

## **1.1 INTRODUCTION**

## **1.2 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.

## **1.3 VISION**

International Standing of the Highest Calibre

## **1.4 EDUCATION SYSTEM**

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

## **1.5 NEW INITIATIVES**

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

### **1. 2.0 AN OVERVIEW**

## **2.1 HISTORICAL BACKGROUND**

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

## **2.2 LOCATION**

The institute is located at Chathamangalam, 22 km east of Calicut city, along the Kunnamangalam-Mukkam road and covers an area of about 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**

There are nine hostels for men, one hostel with four blocks for women with an attached recreational centre, and 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. Construction for adding 2500 seats in the hostels is in progress.

The library, computer centre and laboratories are well equipped. The institute campus has all the essential amenities required. There is a campus school managed by a society formed by faculty members, a branch of State Bank of India, a Post Office, a Telephone Exchange and a canteen that function in the institute campus. The institute has a Health Centre to look after the medical needs of the students, the employees and their families. The institute has adequate facilities for indoor and outdoor games, recreation and co-curricular activities.

## **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 authorities of the Institute. President of India is the visitor to the Institute. Chairperson of the Board of Governors is nominated by the visitor.

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

## **2.5 ACADEMIC PROGRAMME**

The institute imparts technical education at the degree and post graduate levels namely (1) Under-Graduate (UG) programme of four years duration leading to B.Tech Degree, (2) UG programme of five years duration leading to B.Arch. degree, (3) Post-Graduate (PG) programme of two years duration leading to M.Tech degree, (4) PG programme of three years duration leading to M.Sc.(Tech.), (5) a programme of three year duration leading to Master of Computer Applications (MCA) degree (6) a two year MBA programme. All programmes are offered in Credit Semester Pattern. In addition, Ph.D. programmes in all disciplines are offered.

## **2.6 COURSES OFFERED**

**B.Arch., B. Tech., M.Tech, MCA, M.Sc. Tech., MBA and Ph.D**

## **2.7 ADMISSION PROCEDURE**

Admission to B.Tech /B.Arch. programmes offered at NITC is made to the following categories

<b>Sl. No.</b>	<b>Category</b>	<b>Basis of Admission</b>	<b>Quota of seats</b>
1	Candidates from Kerala state Quota †	*AIEEE Rank	469
2	Candidates from All India Quota †	AIEEE Rank	468
3	Foreign Nationals \$	Marks in the Qualifying Examination	16
4	MEA Welfare Scheme #	Marks in the Qualifying Examination	2
5	Direct Admission of Students from Abroad (DASA) scheme	SAT II Score	94
Total			1049

† Reservations as per Central Govt. rules.

\* All India Engineering Entrance Examination (AIEEE), conducted by the Central Board of Secondary Education (CBSE), New Delhi.

\$ Nominated by Ministry of External Affairs (Students Cell).

# Nominated by Ministry of External Affairs

### **PG Programmes**

- ⊙ The admission to PG programmes in Engineering and Technology with fellowship is based on GATE score.
- ⊙ The admission to PG sponsored seats are based on the written test/interview conducted by the respective departments.
- ⊙ The admission to PG programmes of M.Sc Tech and MBA without fellowship is based on Institution's Criteria.

### **Ph.D. Programmes**

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

## **2.8 STUDENTS**

The annual Techno-Management Festival TATHVA 2011 was successfully conducted in October 2011. The election of the Students Affairs Council 2011-12 was held in November 2011. For the year under report the number of branch councilors was 64 along with 09 Executive Committee Members.

The annual Cultural Festival RAGAM 2012 was organized in March 2012. SNEHARAGAM was organised before RAGAM12 exclusively for Physically Challenged Students of different schools of Kozhikode District in which more than 150 students participated.

As in previous years Onam, Diwali, Christmas and New Year were celebrated.

A blood group identification camp was organized among the students in association with students of Calicut Medical College. Students have been donating blood in various hospitals in Calicut on emergencies. NIT Calicut was selected as the largest blood donor in Kozhikode District and honored by an award by National Blood Donors Forum.

SPIC MACAY organised several music and cultural programmes, and many other programmes were conducted by different clubs for the development of physical, intellectual, cultural and leadership skills of students. Aavishkar was one of the noticeable events initiated by Socio Engineering Forum inviting design and fabrication of innovative products to facilitate differently abled and bed-ridden patients and the best design was given award also.

## 2.9 EXAMINATION & EVALUATION

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

## 2.10 PLACEMENT

**During the session 2011-12, 105 companies visited the campus for recruitment as against 93 firms visited last year. 105 firms made a total of 612 offers.** The details are shown in **Annexure I**.  
**B.Tech Programme:** 445 out of 560 eligible B.Tech students (80%) got placed. The B.Tech placement details are shown in **Annexure I**.

**Bio Technology students got 10 offers, out of eligible 13 students**

**Civil students got 57 offers, out of the 86 eligible students**

**Chemical students got 22 offers, out of the 55 eligible students**

**Computer Science students got 92 offers out of the 100 eligible students**

**Electronics students got 91 jobs out of the 97 eligible students**

**Electrical students got 77 jobs out of the 86 eligible students**

**Mechanical students got 78 jobs out of the 93 eligible students**

Production students got 18 jobs out of the 30 eligible students

The highest salary (CTC) offered for B Tech is 18 lakhs by Amazon.com

The average salaries for the various branches are as follows.

<b>Bio Technology</b>	<b>4.2L</b>
<b>Civil Engineering</b>	<b>3.8 L</b>
<b>Chemical Engg</b>	<b>4.2 L</b>
<b>Computer Science Engg.</b>	<b>6.8 L</b>
<b>Electronics &amp; Communication</b>	<b>6.3 L</b>
<b>Electrical &amp; Electronics</b>	<b>5.2 L</b>
<b>Mechanical Engineering</b>	<b>5.4 L</b>
<b>Production Engineering</b>	<b>4.5 L</b>

**B.Arch Programme:** The placements for B.Arch students were not encouraging. Only 14 students registered for placement, others were not interested. Out of the 14 students only 6 got placed. Few architecture companies shown interest in recruiting, but the students did not show interest in those companies. **The average salary is 3.3 L.**

**M.Tech Programme:** Out of the 273 M.Tech students 123 students got placed. **Overall 45% got placed as compared to 42% last year.**

**MCA Programme:** Out of the 34 students 30 students got placed leading to 88% placement. The average salary is 5.9 L, highest 18 L and the lowest is 3.3L.

## 2.11 GAMES AND SPORTS

### 2.11.1 PHYSICAL EDUCATION OBJECTIVES

Unlike the REC days where physical education and sports was a voluntary activity and optional in the curriculum, the NIT scenario has physical education as a compulsory entity in the curriculum. The OT programme included in the time table comprise of Class-room orientation of freshers and a one-credit course in physical education (Code: ZZ1093). Mass participation and interclass activities ran simultaneously aiding in talent search, formation of institute teams, providing them specialist training by professional coaches and exposing them in as many interscholastic tournaments as possible. The participation percentage during 2011-12 has touched an all-time high of 50%.

In the year 2011-12, all the first year students and 74 senior students were taught Olympic values as part of the curriculum in one-credit course stressing on character development through sports & event-managerial abilities. The total number of students who successfully underwent the credit course during 2011-12 is as follows:

#### A) Senior students:

(1) Monsoon semester: 274 & (2). Winter semester: 350

B) First Year Students ( I& II semester combined ) : 932 students.

## 2.12 STAFF POSITION

### Teaching Staff

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

Department	Sanctioned	In position as on 31.03.2012
Architecture	12	8
Chemical Engineering	12	9
Civil Engineering	41	31
Computer Science & Engineering	33	21
Electrical & Electronics Engineering	38	26
Electronics & Communication Engineering	34	24
Mechanical Engineering	52	42
Mathematics	19	15
Physics, Chemistry and Humanities	18	16
Training & Placement & Physical Education	4	3
Biotechnology	---	7
School of Management Studies	---	3
Additional Posts Sanctioned	19	---
<b>Total</b>	<b>282</b>	<b>205</b>

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

(i) **Details of B.Tech & B.Arch students passed out in 2011-2012**

(ii) **Details of M.Tech., MCA & MSc.Tech. students passed out in 2011-2012**

(iii) **Details of Assets as on 31.03.2010**

(iv) **Details of Assets as on 31.03.2011**

(v) **Details of Assets as on 31.03.2012**

### **3.0. THE STAFF**

**Director in charge – Dr. E. Gopinathan(upto 31.05.2011)**

**Dr. T L Jose (from 31.05.2011 to 03.08.2011)**

**Additional Charge -- Dr. Sandeep Sancheti (from 03.08.2011 to 15.09.2011)**

**Director – Dr. M N Bandyopadhyay (from 15.09.2011)**

**REGISTRAR:** Dr. Abraham T Mathew(upto 25.07.2011)

**REGISTRAR in charge:**Sri. P K. Satheeshkumar Raja (from 25.07.2011)

#### **DEANS**

Dr.K. Prabhakaran Nair	:	Academic, PG	upto 28.09.2011
Dr.T. P. Somasundaran	:	Academic, UG	
Dr. V K Govindan	:	Academic(from 28.09.2011)	
Dr.N Ganesan	:	Planning & Development	
Dr.C. B. Sobhan	:	Consultancy and Sponsored Research	(upto 28.09.2011)
Dr.Jose Mathew	:	Research and Consultancy	(from 28.09.2011)
Dr.Lillykutty Jacob	:	Faculty Welfare	(up to 05.01.2012)
Dr.K Vijayakumar	:	Faculty Welfare	(from 05.01.2012)

Prof.K. Saseendran : Students Welfare (up to 28.09.2011)  
 Dr. C Muraleedharan : Students Welfare (from 28.09.2011)

