	Balance			Closing Ba	lance	
1.Sr. No	2. Name of the Project	3. Credit	4. Debit	5. Receipts during the year	6. Total	7. Expenditure during the year	8. Credit	9. Debit
. 72	Studies On Ground Water Pollution By Heavy Metal Disch &	37,247.00	-	-	37,247.00	-	37,247.00	
73	Investigation On Power Quality Issues Of Drives	1.00	=	-	1.00	-	1.00	<u>@</u>
74	Mesophase Formation And Characterisation Of Organised Assemblies	13,386.00	-	-	13,386.00	_	13,386.00	-
75		_	9.00	-	(9.00)		170	9.00
76	Implementation Of Multy.	3,98,311.00	=	-	3,98,311.00	-	3,98,311.00	_
77	Seismic Evaluation Of Existing Multy - Storey Buildings In Kozhikode Dist.	3,40,941.00	-	-	3,40,941.00	-	3,40,941.00	
	Development Of Risk Management Tool In Green Construction Sites	_	-	-	-	-	-	-
79	Transcript Profiling Of Differentially Expr.	-	19,419.00	13.00	(19,406.00)	594.00	_	20,000.00
80	Experimental Investigation For Potential Use Of Coir Path In Making Value Added Products	~		-	-		-	
81	Development Of Intelligent Robot For Fault Diagnosis Of Power	19,579.00	-	97,759.00	1,17,338.00	1,04,659.00	12,679.00	-
. 82	Low Density Polythylene / Nanochitosan Biodegradable Films For Food-	3,49,618.00		-	3,49,618.00	-	3,49,618.00	
83	Development Of Low Cost Polymer Electrolyte Membranes	4,70,312.00	_	_	4,70,312.00	63,446.00	4,06,866.00	-
84	Investigation On Absorption Of Flouride From Water Using Nano Material	-	_	-	-	-	-	(-)
85	Comprehensive Computational Analisys Of Anti- Diabetic Phytotherapeutics	2,87,726.00	-	-	2,87,726.00	-	2,87,726.00	2
0.5	Flexible Nanomaterial Doped Polymer Dispersed Liquid Crystal (Pdic) Devices For Switchable Window Applications							
86	Devt And Analysis Of Model For Green Operations In Supply		9,23,706.00	2,082.00	(9,21,624.00)		-	9,21,624.00
- 1	Chain Management	2,06,902.00	-	6,805.00	2 12 707 00		2 12 707 00	
-	Enhancement Of Third-Order Optical Nonlinearity In	2,00,302.00		0,603.00	2,13,707.00		2,13,707.00	-
	Photonic Crystalcavity For Optical Switching	1,52,688.00	-	3,689.00	1,56,377.00	68,109.00	88,268.00	_
	Development Of Organic Solar Cells Based On Transition				, , , , , , ,	,====	- 3,200.00	
89	Metal Oxide Anode Buffer Layers	88,895.00	-	28,829.00	1,17,724.00	55,600.00	62,124.00	-
	Temperature Dependant Optical Switch From Organized							
	Assemblies	1,594.00	-	-	1,594.00	-	1,594.00	
91	Investigation On The Application Of Catalitic Nanoparticles As Diesel	25,22,264.00	_	67,027.00	25,89,291.00	· -	25,89,291.00	-
	Devt Of A Model Framework For Land Use Based Estimation							
92	And Prediction Of Solid Waste Generation	1,882.00		66.00	1,948.00	288.00	1,660.00	¥
1	Implimentation Of Habitat Devt. Prgrme. Of Three Oorus In Attapadi	-		2				

		Opening Balance			7/		Closing Balance	
1.Sr. No	2. Name of the Project	3. Credit	4. Debit	5. Receipts during the year	6. Total	7. Expenditure during the year	8. Credit	9. Debit
	Investigation Over The Experimental And Mathematical Modelling Of Novel Plant Based Biosorbents For The Sequestration Of Hexavalent Chromium							
94		4,515.00		3,415.00	7,930.00	-	7,930.00	
O.F.	Development Of A Hybridelectrochemical Discharge Machine And Itsperformance Analysis	20.812.00	_	240.00	21 052 00	10 270 00	2 675 00	
33	Securityassessment Of Microgrids In Isolated Andin Grid	20,813.00		240.00	21,053.00	18,378.00	2,675.00	-
96	Connected Mode	2,48,087.00		9,253.00	2,57,340.00	_	2,57,340.00	8
	Setting Up Design Innovationcentre	33,90,812.00		1,45,330.00	35,36,142.00	11,21,691.00	24,14,451.00	
	Special Manpowerdevelopment-Chip To Systemdesign(Snmdp-C2Sd)-Department Ofelectronics And Information Technology Mit	6,39,566.00	-	17,45,631.00	23,85,197.00	9,53,943.00	14,31,254.00	_
99	Synthesis Of Novelelectrocatalytic Nanoparticles Andnanocomposites For Fuel Cell Application	72,789.00	-	2,80,424.00	3,53,213.00	3,33,814.00	19,399.00	-
100		2 <u>-</u>	1,213.00	7,20,629.00	7,19,416.00	4,88,789.00	2,30,627.00	-
	Power Electronics For Grid Connectedrenewable Energy							
	System Under Nampetphase li	2,93,911.00		6,201.00	3,00,112.00	228.00	2,99,884.00	
102	Production Of Bil Diesel Fromchlorella Vulagris	1,01,752.00		1,99,994.00	3,01,746.00	3,08,257.00		6,511.0
103	Investigation Over The Experimentaland Mathematical Modelling Of Aerosols Inthe Kde.Dist.	10,30,899.00	-	19,357.00	10,50,256.00	5,86,534.00	4,63,722.00	-
	Development Of Cost Effective 3-Axisintelligent Platform Stabilization System"	5,54,830.00	-	6,35,189.00	11,90,019.00	8,43,802.00	3,46,217.00	
105	Inspire Faculty,Ced - Inspire Research Project	12,87,261.00	K2	9,56,237.00	22,43,498.00	22,45,755.00		2,257.0
106	Strength Improvement Of Locallyavailable Soft Clays In Construction Ofhighways Using Lime-Enzymatic	6,93,105.00		52,838.00	7,45,943.00	7,24,546.00	21,397.00	-
107	Development Of Advanced Fibrereinforced Polymer Nanocomposites For	-	93,834.00	6,28,340.00	5,34,506.00	5,12,624.00	21,882.00	
108	DEVELOPMENT OF STABLE NANOFLUIDSTHERMAL POWER PLANTS	35,14,332.00	-	10,99,157.00	46,13,489.00	6,56,595.00	39,56,894.00	-
109	DEVELOPMENT OF SMART CONTROLLER FOR SWITCHED RELUCTANCE MOTOR	9,90,397.00	-	2,44,929.00	12,35,326.00	11,11,381.00	1,23,945.00	
110	FIST PROGRAM-2015 IF DST TO STRENGTHEN THEMED	1,39,81,784.00		1,56,44,661.00	2,96,26,445.00	1,98,54,078.00	97,72,367.00	-
111	DEVELOPMT. OF SOLID STATE TRANSORMER	16,59,646.00	-	4,99,877.00	21,59,523.00	15,10,034.00	6,49,489.00	-
	DEVLMT.OF NANO LUBRICANT FOR DIESEL ENGINE	97,479.00	-	14,01,022.00	14,98,501.00	4,06,534.00	10,91,967.00	
	HIGH VALENT TRANS-METALLOPORPHYRINS WITH GLYCODIC LINKAGES	30,57,098.00	-	3,55,272.00	34,12,370.00	8,51,982.00	25,60,388.00	-
114	SYNTHESIS,CHARACTERIZATION AND APPLICATION OF NOVEL MAGNETICALLY.	11,82,903.00	2 - 2	5,32,649.00	17,15,552.00	11,57,617.00	5,57,935.00	-
115	DESIGN,SYNTHESIS AND EVALUATION OF SOLID-EMMISSIVE	21,99,000.00	-	40,639.00	22,39,639.00	10,06,486.00	12,33,153.00	_

		Opening B	alance				Closing Ba	lance
1.Sr. No	2. Name of the Project	3. Credit	4. Debit	5. Receipts during the year	6. Total	7. Expenditure during the year	8. Credit	9. Debit
116	SERB (DST) PROJ. "NAKED CARBON AS A BRIDGING	27,91,655.00	-	45.00	27,91,700.00	4,69,342.00	23,22,358.00	-
117	A MULTI-WAVE LENGTH INTEGRATING NEPHELOMETER	-	1 E	=	-	-	<u> </u>	-
118	STUDENT PEOJECT (GEORGE K.V)	5,640.00	-	TF.	5,640.00	-	5,640.00	
119	A MULTI-WAVE LENGTH INTEGRATING NEPHELOMETER	-	-	1,25,391.00	1,25,391.00	1,16,953.00	8,438.00	_
120	DEVELOPMENT OF STEEL FIBRE REINFORCEDSEISMIC RESISTANT DESIGN	-	-	2,84,169.00	2,84,169.00	1,05,007.00	1,79,162.00	_
121	POLYMER AND HYBRID ELECTRONICS APPLICATIONS	_	1 -	6,10,073.00	6,10,073.00	1,32,984.00	4,77,089.00	
122	SIMULTANEOUS REMOVAL OF ORGANIC BIO-ELECTRO CHEMICAL CELL	-	-	¥-	i i	2,06,790.00	-	2,06,790.00
123	MICRO-RNA-9 REGULATION OF NEUROFOR ISCHEMIC STROKE) -	3,25,000.00	3,25,000.00	3,00,000.00	25,000.00	_
124	MS.SREEJA M "CHETAS"	-	-	7,95,725.00	7,95,725.00	2,09,806.00	5,85,919.00	-
125	MODEL FOR PART BASEDTRAFFIC OPERATION IN INDIA	-	,	7,47,821.00	7,47,821.00	2,37,234.00	5,10,587.00	-
126	DEVELOPMENT, TESTING AND STANDARDISATION OF HEAT PUMPTHERMAL HYBRID EVAPORATORS	-	_	27,03,352.00	27,03,352.00	2,09,968.00	24,93,384.00	-
127	CAPACITY BUILDING IN DAMREHABILATION & IMPROVEMENT	-	-	2,27,91,369.00	2,27,91,369.00	55,442.00	2,27,35,927.00	
128	CATIONIC MESOTHIENYLPORPHYRINSDNA INTERACTION		_	12,00,754.00	12,00,754.00	3,80,652.00	8,20,102.00	-
129	TECHNOLOGICAL INNOVATION UNDER THE BANNER "BRIDGING THE INNOVATION GAP"			2,29,779.00	2,29,779.00	3,55,000.00	-	1,25,221.00
130	DR.LISA SREEJITH "MHRD SWACCHATA ACTION PLAN"	-	<u> </u>	69,08,932.00	69,08,932.00	34,50,000.00	34,58,932.00	-
	Total	9,01,42,681.50	48,01,563.00	6,52,58,220.00	15,05,99,338.50	4,89,36,992.00	10,65,51,197.50	48,88,851.00

Deputy Registrar (Finance)
National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

निदेशक / DIRECTOK राष्ट्रीय प्रीघोगिकी संस्थान कालिकट

Chairperson, Board of Governors

राष्ट्रीय प्रोधोगिकी संस्थान कालिकट National Institute of Technology Calicut कालिकट / Calicut एन ई टी. काँपस (पी.ओ) कालिकट, केरल-कांग्रेश NIT Campus (P.O), Calicut, Kerala - 673 601, India

P.O. Calicut, Ker

SCHEDULE 3B- SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

1.Sr.	2. Name of Sponsor	Opening	Balance	Transactions during the year		Closing E	Balance
No	E. Raine of Sporisor	3. Credit	4. Debit	5. Credit	6. Debit	7. Credit	8. Debit
1	University Grants Commission	11,51,533.00	-	1,03,15,400.00	30,79,623.00	83,87,310.00	1-
	Ministry (Central Govt.)				, ,		
2	Director of College Education		4,000.00	-	-	-	4,000.00
3	Cultural Scholarship	11,59,559.00	-	-	-	11,59,559.00	
4	NCERT	23,013.00	i i	-	-	23,013.00	- V
5	SC/ST Scholarship	5,09,344.00	-	2	-	5,09,344.00	-
6	NIMCET	-	1,04,207.00	19,500.00	19,500.00	-	1,04,207.00
7	Summer Course	32,66,955.00	-	1,30,000.00	-	33,96,955.00	-
8	Zonasa 2003	34,385.00	-	12,600.00	300.00	46,685.00	
9	Minority Scholarship	6,70,487.00	-	-	-	6,70,487.00	
	Top Class Education Scholarship for SC Students	27,92,641.00	-	29,00,297.00	34,61,425.00	22,31,513.00	
11	Merit Cum Means Scholarship for Minorities	-	3,46,467.00	-		-	3,46,467.00
12	NBHM Fellowship	61,915.00	-	-	-	61,915.00	5,40,407.00
13	SPDC Scholarship	3,04,939.00	-	1,09,84,023.00	1,07,56,625.00	5,32,337.00	_
14	Inspire Fellowship	-	2,40,001.00	4,71,200.00	2,89,161.00	-	57,962.00
	AIEE-CCB	-	-	-	-	-	57,502.00
16	Visweswarayya Scheme	3,22,324.00	- 1	22,76,210.00	23,77,998.00	2,20,536.00	
	Inspire Fellowship - Dr. Subrahmanian Nampoothiri	2,83,964.00	_	15,05,704.00	13,46,127.00	4,43,541.00	
	Inspire Fellowship - Dr. Mini Mol	7,68,205.00	-	15,37,303.00	14,98,629.00	8,06,879.00	
	Post Doctoral Fellowship - Dr. Robin	9,05,000.00	-	9,751.00	6,86,733.00	2,28,018.00	
	OBC Scholarship	-	_	-	-	-	-
	Kerala Government						
21	KSCSTE Fellowship	3,04,532.00	-	~	30,000.00	2,74,532.00	
22	E- Grants (For Backward Castes)	8,135.50	-	5,61,40,847.00	5,22,06,318.00	39,42,664.50	
	Minorties Scholarship		41,595.00	-	-	-	41,595.00
	Other State Governments						41,333.00
24	Andhra Pradesh	_	34,692.00				34,692.00
25	Bihar	2,19,432.00	- /	2,82,790.00	2,82,790.00	2,19,432.00	34,032.00
26	Karnataka	1,080.00	-	-,,	-	1,080.00	
27	Lakshadweep	_	-		-	-	
28	Madhya Pradesh	55,375.00	_	_	-	55,375.00	
29	Maharashtra	-	4,675.00	21		-	4,675.00
	Tamil Nadu	1,000.00	-	-	-	1,000.00	-,075.00
131	Chattisgarh	-	1, -	21,895.00	21,895.00	1,000.00	
	Others				22,055.00		
32	E- Remittance (other States)	31,32,432.00	_	39,18,975.00	41,94,544.00	28,56,863.00	
	Vishakhapattam Steel Plant Scholarship	200	-	33,10,373.00		20,30,803.00	
	NIT - Kharakpur - GIAN	20,78,151.00		17,11,344.00	49,78,472.25	(11,88,977.25)	
	QIP - Poly Grant		- (t	38,51,250.00	-	38,51,250.00	-
	Total	1,80,54,401.50	7,75,637.00	9,60,89,089.00	8,52,30,140.25	2,87,31,311.25	5,93,598.00

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

(Amount in Rupees)

			(Amount in Rupees)
Particulars		Current Year	Previous Year
A. Plan grants: Government of India			
Balance B/F		24,22,02,760.00	(21,68,143.00)
Add: Receipts during the year		77,02,00,000.00	49,00,00,000.00
	Total (a)	1,01,24,02,760.00	48,78,31,857.00
Less: Refunds	•		E .
Less: Utilized for Revenue Expenditure		-	-
Less: Utilized for Capital Expenditure		34,83,80,896.00	24,56,29,097.00
	Total (b)	34,83,80,896.00	24,56,29,097.00
(Deficit)/Unitilized carried forward (a-b)		66,40,21,864.00	24,22,02,760.00
B. Plan: UGC grants			Ø
Balance B/F		_	-
Add: Receipts during the year		-	·
	Total (c)	-	-
Less: Refunds		=	-
Less: Utilized for Revenue Expenditure		Ξ.	- ²
Less: Utilized for Capital Expenditure		=	· =
	Total (d)		-
Unitilized carried forward (c-d)		-	-

Contd..

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट lational Institute of Technology Calicut कालिकट / Calicut

राष्ट्रीय प्रोधोगिकी संस्थान कालिकट National Institute of Technology Calleut एन.ई.टी. कॉपस (पी.ऑ) कातिकट, केरल

निदेशक I DIRECTOR

्रापन.इ.टी. कापस (पा.आ) क्यातंकट, करल -NIT Compus (P.O), Calicut, K Chairperson, Board of Governors

National Institute of Technology Calicut NIT Campus (P.O), Galicut, Kerala - 673 601, India

C. Non Plan: Government of India			
Balance B/F		(1,65,57,30,634.75)	(1,35,13,88,731.00)
Add: Receipts during the year		56,38,00,000.00	72,30,00,000.00
	Total (e)	(1,09,19,30,634.75)	(62,83,88,731.00)
Less: Refunds			-
Less: Utilized for Revenue Expenditure		1,10,29,67,421.41	1,02,73,41,903.75
Less: Utilized for Capital Expenditure		-	-
	Total (f)	1,10,29,67,421.41	1
(Deficit)/Unitilized carried forward (e-f)		(2,19,48,98,056.16)	(1,65,57,30,634.75)
D. Non Plan: UGC grants			z 10
Balance B/F		=	-
Add: Receipts during the year	-	-	-
	Total (g)	-	-
Less: Refunds		-	-
Less: Utilized for Revenue Expenditure		.	-
Less: Utilized for Capital Expenditure		- "	-
8	Total (h)	-	-
Unitilized carried forward (g-h)			-
Grand Total (A+B+C+D)		(1,53,08,76,192.16)	(1,41,35,27,874.75)

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

निदेशक / DIRECTOR

Chairperson,

कुल सचिव REGISTRAR राष्ट्रीय प्रोधोगिकी संस्थान कालिकट Board of Governors
राष्ट्रीय प्रोधोगिकी संस्थान कालिकट National Institute of Technology Calicut
National Institute of Technology Calicut
कालिकट / Calicut
NIT Campus (P.O. Calicut Kerala - 673-601, India

NIT Campus (P.O), Calicut, Kerala -

SCHEDULE 4 -FIXED ASSETS

(Amount in Rupees)

П	DESCRIPTION		GROSS BLOCK					DEPRECIAT	TION		NET BLOCK	
S. No	TANGIBLE ASSETS	Opening Balance 01/04/2017	Additions during the year	Deductions/ Reclassification during the year	Closing Balance	Dep. rates	Depreciation Opening Balance	Depreciation for the year	Deductions/Adjust ment	Total Depreciation	31-03-18	31-03-17
1	Land:											
П	a) Freehold	7,69,000.00	-	-	7,69,000.00	Nil	-	-	-	-	7,69,000.00	7,69,000.00
П	b) Leasehold	-	-	5	-		-	-	-	-	,	-
2	Buildings:											
П	a) On Freehold Land							•	-	-		-
П	iResidential	1,60,11,23,775.00		-	1,60,11,23,775.00	5%	42,26,08,324.00	5,89,25,772.55	-	48,15,34,096.55	1,11,95,89,678.45	1,17,85,15,451.00
П	ii.Non Residential	92,28,36,092.00	40,66,730.00	14,841.00	92,68,87,981.00	10%	52,85,12,921.00	3,98,20,479.30	-	56,83,33,400.30	35,85,54,580.70	39,43,23,171.00
	b) On Leasehold Land	-	-	-			-		-		0.00	
П	c) Ownership Flats/ Premises		-	-	-				-	-	0.00	
	d) Superstructures on Land not belonging to educational institutions	-	T .	-	í		-	-	* -	-		
3	Tube wells & water supply	-	-	-			-	-	-		-	-
4	Sewerage & Drainage	-	-	-				-	-	-	-	-
5	Furniture & fixtures	10,30,95,851.00	1,26,87,123.00	2,45,365.00	11,55,37,609.00	10%	4,77,92,713.00	63,46,032.85		5,41,38,745.85	6,13,98,863.15	5,53,03,138.00
6	Electrical Installations	4,16,89,845.00	1,05,309.00	4,948.00	4,17,90,206.00	10%	2,38,40,818.00	17,89,920.75	-	2,56,30,738.75	1,61,59,467.25	1,78,49,027.00
7	Plants, machinery & equipment	71,50,97,740.00	7,35,85,282.00	45,38,341.00	78,41,44,681.00	15%	43,28,31,175.00	4,97,44,827.00	-	48,25,76,002.00	30,15,68,679.00	28,22,66,565.00
8	Office Equipment	47,09,771.00	-		47,09,771.00	15%	43,48,898.00	54,130.95		44,03,028.95	3,06,742.05	3,60,873.00
9	Computer & Peripherals	15,43,12,482.00	40,28,865.00	3,05,000.00	15,80,36,347.00	60%	12,79,00,661.00	1,74,67,327.80		14,53,67,988.80	1,26,68,358.20	2,64,11,821.00
10	Vehicles	63,51,166.00		-	63,51,166.00	15%	47,85,277.00	2,34,883.35		50,20,160.35	13,31,005.65	15,65,889.00
11	Library books	4,61,93,662.00	1,13,099.00		4,63,06,761.00	60%	4,42,36,909.00	12,41,911.20	-	4,54,78,820.20	8,27,940.80	19,56,753.00
A000-00						***************************************						
П	Total (A)	3,59,61,79,384.00	9,45,86,408.00	51,08,495.00	3,68,56,57,297.00		1,63,68,57,696.00	17,56,25,285.75	0.00	1,81,24,82,981.75	1,87,31,74,315.25	1,95,93,21,688.00
88 WC 25									,			
12	Capital Work-in-progress (B)	1,48,72,32,997.00	25,22,93,213.00	17,96,73,672.00	1,55,98,52,538.00		0.00	0.00	0.00	0.00	1,55,98,52,538.00	1,48,72,32,997.00
				,								
S. No	INTANGIBLE ASSETS	Opening Balance	Additions during the year	Deductions during the year	Closing Balance		Total Depreciation	Depreciation/ Amortizations for the year	Deductions/Adjust ment	Total Depreciation	31/03/2018	31/03/2017
13	Computer Software	1,74,91,988.00	15,01,275.00		1,89,93,263.00	60%	1,18,50,936.00	41,71,388.70		1,60,22,324.70	29,70,937.30	56,41,052.00
14	E-journals	-	-					<u>.</u>	-	p (*		-
15	Patents and Copyrights				-			-	-			
\Box	Total (C)	1,74,91,988.00	15,01,275.00	-	1,89,93,263.00		1,18,50,936.00	41,71,388.70	(-)	1,60,22,324.70	29,70,937.30	56,41,052.00
_									,			
	Grand Total (A+B+C)	5,10,09,04,369.00	34,83,80,896.00	18,47,82,167.00	5,26,45,03,098.00		1,64,87,08,632.00	17,97,96,675.45	0.00	1,82,85,05,307.45	3,43,59,97,790.55	3,45,21,95,737.00

FT CHAIR RESTORAGE STAMPS OF THE STAMPS

SCHEDULE 5 - INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS

(Amount in Rupees)

Particulars		Current Veer	Duaniana Vasa
Long term		Current Year	Previous Year
1. In Central Government Securities		-	-
2. In State Government Securities		-	-
3. Other approved Securities		L	-
4. Shares		-	
5. Debentures and Bonds	*	-	_
6. Term Deposits with Banks		18,63,53,119.00	22,28,90,695.00
7. Others		-	·
	Total (A)	18,63,53,119.00	22,28,90,695.00
Short term		5	ii .
1. In Central Government Securities		-	_
2. In State Government Securities		y <u>-</u>	=
3. Other approved Securities		_	<u>.</u> . ₩a
4. Shares		-	_
5. Debentures and Bonds		_	=
6. Term Deposits with Banks		1,32,49,34,330.40	1,32,14,58,870.00
7. Others (Letter of Credit)		44,92,000.00	2,57,11,000.00
	Total (B)	1,32,94,26,330.40	1,34,71,69,870.00
Grand Total (A+B)		1,51,57,79,449.40	1,57,00,60,565.00

Deputy Registrar (Finance)
National Institute of Technology Calicut HOUT - 673 901

राष्ट्राय प्रोधोगिकी संस्थान कालिकट
National Institute of Technology Calicut
एन. ई.टी. कॉपस (पी.ओ) कालिकट, केरल - ६७३६०३ भारत
कालिकट / Calicut

निदेशक I DIRECTON राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

Chairperson, Board of Governors

National Institute of Technology Calicut NIT Campus (P.O), Calicut, Kerala - 673 601, India

SCHEDULE 6 - INVESTMENTS OTHERS

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

SCHEDULE 7 - CURRENT ASSETS

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Stock:		
a) Stores and Spares		
b) Loose Tools		
c) Publications	26,90,029.00	26,90,029.00
d) Laboratory chemicals, consumables and glass ware		
e) Stationary		
2. Sundry Debtors:		
a) Debts Outstanding for a period exceeding six months		-
b) Others		-
3. Cash in hand	7,30,898.50	5,84,199.50
(i) Cash in hand	2,13,542.50	
(ii) Imprest	5,17,356.00	
4. Cash in Bank		
a) With Scheduled Banks:		
In Current Accounts	-20,54,50,361.50	-13,20,41,725.65
In Term deposit Accounts	63,33,11,508.56	49,99,49,413.86
In Savings Accounts	1,08,67,19,629.63	61,65,70,371.11
In EEFC Accounts (USD)	24,88,736.04	3,98,62,998.79
b) With non-Scheduled Banks:		
In Term deposit Accounts	-	-
In Savings Accounts	-	1-
5. Post Office- Savings Accounts	-	-
6.Cash in Treasury	31,16,661.00	31,16,661.00
Total	1,52,36,07,101.23	1,03,07,31,947.61

Deputy Registrar (Finance)
National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut कालिकट / Calicut

निदेशक / DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

National Institute of Technology Calicut एन.ई.टी. काँपस (पी.जो) कालिकट, केरल - ४००० हार्

Chairperson,

Board of Governors

National Institute of Technology Calicut

NIT Campus (P.O), Calicut, Kerala - 673 601, India

NIT Campy - (20), Calicut, Kerala - 6

SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS

(Amoi	int in	Rupees	1-
IAMIOU	1111111	I Kupee:	51

		(Amount in Rupees)
Particulars	Current Year	Previous Year
1. Advances to employees: (Interest bearing)		
a) Salary		
b) Festival	(84,535.00)	(1,55,185.00
c) LTC	21,13,436.00	23,10,361.00
d) Medical Advance	-	<u>u</u>
e) Travelling advance	13,05,185.67	16,60,761.42
f) Computer advance	(1,85,489.00)	(1,85,489.00
g) Marriage advance	(66,184.00)	(66,184.00
h) Other (Plan & Dept. advances)	1,65,72,979.50	1,61,19,914.50
2. Long Term Advances to employees: (Interest bearing)		
a) Vehicle loan	5,57,006.00	4,68,170.00
b) Home loan	(25,52,148.00)	(20,05,813.00
c) Others (to be specified)	(25,52,210.00)	-
3. Advances and other amounts recoverable in cash or in kind or		
for value to be received:		
a) On Capital Account	17,44,56,468.00	
b) To suppliers	(1,52,302.00)	(84,344.00
c) Deficit Balance of Grants (Excess of expenditure)	1,14,21,85,426.00	1,42,65,26,974.67
d) TDS deducted on bank interest	24,45,237.00	2,28,229.00
d) Rent Receivable	11,48,090.00	2,20,223.00
4. Prepaid Expenses	11,40,030.00	
	36,36,047.00	
a) Insurance	30,30,047.00	<u>-</u> -
b) Other expenses		
5. Deposits		
a) Telephone	-	
b) Lease Rent	F7.00.F17.00	36,49,677.00
c) Electricity	57,00,517.00	91,389.00
d) AICTE, if applicable	91,389.00	91,389.00
e) MCI, if applicable	-	
f) Others (to be specified)		-
6. Income Accrued:	0.40.27.510.00	2.00.20.722.00
a) On Investments from Earmarked/ Endowment Funds	8,18,37,510.00	2,08,29,733.00
b) On Investments- Term Deposits	6,65,64,444.92	1,74,86,332.00
c) On Security Deposit with KSEB	2,15,573.00	2,15,573.00
d) Others		
(includes income due unrealized-Rs)	-	
7. Other - Current assets receivable from UGC/sponsored		
projects/Govt. grants	10.00.051.00	40.04.560.00
a) Debit balances in Sponsored Projects	48,88,851.00	48,01,563.00
b) Debit balances in Sponsored Fellowships & Scholarships	5,93,598.00	7,75,637.00
c) Grants Receivable	-	2,00,00,355.00
d) Other receivables from UGC	-	
8. Claims Receivable		4 54 95 65 654 55
Total	1,50,12,71,100.09	1,51,26,67,654.59

SCHEDULE 9 - ACADEMIC RECEIPTS

(Am	ount	in	Ru	pees)
1	AIII	ount	. 111	nu	pees

		Amount in Rupees)
Particulars	Current Year	Previous Year
FEES FROM STUDENTS		
Academic		
1. Tuition fee	36,04,95,170.48	41,10,80,852.05
2. Admission fee	5,25,500.00	4,88,100.00
3. Enrolment Fee	-	-
4. Library Admission fee	28,36,094.75	27,27,915.00
5. Laboratory fee	-	-
6. Art & Craft fee	-	
7. Registration fee	33,25,375.00	30,50,000.00
8. Syllabus fee	*	-
Total (A)	36,71,82,140.23	41,73,46,867.05
Examinations		
1. Admission test fee	_	-
2. Annual Examination fee	72,93,045.00	64,34,620.00
3. Mark sheet, certificate fee	4,19,224.00	(4,93,198.00)
4. Entrance examination fee	_	-
Total (B)	77,12,269.00	59,41,422.00
Other fees		
1. Identity card fee	26,950.00	28,590.00
2. Fine/Miscellaneous fee	16,25,700.00	15,43,955.00
3. Medical fee	-	-
4. Transportation fee	-	-
5. Convocation fee	_	5,64,800.00
Total (C)	16,52,650.00	21,37,345.00
Sale of publications		
1. Sale of Admission forms	7,71,825.00	5,68,300.00
2. Sale of syllabus and Question Paper, etc.	_	
3. Sale of prospectus	-	-
Total (D)	7,71,825.00	5,68,300.00
Other Academic Receipts	.,,,.	-,-0,000.00
1. Registration fees for workshops, programmes	-	
2. Registration fees (Academic Staff College)	_	
Total (E)		
GRAND TOTAL (A+B+C+D+E)	37,73,18,884.23	42,59,93,934.05

SCHEDULE 10 - GRANTS/DONATIONS/SUBSIDIES

(Amount in Rupees)

	Plan						
Particulars		UGC To		Total Plan	Non Plan Govt. of India	Current Year Total	Previous Year Total
Particulars			Specific	TotalFlair	Non Flan Govt. of Ilidia	Current rear rotar	rievious real total
	Govt. of India	Plan	Schemes				
Balance B/F	22,92,03,660.00	-	-	22,92,03,660.00	(1,65,57,30,634.75)	(1,42,65,26,974.75)	(1,36,65,55,974.00)
Add: Receipts during the year	77,02,00,000.00		-	77,02,00,000.00	56,38,00,000.00	1,33,40,00,000.00	1,21,30,00,000.00
Total	99,94,03,660.00			99,94,03,660.00	(1,09,19,30,634.75)	(9,25,26,974.75)	(15,35,55,974.00)
Less: Refund	*			-	-	-1	1-
Balance	99,94,03,660.00	-	-	99,94,03,660.00	(1,09,19,30,634.75)	(9,25,26,974.75)	(15,35,55,974.00)
Less: Utilised for Capital Expenditure	34,83,80,896.00	-	-	34,83,80,896.00	=	34,83,80,896.00	24,56,29,097.00
Balance	65,10,22,764.00			65,10,22,764.00	(1,09,19,30,634.75)	(44,09,07,870.75)	(39,91,85,071.00)
Less: Utilised for Revenue Expenditure	20			-	1,10,29,67,421.41	1,10,29,67,421.41	1,02,73,41,903.75
Balance C/F	65,10,22,764.00	-	-	65,10,22,764.00	(2,19,48,98,056.16)	(1,54,38,75,292.16)	(1,42,65,26,974.75)

Deputy Registrar (Finance)
National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut कालिकट / Calicut

निदेशक / DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

Chairperson,

National Institute of Technology Calicut एन ई.टी. काँपस (पी.ओ) कालिकट, केरल - 673601, भार्ति NIT Campus (P.O), Calicut, Kerala - 673 601, India

SCHEDULE 11 -INCOME FROM INVESTMENTS

(Amount in Runges)

Particulars	Earmarked/ En	dowment Funds	Other inv	estments	
	Current Year	Previous Year	Current Year	Previous Year	
1) Interest					
a) On Govt. Securities				-	
b) Other Bonds/Debentures				-1	
2) Interest on Term Deposits	5,25,77,065.35	6,79,94,510.00	2,32,12,819.00	1,90,79,352.00	
3) Income accrued but not due on Term Deposits/					
Interest bearing advances to employees	8,18,37,510.00	1,92,14,243.00	-	68,29,079.00	
4) Interest on Savings Banks Accounts	-7,78,871.00	28,85,797.00	-	_	
5) Others			27,204.00		
Total	13,36,35,704.35	9,00,94,550.00	2,32,40,023.00	2,59,08,431.00	
Transferred to Earmarked/Endowment Funds	13,36,35,704.35	9,00,94,550.00		-	
Balance	-	-	2,32,40,023.00	2,59,08,431.00	