### 3.1 ACADEMIC STAFF (Teaching)

#### DEPARTMENT OF ARCHITECTURE

Sl. No	Name	Designation	Qualification	Specialization
1.	Dr. Kasthurba A. K.	Associate Professor & Head	B Arch, M Tech, Ph D	Building Technology, Architectural Conservation
2.	Dr. Naseer M.A	Associate Professor	B.Tech, MCP, Ph.D	Architectural Engg. City Planning
3.	Dr. P.P Anil Kumar	Associate Professor	B.Tech, MCP, PhD	Architectural Engg. City Planning
4.	Mr. Mohammed Firoz (On QIP to IIT Kgp)	Assistant Professor	B. Arch., MURP	Architecture, Urban and Regional Planning
5.	Ms Chithra .K	Assistant Professor	B. Arch, M Planning	Architecture, Town Planning
6.	Ms. Shyni	Assistant Professor	B. Tech, M Planning	Architectural Engg, Housing
7.	Mr. Bimal P	Assistant Professor	B.Arch, MCP,	Architecture, City Planning
8.	Ms. Smitha G.	Assistant Professor	B. Arch., MURP	Architecture, Urban and Regional Planning

#### DEPARTMENT OF CHEMICAL ENGINEERING

Sl. No	Name	Designation	Qualification	Specialization
1	Dr. V.Sivasubramanian	Associate Professor, Head of Department	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 energy techniques
3	Dr. Lity Alen Varghese	Associate Professor	Ph.D	Polymer Technology
4	Dr. Aparna K	Assistant Professor	Ph.D	Heat Transfer
5	Smt. S.Bhuvaneshwari	Assistant Professor	M.Tech	Bio separation Technology
6	Mr.Vineesh ravi	Assistant Professor	M.Tech	Plant Design
7	Dr N Selvaraju	Assistant Professor	Ph.D	Modeling and simulation
8	Mr.Haribabu	Assistant Professor	M.Tech	Effluent Treatment in Inverse Fluidized Bed Reactor
9	Dr.Pavan kumar	Assistant Professor	Ph.D	

#### DEPARTMENT OF CIVIL ENGINEERING

Sl. No.	Name	Designation	Qualification	Specialisation
1	Dr. N.Ganesan	Professor	M.E, Ph.D	Structural Engg.
2	Dr. S.Chandrakaran	Professor	M.E., Ph.D	Geotechnical Engg
3	Dr. V.Mustafa	Professor	M.Tech., Ph.D	Structural Engg.
4	Dr. P.Syamala	Professor&Head	M.E., Ph.D	Hydraulics
5	Dr. T.P.Somasundaran	Professor	M.Tech., Ph.D	Structural Engg
6	Dr. J.Sudhakumar	Professor	M.Tech., Ph.D	Building Technology
7	Dr. Mohammed Ameen	Professor	M.E., Ph.D	Structural Engg.

8	Dr. M.V.L.R. Anjaneyulu	Professor	M.Tech, Ph.D	Transportation Engg.
9	Dr. T.Zachariah Varghese	Professor	M.E, Ph.D	Structural Engg.
10	Dr. N.Sankar	Professor	M.Tech. Ph.D	Geotechnical Engg
11	Dr. A.P.Shashikala	Professor	M.Sc (Engg), Ph.D	Structural Engg.
12	Dr. P.V.Indira	Professor	M.Tech, Ph. D	Structural Engg.
13	Dr. T.M.Madhavan Pillai	Professor	M.Tech., Ph.D	Structural Engg.
14	Dr. Santosh.G. Thampi	Associate Professor	M.Tech., Ph.D	Hydraulics
15	Dr. K Sasikumar	Associate Professor	M.Tech., Ph.D	Water Resources Engg.
16	Sri K.Saseendran	Associate Professor	B.Sc.(Geo.), M.Tech.	Geology
17	Dr. Arun C	Associate Professor	M.Tech., Ph.D	Building Technology
18	Dr. K. Krishna Murthy	Asst. Professor	M.Tech., Ph.D	Transportation Engg.
19	Dr. Praveen Nagarajan	Asst. Professor	M.Tech., Ph.D	Structural Engg.
20	Dr. Sajith A S	Asst. Professor	M.Tech	Structural Engg.
21	Sri. Harikrishna M	Asst. Professor	M.Tech	Transportation Engg.
22	Sri. George K Varghese	Asst. Professor	M.Tech	Environment Engg.
23	Smt. Reesha Bharath K	Asst. Professor	M.Tech	Construction Technology
24	Smt. Chitra N R	Asst. Professor	M.Tech	Hydraulics & Water Resources Engg
25	Dr. Pramada S K	Asst. Professor	M.Tech	Water Resources Engg
26	Dr. Mini Remanan	Asst. Professor	M.Tech., Ph.D	Structural Engg.
27	Dr. Vinu Palissery	Asst. Professor	M.S., Ph.D	Structural Engg.
28	Dr. Kodi Ranga Swamy	Asst. Professor	M.Tech., Ph.D	Geotechnical Engg
29	Dr. Balaji R (Resigned on 24/06/2011)	Asst. Professor	M.Tech., Ph.D	Coastal Engg.
30	Dr. Debraj Bhattacharyya	Asst. Professor	M.Tech., Ph.D	Environment Engg.
31	Dr. Mathava Kumar S	Asst. Professor	M.Tech., Ph.D	Environment Engg.
32	Dr. Prakash N (Resigned on 24/06/2011)	Asst. Professor	M.Tech., Ph.D	Building Technology
33	Sri. Sathish Kumar D	Asst. Professor	M.Tech	Remote Sensing & GIS
34	Sri. Siva Kumar M	Asst. Professor	M.Tech	Transportation Engg.

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Sl.No.	Name	Designation	Qualification	Specialisation
1.	Dr. Priya Chandran	Professor& Head	Ph. D	Theoretical Computer Science, Analysis of Algorithms, Computer Architecture
2.	Dr. V K Govindan	Professor	Ph. D	Image Processing, Medical Imaging, Agent Technology, Pattern Recognition, Document Imaging, Operating Systems, Biometrics based authentication, Segmentation, Data Compression
3.	Dr. Vineeth Paleri	Professor	Ph. D	Programming Languages & Compilers.
4.	Dr. Madhu Kumar S D	Associate Professor	Ph. D	Database Systems, Middleware, Software Engineering
5.	Mr. Abdul Nazeer K A	Associate Professor	M.Tech	Database Systems, Bioinformatics
6.	Dr. Murali Krishnan K	Associate Professor	Ph. D	Complexity theory, Algorithms, coding theory, Cryptography
7.	Mr. Vinod P	Assistant Professor	M.Tech	Theoretical Computer Science, Information Security
8.	Mr. Saidalavi Kalady	Assistant Professor	M. E	Intelligent Agents, Hardware Systems
9.	Ms. Saleena N	Assistant Professor	M.Tech	Program Analysis
10.	Ms. Subhasree M	Assistant Professor	M. E	Mathematical Logic, Verification



11.	Ms. Subashini R ( On leave )	Assistant Professor	M. Tech	Algorithms & Computer Architecture
12.	Mr. Sumesh T A	Assistant Professor	M. Tech	Computer Networks
13.	Mr. Sreenivasa T M	Assistant Professor	M. Tech	Bioinformatics, Data structures, Design & Analysis of algorithms
14.	Mr. Sreenu Naik Bhukya	Assistant Professor	M. Tech	Computer Networks, Network security & Cryptography , Dataware House & Data Mining and Operating Systems.
15.	Ms. Lijiya A	Assistant Professor	M. Tech	Artificial Intelligence
16.	Mr. Jimmy Jose	Assistant Professor	M. Tech	Image Processing
17.	Ms. Anu Mary Chacko	Assistant Professor	M. Tech	Computer Security, Software Engineering
18.	Ms. Pournami P.N.	Assistant Professor	M. Tech	Digital Image Processing, Data Structures, Analysis and Design of Algorithms.
19.	Mr. Jayaraj P B	Assistant Professor	M.Tech	Linux Kernel Programming, Operating Systems , Embedded Systems ,Data Structures, Unix/C Microprocessors
20.	Mr. Gopakumar G	Assistant Professor	M. Tech ,M. Phil (Bioinformatics)	Bioinformatics , Fractals, Biocomputing Algorithms , Data Structures
21.	Dr. Sudeep K.S	Assistant Professor	Ph. D	Algorithms, discrete Mathematics

#### DEPARTMENT OF ELECTRICAL ENGINEERING

SI No	Name	Designation	Qualification	Specialization
1	Dr. Abraham T. Mathew	Professor & Registrar.	Ph.D (IIT Delhi)	Instrumentation & Control
2	Dr. Ashok S	Professor	Ph.D (IIT Bombay)	Power & Energy Systems
3	Dr. Jeevamma Jacob	Professor	Ph.D (IIT Bombay)	Control Systems
4	Dr. T L Jose	Professor.	PhD(IIT Kanpur)	Energy Systems
5	Dr. Paul K Joseph	Professor	PhD (IIT Madras)	Biomedical Instrumentation
6	Dr. R Sreeramkumar	Professor & Head	PhD (IISc Bangalore)	Power Systems
7	Dr. K S Sivanandan	Professor.	Ph.D (IIT Roorkee)	Instrumentation
8	Dr. Susy Thomas	Professor	Ph.D (IIT Bombay)	Control Systems
9	Dr. M.V.Vaidyan	Professor.	Ph.D (University of Calicut)	Control Systems
10	Mr. P.Ananthkrishnan	Associate Professor.	M. Tech.(IIT Madras)	Power Electronics & Drives
11	Dr. Elizabeth P. Cheriyan	Associate Professor.	PhD (IIT Bombay)	Energetics
12	Ms. Hema Rani.P	Assistant Professor.	M.Tech.(IIT Kanpur)	Power Electronics
13	Mr. Jagadanand G	Assistant Professor.	M. Tech (REC Calicut)	Power Electronics
14	Mr.Kumaravel S	Assistant Professor.	M.Tech (NIT Trichi)	Power Systems
15	Smt. Mija S J	Assistant Professor.	M.Tech(CET Trivandrum)	Control Systems
16	Dr. Mukti Barai	Assistant Professor.	PhD (IIT – Kgp.)	Power Electronics
17	Dr. M P Nandakumar	Associate Professor	Ph.D (IIT Kanpur)	Control Systems
18	Smt. Preetha.P	Assistant Professor.	M.E. (IISc Bangalore)	High Voltage Engg.
19	Dr. Rijil Ramachand	Assistant Professor.	Ph.D (IISc, Bangalore)	Power Electronics