Deputy Registrar (Finance) National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव RAGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

National Institute of Technology Calicut কালিকট / Calicut

Chairperson, राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

Board of Governors

National Institute of Technology Calicut एन.ई.टी. काँपस (पी.ओ) कातिकट, केरल - 673601. मार्शिT Campus (P.O), Calicut, Kerala - 673 601, India

NIT Campus (P.O), Calicut, Kerala - 673 601, India

निदेशक I DIRECTOR

SCHEDULE 12 - INTEREST EARNED

(Amount in Rupees)

		inount in napees,
Particulars	Current Year	Previous Year
1. On Savings account with scheduled Banks	42,79,297.00	56,37,352.00
2. On Loans a. Employees/Staff	_	_
b. Others	-	-
3. On Debtors and other receivables	, i-	-
Total .	42,79,297.00	56,37,352.00

Deputy Registrar (Finance) National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संश्यान कालिकट राष्ट्राय प्राधोगिकी संध्यान कालिकट National Institute of Technology Calicut कालिकट / Calicut

National Institute of Technology Calicut एन.ई.टी. काँपस (पी.ओ) कालिकट, केरल - 673601, भारत

निदेशक / DIRECTOR राष्ट्रीय प्रौद्योगिकी संस्थान कालिकट

Board of Governors National Institute of Technology Calicut

Chairperson,

NIT Campus (P.O), Calicut, Kerala - 673 601, India

SCHEDULE 13- OTHER INCOME

Particulars A. Income from Land & Building 1. Hostel Room Rent 2. License fee 3. Hire Charges of Auditorium/Play ground/Convention Centre, etc 4. Electricity charges recovered 5. Water charges recovered	29,27,454.00 46,83,735.00	
Hostel Room Rent License fee Hire Charges of Auditorium/Play ground/Convention Centre, etc Electricity charges recovered		
License fee 3. Hire Charges of Auditorium/Play ground/Convention Centre, etc 4. Electricity charges recovered		
Hire Charges of Auditorium/Play ground/Convention Centre, etc Electricity charges recovered	46,83,735.00	49,70,576.50
4. Electricity charges recovered	2	
		-
5. Water charges recovered	1,19,30,810.00	1,14,27,559.00
	2,15,005.00	3,77,180.00
6. Others	1,86,514.00	1,69,523.00
Total	1,99,43,518.00	2,16,90,269.50
B. Sale of Institute's publications	-	-
C. Income from holding events		
1. Gross Receipts from annual function/ sports carnival	=	-
Less: Direct expenditure incurred on the annual function/ sports carnival	-	_
2. Gross Receipts from fetes	-	
Less: Direct expenditure incurred on the fetes	· -	-
3. Gross Receipts for educational tours	~	<u>=</u> 1
Less: Direct expenditure incurred on the tours	-	
4. Others (to be specified and separately disclosed)	-	-
Total	-	-
D. Others		
1. Income from consultancy	80,55,098.00	65,54,218.00
2. RTI fees 13 2 a shad dubing 30 st sham 2 1st	3,370.00	1,874.00
3. Income from Royalty	-	-
4. Sale of application form (recruitment)	-	=
5. Misc. receipts (Sale of tender form, waste paper, etc.)	25,94,632.34	13,11,365.00
6. Profit on Sale/disposal of Assets:		
a) Owned assets	<u>≅</u> 1	-
b) Assets acquired out of grants, or received free of cost	-	-
7. Grants/Donations from Institutions, Welfare Bodies and International		
Organizations	-	(3,26,547.00)
8. Others	-	
Total	1,06,53,100.34	75,40,910.00
GRAND TOTAL (A+B+C+D)	3,05,96,618.34	

SCHEDULE 14 - PRIOR PERIOD INCOME

Particulars	Current Year	Previous Year
1. Academic Receipts	-	
2. Income from investments	-	-
3. Interest earned		-
4. Other Income	4,68,73,713.47	1,74,97,685.00
Total	4,68,73,713.47	1,74,97,685.00

SCHEDULE 15 - STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

Particulars		Current Yea	ir	Previous Year				
raiticulais	Plan	Non plan	Total	Plan	Non plan	Total		
a) Salaries and Wages	-	49,63,59,789.00	49,63,59,789.00	-	52,38,63,099.00	52,38,63,099.00		
b) Allowances and Bonus	-	92,67,764.00	92,67,764.00	-	90,59,027.00	90,59,027.00		
c) Contribution to Provident Fund (CPF)	-	-	0.00	-	73,232.00	73,232.00		
d) Contribution to Other Fund (Leave Salary &								
Pension contribution)	-	2,20,747.00	2,20,747.00	-	2,13,858.00	2,13,858.00		
e) Contribution to New Pension Scheme	-	1,17,66,726.00	1,17,66,726.00	-	1,12,29,985.00	1,12,29,985.00		
f) Staff Welfare Expenses	-		0.00	-	-	0.00		
g) Retirement and Terminal Benefits	-	16,05,97,707.00	16,05,97,707.00	-	12,97,64,368.00	12,97,64,368.00		
h) LTC facility	-	33,13,640.00	33,13,640.00	-	36,90,489.00	36,90,489.00		
i) Medical facility	-	15,42,902.00	15,42,902.00	-	16,89,492.00	16,89,492.00		
j) Children Education Allowance	-	35,34,021.00	35,34,021.00	-	35,08,227.00	35,08,227.00		
k) Honorarium	-	12,23,422.00	12,23,422.00	-	10,01,389.00	10,01,389.00		
I) Travelling Allowances	-	45,38,813.00	45,38,813.00	-	15,09,653.16	15,09,653.16		
m) Others (Stipend to Trainees)	-	5,69,770.00	5,69,770.00	-	7,51,026.00	7,51,026.00		
Total	_	69,29,35,301.00	69,29,35,301.00	-	68,63,53,845.16	68,63,53,845.16		

SCHEDULE 15A - EMPLOYEES RETIREMENT AND TERMINAL BENEFITS

Particulars	Pension	Gratuity	Leave Encashment	Total
Opening Balance as on	-	10,88,06,371.00	7,21,52,753.00	18,09,59,124.00
Addition: Capitalised value of Contributions received from other Organisations			-	-
Total (a)		10,88,06,371.00	7,21,52,753.00	18,09,59,124.00
Less: Actual payment during the year (b)	-	1,20,00,000.00	90,40,734.00	2,10,40,734.00
Balance available on 31/03/2018 (C)	·-	9,68,06,371.00	6,31,12,019.00	15,99,18,390.00
Provision required as on 31/03/2018 as per Actuarial Valuation (d)	-	17,70,58,715.00	19,85,20,868.00	37,55,79,583.00
A. Provision to be made in current year (d-c)	1=	8,02,52,344.00	13,54,08,849.00	21,56,61,193.00
B. Contribution to Pension scheme	-	-	-	-
C. Medical Reimbursement to Retired Employees	-	-	-	-
D. Travel to Hometown on Retirement	-	-	-	-
E. Deposit Linked Insurance Payment	-	-		
Total (A+B+C+D+E)	-	8,02,52,344.00	13,54,08,849.00	21,56,61,193.00

SCHEDULE 16 – ACADEMIC EXPENSES

Particulars		Current Ye	ear		Previous Y	ear
	Plan	Non plan	Total	Plan	Non plan	Total
a) Laboratory expenses	-	-	-	-	-	
b) Field work/Participation in Conferences		13,310.00	13,310.00	_	1,41,877.00	1,41,877.00
c) Expenses on Seminars/Workshops	-		-		2,12,077.00	1,41,677.00
d) Payment to visiting faculty	-		_		_	-
e) Examination	_		_			-
f) Student Welfare expenses	-				-	-
g) Admission expenses	-	_		133	1 94 097 00	1 04 007 00
h) Convocation expenses		22,19,241.00	22,19,241.00		1,84,987.00 28,85,583.00	
i) Publications	_	-	22,13,241.00	1.75	20,03,363.00	28,85,583.00
j) Stipend/means-cum-merit scholarship	-	20,17,49,671.00	20,17,49,671.00		19,41,12,362.00	10 41 12 262 00
k) Books, periodicals, journals and e-journals	-	3,64,07,211.00	3,64,07,211.00		2,90,88,457.00	19,41,12,362.00
l) Others (FDP,R&D,Medals & prizes)	_	84,26,004.00	84,26,004.00		96,71,728.00	2,90,88,457.00
Total	-	24,88,15,437.00	24,88,15,437.00	-	23,60,84,994.00	, , ,

SCHEDULE 17 – ADMINISTRATIVE AND GENERAL EXPENSES

		Current Year		Previous Year			
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
A) Infrastructure							
a) Electricity and power	-	3,92,20,862.00	3,92,20,862.00	-	3,46,66,287.00	3,46,66,287.00	
b) Water charges	-	-	-	-	-	_	
c) Insurance	-	-	-	-		-	
d) Rent, Rates and Taxes (including property tax)	-	-		-	-	_	
B) Communication							
e) Postage & telegram	-	3,60,759.00	3,60,759.00	-	3,08,049.00	3,08,049.00	
f) Telephone, Fax and Internet Charges	-	5,21,349.00	5,21,349.00	-	12,57,625.00	12,57,625.00	
C) Others							
g) Printing and Stationary	-	15,65,999.00	15,65,999.00	-	12,89,921.00	12,89,921.00	
h) Traveling and Conveyance Expenses	-	-	-	-	-		
i) Hospitality	-	30,59,853.00	30,59,853.00	-	29,09,437.00	29,09,437.00	
j) Auditors Remuneration	-	3,79,545.00	3,79,545.00	-	1,11,110.00	1,11,110.00	
k) Professional Charges	-	-	-	-	-		
I) Advertisement and Publicity	-	43,86,090.00	43,86,090.00	-	38,15,265.00	38,15,265.00	
m) Magazines & Journals	-	-	-	-	-	-	
n) Legal charges	-	16,88,883.00	16,88,883.00	-	41,21,350.00	41,21,350.00	
o) Hospital contingencies	-	26,66,395.00	26,66,395.00	-	24,49,725.00	24,49,725.00	
p) Deparment Operating Charges (DOC)	-	1,20,50,270.00	1,20,50,270.00	-	1,57,96,298.50	1,57,96,298.50	
g) Others							
(OE&Misc.,T&P,Hindi translation)	_	1,27,37,390.00	1,27,37,390.00	-	25,78,444.00	25,78,444.00	
Total	-	7,86,37,395.00	7,86,37,395.00	-	6,93,03,511.50	6,93,03,511.50	

SCHEDULE 18 – TRANSPORTATION EXPENSES

Particulars		Current Ye	ar	Previous Year		ar
	Plan	Non plan	Total	Plan	Non plan	Total
Vehicles (owned by educational institution)					l l	Total
a) Running expenses	,-,	12,25,141.41	12,25,141.41	1-	14,20,115.09	14,20,115.09
b) Repairs & maintenance	-		-		_	
c) Insurance expenses	-	-	-	_		-
2. Vehicles taken on rent/lease		*				-
a) Rent/lease expenses	-	5,29,405.00	5,29,405.00		_	
3. Vehicle (Taxi) hiring expenses	-	_	-	_	1,42,900.00	1,42,900.00
Total	-	17,54,546.41	17,54,546.41	-	15,63,015.09	15,63,015.09

SCHEDULE 19 - REPAIRS & MAINTENANCE

		Current Year			Previous Year		
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
a) Building							
1. Institute building	÷.	1,01,87,154.00	1,01,87,154.00	-		1,77,31,576.00	
2. Guest house		2,38,085.00	2,38,085.00	=	3,53,084.00		
3. Hostels	-	7,21,906.00	7,21,906.00	-	3,94,096.00		
4. Pump & filter house	-	3,29,612.00	3,29,612.00	-	5,19,650.00	5,19,650.00	
5. Quarters	-	4,88,451.00	4,88,451.00	-	7,04,418.00	7,04,418.00	
b) Furniture & Fixture	-	1,87,925.00	1,87,925.00	(=	5,484.00	5,484.00	
c) Plant & Machinery (Major)	-	22,64,689.00	22,64,689.00	-	22,96,198.00	22,96,198.00	
d) Office Equipments	-	-	0.00	-	4,500.00	4,500.00	
e) Computers	-	3,01,297.00	3,01,297.00		21,79,579.00	21,79,579.00	
f) Laboratory & Scientific equipments (Minor)	-	5,38,822.00	5,38,822.00	-	5,20,309.00	5,20,309.00	
g) Cleaning Material & Services		-	-	-	-	-	
h) Book binding charges	-	-		-	=	-	
i) Gardening		_	-	-	-	1-	
f) Others							
1. Campus	-	5,94,65,964.00	5,94,65,964.00	-	18,83,947.00	18,83,947.00	
2. Water supply	_	51,82,582.00	1	-	43,77,547.00	43,77,547.00	
3. Electrical installations	_	3,73,432.00		_	6,88,637.00	6,88,637.00	
4. Play fields		3,72,847.00			7,40,110.00	7,40,110.00	
	_	33,471.00			13,05,364.00	13,05,364.00	
5. Campus Road		-	-		-	-	
7. Staff Club Total	_	8.06.86.237.00	8,06,86,237.00	-	3,37,04,499.00	3,37,04,499.00	

SCHEDULE 20 - FINANCE COSTS

Particulars		Current Year			Previous Y	ear
. articulary	Plan	Non plan	Total	Plan	Non plan	Total
a) Bank charges	-	1,38,505.00	1,38,505.00	-	3,32,039.00	3,32,039.00
b) Others (specify)	_	-	0.00	-		-
Total	-	1,38,505.00	1,38,505.00	-	3,32,039.00	3,32,039.00

SCHEDULE 21 – OTHER EXPENSES

		Current Yo	ear		Previous Year		
Particulars	Plan	Non plan	Total	Plan	Non plan	Total	
a) Provision for Bad and Doubtful Debts/Advances	-	-	-	-	-		
b) Irrecoverable Balances Written-off	-	x=	4. 	-	-	-	
c) Grants/Subsidies to other institutions/organizations	-	ie i	1-	-	-	=	
d) Others-Actuarial Valuation cost components i) Interest Costs ii) Current Service Costs	-	2,09,10,564.00	2,09,10,564.00 2,55,30,254.00 1,24,42,581.00	-	1,88,66,190.00 2,31,88,949.00 1,81,72,604.00	1,88,66,190.00 2,31,88,949.00 1,81,72,604.00	
iii) Net Actuarial Gain	-	1,24,42,581.00	1,24,42,361.00	-	-	-	
Total	-	5,88,83,399.00	5,88,83,399.00	-	6,02,27,743.00	6,02,27,743.00	

SCHEDULE 22 - PRIOR PERIOD EXPENSES

Particulars		Current Year		Previous Year		
	Plan	Non plan	Total	Plan	Non plan	Total
Establishment expenses	-	-		_	· · · · · · · · · · · · · · · · · · ·	Total
2. Academic expenses	_	_	_		-	-
3. Administrative expenses	-	_	_			½ <u>−</u>
4. Transportation expenses	-		_	_		-
5. Repairs and Maintenance	_	_	7		-	0 7.
6. Others	_	4,00,97,661.00	4,00,97,661.00		(0.07.050.00)	/0.07.050.00
Total					(8,97,850.00)	(8,97,850.00)
Total		4,00,97,661.00	4,00,97,661.00	-	(8,97,850.00)	(8,97,850.00)

NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT

Cash Flow Statement for the year ended 31.03.2018

Cash Flow from Operating Activities:	Amount(Rs.)
Increase/(Decrease) in Current Assets	1,13,96,554.50
Increase/(Decrease) in Current Liabilities	7,65,94,518.47
Net Cash from Operating Activities	8,79,91,072.97
Cash Flow from Investing Activities:	
(Purchase)/Sale of fixed assets	1,61,97,946.20
(Purchase)/Sale of investments	5,42,81,115.60
Interest received	-
Dividend received	_
Net Cash from Investing Activities	7,04,79,061.80
	Contd

	Conta
Cash Flow from Financing Activities:	Amount (Rs.)
Additions to general fund during the year	18,66,61,477.50
Grants/funds in nature of founders'/promoters'	
contribution	-
Grants/funds related to assets not requiring	
fulfillment of any obligation	
Endowment fund (principal sum)	14,77,43,541.35
Proceeds from long term borrowings	-
(Repayment of long-term borrowings)	-
Interest paid on loans	-
Net Cash Flow From Financing Activities	33,44,05,018.85
Net Increase /(Decrease) in Cash equivalents	49,28,75,153.62
Cash and Cash equivalent at the beginning of the period	1,02,80,41,918.61
Cash and Cash equivalent at the end of the period	1,52,09,17,072.23

Cash and Cash equivalent represented by:-	Amount (Rs.)
Cash in Hand	7,30,898.50
Cash in Bank	(55.4
- In Current Accounts	(20,54,50,361.50)
- In Savings Accounts	1,08,67,19,629.63
- In Term Deposits	63,33,11,508.56
- EEFC Account	24,88,736.04
Cash in Treasury	31,16,661.00
Total	1,52,09,17,072.23

NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR 2017-18

(Amount in Rupees) RECEIPTS Sch No. **Current Year** Previous Year PAYMENTS Sch No. Current Year Previous Year . Opening Balances . Expenses a) Cash in Hand 5.84.199.50 3.54.227.50 a) Establishment expenses 37 71,19,57,979.00 74,10,22,119.16 b) Bank balances b) Academic expenses 38 24,88,15,437.00 23.60.84.994.00 i) In Current accounts (13,20,41,725,65) (16,21,41,789.07) c) Administrative expenses 39 7,86,37,395,00 5,35,06,247.91 ii) In Savings accounts 61,65,70,371,11 43.88.38.921.56 d) Transportation expenses 40 17,54,546.41 15.63.015.01 iii) In Deposit accounts 2,06,79,59,138.86 1.67.85.11.419.86 e) Repairs and Maintenance 41 8,06,86,237.00 3,37,04,499.00 iv) EEFC Accounts 3,98,62,998.79 8,47,06,085.00 f) Finance Costs 1,38,505.00 3,32,039.00 c) Treasury 31.16.661.00 31,16,661.00 g) Prior period expenses (10,45,225.20) 3,12,36,681.00 II. Grants received II. Payment against earmarked funds 34 12,30,47,440.00 12,27,85,618.50 a) From GOI 25 1,33,40,00,000.00 1.19.30.00.000.00 b) From State Govt. c) From Other sources III. Academic Receipts 9 42.59,93,934.05 III. Payment against sponsored 37,73,18,884.23 Projects/Schemes 3A 4,89,36,992.00 3,14,99,814.50 IV. Payment against sponsored IV. Receipts against Earmarked Endowment Funds 26 21.89.92.787.00 15,72,95,716.00 Fellowships/Scholarships 3B 8,52,30,140.25 12,25,17,097.50 V. Receipts against Sponsored Projects/Schemes 6,15,56,529.00 V. Investments and Deposits made **3A** 6.52.58.220.00 a) Out of Earmarked/ Endowment funds b) Out of own funds VI. Receipts against Sponsored Fellowships and Scholarships 3B 9,60,89,089,00 12.78.03,299.00 VI. Term Deposits with Scheduled Banks VII. Expenditure on fixed Assets and Capital Works-in-VII. Income on Investments from a) Earmarked/Endowment funds 27 (9,40,55,607.57) 10,25,14,687.00 a) Fixed Assets 9,09,79,188.00 16,16,72,149.00 b) Other investments b) Capital Work-in-Progress 7,26,19,541.00 8,36,64,913.00 VIII. Interest received on VIII. Other payments including Statutory payments 42 37,07,60,005.41 11.93.32.804.00 a) Bank Deposits 28 6,84,64,389.10 1.32.68.396.00 b) Loans and Advances c) Savings Bank Accounts 29 19.19.454.00 1,05,27,992.00 IX. Investments encashed IX. Refund of Grants X. Term Deposits with Scheduled Banks encashed X. Deposits and Advances repaid 35 87,39,594.00 1,05,62,773.00 XI. Other income (Including Prior Period Income) 30 4,15,76,266.13 4,67,28,864.50 XI. Deposits made (Cash Security Deposit with KSEB) 7,81,998,00 XII. Deposits and Advances Received 31 1,01,48,302.20 1,45,10,569.00 XIII. Loans and Advances given 36 2,08,35,788.00 2,59,93,154.00 XIII. Loans and Advances given repaid 32 1,91,05,065.00 2,84,47,868.08 XII. Closing balances XIV.Miscellaneous Receipts including Statutory receipts 33 27,62,26,848.50 11,70,47,113.51 a) Cash in Hand 7,30,898.50 5,84,199.50 XV. Any other receipts b) Bank balances i) In Current accounts (20,54,50,361,50) (13,20,41,725.65) ii) In Savings accounts 7 1,08,67,19,629.63 61,65,70,371.11 iii) In Deposit accounts 2,14,90,90,957.96 2,07,00,09,978.86 iv) EEFC Accounts 24,88,736.04 3,98,62,998.79 c) Treasury 31,16,661.00 31,16,661.00 TOTAL 5,01,10,95,341.20 4,34,20,80,493.99 TOTAL 5,01,10,95,341.20 4,34,20,80,493.99

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2017-18

25. GRANTS RECEIVED

		(Amount in Rupees)
Particulars	Current Year	Previous Year
1. Plan	77,02,00,000.00	49,00,00,000.00
2. Non Plan	56,38,00,000.00	70,30,00,000.00
	1,33,40,00,000.00	1,19,30,00,000.00
Less: Current year Grants Receivable		
Plan	0.00	0.00
Non Plan	0.00	0.00
Add: Previous year Grants receivded		0.00
Plan		0.00
Non Plan	0.00	0.00
Net Receipt	1,33,40,00,000.00	1,19,30,00,000.00

26. RECEIPTS AGAINST EARMARKED ENDOWMENT FUNDS

Particulars	Current Year	Previous Year	
1. TEQIP I	0.00	49,88,030.00	
2. TEQIP II	1,40,75,653.00	3,32,96,100.00	
3. TEQIP III	10,01,488.00	0.00	
4. GPF	3,92,92,457.00	4,67,15,918.00	
5. CPF	2,26,81,321.00	2,39,41,787.00	
6. FBS	0.00	0.00	
7. Growth Fund	11,89,35,909.00	1,00,71,105.00	
8. Students Fund	1,29,70,216.00	1,16,17,156.00	
9. TBI	91,30,591.00	1,15,71,920.00	
10. TEQIP II modernisation fund	0.00	1,50,00,000.00	
11. Teqip reserves	0.00	1,00,00,000.00	
12. Gymkhana	3,57,152.00	93,700.00	
13. HWD	5,48,000.00	0.00	
Less: non cash items	0.00	-1,00,00,000.00	
Net Receipt	21,89,92,787.00	15,72,95,716.00	

27. INCOME ON INVESTMENTS EARMARKED FUNDS

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. TEQIP I	0.00	0.00
2. TEQIP II	0.00	0.00
	0.00	0.00
3. TEQIP III	2,12,63,327.72	1,92,00,369.00
4. GPF	3,38,741.63	2,30,898.00
5. CPF	0.00	0.00
6. FBS	3,05,31,465.00	4,83,33,204.0
7. Growth Fund	1,12,524.00	0.0
8. Students Fund	3,31,007.00	2,30,039.0
9. TBI	0.00	0.0
10. TEQIP II modernisation fund		0.0
11. Teqip reserves	0.00	
12. Gymkhana	0.00	0.0
13. HWD	0.00	0.0
	5,25,77,065.35	6,79,94,510.0
Add: Interest accrued in the previous year and realised in the current year		3,45,20,177.0
Less: Interest accrued not yet received	14,66,32,672.92	0.0
Net Receipt	-9,40,55,607.57	10,25,14,687.0

28. INTEREST ON BANK DEPOSITS

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Interest on fixed deposit of Plan Fund	4,52,51,570.10	1,04,27,150.00
2. Interest on other Fixed Deposits	2,32,12,819.00	2,59,08,431.00
2. microscon other three popular	6,84,64,389.10	3,63,35,581.00
Add: Interest accrued in the previous year and realised in the current year		1,34,79,598.00
Less: Interest accrued not yet received	0.00	3,65,46,783.00
Net Receipt	6,84,64,389.10	1,32,68,396.00

29. INTEREST ON SAVINGS BANK DEPOSITS

Particulars	Current Year	Previous Year
1. Interest on SB A/c of Plan Fund	-15,80,972.00	20,04,843.00
2. Interest on other SB Accounts	42,79,297.00	56,37,352.00
3. Interest on SB Accounts of Earmarked Funds	-7,78,871.00	28,85,797.00
	19,19,454.00	1,05,27,992.00
Less: Interest accrued not yet received	0.00	0.00
Net Receipt	19,19,454.00	1,05,27,992.00

30. OTHER INCOME INCLUDING PRIOR PERIOD INCOME

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Prior period Income	2,68,73,713.47	1,74,97,685.00
2. Other Income	3,05,96,618.34	2,92,31,179.50
3. Interest on cash security deposit with KSEB	27,204.00	0.00
	5,74,97,535.81	4,67,28,864.50
Add: Interest accrued on cash security deposit with KSEB in the previous year realised	0.00	0.00
Less: Non Cash Items	11,48,890.00	0.00
Net Receipt	5,63,48,645.81	4,67,28,864.50

31. DEPOSITS AND ADVANCES RECEIVED

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. EMD	58,57,166.20	94,24,129.00
2. Security Deposit	15,83,636.00	25,28,190.00
3. Caution Deposit	27,07,500.00	25,58,250.00
Net Receipt	1,01,48,302.20	1,45,10,569.00

32. LOANS AND ADVANCES GIVEN RECEIVED BACK

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. Advances given to employees	1,91,00,309.00	2,83,25,086.08
2. Other Advances	4,756.00	1,22,782.00
Net Receipt	1,91,05,065.00	2,84,47,868.08

33. MISCELLANEOUS RECEIPTS INCLUDING STATUTORY RECEIPTS

		(, , , , , , , , , , , , , , , , , , ,
Particulars	Current Year	Previous Year
1. Statutory Receipts	11,40,739.50	6,66,28,188.12
2. Other Miscellaneous receipts - Sch 3	23,83,84,759.00	5,04,18,925.39
3. All other misc receipts	3,67,01,350.00	
Net Receipt	27,62,26,848.50	11,70,47,113.51

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

SCHEDULES FORMING PART OF RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR 2017-18

34. PAYMENTS AGAINST EARMARKED ENDOWMENT FUNDS

(Amour		

		(Amount in Rupees)
Particulars	Current Year	Previous Year
1. TEQIP I	1,89,500.00	48,73,435.00
2. TEQIP II	1,88,20,730.00	4,58,16,991.50
3. TEQIP III	10,01,488.00	
4. GPF	3,89,56,744.00	3,35,69,690.00
5. CPF	2,40,65,606.00	2,29,13,064.00
6. FBS	-	11,490.00
7. Growth Fund	3,75,879.00	24,496.00
8. Students Fund	1,08,72,971.00	65,72,865.00
9. TBI	1,37,06,884.00	72,73,447.00
10. TEQIP II modernisation fund	1,38,62,657.00	15,93,119.00
11. Teqip reserves	" " -	
12. Gymkhana	4,74,712.00	1,37,021.00
13. HWD	7,20,269.00	76 - \$
Net Payment	12,30,47,440.00	12,27,85,618.50

35. DEPOSITS REPAID

(Amount in Rupees)

Particulars	Current Year	Previous Year
1. EMD	77,22,866.00	89,25,926.00
2. Security Deposit	8,54,258.00	16,22,847.00
3. Caution Deposit	1,62,470.00	14,000.00
Net Payment	87,39,594.00	1,05,62,773.00

36. LOANS AND ADVANCES GIVEN

Particulars	Current Year	Previous Year
1. Advances given to employees	1,86,18,780.00	2,59,73,154.00
2. Other Advances	22,17,008.00	20,000.00
Net Payment	2,08,35,788.00	2,59,93,154.00

37. ESTABLISHMENT EXPENSES

(Amount in Rupees)

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account Less: Establishment expenses payable at the year end	69,29,35,301.00 1,90,22,678.00	68,63,53,845.16
Add: Establishment Expenses of previous year paid in the current year	-	5,46,68,274.00
. Net Payment	71,19,57,979.00	74,10,22,119.16

38. ACADEMIC EXPENSES

(Amount in Rupees)

Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account Less: Academic expenses payable at the year end	24,88,15,437.00	23,60,84,994.00
Add: Academic Expenses of previous year paid in the current year	-	-
Net Payment	24,88,15,437.00	23,60,84,994.00

39. ADMINISTRATIVE EXPENSES

Particulars	Current Year	Previous Year
1 Supenditure Account	7,86,37,395.00	6,93,03,511.50
Expense as per the Income and Expenditure Account Less: Administrative Expenses payable at the year end	-	6,67,95,058.59
Add: Academic Expenses of previous year paid in the current year	_	5,09,97,795.00
Net Payment	7,86,37,395.00	5,35,06,247.91

40. TRANSPORTATION EXPENSES

(Amount in Rupees) **Particulars** Current Year Previous Year Expense as per the Income and Expenditure Account 17,54,546.41 Less: Transportation expense payable at the year end 15,63,015.01 Add: Transportation expense of previous year paid in the current year Net Payment

17,54,546.41

15,63,015.01

41. REPAIRS AND MAINTENANCE

	(Amount in Rupee	
Particulars	Current Year	Previous Year
Expense as per the Income and Expenditure Account Less: Repairs & Maintenance expense payable at the year end Add: Repairs & Maintenance expense of previous year paid in the current year	8,06,86,237.00	3,37,04,499.00
Net Payment	8,06,86,237.00	3,37,04,499.00

42. OTHER PAYMENTS INCLUDING STATUTORY PAYMENTS

	(Amount in Rupees)		
Particulars	Current Year	Previous Year	
Statutory Payments			
2. Other Payments	6,24,34,558.00	7,07,66,416.00	
Total	30,83,25,390.41	4,85,66,388.00	
	37,07,59,948.41	11,93,32,804.00	

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT PROVIDENT FUND ACCOUNT BALANCE SHEET AS AT MARCH 31,2018

Liabilities	Amount	Amount	Assets	Amount
GPF				29,86,27,724.00
Opening Balance	10,88,42,544.00		Investment	25,00,27,72
ess: Subscription for March 2017			Interest accrued as on 31/03/2018	
			Subscription due for March 2018	
Add: Subscription in the year	3,92,92,457.00		GPF CPF	
Add: Subscription for March 2018			UC due to CPF	
Add: Interest credited			NPS II	
Less: Advance/Withdrawal	3,89,56,744.00		INPS II	
Closing balance		10,91,78,257.00		(4)
-	1		Tax recovered from interest on	
			Investments	
CPF			investments	
			pending refund from Income Tax Dept.	
Opening Balance	58,43,726.00		pending refulid from income rax bept.	
Less: Subscription for March 2017				
The state of the s			Cash at Bank	4.81.954.00
Add: Subscription in the year	2,26,81,321.00		SBI Branch	4,61,554.66
Add: Subscription for March 2018			Others	
Add: Interest credited	3,80,42,496.28			
Less: Advance/Withdrawal	4,21,92,606.00			
Closing balance		2,43,74,937.28	3	
University Contribution (CPF)				
Opening Balance				
Less: Subscription for March 2017				
•				
Add: Subscription in the year				
Add: Subscription for March 2018		- *		
Add: Interest credited				
Less: Advance/Withdrawal				
Closing balance	L. PARTIES INST	£.	* 4	
	Sept. 10.00 2004 1 200 -		1 8 7	
NPS Tier-II Account		272	1.5	
Opening Balance	All the second territories	And the second		
Less: Subscription for March 2017	A-1 - 12 2- 02 04-0	Data Na Despita	b .	
SOME SHOWEN THE STATE OF THE ST		Hansa Division	programme)	
Add: Subscription in the year			6.2 0	
Add: Subscription for March 2018			12	
Add: Interest credited				
Less: Advance/Withdrawal			1	
Closing balance			19	
	a			
Interest Reserve	14 50 11 171 00	.1		
Opening Balance	14,50,11,171.00		2	
Add: Excess of income over expenditure	2,05,45,312.72	10,55,50,705.7		
Closing Balance			, a	
		29,91,09,678.0	O Total	29,91,09,678.

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT PROVIDENT FUND ACCOUNT INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31/03/2018

			(Amount in Rs.
Expenditure	Amount	Income	Amount
Interest credited to: GPF account CPF account University Contribution (CPF) NPS Tier-II account Excess of Income over Expenditure	- - - - 2,05,45,312.72	Interest earned on Investment Add: Interest accrued on 03/18 Add: Tax recovered on interest- Refund to be obtained Adjustment (Prior period income) Excess of Expenditure over Income	2,05,45,312.72
Total	2,05,45,313	Table	
	2,03,43,313	Total	2,05,45,313

Deputy Registrar (Finance) National Institute of Technology Calicut CALICUT - 673 601

कुल सचिव / REGISTRAR
राष्ट्रीय प्रौधोगिकी संस्थान कालकट

National Institute of Technology Calicut
National Institute of Technology Calicut
(पन.ई.टी. काँपस (पी.ओ) कालिकट, केरल - ६२३०० व्यवस्तार NIT Campus (P.O), Calicut, Kerala - 673 601, India कालिकट / Calicut

निदेशक / DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

NIT Campus (P.O), Calicut, Ko-

Chairperson,

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

PROVIDENT FUND ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNTS FOR 2017-18

(Amount in Rs.)