20	Dr. Saly George	Associate Professor	Ph.D (REC Calicut)	Power Electronics
21	Dr. T K Sindhu	Assistant Professor.	PhD (IIT Chennai)	Power Systems
22	Ms. Subha. D.P	Assistant Professor.	M.Tech (CET)	Power Systems
23	Mr. Subhash K.M.	Assistant Professor.	M.Tech (NIT Calicut)	Instrumentation & Control
24	Dr. T. K. Sunil Kumar	Assistant Professor.	PhD (IIT Gharagpur)	Power Systems
25	Ms. Sunitha. R	Assistant Professor.	M.Tech. (REC Calicut)	Energetics
26	Smt. Sunitha K	Assistant Professor.	M.E.(I.I.Sc.Bangalore)	High Voltage Engg
27	Mr. K.S. Suresh Kumar	Associate Professor.	M.Tech.(IIT Madras)	Power Electronics

#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

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

#### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No.	Name	Designation	Highest Qualification	Specialization
1.	Dr. R Sridharan	Professor& Head	Ph. D.	Industrial Engg.
2.	Dr. P. V. Ramachandran	Professor	Ph. D.	Thermal Engg.
3.	Dr. Allesu K	Professor	Ph. D.	Manufacturing Science
4.	Dr. S Jayaraj	Professor	Ph. D.	Computational Fluid Dynamics
5.	Dr. Jose Mathew	Professor	Ph. D.	Manufacturing Science
6.	Dr. M L Joy	Professor	Ph. D.	Machine Design & Tribology
7.	Dr. C Muraleedharan	Professor	Ph. D.	Refrign & Air Conditioning
8.	Dr. K Prabhakaran Nair	Professor	Ph. D.	Machine Design & Tribology
9.	Dr. P K Rajendra Kumar	Professor	Ph. D.	Machine Design & Tribology
10.	Dr. N Ramachandran	Professor	Ph. D.	Unconventional Machining
11.	Dr. A Ramaraju	Professor	Ph. D.	Fluid Mech. & Heat Transfer
12.	Dr. R Vijayakumar	Professor	Ph. D.	Machining Science
13.	Dr. Biju T. Kuzhiveli	Associate Professor	Ph. D.	Cryogenics
14.	Dr. Ghulam Jilani	Associate Professor	Ph. D.	Thermal Engg.
15.	Dr. M A Joseph	Associate Professor	Ph. D.	Production Engg.
16.	Dr. V Madhusudanan Pillai	Associate Professor	Ph. D.	Industrial Engg.
17.	Dr. M D Narayanan	Associate Professor	Ph. D.	Solid Mech. & Design
18.	Dr. N. Sudarsan	Associate Professor	Ph. D.	Industrial Engg. & Management
19.	Dr. Shaija A	Associate Professor	Ph.D.	Thermal & Fluids Engg.
20.	Dr. P B Dhanish	Assistant Professor	Ph.D.	Production Engg.
21.	Dr. R. Manu	Assistant Professor	Ph.D.	Manufacturing Engg.
22.	Sri. Jayadeep U B	Assistant Professor	M. Tech. (Doing Ph.D.)	Solid Mechanics & Design
23.	Sri P V Manu	Assistant Professor	M. Tech. (Doing Ph.D.)	Propulsion Engg.
24.	Dr. T Radha Ramanan	Assistant Professor	Ph.D.	Industrial Engg.
25.	Sri. K Ratnakumar	Assistant Professor	M. Tech. (Doing Ph.D.)	Industrial Management
26.	Sri. B Rohini Kumar	Assistant Professor	M. Tech.	Thermal Engg.
27.	Sri. K Sekar	Assistant Professor	M. Tech.	Manufacturing Technology
28.	Sri. A M Sreenath	Assistant Professor	M. Tech.	Machine Design
29.	Sri. M Srinivas	Assistant Professor	M. Tech. (Doing Ph.D.)	Energy Engineering
30.	Sri. A P Sudheer	Assistant Professor	M. E. (Doing Ph.D.)	Manufacturing Engineering / Robotics
31.	Sri. G Varaprasad	Assistant Professor	M. Tech (Doing Ph.D.)	Industrial Engg. & Management
32.	Sri. Vinay V. Panicker	Assistant Professor	M. Tech. (Doing Ph.D.)	Industrial Engg.
33.	Dr. A. Ramesh	Assistant Professor	Ph.D.	Industrial Engg.
34.	Sri. Gangadhara Kiran Kumar L	Assistant Professor	M. Tech. (Doing Ph.D.)	Thermal Engg.
35.	Dr. T. J. Sarvoththama Jothi	Assistant Professor	Ph.D.	Thermal Engg.
36.	Dr. Sudhakar Subudhi	Assistant Professor	Ph.D.	Thermal Engg.
37.	Dr. Arun P.	Assistant Professor	Ph.D.	Energy Engineering
38.	Mr. Jagadeesha T.	Assistant Professor	M. Tech. (Doing Ph.D.)	Manufacturing Technology

#### DEPARTMENT OF MATHEMATICS

Sl. No.	Name	Designation	Qualification	Specialization
1.	Dr. M.J. Jacob	Professor	M.Sc., Ph.D.	Stochastic Processes
2.	Dr. Jessy John C	Professor & Head	M.Sc., Ph.D.	Time series Modelling
3.	Dr. V. Narayanan	Associate Professor	M.Sc., Ph.D.	Queuing Theory
4.	Dr. Chithra. A.V.	Associate Professor	M.Sc., Ph.D.	Operator Theory

5.	<b>Dr. Sunil Jacob John</b>	<b>Associate Professor</b>	<b>M.Sc., M. Phil. Ph.D.</b>	<b>Generalized Set Theory, Topology</b>
6.	Dr. M.S. Sunitha	Associate Professor	M.Sc., M. Phil. Ph.D.	Fuzzy Graph Theory
7.	Dr. C. M. Sushama	Asst. Professor	M.Sc., Ph.D.	Fuzzy Optimization
8.	Sri. Lineesh. M.C.	Asst. Professor	M.Sc.	Time Series Modelling
9.	Sri. Sanjay. P.K.	Asst. Professor	M.Sc. (On QIP)	Harmonic Analysis
10.	Dr. Satyananda Panda	Asst. Professor	M.Sc., Ph.D.	Computational Fluid Dynamics, Modeling & Scientific Computing
11.	Dr. Krishnan Paramasivam	Asst. Professor	M.Sc., Ph.D.	Algebraic Graph Theory, Algorithms & Complexity
12.	Dr. Sunil Mathew	Asst. Professor	M.Sc., Ph.D.	Fuzzy Graph Theory, Biocomputational modeling, Fractal Geometry
13.	Dr. Mahesh Kumar	Asst. Professor	M.Sc., Ph.D.	Applied Statistics, Reliability of systems
14.	Dr. Suresh Kumar Nadupuri	Asst. Professor	M.Sc., Ph.D.	Numerical Methods and Scientific Computing.
15.	Dr. Ashish Awasthi	Asst. Professor	M.Sc., Ph.D.	Numerical Analysis, Singular Perturbation

#### DEPARTMENT OF CHEMISTRY

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

#### DEPARTMENT OF PHYSICS

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

#### CENTRE FOR TRAINING & PLACEMENT

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

#### PHYSICAL EDUCATION SECTION

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. A.M. Najeeb	Associate Professor	M.A, M.Phil., Ph.D	Exercise Physiology, Olympic Values Education, Sports Infrastructure management.
2	Sri. Sunil M.S	Assistant Professor	M.P.Ed., M.Phil.	Physiology, Soccer training.
3	Ms. Baby Salini.E	Lecturer (Adhoc)	M.P.E, M.Phil.	Sports Psychology, Yoga, Soccer officiating.
4.	Sri. Athul Meethal	Lecturer (Adhoc)	M.P.E, M.Phil.	Physiology, Cricket

#### SCHOOL OF NANO SCIENCE & TECHNOLOGY

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

#### SCHOOL OF MANAGEMENT STUDIES

Sl. No.	Name	Designation	Qualification	Specialization
1.	Dr. Muhammad Shafi	Assistant Professor	PhD	Management
2.	Dr. S. Sunitha	Assistant Professor	PhD	Economics
3.	Dr. Preeti Navaneeth	Assistant Professor	PhD	English

#### SCHOOL OF BIOTECHNOLOGY

Sl. No.	Name	Designation	Qualification	Specialization
1	Dr. Md. Anaul Kabir	Assistant Professor & Head	Ph. D.	Molecular Genetics, Genetic Engineering
2	Dr. Santhiagu A	Assistant Professor	Ph. D.	Bioprocess Technology, Recombinant Technology, Enzymology
3	Dr. Rajnikant G K	Assistant Professor	Ph. D.	Radiation biology, Neuroscience
4	Dr. Prem Raj Pushpakaran	Assistant Professor	Ph. D.	Biochemistry, Microbiology, Molecular biology
5	Dr. R. Aswati Nair	Assistant Professor	Ph. D.	Molecular plant biotechnology, Molecular biology
6	Dr. Suchithra.T.V	Assistant Professor	Ph. D.	Microbiology, Enzymology
7	Dr. K. Rathinasamy	Assistant Professor	Ph. D.	Cell biology, Cancer research, Apoptosis

## CENTRE FOR BIOMECHANICS

### FACULTY

1. Dr Mohammed Ameen (Head), Professor of Civil Engineering
2. Dr T. M. Madhavan Pillai, Professor of Civil Engineering
3. Dr P.K. Rajendrakumar, Professor of Mechanical Engineering
4. Dr G. Abhilash, Associate Professor of Electronics Engineering
5. Dr P. Vinu, Assistant Professor of Civil Engineering

### ADJUNCT FACULTY

- 1 Dr T.S. Gopakumar, Professor & Head, Department of Orthopaedics, Medical College, Trivandrum.
- 2 Dr George Joseph, (Retd.) Professor & Head, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.
- 3 Mr M. Sreekumar, Prosthetic & Orthotic Engineer, Department of Physical Medicine & Rehabilitation, Medical College, Calicut.