Receipts	Amount	Payments	Amount
,			18
Opening Balance as on 1/4/17		GPF Adv/Withdrawal	7,58,84,744.00
Savings Bank Accounts	51,08,179.00	CPF Adv/Withdrawal	4,21,92,606.00
Term Deposits	27,44,64,441.00		
MOD Balances	2,35,01,444.00	NPS Tier II	
GPF Subscription	7,22,53,998.00	University Contribution Withdrawal	-
CPF Subscription	4,12,95,722.00		
CPF University Contribution	-	Investments during the year	-
NPS Tier II account	-	Others	98,595.00
Investments encashed	-	Closing Balance	
Interest received	-	Savings Bank Accounts	4,81,954.00
Other receipts	6,61,839.00	Term Deposits	27,08,03,256.00
		MOD Balances	2,78,24,468.00
Total	41,72,85,623.00	Total	41,72,85,623.00

UT - 673 601

कुल सचिव / REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut কালিকਟ / Calicut

निदेशक / DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

Chairperson, Board of Governors

National Institute of Technology Calicut एन.ई.टी. काँपस (पी.ओ) कालिकट, केरल - 673601, जन्मी T Campus (P.O), Calicut, Kerala - 673 601, India

NiT Campus (P.O), Calicut, Kerala - F (C. CO1, India

ng (Cangaard) marangan balah me

tome 3 years and of the students remark sector of the sector of the sector of the

ALTERNATION OF SHORT ACTIONS AND ABOVE DIFF

USHI

Schedule 23

Significant Accounting Policies

1. Basis for preparation of accounts

The annual financial statements have been prepared and presented under historical cost convention on accrual basis in accordance with the Indian Generally Accepted Accounting Principles (GAAP), which comprises of Accounting Standards issued by the Institute of Chartered Accountants of India and other guidelines notified by Central Government from time to time. The financial statements for the year ended 31 March 2018 have been prepared and presented in the **Revised Format of Accounts of Central Educational Institutions**, as approved by the Comptroller & Auditor General of India and notified by the Ministry of Human Resource Development, Government of India *vide* letter no. 29-4/2012-IFD dated 17 April 2015. The figures for previous financial year have been regrouped and recast, wherever necessary, for conformity with the revised format.

2. Use of estimates

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

3. Revenue recognition

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

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

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

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

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

4. Government grants-in-aid

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

next financial year, the grant is accounted on accrual basis and an equal amount is shown as grants receivable under Loans, Advances and Deposits in Balance Sheet. Any grant becoming refundable for non-fulfillment of certain conditions for obtaining grants is treated as an Extraordinary Item and separately disclosed in financial statements.

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

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

5. Inventory

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

6. Tangible assets and Capital Work-in-progress

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

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

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

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

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

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

7. Intangible assets

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

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

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

8. Depreciation and amortization

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

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

No depreciation is provided on freehold land.

9. Impairment of assets

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

10. Leases

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

11. Retirement benefits

New Pension Scheme

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

General Provident Fund

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

Contributory Provident Fund

It is a defined contribution plan. The employee and the Institute each make monthly contribution to the plan equal to 10% of the covered employee's basic salary and grade pay. The Institute maintains CPF fund by investing in approved manner as specified. Provision for the shortfall in interest payable, if any, is provided in the Income and Expenditure Account.

Gratuity

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

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

Leave Encashment

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

Family Benefit Scheme

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

12. Foreign currency transactions

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

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

13. Provisions and contingent liabilities

The Institute creates a provision when there is a present obligation as a result of an obligating event that probably requires an outflow of resources and a reliable estimate can be made of the amount of the outflow. A disclosure for a contingent liability is made when there is a possible obligation or a present obligation that may, but probably will not, require an outflow of resources. Where there is a possible obligation or a present obligation in respect of which the likelihood of outflow of resources is remote, no provision or disclosure is made.

14. Income tax

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

15. Earmarked/ Endowment funds

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

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

16. Investments

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

17. Sponsored projects

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

18. Cash and cash equivalents

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

19. Cash flow statement

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

Schedule 24

Notes to Accounts

1. RECEIPT OF GOVERNMENT GRANTS

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

As mentioned above, the internal generated revenue is included in the utilization certificates submitted by the Institute for financial year 2017-18 to Ministry of HRD, therefore the utilization certificate for the financial year 2017-18 will not agree with the unspent balance of Government grants lying with the Institute as shown in the ledger accounts.

(Refer Schedule 3C- Unutilized Grants from UGC, Government of India and State Governments and Schedule 10- Grants/Donations/Subsidies).

2. CAPITAL FUND

This includes grants received from MHRD to the extent incurred for capital expenditure and assets procured out of sponsored projects. It also includes interest on Fixed Deposits and Savings Bank Accounts of Plan funds and interest received on Fixed Deposits created for opening the Letter of Credit during the current financial year. Bank charges incurred on Plan Fund Savings Bank account is deducted therefrom.

(Refer Schedule 1- Capital Fund).

राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

NIT Carring IP

National Institute of Technology Calicut NIT Campus (P.O), Calicut, Kerala - 673 601, India

3. CURRENT LIABILITIES AND PROVISIONS

These include:

- a) Deposits from students representing refundable caution deposits.
- b) Payment for stamps worth Rs.39,413/- shown under "Sundry Creditors for goods and services".
- c) Rs. 6,90,801/- represents amount payable to NIT Employees Multipurpose Co-operative Society and is shown under "Sundry Creditors Others".
- d) Deposits includes Earnest Money Deposit (EMD) of Rs.89,56,365/- and Security Deposit of Rs.1,25,40,827/- towards retention charges for the performance warranty in respect of new fixed assets. Unclaimed amounts, if any, lying as security deposits are not considered as income during the current year.
- e) Statutory liabilities payable as on 31March 2018 are as:

Sl. No.	Particulars	2017-18	2016-17
1	TDS payable	8,90,439	7,92,213
2	Sales Tax payable	15	519
3	Service Tax payable	(2,41,958)	(5977)
4	GST Payable	91,337	NA
5	Professional Tax Payable	1250	NA
	Total	7,41,083	7,86,755

^{*}Figures in bracket indicate debit balance.

f) Receipts against sponsored projects and sponsored fellowships and scholarships are shown in Schedule 3A and 3B. The credit balance at the end of financial year 2017-2018 are shown as "other current liabilities" under *Schedule 3- Current Liabilities and Provisions* and debit balances are shown as "current assets receivable from sponsored projects and sponsored fellowships and scholarships" under *Schedule 8-Loans, Advances & Deposits*.

g) Other Liabilities as shown below:

			(Amoun	t in Rupees)
Sl. No.	Particulars	Remarks	2017-18	2016-17
1	Pension and GPF contribution from other Institutions		36,92,706	36,92,706
2	Golden Jubilee		(2,39,853)	(2,39,853)
3	Plan Grant- Sikkim		(4,44,249)	(4,44,249)
4	Medical Exam Fees	Share payable to RMO	1,33,494	94,320
5	Research & Consultancy refundable monies		(3,75,327)	1,37,79,961
6	Time-barred cheques cancelled		2,93,801	2,93,801
7	Advance Money for Centre and Admissions		3,00,000	3,00,000
8	Medical claim for Students		1,02,93,258	1,80,44,147
9	AMTID (Advances for Materials and Techniques for Infrastructure Development)		1,17,000	1,17,000
10	MBA Programs and alumni-related activities		(15,09,058)	(12,14,058)
11	International Conference (ICCSP)		3,50,000	3,50,000
12	Refund Account No. IV	Includes	77,870	77,870

	Total		17,59,66,723	18,77,68,860
24	Other miscellaneous items		2,43,860	-
23	Interest on account (Refunds)		1,91,701	-
22	PG Diploma course in construction		(34,415)	_
21	RD Commission NSO		15,533	
20	Group Insurance		(2,17,452)	-
19	Convocation fee		4,54,100	-
18	Departmental suspense accounts		74,74,634	
17	Transfer (Refunds)	during the reporting period	(45,68,754)	(45,68,754)
16	Suspense Account No. II (Tuition Fees)	be rectified	11,670	11,670
15	Suspense Account No. 1 (NIT Sikkim)	past years, which could not	42,50,877	42,50,877
14	Suspense Account No. 1	entries made in	4,97,77,070	4,97,44,170
13	Suspense Account No. II	erroneous accounting	10,56,78,257	10,34,79,252

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

h) Accounts Payable for other expenses for March 2018 as shown below:

Sl. No.	Particulars	2017-18	2016-17
1	Salary payable	1,88,37,298	2,25,05,798
2	Pension payable	1,85,380	93,65,387
3	Lease rent payable	NIL	NIL
4	Electricity payable	39,75,016	40,28,902
	Total	2,29,97,694	3,59,00,087

(Refer Schedule 3- Current Liabilities and Provisions).

4. FIXED ASSETS

Total addition to the assets during the FY 2017-18 was Rs. 34,83,80,896/- which includes purchases made after September, 2017 for Rs. 5,02,15,583. Total depreciation on assets for the period 2017-18 was Rs. 182,85,05,308 and that includes depreciation for the FY 2017-18 amounted to Rs. 17,97,96,675.

(Refer Schedule 4- Fixed Assets)

5. FIXED DEPOSITS

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

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Fixed Deposits made out of Earmarked/ Designated Funds ##	150,55,26,905	117,72,77,492
2	Fixed Deposits made out of Plan Funds (includes FD of Rs. 1,89,41,657 pledged with Hon'ble Additional Sub-Judge, Kozhikode)	27,21,69,130	29,10,16,735
3	Fixed Deposits from Other Funds (Revenue Funds)	36,69,02,922	22,91,47,336
4	Fixed Deposits for Letters of Credit	44,92,000	2,57,11,000
5	Fixed Deposits for Bank Guarantee (in favor of KSEB)	20,50,840	20,50,840
	Total	215,11,41,797	1,72,52,03,403

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

The details of Fixed Deposits made out of Earmarked/ Designated Funds shown hereinabove is provided below:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Growth Fund	93,65,52,113	74,88,95,475
2	General Provident Fund	29,03,88,357	26,89,15,449
3	Contributory Provident Fund	82,39,367	55,48,992
4	Technology Business Incubator (TBI)	31,60,489	31,60,489
5	Students Fund	17,993	Nil
6	Refund	26,71,68,586	15,07,57,087
	Total	150,55,26,905	117,72,77,492

The fixed deposits created during the financial year 2017-18 and the fixed deposits for past financial years are shown in Balance Sheet as at 31March 2018 at their principal value only.

The principal amount of all fixed deposits in the name of the Institute as on 31/03/2018 amounts to Rs.215,11,41,797/-.

6. CASH IN BANK

Certificate for confirmation of balances of all its bank accounts held in nationalized banks as on 31 March 2018 has been obtained from the bankers. The Institute has also obtained certificate for the interest amount accrued and received on its bank accounts from the bankers as on 31 March 2018. Reconciliation of all major accounts (except Suspense Accounts) was undertaken and completed for the year 2017-18.

Current Accounts

The Institute has shown eight current accounts in its books including one current account for project, as compared to fifteen current accounts certified by the banks as on 31 March 2018. The balance of the eight disclosed current accounts in the Institute's books of accounts is Rs.20,17,09,164/- while their certified bank balance as on 31 March 2018 is Rs.10,65,71,953.18/- [Annexure A(ii)]. Another current account in respect of a project has a balance of Rs.10,000/- as against the certified balance of Rs.30,351/-.

The certified closing balance of remaining seven current accounts not shown in the Institute's books of accounts as on 31 March 2018 was Rs. 14,23,92,689.20/- [Annexure C (ii)]. These accounts have not been included in the financial statements as the particulars of transactions therein are not known and no relevant documents/ details other than the bank-certified balance is available with the Institute in respect of the seven current accounts.

Savings Bank Accounts

The Institute held 39 Savings Bank accounts in nationalized banks as on 31 March 2018. Only 31 of these bank accounts are included in the books. [Annexure A (i)]. The balance of the 31 disclosed Savings accounts as per Institute's books of accounts is Rs.93,79,77,156/-/- while their certified bank balance as on 31 March 2018 is Rs.50,11,17,583/-

The certified bank balance of the remaining eight Savings Bank accounts as on 31March 2018 was Rs.87,368/- [Annexure C (i)]. These have not been included in the books due to lack of sufficient information on the source of their creation and the particulars of transactions therein for the past periods.

Project Accounts

The Institute maintains separate bank accounts for each project funded by various government agencies. A balance confirmation certificate has

been obtained for 84 project bank accounts including one current account for the financial year 2017-2018. The certified closing balance of these bank accounts as on 31 March 2018 was Rs.7,85,50,291/- [Annexure B].

The books of accounts of the Institute shows 130 project bank accounts which are inclusive of both operative and in-operative project accounts. Of these 130 project bank accounts shown in books of accounts, Bank has confirmed the balance as on 31st March 2018 for only 84 project bank accounts. Bank certification for the remaining 46 project accounts shown in the books of accounts was not made available by the respective Bank.

Bank Reconciliation Statement in respect of project accounts has been prepared for 2017-2018. However, the existence of un-reconciled opening balances for several previous financial years renders the reconciliation of some accounts with the bank-certified balances as on 31 March 2018 difficult. Due to lack of sufficient information on some bank accounts, which were opened in the distant past and the transaction details of which are not known (these were not shown in the books of account during the previous years), such accounts have not been included in the current financial year as well. The details of such bank accounts are disclosed in **Annexure C**.

(Refer Schedule 7- Current Assets- Cash in Bank).

7. TREASURY ACCOUNTS

The Institute held three accounts with District Treasury, Kozhikode, *viz.*, TPA No.809, PD Account (419/1-HWD) and PD Account (419/2-NMS). The un-reconciled ledger balance of these accounts as on 31 March 2018 was Rs.10,76,413/-, Rs.20,10,398/- and Rs.29,850/-respectively. At present, the Institute operates only two of these accounts (419/1-HWD and 419/2-NMS) for receipt and disbursement of scholarship amount received from the Government of Kerala. As on 31 March 2018, the correct certified balance could not be obtained from District Treasury for want of sufficient information on old transactions for previous years (the balance shown in Pass Book was Rs. 37,849/- as of May 2006). No grant/ aid are being received in the other account, *viz.*, TPA No.809 since FY 2003-2004.

As per the guidelines issued by Government of Kerala, the scholarship amount should be distributed to the students at the earliest and unclaimed balance, if any, should be returned to Government of Kerala together with interest earned thereon. The un-reconciled closing balance in treasury accounts as on 31 March 2018 might comprise such unclaimed amounts for previous years.

Government of Kerala has demanded the refund of amount lying in PD Account (419/.2-NMS) vide letter no. C4/626/2015 dated 19 August 2015. However, no liability is recognized in the Balance Sheet as on 31 March 2018 for the demand raised due to non-confirmation of certified balance in the aforesaid Treasury account.

(Refer Schedule 7- Current Assets- Cash in Treasury).

8. INVENTORY

The stock purchased and issued to various departments is shown under the respective departmental operating cost ledger heads. (Refer Schedule 7- Current Assets- Stock).

Physical verification of fixed assets for the year 2017-18 is yet to be carried out. Stock-taking of library books is conducted once in three years in accordance with Rule 215 of GFR 2017.

9. ADVANCES TO EMPLOYEES

Loans and advances include loans given to staff for various purposes, which are recovered in installments along with interest from the salary of employees. The Institute does not recognize the interest receivable on such loans and advances. The amount recovered for each loan together with interest is credited to the loan account. The advances made during the financial year 2017-18 are given below:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Festival advance	(84,535)	(1,55,185)
2	Computer advance	(1,85,489)	(1,85,489)
3	Marriage advance	(66,184)	(66,184)
4	House Building Advance	(25,52,148)	(20,05,813)
5	Vehicle advance	5,57,006	4,68,170
6	Plan advance	(1,14,253)	(1,14,253)
7	Advance payment A/c No I	23,21,574	43,03,947
8	Advance payment A/c No II	65,56,411	65,39,998
9	LTC advance	21,13,436	23,10,361
10	Travelling allowance advance	13,05,186	16,60,761
11	Department advances	77,15,142	54,30,744
12	Other advances	69,720	69,720
13	Gymkhana	83,600	4,25,000
	Total	1,77,19,466	1,86,81,777

Figures in bracket indicate credit balance, *i.e.*, liability carried over from previous years.

(Refer Schedule 8- Loans, Advances and Deposits)

10. INTEREST ACCRUED ON FIXED DEPOSITS

The total interest certified as accrued on fixed deposit accounts as on 31 March 2018 was Rs.8,18,37,510/-. Interest accrued on fixed deposits comprises of interest accrued on Earmarked Funds. Interests accrued on Plan funds are shown as additions to the Capital Fund.