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

Sl. No.	Name	Designation	Qualification
1	Dr. Abraham T Mathew	Registrar ( upto 25.07.2011 FN)	Ph.D.(IIT Delhi)
2	Mr. P.K.S.Raja	Registrar in charge(From 25.07.2011) & Deputy Registrar (Administration)	B.Com, M.Com, Diploma in Labour Law & Administrative Law
3	Mr. Raghunadhan T	Deputy Registrar (Academic)	MA, M.Com., LLB-Low of Taxation, English Typewriting, English Stenography, LLM

4	Mr. M Radhakrishnan	Deputy Registrar Finance & (Stores & Purchase)	B.Sc., MBA, PG Diploma in Materials Management, PG Diploma in Personal Management and Industrial Relations
5	Mr. Ramesh Ambady	Internal Audit Officer (on deputation) from AG's office	
6	Mr.M Krishnan	Officer on Special Duty(on deputation) from AG's office	
7	Mr. T P Chandran	Officer on Special Duty(on deputation) from AG's office	
8	Dr. Celine A.A	Resident Medical Officer	BSc, MBBS
9	Ms. Beena John	Divisional Accountant	Pre-Degree, Typewriting (English) Lower
10	Ms. Sweety Mathew	Lib.Gr.III (Hr.Gr)	M.Sc., M L I Sc , dBASE +III, UGC NET
11	Ms. Lalitha Kumari P.S	Librarian Gr.IV (Hr. Gr)	BA, Bachelor of Lib and Information
12	Mr. Balachandran Nair C.G	Librarian Gr.IV3.1	BA, MLISc. Type (E&M)Higher
13	Ms. Sobhana J	Librarian Gr.IV (Hr. Gr)	MA, Bachelors Degree in Library & Information Science
14	Mr. Jayarajan.T	Librarian Gr.IV (Hr. Gr)	BA, bachelor of Lib and Information
15	Ms. Latha. C	Librarian Gr.IV (Hr. Gr)	MA, Master of Degree in Library and Information Science, UGC. NET Exam in Library and Information Science
16	Mr. Bishnu Bahadur	Library Attender (Hr.Gr)	8 <sup>th</sup> Passed
17	Mr. C P Balan	Library Attender	SSLC (failed)
18	Mr. K P Shaju	Librarian Gr.IV	SSLC, Certificate in Llibrary Science
19	Mr. M K Chandramohan	Graphic Artist (Hr. Gr)	Bachelor of Fine Arts in Applied Arts
20	Mr. K Jayaraman	Offset Machine Operator (Hr. Gr)	SSLC, Diploma in Printing and Technology
21	Mr. P Abraham	Pharmacist	SSLC, Diploma Course in Pharmacy
22	Ms. Rosamma V J	Staff Nurse (Hr. Gr)	SSLC, Certificate in General Nursing and Midwifery Examination
23	Ms. Stella V C	Fair Copy Supdt.	SSLC, Typewriting English & Malayalam (Lower & Higher), Short hand English (Lower)
24	Mr. T Vijayan	Sr. Gr. Typist	SSLC, Typewriting English & Malayalam (Higher)
25	Ms. Subhadra C K	Confidential Assistant Gr.I	SSLC, Typewriting English & Malayalam Higher Short hand English Lower
26	Ms. V Vilasini	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher , Short hand English Lower
27	Ms. Veluthakki C	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher , Short hand English Lower
28	Ms. Syamala Devi P	Confidential Assistant Gr.II (Hr. Gr.)	SSLC, Typewriting English & Malayalam Higher , Short-hand English Lower
29	Mr. Purushothaman.P	Sr. Steward	BA Typewriting English lower
30	Mr. C.K Ramachandran	UD Steward (Hr.Gr)	SSLC
31	Mr. Sathianandan.P	UD Steward	SSLC, Typewriting English lower
32	Mr. Narayanankutty. P	L.D Steward	SSLC
33	Mr. Anwar Sadath. C	L.D Steward	PDC, Restaurant Counter Service, Typewriting English lower
34	Ms. P.P Vijayakumari	UD Matron (Hr. Gr)	SSLC, Junior Diploma Cooperation
35	Ms. Devaki P P	Sr. Supdt	PDC
36	Ms. C.P Rugmini	Sr.Suptd	SSLC Typewriting Eng.(H)



37	Ms. J. Sathidevi	Jr. Supdt	SSLC, Typewriting (E)Lower, Rashtra Basha Pareesha
38	Mr. A. Balan	Jr. Supdt	SSLC, Typewriting (E) Lower
39	Mr. M. Reejish Kumar	Jr. Supdt	SSLC
40	Mr. K. Mohanadas	Jr. Supdt	BA, Intensive course in computer programming (BASIC), Typewriting English Lower
41	Mr. G. Rajendran	Jr.Supdt	PDC
42	Mr. P. Muraleedharan	Jr.Supdt	SSLC
43	Ms. K.Mini	U D Clerk	SSLC
44	Ms. P. Prama	U D Clerk	SSLC
45	Mr. A. Venugopal	U D Clerk	PDC
46	Ms. P.P Karthiayani	U D Clerk	SSLC
47	Mr. V. Hassan Mohammed	U D Clerk	SSLC
48	Ms. P.M Madhavi	L D Clerk	SSLC, Typewriting English Lower
49	Mr. S.M Shafi	U D Clerk	SSLC
50	Mr. P. Praveen Kumar	U D Clerk	SSLC
51	Ms. Hymavathy K.	U D Clerk	SSLC
52	Mr. Petson Andrew	U D Clerk	BBA,MBA
53	Ms. K.P Snehaprabha	U D Clerk	PDC
54	Mr. N. Sukumaran Nair	U D Clerk	BA
55	Mr. Prasad .M.V	U D Clerk	BA, PGDCA(Software)
56	Mr. Sasikumar K.T	U D Clerk	PDC
57	Mr. K. Unnikrishnan	U D Clerk	SSLC, Typewriting English Higher, Malayalam Lower
58	Ms. Soosy Kutty J.L	U D Clerk	BSc, Typewriting English Higher Malayalam Lower
59	Ms. Juliet Das P.D	U D Clerk	MA, Typewriting English Higher
60	Mr. Sethumadhavan Mecheri	UD Clerk	SSLC, Typewriting English Lower
61	Mr. K.N Purushothaman Pillai	U D Clerk	SSLC, Typewriting English Higher
62	Ms. C.K Kanakambujam	L D Clerk (on leave)	PDC
63	Ms. G. Chandrika	U D Clerk	PDC
64	Ms. P. Sindu	U D C on temporary basis	BA, Type writing English Lower , Word Processing-Computer Course, Office Automation Course
65	Ms. Smera K.S.	L D Clerk	M.Sc. Computer Science,
66	Ms. Mereena John	L D Clerk	B.Sc., Typewriting English Lower, Computer Word Processing.
67	Ms. Sobhana T.	L D Clerk	B.Sc., PGDCA
68	Mr. M.T Varghese	Assistant Engineer	PDC, NTC Trade-Electrician ,Diploma in EE, Wireman License Certificate of Electrical Wiring
69	Mr. T.E Thomas	Assistant Engineer	SSLC, Diploma in CE,Part-time course Architectural Draughtsman-ship, Part time course on structural design and tall buildings
70	Mr. P.Keraleeyan	Foreman	SSLC, NTC-Mechanic Refrigeration & Air Conditioning Diploma in M.E, B.Tech.-ME.
71	Mr. K.P Venugopal	Instructor, ECE	SSLC, NTC Mechanic General Electronics, NTC Electrician trade, Diploma in EE, Post Diploma in Communications
72	Mr. T.K Sasidharan	Instructor, EED	PDC, NTC Electrician trade, Diploma in EE
73	Mr. P. Anil Kumar	Supervisor, MED	SSLC, ITI Trade- Mechanic refrigeration and Air-conditioning, Diploma in ME
74	Mr. A. K. Mohan Kumar	Asst.Engineer	SSLC, Diploma in Civil Engg., B.Tech.-CE.
75	Mr. E. Pradeep Kumar	Supervisor, MED	JTSLC(Sheet Metal), Diploma in ME
76	Mr. P. Prabhakaran	Senior Mechanic (Sl.Gr), EMU	SSLC, Diploma in Electrical Engineering