(Refer Schedule 2- Designated/Earmarked/Endowment Funds- Accrued interest on Investments and Schedule 11- Income from Investments).

11. BANK GUARANTEE WITH KERALA STATE ELECTRICITY BOARD

The Institute executed a Bank Guarantee for Rs.20,50,840/- in favor of KSEB towards security deposit for its HT electric connections, by opening fixed deposit account with SBI, NIT Calicut Branch.

(Refer Schedule 8- Loans, Advances and Deposits- Income accrued on security deposit with KSEB and Schedule 14- Prior Period Income).

12. PREPAID EXPENSES

There are prepaid expenses amounting to Rs. 36,36,047 for the financial year 2017-18.

13.TUITION FEES AND OTHER RECEIPTS

The income earned by way of tuition fees and other receipts for the financial year 2017-18 is Rs.37,73,18,884. The tuition fees and other fees remitted by students are transferred to various ledger accounts on the basis of itemized fee structure notified by the Institute from time to time. The remittance receipt flow directly into four designated bank accounts, *viz.*, A/c No. 10401158082 (Non-Plan Recurring), A/c No. 10401159314 (Refunds), A/c No. 10401159802 (Growth Fund) and A/c No. 10401158106 (Students Fund). The respective tuition fee ledger accounts are credited on the income side and the aforesaid bank accounts are debited on the assets side (after obtaining confirmation from the bank) by the

Institute's accounting software (NITC-DSS). The actual tuition fee bank accounts/ ledger accounts, into which the tuition fee is remitted by the students, remain untouched. Because of this, the tuition fees received directly in the bank accounts are not originally recorded in the books of accounts of the Institute. This has been followed consistently for the past several years.

Till financial year 2013-2014, there was a practice of passing an adjustment entry by debiting the respective tuition fee bank account and crediting bank A/c no. 10401158082 only on receipt of tuition fees though the amount of tuition fees was transferred initially and automatically to four different bank accounts as stated above. This distorts the actual balance of the bank accounts and has been a major reason for the difference noticed in the bank balance certified by the bankers and the bank balance shown in Institute's ledger accounts. Rectification at this stage is a challenging task in view of the number of transactions involved and the need to identify each fee component therefore.

(Refer Schedule 9- Academic Receipts).

14. INCOME FROM INVESTMENTS AND INTEREST EARNED

Income from other investments represents interest on investments made out of Non-Plan Fund, Tuition Fees, Refund (Savings Bank) Account and Fixed Deposits (including those held as security for Bank Guarantee in favor of Kerala State Electricity Board) with nationalized banks. Interest earned represents interest received on Savings Bank accounts except for the Bank accounts held for Earmarked/Designated fund and Plan Fund. (Refer Schedule 11- Income from investments and Schedule 12- Interest Earned).

15. LICENSE FEES RECEIPT

Disclosure relating to license fees for financial year 2017-18 is as under:

(Amount in Rupees)

Sl. No.	No. Particulars	(Amount in Rupees)	
		2017-18	2016-17
1	Staff Quarters	27,54,307	38,70,476
2	SBI building	100	20 250
3		13,87,374	10,24,580
3	Punjab National Bank ATM room	33,701	3,159
4	Guest House	1 25 (0)	
5	Service charges for 1	4,25,606	24,500
	Service charges for the above structures	39,202	47,862
6	BSNL Building Rent	43,545	, , , , , , , , , , , , , , , , , , , ,
	Total	75,545	
	a viai	46,83,735	49,70,577

(Refer Schedule 13- Other Income- Income from Land and Buildings- License fee).

16.INCOME FROM CONSULTANCY

Income from consultancy services represents the Institute's share of income received by its various departments for rendering services to external parties.

(Refer Schedule 13- Other Income- Others).

17.MISCELLANEOUS RECEIPTS

The miscellaneous receipts during the financial year are shown below:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Sale of tender/ registration forms	3,25,984	5,68,886
2	Breakage Charges	55,472	27,778
3	Conveyance receipts	2,53,350	3,12,200
4	Overhead Charges (Project Share)	24,606	63,635
5	Other Miscellaneous receipts	19,35,220	4,59,616
	Total	25,94,632	14,32,115

(Refer Schedule 13- Other Income- Others- Misc. Receipts).

18. CONTRIBUTION TO VARIOUS FUNDS

The Institute's contribution towards leave salary, Provident Fund and New Pension Scheme is shown below:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Contributory Provident Fund	NIL	73,232
2	Contribution to New Pension Scheme	1,17,66,726	1,12,29,985
3	Leave Salary & Pension Contribution	2,20,747	4,11,351
	Total	1,19,87,473	1,17,14,568

(Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

19. RETIREMENT AND TERMINAL BENEFITS

This includes pension, pension commutation and Death-cum-Retirement-Gratuity (DCRG) paid to employees, who retired from the service. The details for the financial year 2017-18 are as follows:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Pension	13,00,34,905	12,97,64,368
2	Death-cum-Retirement-Gratuity (DCRG)	1,13,88,297	75,99,104
3	Pension Commutation	1,01,33,771	60,79,293
	Total	15,15,56,973	14,34,42,765

(Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

20. PROVISION FOR EMPLOYEE BENEFITS

Defined Benefit Plan

The employees of the Institute are entitled to Pension, Gratuity and Leave Encashment benefits on their retirement/ separation in accordance with the applicable Central Government rules. Actuarial valuation for employee benefits has been done for the first time in respect of Gratuity and Leave Encashment and disclosed as per AS-15 (Revised) issued by Institute of Chartered Accountants of India. Separate disclosure has been made for teaching staff and non-teaching staff owing to differences in their retirement age, attrition rate and leave encashment regulations. The actuarial valuation for leave encashment benefit has been built upon the data available for the calendar year 2017 (1 January 2017 to 31 December 2017). Actuarial valuation has not been done for pension benefits and no provision is recognized in the Income and Expenditure Account for the financial year 2017-2018.

(Refer Schedule 15A-Employees Retirement and Terminal Benefits).

The following tables provide an abstract of the expenses recognized and the provision made for 2017-2018 based on actuarial valuation.

I. Teaching Staff

a) Expenses recognized in Income and Expenditure Account during financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Current Service Cost	80,94,201	1,09,55,633
2	Interest Cost	58,20,421	73,22,675
3	Expected Return on Assets	Nil	Nil
4	Curtailment Costs	Nil	Nil
5	Settlement Costs	Nil	Nil
6	Past Service Costs	Nil	Nil
7	Net Actuarial (Gain)/Loss	(7,65,783)	1,14,27,082
8	Others	Nil	Nil
9	Employee expense recognized in Income and Expenditure Account	5,59,84,112	2,97,05,389

b) Amount recognized in Balance Sheet as at 31 March 2018

(Amount in Rupees)

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Present Value of Defined Benefit Obligation	13,25,65,919	12,54,40,191
2	Fair Value of Plan Assets	Nil	Nil
3	Funded Status [Surplus/ (Deficit)]	(13,25,65,919)	(12,54,40,191)
4	Unrecognized Past Service Costs	Nil	Nil
5	Net Assets/ (Liability) recognized in Balance Sheet	(13,25,65,919)	(12,54,40,191)
6	Present Value of Encashment Obligation	Not Applicable	11,69,33,726
7	Present Value of Availment Obligation	Not Applicable	85,06,466

c) Changes in present value of defined benefit obligations during the financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Present value of Defined Benefit Obligations	8,15,81,807	10,32,50,924
	(Opening)		
2	Current Service Cost	80,94,201	1,09,55,633
3	Interest Cost	58,20,421	73,22,675
4	Plan Amendments	Nil	Nil
5	Prior Service Costs	4,28,35,273	Nil

6	Curtailments	Nil	Nil
7	Settlements	Nil	Nil
8	Actuarial (Gains)/Loss	(7,65,783)	1,14,27,082
9	Benefits Paid	(50,00,000)	(75,16,122)
10	Acquisition/ Divestures	Nil	Nil
11	Present Value of Defined Benefit Obligation (Closing)	13,25,65,919	12,54,40,191

d) Reconciliation of opening and closing value of Plan assets for the financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Fair value of Plan Assets (Opening)	Nil	Nil
2	Expected return on Assets	Nil	Nil
3	Employer contribution	50,00,000	75,16,122
4	Plan participant's contribution	Nil	Nil
5	Settlements by Fund Manager	Nil	Nil
6	Benefit payouts	(50,00,000)	(75,16,122)
7	Actuarial Gains/(Loss)	Nil	Nil
8	Fair Value of Assets at the End	Nil	Nil
9	Actual return on Plan Assets	Nil	Nil

e) Reconciliation of Net Assets/ (Liabilities) recognized in Balance Sheet as at 31 March 2018.

(Amount in Rupees)

Sl. No.	Particulars	Gratuity	Leave
	2		Encashment
1	Net Asset/ (Liability) recognized at the beginning of the period	(8,15,81,807)	(10,32,50,924)
2	Employer expense	(5,59,84,112)	(2,97,05,389)
3	Employer Contribution	50,00,000	75,16,122
4	Acquisition/ Divestures	Nil	Nil
5	Effect of the Limit in Para 59(b)	Nil	Nil
6	Net Asset/ (Liability) recognized at the end of the period	(13,25,65,919)	(12,54,40,191)

f) Components of the experience adjustments for financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave Encashment
1	Actuarial (Gains)/ Losses due to Demographic	Nil	Nil
	Assumption changes in DBO		
2	Actuarial (Gains) and Losses On Obligation Due	(41,00,569)	(37,17,450)
	to Financial Assumption change in DBO		
3	Actuarial (Gains)/ Losses due to Experience	33,34,786	1,51,44,532
	Adjustment		
4	Total Gains/ Losses for the year	(7,65,783)	1,14,27,082
5	Actuarial (Gains)/ Losses recognized in the year	(7,65,783)	1,14,27,082

II. Non-Teaching Staff

g) Expenses recognized in Income and Expenditure Account during current financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Current Service Cost	30,01,409	34,79,011
2	Interest Cost	44,57,780	33,09,688
3	Expected Return on Assets	Nil	Nil
4	Curtailment Costs	Nil	Nil
5	Settlement Costs	Nil	Nil
6	Past Service Costs	1,08,36,926	Nil
7	Net Actuarial (Gain)/Loss	4,49,039	13,32,243
8	Others	Nil	Nil
9	Employee expense recognized in Income and Expenditure Account	1,87,45,154	81,20,941

h) Amount recognized in Balance Sheet as at 31 March 2018

(Amount in Rupees)

Sl. No.	Particulars	Gratuity	Leave
**	20		Encashment
1	Present Value of Defined Benefit Obligation	7,85,65,891	4,77,74,917
2	Fair Value of Plan Assets	Nil	Nil
3	Funded Status [Surplus/ (Deficit)]	(7,85,65,891)	(4,77,74,917)
4	Unrecognized Past Service Costs	Nil	Nil
5	Net Assets/ (Liability) recognized in Balance Sheet	(7,85,65,891)	(4,77,74,917)
6	Present Value of Encashment Obligation	Not Applicable	5,13,91,364
7	Present Value of Availment Obligation	Not Applicable	29,79,882

i) Changes in present value of defined benefit obligations during the financial year 2017-2018.

Sl. No.	Particulars	Gratuity	Leave Encashment
1	Present value of Defined Benefit Obligations (Opening)	6,68,20,737	4,77,74,917
2	Current Service Cost	30,01,409	34,79,011
3	Interest Cost	44,57,780	33,09,688
4	Plan Amendments	Nil	Nil
5	Prior Service Costs	Nil	Nil
6	Curtailments	Nil	Nil
7	Settlements	Nil	Nil
8	Actuarial (Gains)/Loss	4,49,039	13,32,243
9	Benefits Paid	(70,00,000)	(15,24,612)
10	Acquisition/ Divestures	Nil	Nil
11	Present Value of Defined Benefit Obligation (Closing)	7,85,65,891	5,43,71,246

j) Reconciliation of opening and closing value of Plan assets for the financial year 2017-2018.

(Amount in Rupees)

Sl. No.	Particulars	Gratuity	Leave
	10		Encashment
1	Fair value of Plan Assets (Opening)	Nil	Nil
2	Expected return on Assets	Nil	Nil
3	Employer contribution	70,00,000	15,24,612
4	Plan participants contribution	Nil	Nil
5	Settlement by Fund Manager	Nil	Nil
6	Benefit payouts	(70,00,000)	(15,24,612)
7	Actuarial Gains/(Loss)	Nil	Nil
8	Fair Value of Assets at the End	Nil	Nil
9	Actual return on Plan Assets	Nil	Nil

k) Reconciliation of Net Assets/ (Liabilities) recognized in Balance Sheet as at 31 March 2018.

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Net Asset/ (Liability) recognized at the beginning of the period	(6,68,20,737)	(4,77,74,917)
2	Employer expense	(1,87,45,154)	(81,20,941)
3	Employer Contribution	70,00,000	15,24,612
4	Acquisition/ Divestures	Nil	Nil
5	Effect of the Limit in Para 59(b)	Nil	Nil
6	Net Asset/ (Liability) recognized at the end of the period	(7,85,65,891)	(5,43,71,246)

1) Components of the experience adjustments for the financial year 2017-2018

(Amount in Rupees)

Sl. No.	Particulars	Gratuity	Leave
			Encashment
1	Actuarial (Gains)/ Losses due to Demographic	Nil	Nil
	Assumption changes in DBO		
2	Actuarial (Gains) and Losses On Obligation Due to	(21,82,696)	(15,28,822)
	Financial Assumption change in DBO		
3	Actuarial (Gains)/ Losses due to Experience Adjustment	26,31,735	28,61,065
4	Total (Gains)/ and Losses for the year	4,49,039	13,32,243
5	Actuarial (Gains) / Losses recognized in the year	4,49,039	13,32,243

m) Actuarial Assumptions

Principal assumptions made for Actuarial valuation are:

Sl. No.		Gra	Gratuity		Leave Encashment	
	Particulars	Teaching	Non-	Teaching	Non-	
			Teaching		Teaching	
1	Method Used	P	Projected Unit Credit Method			
2	Discount rate	7.68%	7.52%	7.68%	7.52%	
3	Expected Return on Assets	0.00%	0.00%	0.00%	0.00%	
4	Salary Escalation	6.00%	6.00%	6.00%	6.00%	
5	Attrition Rate	3.00%	3.00%	3.00%	3.00%	
	Demographic Assumptions:					
	a) Mortality	Indian assur	red lives Mort	ality (2006-0	8) Ultimate	
	b) Disability		5% of Mor	tality rates	3	
	c) Withdrawal	3.00%	3.00%	3.00%	3.00%	
	d) Retirement age	65	60	65	60	

Defined Contribution Plan

Employer's (Institute's) contribution to New Pension Scheme and Contributory Provident Fund has been recognized as an expense for the financial year 2017-18.

General Provident Fund

The Fund balance as on 31 March 2018 amounting to Rs.10,91,78,257/-. The Institute has obligation to pay the dues along with the interest notified by the Government of India from time to time. The aforesaid amount is sufficient to cover any interest shortfall during the current financial year; hence, no provision is made for interest difference, if any, in the current year's financial statements.

21.HONORARIUM

Honorarium paid to experts/faculty/ staff during the financial year 2017-18 is as follows:

(Amount in Rupees)

Sl. No.	Particulars	2017-18	2016-17
1	Faculty Recruitment	NIL	NIL
2	Thesis Evaluation	7,67,312	NIL
3	Others	4,56,110	10,01,389
	Total	12,23,422	10,01,389

(Refer Schedule 15- Staff payments and Benefits [Establishment Expenses]).

22.E-JOURNALS

The Institute spent Rs.3,64,07,211/- on subscription of e-journals in the financial year. As per Accounting Standard 26 issued by the Institute of Chartered Accountants of India, intangible assets on which the benefit extends beyond one year can be capitalized else the expenditure should be expensed in the year in which the benefits are derived. As the subscriptions to e-journals made in 2017-18 are valid for one year, the whole amount is written off as an expense in the current year 2017-18.

(Refer Schedule 16- Academic Expenses).

23.DEPARTMENTS OPERATING COST

The details of operating cost (DOC) for different departments are as follows:

Sl. No.	Particulars (DOC)	2017-18	2016-17
1	Architecture	4,96,463	4,75,293
2	Civil Engineering	12,55,910	14,85,037
3	Computer Science & Engineering	3,98,145	6,66,638
4	Electronics & Communication Engineering	8,31,810	11,69,078
5	Electrical & Electronics Engineering	24,83,094	18,90,441
6	Hospital	1,79,263	1,32,161
7	Library	1,80,428	4,35,156
8	Mathematics	3,11,016	3,60,015
9	Mechanical Engineering	21,84,419	28,00,670
10	Physical Education	3,19,393	1,56,979
11	Chemical Engineering	8,23,946	13,48,776
12	Physics	7,37,886	8,43,980
13	Bio-Technology	4,41,461	13,61,902
14	Nano-technology	4,45,050	5,73,643
15	School of Management Studies	3,25,920	3,25,768
16	Chemistry	7,45,963	10,56,031

		66,414	83,560
17	Campus Networking Centre	1,42,097	1,81,422
	Training & Placement	(3,18,408)	4,49,749
19	General	1,20,50,270	== 0(220
	Total		

(Refer Schedule 17- Administrative and General Expenses).