77	Mr. T.V Varghese	Senior Mechanic (Sl.Gr), Engineering Unit	SSLC, English Typewriting lower , Certificate in CE (2 years course)
78	Mr. B. Venugopal	Sr. Mech (Sl.Gr), EED	SSLC, NTC-wireman, Diploma in EE
79	P.T. Ashok Kumar	Sr. Mech (Sl.Gr), EED	SSLC, Certificate Exam in EE, Diploma in EE
80	Mr. A. Rajagopalan	System Analyst (Hr.Gr)	BSc, PG Diploma in Operations Research & computer application, MSc, M.Tech.
81	Mr. Santhosh Kumar. S	System Programmer	B.Sc., M.Sc.(maths), M.Sc in Information System, PG Diploma in Computer Engg, & in Software Tech., Degree of master of science in information system (University of Chester)
82	Mr. G. Sasidharan Pillai	Computer Technician	BSC, Typewriting English & Malayalam Higher, Computer programming (COBOL), Console Operator Cum Programmer Asst. (NCVT), PG Diploma in computer Application
83	Mr. V.R Ajayachandran	Computer Operator (Hr. Gr)	PDC, Diploma in ME, Post Diploma in Computer Application
84	Mr. Dharmarajan. K	Sr. Mechanic, Sl.Gr.MED	SSLC(Failed), Plumber-Trade
85	Mr. M.K Sadanandan	Sr. Mechanic, Sl.Gr.MED	SSLC, Intermediate Exam (Arts), Army Trade-Vehicle Mechanic (Motor Vehicle),
86	Mr. Joseph George P.G	Sr. Mechanic, Sl.Gr.MED	SSLC, NTC-Turner
87	Mr. Anandan. P	Sr. Mechanic, Sl.Gr.MED	SSLC, Certificate Exam In Automobile Engineering
88	Mr. Rajendran M.K	Instructor MED	SSLC, NTC Trade –Mechanic General Electronics, Diploma in ME
89	Mr. K.K Pradeep Kumar	Instructor MED	SSLC, ITI Trade- Mechanic Motor Vehicle, Diploma in ME
90	Mr. N.P Velayudhan Kutty	Sr. Mechanic, Sl.Gr.MED	P D C, NCVT Electrical & Electronics, Diploma in ME
91	Mr. Sasi. K.K	Sr. Mechanic, Sl.Gr.MED	Pre Degree, Diploma in Computer Engineering, Type Writing English Lower
92	Mr. T.M George	Sr. Mechanic MED	SSLC, NTC Trade-Fitter
93	Mr. Sanal .P.R	Sr. Mechanic MED	P D C, NTC Mechanist (Trade)
94	Mr. Reghu. P.V	Sr. Mechanic MED	JTSLC, Sheet Metal Diploma in M.E
95	Mr. Ajayan. A	Sr. Mechanic MED	J.T.S L C(Foundry), NTC Electrician (Foundry)
96	Mr. Suresh K.C	Sr. Mechanic MED	SSLC, NTC Trade-Welder
97	Mr. R. Unnikrishnan	Sr. Mechanic MED	Pre Degree, Diploma in M.E (Machinist)
98	Mr. Vasu. T.C	Sr. Mechanic MED	SSLC, NTC- Mechanic (Diesel)
99	Mr. Shali Joseph	Sr. Mechanic MED	SSLC, NTC(Foundry Trade)
100	Mr. Eldho. P. Varghese	Sr. Mechanic MED	SSLC, NTC Mechanic Diesel, VHSE, Diploma in ME
101	Mr. Prasad Mochikkal Variath	Sr. Mechanic MED	SSLC, NTC Welder, Diploma in ME
102	Mr. Surendran. P.K	Sr. Mechanic MED	SSLC, Trade Mechanist-NAC
103	Mr. Manoj K.G	Sr. Mechanic MED	THSLC (Trade-Turning), Diploma in ME
104	Mr. M. Reghunadhan Achari	Sr. Mechanic, CED	Passed VII <sup>th</sup> Std.
105	Mr. Mohanlal .D	Sr. Mechanic, CED	SSLC, NTC Trade Welder
106	Mr. P. Sreenivasan	Sr. Mechanic, CED	SSLC, NTC Trade Plumber
107	Mr. K. Shibu	Instructor, CED	SSLC, NTC Trade Plumber , Diploma in CE, Computer Shikshan
108	Mr. K. Sahadevan Nair	Sr.Mechanic, Sl.Gr. EED	VII <sup>th</sup> Std
109	Mr. E. K Kumaran	Sr.Mechanic, Sl.Gr. EED	IX <sup>th</sup> Std, ITI Trade Carpentry
110	Mr. N.K Mohammed Sali	Sr. Mechanic, EED	SSLC, NTC Trade Electrician, Diploma in EE
111	Mr. K. A Somanathan	Sr. Mechanic, EED	SSLC, NTC Trade Electrician,

			Diploma in EE
112	Mr. Sasesh A.R	Sr. Mechanic, EED	SSLC, NTC Trade Electrician, Diploma in EE
113	Mr. Nanda Kumar K	Sr. Mechanic, EED	JTSLC, NTC Electrician , B.com, Diploma in EE , Part time course in Data Entry and console operation
114	Mr. Suresh Kumar. G	Sr.Mechanic, SI.Gr. ECD	SSLC, NTC Trade Mechanic General Electronics
115	Mr. V. Krishnan Kutty	Sr. Mechanic, ECD	JTSLC, Trade Certificate Mechanic General Electronics
116	Mr. Anandan K.R	Sr. Mechanic, ECD	SSLC, NTC-Mechanic Radio & Television, NAC Trade Electronic Mechanic
117	Mr. Abdul Sathar V.M	Sr. Mechanic, CSE	Pre Degree, NTC Data preparation and Computer Software, Diploma in computer
118	Mr. Narayana Lal M	Sr. Mechanic, AED	SSLC, NTC-Mechanic Radio and Television (trade)
119	Mr. Beljith P	Sr. Mechanic Bio-Mechanics	Pre Degree, Typewriting English Lower & Higher, B.Sc. Maths, Business Professional Programmer
120	Mr. Rameshan N	Driver	SSLC(Failed), Driving Licence (Heavy)
121	Mr. T. Rajendran Pillai	Sr.Mechanic, CED	SSLC(Failed ), Army Trade Brick layer Construction (Ex-Military)
122	Mr. Noushad K.K	Sr.Mechanic, CED	Diploma in Computer Engg., NTC Data Preparation & Computer Software, Typewriting English (lower), Business professional programmer O' Level
123	Mr. Ajaya Kumar. R	Sr.Mechanic, CED	SSLC, NTC-D'man Civil
124	Mr. Jayan V.S	Sr.Mechanic, EED	SSLC, NTC Electrician, Electrical wireman license
125	Mr. Prajith .P	Sr.Mechanic, EED	PDC, NTC Electrician, Diploma in EE
126	Mr. Praveen H Babu	Mechanic, ECD	SSLC, NTC Electronic Mechanic, Typewriting English (Lower), Job Training course in Advanced Electronics
127	Ms. Sreeja .V	Mechanic, COE	Diploma in Computer Engg. – O' level, M.Sc
128	Mr. Biju Francis	Mechanic, COE	PDC, Data Preparation & Computer Software (NTC) Typewriting English Lower, Word Processing and Data Entry Techniques
129	Mr. Raju K P	Sr. Mechanic, EMU	SSLC, NTC Electrician, Wireman Licence
130	Mr.Santhosh Kumar MV	Mechanic, EMU	SSLC, Electrician NTC
131	Mr. Mahesan K A	Mechanic, EMU	SSLC, Electrician NTC, Diploma in EE
132	Mr. Sudheer P R	Mechanic EU	SSLC, NTC-Plumber
133	Mr. Jayesh Kumar P	Mechanic EU	PDC, NTC- Plumber
134	Mr. T K Sadanandan	Sr. Mechanic EU	SSLC failed, NTC-Plumber
135	Mr. P Divakaran	Sr. Mechanic, (SI.Gr.) EU	SSLC, NTC-Plumber
136	Mr. K Alavikutty	Sr. Mechanic EU	SSLC failed, NTC-Plumber
137	Mr. Mathew Varghese	Sr. Mechanic EU	PDC, NTC-Plumber
138	Mr. Abdul Sidheek P K	Sr. Mechanic EU	SSLC, NTC-Plumber
139	Mr. Sathyan P K	Sr. Mechanic EU	SSLC, NTC-Plumber
140	Mr. T Haridasan	Sr. Mechanic, (SI.Gr.) EU	SSLC, NTC-Plumber
141	Mr. A M Mathew	Sr. Mechanic, (SI.Gr.) EU	SSLC, NTC-Plumber
142	Mr. T P Mohanan	Sr. Mechanic, (SI.Gr.) EU	SSLC, NTC- Mechanic Diesel
143	Mr. C Sreenivasan	Sr.Mechanic, SI.Gr. EMU	SSLC, Wireman Exam
144	Mr. P Ratnakaran	Sr.Mechanic, SI.Gr. EMU	SSLC, Wireman Licence
145	Mr. C R Climson	Sr. Mechanic EMU	SSLC, NTC-Electrician Trade, Type writing (E) Lower, Wireman Licence

146	Mr. M K Radhakrishnan	Sr. Mechanic EMU	SSLC, NTC Electrician Trade
147	Mr. C V Abraham	Lab Assistant (Hr. Gr)	PDC, Certified Course in Computer Programme
148	Mr Prakash Peter	Lab Assistant	B.Sc, CCCA (Computer Application), M.Sc
149	Mr. Abhilash. A	Trade Instructor Gr.II	SSLC, Diploma in Mechanical Engg.
150	Mr. T. Bhaskaran	Peon	Studied up to IV <sup>th</sup> Std
151	Ms. A. Sumathi	Peon	I <sup>st</sup> Std
152	Mr. P. Apputty	Peon	SSLC Failed
153	Mr. C. Gopalan	Peon	V <sup>th</sup> Std.
154	Ms. T.P. Ravia	Peon	V <sup>th</sup> Std.
155	Mr. B. Mohanan Nair	Peon	III <sup>th</sup> Std.
156	Mr. K.V.Chelukunhan	Peon	SSLC Failed
157	Mr. K.V.Chandu	Peon	IV <sup>th</sup> Std
158	Ms. Sangeetha P.K.	Peon	SSLC Failed
159	Ms. Sarojini P.	Peon	VII <sup>th</sup> Std.
160	Ms. Savithri.C	Peon	VII <sup>th</sup> Std
161	Mr. M. Rajan	Watchman	SSLC Failed
162	Mr. K. Abdul Hameed	Watchman	VII <sup>th</sup> Std.
163	Mr. P. Aravindan	Watchman	VIII <sup>th</sup> Std.
164	Mr. N.K. Ummerkutty	Watchman	VI <sup>th</sup> Std.
165	Sr. M. Sivaraman	Watchman	VII <sup>th</sup> Std.
166	Mr. V.P. Sadanandan	Gardener	V <sup>th</sup> Std.
167	Mr. P.K. Koran	Watchman cum Gardener	VI <sup>th</sup> Std.
168	Mr. T. Janardhanan	Watchman cum Gardener	SSLC Passed
169	Mr. Sadanandan M.M.	Watchman cum Gardener	SSLC
170	Mr. O. Bhaskaran	Watchman cum Gardener	SSLC Failed
171	Mr. Mamukoya M.	Watchman cum Gardener	VII <sup>th</sup> Std.
172	Mr. Abdul Razak P.	Watchman cum Gardener	VIII <sup>th</sup> Std.
173	Mr. C. Preman	Watchman cum Gardener	SSLC Failed
174	Mr. T. Narayanan	Watchman cum Gardener	VIII <sup>th</sup> Std.
175	Mr. M.K. Rajan	Watchman cum Gardener	SSLC
176	Mr. P.V. Bhagyanathan	Watchman cum Gardener	SSLC Passed
177	Mr. Vinod K.P.	Watchman cum Gardener	IX <sup>th</sup> Std. Not completed
178	Mr. Revi V.	Watchman cum Gardener	IV <sup>th</sup> Std.
179	Mr. K. Bhaskaran	Watchman cum Gardener	SSLC
180	Mr. K.T. Balakrishnan	Watchman cum Gardener	SSLC Failed
181	Ms. M.T. Karthi	Sanitation Worker	SSLC Failed
182	Ms. V. Pushpavally	Sanitation Worker	VI <sup>th</sup> Std.
183	Ms. K. Thankamani	Sanitation Worker	IV <sup>th</sup> Std.
184	Ms. Freeda S. Balan	Sanitation Worker	SSLC Failed
185	Ms. M.M. Sarada	Sanitation Worker	VII <sup>th</sup> Std.
186	Ms. O. Chandramathi	Sanitation Worker	IV Std.
187	Ms. V.P. Thankam	Sanitation Worker	VIII <sup>th</sup> Std.
188	Ms. I. Siamala	Sanitation Worker	SSLC Failed
189	Ms. K.K. Santha	Sanitation Worker	SSLC Failed
190	Ms. K.P. Devi	Sanitation Worker	VIII <sup>th</sup> Std.
191	Ms. Devi Poolakkal	Sanitation Worker	SSLC Failed
192	Ms. E. Visalakshi	Sanitation Worker	SSLC Failed
193	Ms. Saroja T.M	Sanitation Worker	SSLC Failed
194	Ms. Sasikala L.	Sweeper cum Sanitation Worker	SSLC Failed
195	Ms. C.Geetha	Sweeper cum Sanitation Worker	SSLC
196	Ms. C Thanka	Sweeper cum Sanitation Worker	SSLC Failed
197	Ms. Jameela A.K.	Sweeper cum Sanitation Worker	SSLC Failed
198	2. Mr. K Parameswaran	Bearer cum Roomboy	SSLC Failed
199	Mr. P. Abdurahiman	Bearer cum Roomboy	SSLC Failed
200	Mr. Unnikrishnan C.	Vehicle Cleaner	SSLC Failed

### 3.3 TRAINING STATUS

39 members of the faculty were sponsored to participate in various International/national Conferences, Seminars and Workshops during the year under reporting. The department- wise breakup is given below.

Department of Architecture

: 6

Department of Chemical Engineering	: 3
Department of Chemistry	: 1
Department of Computer Science and Engineering	: 3
Department of Electronics & Communication Engineering	: 4
Department of Electrical Engineering	: 3
Department of Mathematics	:11
Department of Mechanical Engineering	: 6
Department of Physical Education	:1
School of Management Studies	: 1

### 3.4 PLACEMENT OF STAFF FOR ACADEMIC EXCELLENCE

#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No.	Name	Academic Excellence
1	Dr. Lillykutty Jacob	Exchange visitor, University of South Florida, USA, Jan '12 – July '12
2	Mr. Sudhish N George	Pursuing Ph. D (Part Time) at NIT Calicut
3	Mrs. Suja K J	Pursuing Ph. D (Part Time) at NIT Calicut
4	Mrs. Bindiya T S	Pursuing Ph. D (Part Time) at NIT Calicut
5	Mr. Dhanaraj K J	Pursuing Ph. D under QIP Scheme at IIT Delhi
6	Mr. V. Sakthivel	Pursuing Ph. D (Part Time) at NIT Calicut
7	Mr. Jayakumar E P	Pursuing Ph. D (Part Time) at NIT Calicut
8	Mr. Ameer P M	Pursuing Ph. D (Part Time) at NIT Calicut

### 4.0 TEACHING PROGRAMMES

#### 4.1 Courses Offered

##### DEPARTMENT OF ARCHITECTURE

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

##### DEPARTMENT OF BIOTECHNOLOGY

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

##### DEPARTMENT OF CHEMICAL ENGINEERING

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

##### DEPARTMENT OF CHEMISTRY

- i) M.Sc. (Tech.) (Polymer Science & Technology)
- 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) Ph.D.

##### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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

##### DEPARTMENT OF ELECTRICAL ENGINEERING

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

##### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

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

**DEPARTMENT OF MATHEMATICS**

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

**DEPARTMENT OF MECHANICAL ENGINEERING**

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

**SCHOOL OF NANO SCIENCE AND TECHNOLOGY**

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

**DEPARTMENT OF PHYSICS**

- i) B.Tech. (Engineering Physics)
- ii) M.Sc. (Tech.) (Photonics)
- iii) Ph.D.

**SCHOOL OF MANAGEMENT STUDIES**

- i) MBA
- ii) Ph.D.

4.2 COURSE-WISE ENROLMENT WITH SEX, CASTE, BREAK UP 2011-2012

Level	OP		O B (P H)	SC						SC (PH)		ST	ST (PH)		DASA		FN		SP						Total		
	M	M		F	M	F	M	F	M	F	F	M	F	M	F	M	F	M	F	M	F	M	F	M		F	
B.Tech	367	12	2	205	28	6	1	101	*30	-	45	6	1	-	45	**21	3	-	1	1	-	-	-	-	-	946	
B.Arch.	15	1	-	10	3	-	-	3	3	-	2	-	-	-	1	4	-	-	-	-	-	-	-	-	49		
M.Tech	128	1	-	63	26	1	-	33	6	-	17	3	-	-	-	-	-	-	-	-	3	8	1	-	11	18	375
MCA	17	1	-	11	2	-	-	4	3	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	46		
M.Sc (Tech.)	7	-	-	3	6	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33		
Ph.D.	39	-	-	12	10	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	4	5	4	-	-	106	
Total	573	15	2	304	75	7	1	142	13	0	66	11	1	0	46	4	3	0	1	1	7	13	5	0	11	18	1555

\* Including one readmission under AIEEE 2010-11

\*\* Including one readmission under DASA 2010-11

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

4.3.1. 1<sup>st</sup> semester B.Tech/B.Arch Admission 2011-12

SPECIALISATION	OP	O P (P H)	O B C	O B C (P H)	SC (PH)	ST	ST (P H)	D A S A	F O R E I G N	M E A (W E L F A R E)	MALE	FEM ALE	TOT AL
Architecture	22	1	13	-	-	2	-	5	-	-	32	17	49
Bio Technology	14	1	8	-	-	1	-	*1	-	-	19	10	29
Civil Engineering	68	2	37	1	1	9	-	6	-	-	116	27	143
Chemical Engineering	46	1	24	1	-	3	-	7	-	-	77	19	96
Computer Science and Engineering	68	2	35	2	1	6	-	13	1	-	114	34	148
Electrical and Electronics Engineering	68	2	36	1	-	9	-	13	1	1	132	20	152
Electronics and Communication Engineering	68	2	36	1	-	9	1	13	-	1	113	39	152
Engineering Physics	14	1	8	-	-	1	-	-	-	-	21	8	29
Mechanical Engineering	68	2	35	1	-	11	-	13	1	-	151	-	151

<b>Production Engineering</b>	<b>22</b>	<b>1</b>	<b>14</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>45</b>	<b>1</b>	<b>46</b>
<b>Total</b>	<b>458</b>	<b>15</b>	<b>246</b>	<b>7</b>	<b>2</b>	<b>53</b>	<b>1</b>	<b>71</b>	<b>3</b>	<b>2</b>	<b>820</b>	<b>175</b>	<b>995</b>

\* Including one readmission under DASA 2010-11

\*\* Including one readmission under AIEEE 2010-11

#### 4.3.2. 1<sup>st</sup> Semester M.Tech. 2011-2012

<b>Cours e</b>	<b>Branch</b>	<b>OP</b>	<b>OP- PH</b>	<b>OBC-PH</b>	<b>SC</b>	<b>SC- PH</b>	<b>S T</b>	<b>QIP</b>	<b>QIP( POL Y)</b>	<b>TOTA L</b>	<b>MALE</b>	<b>FEM ALE</b>	<b>TOT AL</b>
<b>Civil</b>	<b>CE61</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>20</b>
	<b>CE62</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16</b>	<b>1</b>	<b>15</b>	<b>16</b>
	<b>CE63</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14</b>	<b>8</b>	<b>6</b>	<b>14</b>
	<b>CE64</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>3</b>	<b>12</b>	<b>15</b>
<b>Comp uter</b>	<b>CS61</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>24</b>	<b>14</b>	<b>10</b>	<b>24</b>
	<b>CS62</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21</b>	<b>13</b>	<b>8</b>	<b>21</b>
<b>Electr onics &amp; Com munic ation</b>	<b>EC61</b>	<b>9</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>24</b>	<b>20</b>	<b>4</b>	<b>24</b>
	<b>EC62</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>24</b>	<b>17</b>	<b>7</b>	<b>24</b>
	<b>EC63</b>	<b>7</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>18</b>	<b>10</b>	<b>8</b>	<b>18</b>
	<b>EC64</b>	<b>7</b>	<b>-</b>	<b>1</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>17</b>	<b>12</b>	<b>5</b>	<b>17</b>
<b>Electr ical</b>	<b>EE61</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>26</b>	<b>14</b>	<b>12</b>	<b>26</b>
	<b>EE62</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>15</b>	<b>5</b>	<b>20</b>
	<b>EE63</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>22</b>	<b>18</b>	<b>4</b>	<b>22</b>
	<b>EE64</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21</b>	<b>16</b>	<b>5</b>	<b>21</b>
<b>Mech anical</b>	<b>ME61</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16</b>	<b>13</b>	<b>3</b>	<b>16</b>
	<b>ME62</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19</b>	<b>18</b>	<b>1</b>	<b>19</b>
	<b>ME63</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>18</b>
	<b>ME64</b>	<b>10</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16</b>	<b>16</b>	<b>0</b>	<b>16</b>
	<b>ME65</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>14</b>