24.OPERATING LEASE

The details with regard to operating lease are given below:

(Amount in Rupees)

1110		2017-18	2016-17
Sl. No.	Particulars	NIL	NIL
1	Not later than one year	NIL	NIL
2	Later than one year and not later than five years	NIL	NIL
3	Later than five years		

(Refer Schedule 18- Transportation Expenses).

25.PRIOR PERIOD INCOME

Prior period income for the current financial year is Rs. 2,04,26,214.

(Refer Schedule 14-Prior Period Income).

26.PRIOR PERIOD EXPENSES

Disclosure for prior period expenses for financial year 2017-18 is as under:

Sl. No.	Particulars	Amount in Rupees)	
1	Depreciation	2017-18	2016-17
3	Others	NIL	1,47,375
	Total	88,60,980	(10,45,225)
(Refer Schedi	ule 22-Prior Period Expenses).	88,60,980	(8,97,850)

27. TRANSFERS FROM CAPITAL GRANT (PLAN FUND)

As per the Income Approach of AS-12 issued by the Institute of Chartered Accountants of India, an amount equal to the proportion of the current year's depreciation on fixed assets that were purchased using Government grants has to be transferred from the Capital Grant account to Income and Expenditure Account every year.

(Refer Schedule 1- Capital Fund and Schedule 4- Fixed Assets-Total Depreciation).

28. CONTINGENT LIABILITIES AND CONTINGENT ASSETS

- Institute had Letters of credit as per the Bank certificate for Rs. 63,68,000/- which were outstanding for import of assets as on 31st March
- In respect of Central Academic Block constructed in 2013-2014, the contractor has filed a suit in the court of law (Case number O.S. ii.

611/2011), which is sub judice; therefore, no quantification of the claim, if any, is made as on Balance Sheet date.

- iii. In respect of Central Library Building, the contractor has filed three suits in the court of law. The first case (No. OS.839/2009) is towards claiming of extra rate for TMT steel used in construction of the building while the second suit (No. OS 805/2011) relates to revoking of penalty imposed by the Institute and the third case (No. OS.659/2012) pertains to termination of the construction contract at the risk and cost of the contractor. The amount in dispute is approx. Rs.2,50,00,000/- which is pending adjudication before Hon'ble Sub Court, cost of the contractor. The amount in dispute is approx towards the possible liability that may arise on this account. The contractor has also Kozhikode. The Institute has not made any provision towards the possible liability that may arise on this account. The contractor has also filed two Writ Petitions (WP(C) 33865/2014 and WP(C) 12347/2015) for undertaking the balance construction work at the prevailing rate; the petitions are pending before the Hon'ble High Court of Kerala at Ernakulam.
 - iv. The Institute has filed an appeal (RFA No. 435 of 2014) against the judgment in Case No. OS 259/2010 in connection with the construction of building for Chemical Engineering Department and pledged a Fixed Deposit Receipt for Rs.50,00,000/- made out of Plan Fund towards additional security before the Hon'ble First Additional Sub-Judge, Kozhikode. No provision has been made in the accounts.
 - V. As on 31 March 2018, some court cases filed against the Institute by contractors, employees, etc., are sub judice in various courts of law.
 The quantum of the claims is not ascertainable at that date and hence, no liability is recognized in the Balance Sheet.
 - 29. Schedules 1 to 24 herein above are annexed to and form an integral part of the Balance Sheet as at 31 March 2018 and the Income and Expenditure Account for the year ended on that date.
 - 30. Schedules 25 to 42 annexed forms an integral part of the Receipts and Payments account for the year ended on that date.

- 31. The General Provident Fund account is owned by the members of the fund and not by the Institute. As such, this account is disclosed separately from the Institute's accounts from 1 April 2014. A Receipt and Payment Account, an Income and Expenditure Account (on accrual basis) and a Balance Sheet of the Provident Fund account for the financial year 2017-18 have been appended to the Institute's annual accounts.
- 32. All subscribers of New Pension Scheme (NPS) are allotted with PRA numbers and the Institute does not maintain data regarding their subscriptions and matching contributions. Therefore, separate set of accounts are not required for NPS.

Deputy Registrar (Finance) National Institute of Technology Calicut CALICUT - 673 601

निवेशक / DIRECTOR

राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

राष्ट्रीय प्रौधोगिकी संस्थान कालिकट National Institute of Technology Calicut National Institute of Technology Caliquist टी. काँपस (पी.ओ) कालिकट, केरल - 673601, लिप्न Campus (P.O), Calicut, Kerala - 673 601, India

Chairperson, Board of Governors

ANNEXURE A Certified balances of Bank Accounts and Fixed Deposits shown in the Institute's books of accounts Savings Accounts (Amount in Rupees) Amount (i) 34,68,323.50 A/c No 17,267.00 Bank & Branch Details 1423000105436300 S. No 1,10,192.80 PNB ,LINK ROAD 4312000100731444 1 1,99,951.00 PNB,MKV 4258000105056900 2 PNB,KPK MENON 12551450000070 3 6,63,167.00 HDFC, CALICUT 4 18,25,004.00 1470100010215 UCO, CALICUT 13,99,093.00 33413466990 5 52,467.86 SBI, NIT 37090485326 6 38,65,32,086.00 SBI, NIT 10401160396 7 41,187.47 SBI, NIT 10401160578 8 SBI, NIT 10401159325 9 95,13,540.98 95,527.00 SBI.NIT 10401160454 10 2,04,175.00 SBI, NIT 30583579511 11 32,06,176.50 SBI, NIT 30705794534 12 538.00 SBI, NIT 30971545390 13 22,24,554.00 SBI, NIT 31064842240 14 2,81,949.00 SBI, NIT 31098052035 15 32,51,413.75 SBI, NIT 31444243085 16 11,75,036.75 SBI, NIT 31994129466 17 9,86,538.00 SBI, NIT 32399109132 18 2,56,942.00 SBI, NIT 35570283919 19 26,31,898.00 SBI, NIT 35582060998 20 26,31,898.00 SBI, NIT 35730420414 21 SBI, NIT 35730420822 22 SBI, NIT 23 84

24 SBI,NIT 35730421214 25 SBI,NIT 35730436537 26,31,898.00 26 SBI,NIT 35981271500 26,31,898.00 27 SBI,NIT 10401159303 47,19,396.75 29 SBI,NIT 10401159314 1,994.55 30 SBI,NIT 10401159302 25,131.00 31 SBI,NIT 10401159802 1,456.41 31 SBI,NIT 30261390339 25,684.05 Total	25 SBI,NIT 26 SBI,NIT 27 SBI,NIT 28 SBI,NIT 29 SBI,NIT 30 SBI,NIT 31 SBI,NIT	35730436537 35981271500 10401159303 10401159314 10401159530 10401159802	26,31,898.00 47,19,396.75 1,994.55 25,131.00 1,456.41 25,684.05 7,03,11,198.50
--	--	--	--

S. No	Bank & Branch Details	Current Accou	nts
	- 10113	A/c No	
1	SBI,NIT		Amount
2	SBI,NIT	30846292747	(Amount in Rupee
3	SBI,NIT	36379213387	65,97,785.0
4	SBI,NIT	36379215839	51,28,762.0
5	SBI,NIT	36379216015	3,13,225.2
6	SBI,NIT	10401158082	64,459.52
7	SBI,NIT	10401158106	9,36,29,060.40
	951,1411	34899799867	12,749.46
	Total		8,25,911.50
3.4.0			10,65,71,953.18

Deputy Registrar (Finance)
National Institute of Technology Calicut
CALICUT - 673 601

निदेशक i DIRECTOR

कुल सचिव /REGIS RAR

राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

National Institute of Technology Calicut

कालिकट / Calicut

NIT Campus (P.O), Calicut, Kerala - 673 601, India

(Amount in Rupees)	Term Deposits		
Amount			iii)
1,04,29,006.00	A/c No		
74,60,396.00	35385766884	ank & Branch Details	S. No B
75,14,778.00	35079055642	SBI,NIT	1
75,14,778.00	35079067443	SBI,NIT	2
75,14,778.00	35079068695	SBI,NIT	3
25,91,190.00	35079069586	SBI,NIT	4
34,38,197.00	36234470190	SBI,NIT	5
34,46,855.00	36234470474	SBI,NIT	6
35,07,224.00	36234482323	SBI,NIT	7
85,41,636.00	36234499835	SBI,NIT	8
93,43,837.00	36234504405	SBI,NIT	9
58,73,525.00	36234505895	SBI,NIT	10
59,38,404.00	36234513001	SBI,NIT	11
93,37,586.00	36234515429	SBI,NIT	12
89,65,049.00	32797684133	SBI,NIT	13
89,43,561.00	32775839242	SBI,NIT	14
74,87,865.00	32808580270	SBI,NIT	15
88,72,006.0	35307800580	SBI,NIT	16
89,45,321.0	35385766396	SBI,NIT	17
74,97,486.0	35397552993	SBI,NIT	18
36,03,787.0	35420944340	SBI,NIT	19
1,07,69,902.	36312000910	SBI,NIT	20
1,07,69,902.	36234517379	SBI,NIT	2:
1,07,69,902	36234519536	SBI,NIT	2:
1,07,69,902	36234521432	3 SBI,NIT	2
	36234522742	4 SBI,NIT	2
36		SBI,NIT	

	2622455	SBI.NIT	26
	36234523348	SBI.NIT	27
1,07,69,902.0	36234523745	SBI,NIT	28
1,07,69,902.0	36234525119	SBI,NIT	29
1,07,69,902.0	36234525482	SBI,NIT	30
1,07,69,902.0	36234525674	SBI,NIT	31
1,07,69,902.0	36234525845	SBI,NIT	32
1,07,69,902.00	36234526032	SBI,NIT	33
1,07,69,902.00	36234526214	SBI,NIT	34
1,07,69,902.00	36234536506	SBI,NIT	35
1,07,69,902.00	36234536743	SBI,NIT	36
1,07,69,902.00	36234536889	SBI,NIT	37
1,07,69,902.00	36234536970	SBI,NIT	38
1,07,69,902.00	36234538694	SBI,NIT	39
1,07,69,902.00	32793896072	SBI,NIT	40
3,64,59,196.00	35211095348	SBI,NIT	41
2,95,19,306.00	36714003255	SBI,NIT	42
92,95,853.00	36714003277	SBI,NIT	43
92,95,853.00	36714290501	SBI,NIT	44
95,24,063.00	36714290534	SBI,NIT	45
95,24,063.00	36714290578	SBI,NIT	46
95,24,063.00	36714290737		47
95,24,063.00	37161046618	SBI,NIT	48
93,73,396.00	37161046969	SBI,NIT	49
93,73,396.00	37161047113	SBI,NIT	50
	37161047191	SBI,NIT	51
93,73,396.00	37161047237	SBI,NIT	52
93,73,396.00	37161047282	SBI,NIT	53
93,73,396.00	37161047328	SBI,NIT	54
93,73,396.00	37161047486 37161047486	SBI,NIT	
93,73,396.00	37161047486	SBI,NIT	55
93,73,396.00	37161047566	SBI,NIT	6
93,73,396.00	37161047634		
10,41,488.00			

		± 3F	41,38,340.00
,,,,,		36042749067	1,11,99,530.00
57	SBI,NIT	36043107039	95,88,228.00
58	SBI,NIT	36455246010	95,88,228.00
59	SBI,NIT	36455249667	95,88,228.00
60	SBI,NIT	36455249725	45,04,161.00
61	SBI,NIT	36455249792	97,72,089.00
62	SBI,NIT	36231766736	97,72,089.00
63	SBI,NIT	36231770152	97,72,089.00
64	SBI,NIT	36231772036	97,72,089.00
65	SBI,NIT	36231773299	97,72,089.00
66	SBI,NIT	36231774725	97,72,089.00
67	SBI,NIT	36231776007	97,72,089.00
68	SBI,NIT	36231782216	97,72,089.00
69	SBI,NIT	36231783945	97,72,089.00
70	SBI,NIT	36231785137	97,72,089.00
71	SBI,NIT	36231787269	97,72,089.00
72	SBI,NIT	36231788478	97,72,089.00
73	SBI,NIT	36231790442	97,72,089.00
74	SBI,NIT	36231792734	97,72,089.00
75	SBI,NIT	36231795407	97,72,089.00
76	SBI,NIT	36231795677	97,72,089.00
77	SBI,NIT	36231801999	97,72,089.00
78	SBI,NIT	36231803985	97,72,089.0
79	SBI,NIT	36231806192	97,72,089.0
80	SBI,NIT	36231807185	97,72,089.0
81	SBI,NIT	36231808190	28,48,326.0
82	SBI,NIT	36231819395	79,88,340.
83	SBI,NIT	36231819703	
84	CRI NIT	36331596395	
85	SBI,NIT	35791056509	
86	CRI NIT	3373222	88

	87 SPI NIZ	- 8			
	88 SBI,NIT		357910811	.50	
	89 SBI,NIT		357910812		85,86,675.0
	90 SBI,NIT		368120830	14	37,39,259.00
	91 SBI,NIT		3681208587	73	90,00,000.00
	92 SBI,NIT		3681208612	28	90,00,000.00
	93 SBI,NIT		3681210805		90,00,000.00
	94 SBI,NIT		3681210812	2	42,36,681.00
	95 SBI,NIT		3715854523		77,57,499.00
9	96 SBI,NIT		37160987328	3	90,00,000.00
g	97 SBI,NIT		37160997937		92,01,882.00
9	2		37160998931		92,01,882.00
9	9 SBI,NIT		37160999424		92,01,882.00
10	SBI,NIT		37160999901		92,01,882.00
10	SBI,NIT		37158510893		92,01,882.00
102	SBI,CLT		32457363478		4,50,63,385.00
103	SBI ,CLT		32457358254		88,48,511.00
104	PNB,MKV		431200PU0001067	7	88,48,511.00
105	PNB,MKV		431200PU0001068	6	9660423.00
106	PNB,MKV		431200PU0001069	5	9660423.00
107	PNB,MKV		431200PU00006018	3	2146761.00
108	PNB,MKV	- 4	431200PU00011861		1111726.00
109	PNB,MKV		131200PU00011852		3461700.00
110	PNB,MKV PNB,MKV	4	31200PU00011834		9311000.00
111		4	31200PU00011843		9311000.00
112	PNB,MKV	4.	31200PU00011816		9311000.00
113	PNB,MKV	43	31200PU00011825		9311000.00
114	PNB,KPK MENON	42	25800DP00011236		9311000.00
115	PNB,KPK MENON.	42	5800DP00011227		1,01,26,069.00
116	PNB,KPK MENON	42.	5800DP00011245		1,01,26,070.00
	PNB,KPK MENON	42!	5800DP00011254		1,01,26,070.00
			-201		1,01,26,055.00
				00	-,54,20,033.00

		* T	1,01,26,050.00
1	PNB,KPK MENON	425800DP00011263	1,00,97,792.00
17		142300DP00010122	97,35,507.00
118	PNB,LINK ROAD	142300DP00010131	1,02,19,745.00
119	PNB,LINK ROAD	142300DP00011556	1,02,19,745.00
120	PNB,LINK ROAD	142300DP00011565	1,02,19,745.00
121	PNB,LINK ROAD	142300DP00011574	1,02,19,745.00
122	PNB,LINK ROAD	142300DP00011583	1,02,19,745.00
123	PNB,LINK ROAD	142300DP00011592	1,02,19,745.00
124	PNB,LINK ROAD	142300DP00011608	9147901.00
125	PNB,LINK ROAD	142300DP00010353	9147901.00
126	PNB ,LINK ROAD	142300DP00010344	5438244.00
127	PNB ,LINK ROAD	142300DP00010362	8280490.00
128	PNB ,LINK ROAD	142300DP00009434	9951473.00
129	PNB ,LINK ROAD	142300PU00003336	9951473.00
130	PNB ,LINK ROAD	142300PU00003345	9951473.00
131	PNB ,LINK ROAD	142300PU00003354	9951473.00
132	PNB ,LINK ROAD	142300PU00003363	9951473.00
133	PNB ,LINK ROAD	142300PU00003372	9033747.00
134	PNB ,LINK ROAD	142300PU00003381	9951473.00
135	PNB ,LINK ROAD	142300PU00003327	8650989.00
136	PNB ,LINK ROAD	142300P00003424	8160449.00
137	PNB ,LINK ROAD	431200PU00006027	10824727.00
138	PNB,MKV	431200PU00009778	8228010.00
139	PNB,MKV	431200PU00005736	6722099.0
140	PNB,MKV	431200PU00010039	
141	PNB,MKV	4312000000000000000000000000000000000000	10824727.0
142	PNB,MKV	431200PU00009839	10824727.0
143	PNB,MKV	431200PU00009848	10824727.0
144	PNB,MKV	431200PU00009857	10824727.0
145	PNB,MKV	431200PU00009866	10824727.0
146	PNB,MKV	431200PU00009875	