Nano Scien ce & Techn ology	NS61	7	-	-	-	-	-	-	-	10	9	1	10

#### 4.3.3. M.Sc. (Tech.), MCA & Ph.D. 2011-2012

Department	OPEN	OBC	OB C- PH	SC-PH	ST	Total	Mal e	Total	QIP(P)	F.ti me	Internal	Ext ernal	T otal
Mathematics (MA61)	9	4	-	-	-	14	1	14	-	-	-	-	14
Physics (PH61)	7	2	-	-	-	9	5	9	-	-	-	-	9
Chemistry (CY61)	7	3	-	-	-	10	4	10	-	-	-	-	10
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>23</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>33</b>
Computer	23	13	-	-	3	46	34	46	-	-	-	-	46
Architecture	6	-	-	-	-	6	3	6	-	2	4	-	6
Biotechnology	6	2	-	-	-	9	3	9	-	8	1	-	9
Chemical	2	1	-	-	-	3	2	3	-	3	0	-	3
Civil	10	4	-	-	-	16	8	16	2	5	5	-	16
Computer Science	2	0	-	-	-	2	1	2	-	2	0	-	2
Chemistry	2	4	-	-	-	6	1	6	-	5	0	1	6
Electronics	9	2	-	-	-	11	5	11	-	5	2	-	11
Electrical	8	1	-	-	1	10	3	10	-	8	1	-	11
Mathematics	9	3	-	-	-	12	7	12	-	6	6	-	12
Mechanical	15	1	-	-	1	17	17	17	2	8	7	-	17





EC	7	2	9	1	-	1	9	4	13	-	-	-	1	-	1	113	39	152
EP	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	21	8	29
ME	11	-	11	-	-	-	13	-	13	1	-	1	-	-	-	151	0	151
PE	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	45	1	46
<b>TOTAL</b>	<b>47</b>	<b>6</b>	<b>53</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>46</b>	<b>25</b>	71	<b>3</b>	<b>0</b>	3	<b>1</b>	<b>1</b>	2	<b>820</b>	<b>175</b>	<b>995</b>

\* Including one readmission under AIEEE 2010-11

\*\* Including one readmission under DASA 2010-11

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

S.No	BRANCH	2011 Batch																							
		OPEN		OBC			OBC - PH		SC			SC - PH		ST			QIP			QIP (POLY)		SP		TOTAL	
		M	M	F	M	F	M	M	F	M	M	F	M	M	F	M	F	M	F	M	F	M	F	M	F
1	CE61	4	0	0	3	2	0	1	1	0	1	0	0	0	0	0	0	0	1	0	0	0	2	10	10
2	CE62	1	0	0	0	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1	15	
3	CE63	6	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6	
4	CE64	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	12	
1	CS61	7	0	0	4	1	0	2	1	0	1	1	0	0	0	3	0	0	0	0	1	14	10		
2	CS62	5	0	0	2	3	0	2	0	1	1	0	0	0	0	0	0	0	2	0	12	8			
1	EC61	8	1	0	4	1	0	3	0	0	2	0	0	0	1	0	0	2	1	20	4				
2	EC62	7	0	0	4	1	0	3	0	0	1	1	0	0	1	0	0	1	2	17	7				
3	EC63	5	0	0	1	2	0	2	0	0	1	0	0	0	1	1	0	0	3	10	8				
4	EC64	4	0	0	2	0	1	2	0	0	1	0	0	0	1	1	0	0	1	1	12	5			
1	EE61	5	0	0	3	2	0	2	1	0	2	0	0	0	2	0	0	2	3	14	12				
2	EE62	8	0	0	3	2	0	2	0	0	1	1	0	0	0	0	0	1	0	15	5				
3	EE63	8	0	0	4	1	0	3	0	0	2	0	0	0	0	0	0	1	1	18	4				
4	EE64	8	0	0	2	3	0	3	0	0	2	0	0	0	0	0	0	1	0	16	5				

1	ME61	6	0	0	5	0	0	2	0	0	0	0	0	0	0	0	0	0	0	13	3
2	ME62	10	0	0	5	0	0	1	1	0	2	0	0	0	0	0	0	0	0	18	1
3	ME63	10	0	0	5	0	0	3	0	0	0	0	0	0	0	0	0	0	0	18	0
4	ME64	10	0	0	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	16	0
5	ME65	9	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0

1	NS61	6	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1
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4.4.3. M.TECH., MCA, M.Sc. (Tech.) & Ph.D.

BRANCH	SC		OPEN				OPEN-PH		OBC-PH						TOTAL		
	M	T	M	T	M	F	M	F	M	F	T	M	F	T	M	F	T
M.Tech CED	1	4	1	1	12	24	0	0	7	10	17	0	0	0	21	37	58
CSD	5	6	2	3	12	8	0	0	6	4	10	0	0	0	25	14	39
ECD	10	10	5	6	24	9	1	0	11	4	15	1	0	1	52	14	66
EED	10	11	7	8	29	10	0	0	12	8	20	0	0	0	58	20	78
MED	8	9	2	2	45	3	0	0	24	0	24	0	0	0	79	4	83
NST	0	0	0	0	6	1	0	0	3	0	3	0	0	0	9	1	10
<b>Total</b>	34	40	17	20	128	55	1	0	63	26	89	1	0	1	244	90	334
<b>MCA</b>	4	7	1	3	17	5	1	0	11	2	13	0	0	0	34	12	46
<b>M.Sc.(Tech)</b>	0	1	0	0	7	16	0	0	3	6	9	0	0	0	10	23	33

<b>Ph.D.</b>	2	3	2	2	44	32	0	0	13	12	25	0	0	0	61	45	<b>106</b>
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**4.4.4 Total number of Students of all semesters and all courses as on 31.03.2012.**

<b>Programme</b>	<b>2011-2012 Admission</b>	<b>2010-2011 Admission</b>	<b>2009-2010 Admission</b>	<b>2008-2009 Admission</b>	<b>2007-2008 Admission</b>
B.Tech	946	855	847	714	Left
B.Arch	49	42	39	37	29
M.Tech	375	360	304	Left	Left
M.C.A	46	45	35	33	Left
MSc(Tech)	33	31	32	28	Left
MBA	26	20	22	Left	Left
Ph.D.	106	85	72	30	19
<b>Total</b>	<b>1581</b>	<b>1438</b>	<b>1351</b>	<b>842</b>	<b>48</b>
<b>Total strength in campus as on 31.03.2012</b>				<b>:</b>	<b>5260</b>

#### 4.5 THE HOSTELS

##### Accommodation

There are nine hostels and Apartments for the boys and one hostel with four blocks and Apartments for the ladies. One International Hostel with twenty three semi-furnished rooms is also available. The details of current students' accommodation are given below.

	Men	Women
Sanctioned accommodation in the hostels	2270	470
Number of inmates in the Hostels (as on 31.03.2012)	3557	724

The hostel buildings are maintained by the Institute. Day to day matters of administration and management of the Hostels is vested with the Hostel & Mess Committee consisting of the student representatives and the nominated faculty members who will be the Wardens. Stewards/Matrons are the caretakers of the hostel. Administration is overseen by the council of Wardens headed by the Chief Warden. Hostel Office is headed by the Hostel Manager, and he is assisted by office staff. Hostel Messes are managed by the Hostel & Mess Committee. The work is outsourced wherever necessary. There is a proposal for constructing a 1000 seated Boy's Hostel and 500 seated Ladies Hostel and the work in that direction are in progress.

**Chief Warden: Dr. Allesu .K**

##### Wardens:

1. Dr. Zacharia Varghese, CED
2. Dr. G. Unnikrishnan, Chemistry Dept.
3. Dr. Sameer S.M, ECED
4. Dr. Kodi Rangaswami, CED
5. Dr. Rajanikant G.K, Bio Tech.
6. Dr. Sunil Jacob John, Maths
7. Dr. Mahesh Kumar, Maths
8. Mr. Vineesh Ravi, Chemical Engg Dept.
9. Dr. Vari Sivaji Reddy, Physics Dept.
10. Dr. T. Jagadeesh, MED
11. Mr. S. Kumaravel, EED
12. Sri. Srinivasa T.M, CSED
13. Dr. Narayanan M.D, MED
14. Sri. V. Sakthivel, ECED
15. Dr. M. J. Jacob, Maths Dept
16. Dr. Sunil Mathew, Maths
17. Smt. Reesha Bharath .K, CED
18. Dr. Shaija A, MED
19. Dr. Chithra A.V, Maths
20. Ms. Pournami P.N, CSED
21. Dr. Madhavanunni, Physics Dept.

**Hostel Manager (Officiating): Mr. Balan .A**

##### Stewards:

1. Mr. Purushothaman .P

2. Mr. Ramachandran C.K
3. Mr. Sathyanandan P
4. Mr. Narayanankutty .P
5. Mr. Anwar Sadath

**Matron: Ms. Vijayakumari P.P**

#### 4.6 SCHOLARSHIPS/ ASSISTANTSHIPS

##### **Financial Assistance to M.Tech Students:**

Teaching Assistantship/Research Assistantship/Scholarships may be awarded to eligible M.Tech. Students as per rules formulated by the Govt. of India and the Institute for such awards from time to time, subject to availability of funds. Currently an amount of Rs.8,000/- per month for 22 months will be given to candidates admitted through GATE score. This facility will not be available to Sponsored candidates, foreign nationals and dependants of NRIs.

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

Teaching Assistantship/Research Assistantship/Scholarships are awarded to eligible 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.18, 000/- per month for engineering departments and Rs.16,000/- per month for other departments. This facility will not be available to UGC/CSIR Fellowship/National Doctoral Fellowship Holders, sponsored candidates, foreign nationals and dependants of NRIs

#### 4.7 GAMES AND SPORTS

##### **Activities Conducted during 2011-12**

Activities commenced in last week of July 2011 with the class room orientation for freshers followed by one-credit course in August 2010. Talent spotting was completed in November 2011 prior to end-semester exams and NITC teams 2011-12 in all games were selected.

After end semester examinations, teams were coached and sent out to participate in National level Inter NIT tournaments at various NITs of the country.