14	7 PNB,MKV	/31200Dugges	I
14	8 PNB,MKV	431200PU00009884	10024727
149	FIND, IVIKV	431200PU00006036	10824727.0
150	PNB ,LINK ROAD	431200PU00009893	
151	PNB ,LINK ROAD	142300PU00009434	
152	PNB ,LINK ROAD	142300DP00011255	8280490.00
153	PNB ,LINK ROAD	142300DP00011264	10270850.00
154	PNB ,LINK ROAD	142300DP00011291	6851396.00
155	PNB ,LINK ROAD	142300DP00011282	10268958.00
156	PNB ,LINK ROAD	142300DP00011273	10268958.00
157	PNB ,LINK ROAD	142300DP00011307	10268958.00
158	PNB ,LINK ROAD	142300PU00003415	9510073.00
159	PNB ,LINK ROAD	142300PU00003406	9991782.00
160	PNB,KPK MENON	142300PU00003442	9991782.00
161	PNB,KPK MENON	425800DP00010662	8844848.00
162	PNB,KPK MENON	425800DP00010671	9135356.00
163	PNB,KPK MENON	425800DP00010680	91,35,359.00
164	PNB ,LINK ROAD	425800DP00010699	91,35,355.00
165	PNB ,LINK ROAD	142300DP00009337	38,82,528.00
166	PNB ,LINK ROAD	142300PU00003390	77,60,703.00
167	PNB ,LINK ROAD	142300DP00009595	9448130.00
168		142300DP00009586	10810693.00
169	PNB ,LINK ROAD	142300DP00009577	10810693.00
170	PNB LINK ROAD	142300DP00009601	10810693.00
171	PNB ,LINK ROAD	142300DP00009878	4745708.00
172	PNB ,LINK ROAD	142300DP00009887	9198988.00
173	PNB ,LINK ROAD	142300DP00009896	9198988.00
174	PNB ,LINK ROAD	142300DP00009902	9198988.00
175	PNB ,LINK ROAD	142300DP00009911	9198988.00
176	PNB ,LINK ROAD	142300DP00009920	9198988.00
	PNB ,LINK ROAD	142300DP00009939	9198988.00

192		Total	
191	UCO BANK	1470310049204	1,78,07,97,328.00
190	UCO BANK	1470310046630	9590287.00
189	UCO BANK	1470310046586	5422036.00
188	UCO BANK	1470310049136	9803490.00
187	UCO BANK	1470310049143	8595054.00
186	UCO BANK	1470310049112	8621788.00
185	UCO BANK	1470310049105	8624758.00
184	UCO BANK	1470310049082	8626243.00
183	UCO BANK	1470310049068	8627728.00
182	UCO BANK	1470310049051	8603965.00
181	UCO BANK	1470310049044	8605450.00
180	UCO BANK	1470310049037	8606935.00
179	UCO BANK	1470310049006	8609906.00
178	PNB ,LINK ROAD PNB ,LINK ROAD	PU3433	8636640.00
177	PNB ,LINK ROAD	PU3451	63,65,978.00
E	-ND LINK BOAD	142300DP00009948	49,49,845.00
		1	2418608.00

		Forex A	ccounts	(Amount in USD)
(iv) S. No	Bank & Branch Details SBI, CALICUT	A/c No 35350525917		5.00 7,500.05
2	PNB, KPK Menon Road,CLT	4258002800000106		7,505.05
	Total			

S. No	Bank & Branch Details	MOD Accour	nt
1	SBI, NIT	A/c No	
2		36824037290	Amount
3	SBI,NIT	36855922595	56,15,000.00
4	SBI,NIT	35648364532	1,68,87,655.40
5	SBI,NIT	35657446255	25,150.00
6	SBI,NIT	36717394642	2,57,189.00
7	SBI,NIT	37585048125	3,90,428.00
8	SBI,NIT	37585048931	1,92,000.00
9	SBI,NIT	36151417651	38,36,000.00
10	SBI,NIT	37599483242	1,20,83,300.30
11	SBI,NIT	37625807035	10,24,000.00
12	SBI,NIT	35691632160	4,38,000.00
	SBI,NIT	35707617079	9,34,774.00
13	SBI,NIT	35830806970	1,84,780.00
14	SBI,NIT	36760340309	3,26,190.00
15	SBI,NIT	36824037802	18,84,000.00
16	SBI,NIT	36927599753	15,33,000.00
17	SBI,NIT	36942965428	47,22,000.00
18	SBI,NIT	36956334156	5,07,000.00
19	SBI,NIT	35848347417	17,000.00
20	SBI,NIT	35863216431	3,62,623.00
21	SBI,NIT	35863359275	4,54,827.00
22	SBI,NIT	35887393525	3,59,357.00
23	SBI,NIT	35905412601	2,17,725.00
24	SBI,NIT	35926029928	3,69,976.00
25	SBI,NIT		
26	SBI,NIT	35926060640	17,10,440.00
27	SBI,NIT	35942639672	37,97,902.00
		35987551842	46,33,624.00 16,076.00

		Ī	16,77,556.00
1	SBI,NIT	36024275042	47,68,293.00
28	SBI,NIT	36024799882	30,98,489.00
29	SBI,NIT	36040904092	34,76,624.00
30	SBI,NIT	36041323971	13,91,874.00
31	SBI,NIT	36084681177	22,73,852.00
32	SBI,NIT	36344884152	19,178.00
33	SBI,NIT	36399770739	4,03,805.00
34		36399771212	5,26,266.00
35	SBI,NIT	36428323282	15,01,906.00
36	SBI,NIT	36453595959	3,04,604.00
37	SBI,NIT	36476847539	5,53,885.00
38	SBI,NIT	36495540025	26,21,674.00
39	SBI,NIT	36538158211	80,893.00
40	SBI,NIT	36574989128	1,69,000.00
41	SBI,NIT	36981479668	30,26,000.00
42	SBI,NIT	36982623680	68,12,000.00
43	SBI,NIT	36995128046	13,78,000.00
44	SBI,NIT	36995666288	12,15,000.00
45	SBI,NIT	36995749052	87,81,000.00
46	SBI,NIT	37020696689	1,11,49,705.40
47	SBI,NIT	36064515487	31,63,000.00
48	SBI,NIT	37035466637	4,16,000.00
49	SBI,NIT	37050976159	9,84,000.00
50	SBI,NIT	37071255759	19,000.0
51	SBI,NIT	37071414416	23,000.0
52	SBI,NIT	37135396960	8,13,000.0
53	SBI,NIT	37173664201	36,000.0
54	SBI,NIT	37173664552	1,01,000.0
55	SBI,NIT	37238643472	3,82,000.0
56	SBI,NIT	37265172168	5,02,000
57	SBI,NIT	5/2031/2200	94

	27205 475	SBI,NIT	58
	37295472790	SBI,NIT	59
12,32,000.0	37323099862	SBI,NIT	60
20,000.00	37339424784	SBI,NIT	61
85,000.00	37353273326	SBI,NIT	62
21,86,000.00	37385899130	SBI,NIT	63
9,37,000.00	37447787303	SBI,NIT	64
30,000.00	37461346779	SBI,NIT	65
18,000.00	37461347332	SBI,NIT	66
14,02,000.00	37483480458	SBI,NIT	67
9,58,000.00	37525333043		68
75,000.00	37536295694	SBI,NIT	69
48,000.00	37536296541	SBI,NIT	70
36,87,000.00	37572024812	SBI,NIT	71
87,000.00	36695271938	SBI,NIT	72
4,67,539.00	35632181998	SBI,NIT	73
4,76,68,536.00	37581341875	SBI,NIT	74
2,26,000.00	37594792743	SBI,NIT	75
7,86,000.00	35583002913	SBI,NIT	76
65,42,779.00	36229661137	SBI,NIT	77
15,26,464.00	36417310129	SBI,NIT	78
30,115.00	36572476811	SBI,NIT	79
2,95,915.00	37216229080	SBI,NIT	80
99,000.00	37276105416	SBI,NIT	81
71,000.00	37319496899	SBI,NIT	82
29,000.00	37362112494	SBI,NIT	83
23,84,000.00	37479009630	SBI,NIT	84
21,000.00	37545224643	SBI,NIT	85
17,50,000.00	35558103966	SBI,NIT	86
7,85,31,745.00	37612605556	SBI,NIT	37
2,87,38,218.00	37087029527	SBI,NIT	07
6,82,02,019.83	-5.525527		

		1	1,27,79,410.30
1	CDI NIT	37152445002	2,32,52,000.00
88	SBI,NIT	37205921084	1,06,74,539.00
89	SBI,NIT	37322638398	1,30,87,483.62
90	SBI,NIT	37339623745	4,10,719.71
91	SBI,NIT	37085826081	1,50,000.00
92	SBI,NIT	4258004400022285	1,60,000.00
93	PNB,KPK MENON	4258004400022160	10,000.00
94	PNB,KPK MENON	4258004400022081	1,40,000.00
95	PNB,KPK MENON	4258004400021985	10,000.00
96	PNB,KPK MENON	4258004400021921	2,90,000.00
97	PNB,KPK MENON	4258004400021620	43,30,45,104.56
98	PNB,KPK MENON		43,007.11
	10.		

	Pank	ANNEXURE B	
	Bank Accou	nts for Projects shown in Bo	Oks of Accounts to
S.No	Bank & Branch Details		
1	SBI,NIT	A/c No	(Amount in Rupees
2	SBI,NIT	32276182737	Amount
3	SBI,NIT	36697532901	6,211.00
4	SBI,NIT	36697545105	4,26,813.00
5		36699462861	8,511.00
6	SBI,NIT	30428621431	1,34,246.00
7	SBI,NIT	30458848311	7,15,741.00
8	SBI,NIT	30506640444	15,64,869.00
9	SBI,NIT	30808033649	32,77,721.00
10	SBI,NIT	30908477650	13,885.00
11	SBI,NIT	30948537262	1,09,556.00
12	SBI,NIT	31091558694	11,201.00
13	SBI,NIT	31130641093	98,971.00
	SBI,NIT	31735759406	18,66,491.00
14	SBI,NIT	31735764063	21,133.00
15	SBI,NIT		41,517.00
16	SBI,NIT	31762778358	
17	SBI,NIT	31789866710	236.60
18	SBI,NIT	31789868139	20,76,251.00
19	SBI,NIT	31915181691	41,20,084.00
20	SBI,NIT	32015957716	2,201.00
21	SBI,NIT	32101535934	4,32,429.00
22	SBI,NIT	32246641696	1,679.00
23	SBI,NIT	32312778967	3,98,117.00
4	SBI,NIT	32436799747	-
5	SBI,NIT	32522570991	3,04,647.00
6	SBI,NIT	32563027683	28,666.00
7	SBI,NIT	32579164962	5,22,136.00
	- 31)1411	32624434091	9,82,209.00
			3,78,393.00

			1,66,938.00
	COL NIT	32954434797	1,660.40
28	SBI,NIT	33015477472	3,58,552.00
29	SBI,NIT	33049806044	45,51,007.00
30	SBI,NIT	33067690208	20,117.50
31	SBI,NIT	33175087386	1,19,552.00
32	SBI,NIT	33187581587	8,069.00
33	SBI,NIT	33301926627	97,619.00
34	SBI,NIT	33301927326	3,15,774.00
35	SBI,NIT	33368719830	1,34,726.00
36	SBI,NIT	33368722037	58,094.00
37	SBI,NIT	33368730296	46,666.00
38	SBI,NIT	33368731461	407.00
39	SBI,NIT	33627227608	1,89,507.00
40	SBI,NIT	33807577465	1,09,390.75
41	SBI,NIT	33869260955	5,484.00
42	SBI,NIT	34055770847	60,674.00
43	SBI,NIT	34059815913	85,281.00
44	SBI,NIT	34129367406	63,201.00
45	SBI,NIT	34743361812	2,675.00
46	SBI,NIT	34861134465	1,28,599.00
47	SBI,NIT	34922458279	14,31,254.50
48	SBI,NIT	34984625589	2,57,340.00
49	SBI,NIT	35105587080	20,03,925.75
50	SBI,NIT	35108714120	19,399.00
51	SBI,NIT	35256507611	2,41,174.50
52	SBI,NIT	35260115754	3,38,944.0
53	CDI NIT	35373645311	5,743.5
54	CDI NIT	35531852511	3,46,217.5
55	CDI NIT	35547110999	1,32,708.0
56	CDI MIT	34781526032	21,882.0
5	CDI NIT	35601784856	1,01,392.5
5	CDI NIT	35601785146	1,01,332
	9 SBI,NIT	98	

			1
	257070555	60 SBI,NIT	-
	35707855365	61 SBI,NIT	-
20,68,653.0	35712118085	62 SBI,NIT	
1,31,145.5	33940902517	63 SBI,NIT	
21,87,943.63	35724132844	64 SBI,NIT	
97,72,367.35	35760309489	65 SBI,NIT	(
4,43,541.50	35909407299	SBI,NIT	6
8,90,566.25	35977962286	SBI,NIT	6
6,49,489.70	36028528852	SBI,NIT	6
7,38,663.25	36076948949	9 SBI,NIT	6
4,16,790.25	36273863935	O SBI,NIT	71
18,026.50	36374406306	1	7:
5,57,935.50	36598636298	SBI,NIT	72
4,351.35	32785641568	381,111	73
5,86,012.00	32785878304	301,1111	74
1,38,502.00	36826070008	SBI,NIT	75
37,402.00	37096085388	3BI,NII	76
29,484.50	36950958352	SBI,NIT	77
1,79,162.00	37186010229	SBI,NIT	78
24,93,384.00	37241357431	SBI,NIT	79
5,85,919.00	37251562506	SBI,NIT	80
5,10,587.00	37286864074	SBI,NIT	81
2,27,37,687.00	37324305638	SBI,NIT	82
8,20,102.00	37481542974	SBI,NIT	
		SBI,NIT	83
95,404.00	37520426749	Total	
34,58,932.00	for Projects 1	Bank Accounts	
7,85,19,940.78	for Projects shown in Boo		
		Bank & Branch Details	S.No
(Amount in Rupees) Amount	A/c No	SBI,NIT	1
	37021855472		
30,351.00		Total	
30,351.00			

	ANNEXURE C		
Institutes books of accounts (Amount in Rupees)	ed Deposits not shown in		
· · · · · · · · · · · · · · · · · · ·		ist of Bank accounts and the	
Amount	A/c No	L Details	
13,388.00	Savings Account	ank & Branch Details	No
443.00	SBI,NIT	7.04520	
0.00	SBI,NIT	31317481538	1
	SBI,NIT	31725977448	2
52,907.00	SBI,NIT	31776249920	3
0.00	SBI,NIT	32385609903	4
20.00	SBI,NIT	33588035836	5
20,610.00	SBI,NIT	33605148992	6
27.256	SBI,NIT	36826070213	7
87,368	301)1111	37618269594	8
		Total	
	Current Accou		
32,351.00	SBI,NIT		(ii)
98,157.0	· · · · · · · · · · · · · · · · · · ·	37154522972	1
14,19,89,368.7	SBI,NIT	37217896428	2
59,518.5	SBI,NIT	33950524246	3
12,292.0	SBI,NIT	35725957831	4
1,18,451.0	SBI,CLT	31039642229	5
82,551.0	SBI,NIT	37113189687	6
14,23,92,689.2	SBI,NIT	37324305887	7
		Total	
	Term Deposit	Total	
18,73,000.	SBI,CLT		(iii)
43,20,000.	SBI,CLT	37595249171	1
35,51,000	SBI,CLT	37489476886	2
13,49,355		37438887285	3
1,10,95,355	PNB,MKV	431200PU00004551	4

Total

Deputy Registrar (Finance)
National Institute of Technology Calicu
CALICUT - 673 601

कुल सचिव I REGISTRAR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट tional Institute of Technology Calicut कालिकट I Calicut

निदेशक I DIRECTOR राष्ट्रीय प्रौधोगिकी संस्थान कालिकट

lational Institute of Technology टी. कॉपस (पी.ओ) कालिकट, केर s - on Calient .

Chairperson,

Board of Governors National Institute of Technology Calicut NIT Campus (P.O), Calicut, Kerala - 673 601, Inc. RARTOUS DO STOR TO STOR 1,

F0104911 (1955)

differ tanguage

Albert of Albert of Services (Services) Albert of Albert of Services (Services)