Tournaments attended were as follow:

- a.a) South zone Interuniversity Tennis at Manipal University.
- a.b) Inter NIT Basket ball & Tennis tournament for boys and girls at NIT Trichy.
- a.c) Inter NIT swimming competition for boys at NIT Surat.
- a.d) Inter NIT Sports Fest in Volley ball, Cricket, Football & Chess at VNIT Nagpur.
- a.e) Inter NIT Badminton n& Table tennis at NIT Allahabad.
- a.f) Inter NIT sports meet in Cricket, Hockey & Athletics at NITK Surathkal.
- a.g) Inter Professional SPREE tournament in Cricket, Tennis, Volleyball, Basketball,Badminton& Table tennis at BITS Goa campus.
- a.h) Inter Professional Hockey tournament at Manipal University.
- a.i) District League tournaments in Cricket, Hockey, Football, Volleyball, Table tennis& Basketball.

**In-Campus Mass Participation Activities** were conducted in grand fashion. Tournaments were held in Cricket (Nano-cricket & Willow cup) and Foot ball (FORZ Soccer) & Table tennis (Ping pong). These activities attracted over a thousand students and exhibited the managerial prowess of student-organizers.

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

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

#### 4.8. AWARDS DEPARTMENT OF ARCHITECTURE

Sl. No.	Name	Award
1	Dr Kasthurba A K	Post Doctoral fellowship award for women Constituted by IIT Madras 2011

2	Dr. P.P.Anilkumar	Received <b>the Best paper award</b> in the International conference on 'Society, Technology and Sustainable Development' (ICSTSD 2011), jointly organised by the Amrita Institute, UNESCO, State University of New York Buffalo and Deiken university Melbourne Australia, that was held in Amritha Institute of Medical Sciences (AIMS) Kochi, from 3rd to 5th June 2011, for the paper titled as ' Traditional and Vernacular Practices in Architecture- a Roadmap to Sustainable Development' About 60 papers from around 18 countries were personally presented in the conference. Award was sponsored by Deiken University of Melbourne, Australia and carried a cash award of Rs. 10,000/- , a memento and a certificate.
3	P.P.Anilkumar and Bimal.P	Received <b>the Best paper award</b> for the paper titled 'Residential location search Algorithm with Multi criteria' in the session on 'Landuse based Applications' of the International Conference on Geospatial technologies and applications ('Geomatrix') jointly organized by IIT Bombay and 'Inria' from 26 <sup>th</sup> to 29 <sup>th</sup> February 2012 at IIT Mumbai.
4	Bimal P	<b>Inria Best Paper Award</b> for "Residential location choice with multi criteria", 'Geomatrix12', International conference held at IIT Bombay.  <b>Third best paper presentation award</b> for "Geodesign: an emerging application of geo-informatics & urban design", at national symposium 2011 on 'Empowering Rural India Through Space Technology' , Indian Society of Remote Sensing, Bhopal

#### DEPARTMENT OF CIVIL ENGINEERING

- Dr. Sajith A S: Received cash award for Rs. 10000/- from NICEE for guiding the best Master's thesis from students who attended the NICEE literature survey workshop in 2007. Title of the thesis – *Studies on rocking response of rigid bodies under base accelerations*. Name of student: Ms. Roshina Babu.
- Dr. N Ganesan & Dr. P V Indira: Received for the second time National Award (First Prize) from the Indian Society for Technical Education for guiding Best M.Tech thesis in Civil Engineering which was presented during the Inaugural function of the 41st Annual Convention of ISTE on December 16, 2011 at Punjab.

#### DEPARTMENT OF CHEMISTRY

Sl. No.	Name	Award
1.	Dr. Lisa Sreejith	CRSI National Best Teacher Award 2012

#### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Name	Award
1.	Dr. S. Jayaraj	International Travel Support Scheme award from DST and CIIS (INSA) for attending International Conference at USA
2.	Dr. T. J. Sarvoththama Jothi	International Travel Support Scheme award from DST and CIIS (INSA) for attending International Conference at Sweden
3.	Dr. V. Madhusudanan Pillai	Two research papers presented in the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011) were highly commended by the referees of the conference for its idea and content. The following are the details of the research papers: <ul style="list-style-type: none"> <li>• Shiyas, C. R., Christiansun Antony, A. and Madhusudanan Pillai, V., (2011), An adaptive approach for the design of dedicated manufacturing cells under dynamic demand. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 30 – 35, Department of Mechanical Engineering, NIT Calicut, Kerala, India.</li> </ul>

Sl. No	Name	Award
		<ul style="list-style-type: none"> <li>Irappa Basappa Hunagund and Madhusudanan Pillai, V., (2011), Development of a Heuristic for Layout Formation for Quadratic Assignment Problem. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 115 – 119, Department of Mechanical Engineering, NIT Calicut, Kerala, India.</li> </ul>
4.	Dr. A. Ramesh	Literati Award for Excellence under "Highly Commended Research Paper in Year 2011" category in emerald publications for Journal of Modeling in Management for the following paper "Ramesh, A., Banwet, D.K. and Shankar, Ravi (2010), Modeling the barriers of supply chain collaboration, Journal of Modeling in Management, Vol.5, No.2, pp.176-193."
5.	Dr. R. Sridharan and Dr. V. Madhusudanan Pillai	Best Paper award for the paper titled "Obtaining integer lot sizes in the economic lot scheduling problem", in the International Conference on Operations and Management Sciences (ICOMS-11), Institute of Management Technology, Nagpur, January 28-29, 2011.

#### PHYSICAL EDUCATION SECTION

Sl. No.	Name of the team	Award/ Laurel won
1.	Inter NIT Volley ball for boys at VNIT Nagpur	<b>Champions</b>
2.	Inter NIT Athletic meet at NITK Surathkal –girls & overall	<b>Champions</b>
3.	Inter NIT tournament at NITK surathkal- boys hockey	<b>Third place</b>
4.	Inter NIT Swimming at NIT Surat- boys	<b>Runner-up</b>
5.	Inter Professional SPREE at BITS Goa- Volley ball boys	<b>Runner-up</b>
6.	-----do----- Badminton girls	<b>Third place</b>
7.	District League championships – Boys Cricket	<b>Champions</b>
8.	District League championships- Boys Football	<b>Champions</b>
9.	District League Championships- Boys Basket ball	<b>Third place</b>
10.	State Shooting championships " Mr. Vishal K Pradeep, (B110355 AR)	<b>Gold medal</b>

#### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

Sl. No.	Name	Award
1.	Dr. Sajith V	Dronacharya Award for Second Best Faculty Advisor at SAE India Baja Off-road Vehicle Design Competition, 2012
2	Mr. Shijo Thomas	Dronacharya Award for Second Best Faculty Advisor at SAE India Baja Off-road Vehicle Design Competition, 2012

#### 4.9 EXAMINATION DETAILS

##### B. Tech. /B. Arch. Result

Programe	Total Registered	1 <sup>st</sup> Class with Distinction	1 <sup>st</sup> Class	2 <sup>nd</sup> Class	3 <sup>rd</sup> Class	Total Pass	Pass Percentage
CH	44	11	29	3	-	43	97.73
CE	89	23	43	20	-	86	96.63
CS	103	37	42	21	-	100	97.09
EC	104	38	44	17	-	99	95.19
EE	100	25	56	16	-	97	97.00
ME	95	26	49	16	1	92	96.84
PE	32	8	16	8	-	32	100.00
<b>Total</b>	<b>567</b>	<b>168</b>	<b>279</b>	<b>101</b>	<b>1</b>	<b>549</b>	<b>96.83</b>
AR	38	3	20	5	-	28	73.68



#### Details of M.Tech, MCA & Ph.D. Students passed out

Programme	Total Registered	1 <sup>st</sup> Class with Distinction	1 <sup>st</sup> Class	2 <sup>nd</sup> Class	Total Pass	Pass Percentage
CEA	18	8	10	NIL	18	100
CEB	10	8	2	NIL	10	100
CEC	11	5	6	NIL	11	100
CED	7	7	NIL	NIL	7	100
CSA	25	13	12	NIL	25	100
CSB	18	10	5	3	18	100
EEA	17	9	7	NIL	16	94
EEB	18	9	8	NIL	17	94.44
EEC	18	6	12	NIL	18	100
EED	18	13	5	NIL	18	100
ECB	19	7	11	1	19	100
ECC	18	8	6	2	16	88.89
ECD	12	4	7	1	12	100
ECE	12	6	6	NIL	12	100
MEA	17	7	10	NIL	17	100
MEB	18	7	11	NIL	18	100
MEC	19	10	8	1	19	100
MED	17	9	8	NIL	17	100
MEE	14	6	8	NIL	14	100
NANO	10	8	2	NIL	10	100
<b>Total</b>	<b>316</b>	<b>160</b>	<b>144</b>	<b>8</b>	<b>312</b>	<b>98.73</b>
MCA	33	6	22	3	31	93.94
Ph.D	27	-	-	-	27	-
MSc.Tech	28	10	17	1	28	100
<b>Total</b>	<b>404</b>	<b>176</b>	<b>183</b>	<b>12</b>	<b>398</b>	<b>98.51</b>

#### 4.10 TECHNOLOGY BUSINESS INCUBATOR (TBI)

National Institute of Technology Calicut has set up a Technology Business Incubator (TBI-NITC) in 2003-04 with the support of National Science & Technology Entrepreneurship Development Board (NSTEDB) Department of Science and Technology, Govt. of India to incubate startup industries in IT and Electronics. 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	13
2	Number of units joined during 2011 - 2012	5
3	Number of units graduated from TBI during 2011-2012	2
4	Number of units preparing to graduate	2
5	Total number of units so far assisted by TBI	32
6	Total number of employees in the incubated companies	280

#### Programmes Conducted by TBI

- Business Skill Development Programme conducted during Sep 2011 to Mar 2012.
- Faculty Development Programme on Entrepreneurship conducted during 19 Dec 2011 to 30 Dec 2011.
- Entrepreneurship Development Programme conducted during 16 Jan 2012 to 22 Feb 2012.
- Technical Entrepreneurship Development Programme conducted during 13 Feb 2012 to 20 Mar 2012.
- Management Development Programme conducted during 4 May 2012 to 09 May 2012.

#### 4.11 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME

This Institute has been selected for funding under TEQIP-phase II. The total allocation under the TEQIP-II is `12.5 Crores spread over five years from 2010-11 to 2014-15. Funding under TEQIP-II is

intended mainly for scaling up Post Graduate Education, research and other related activities. Some of the activities envisaged under the project are: providing Teaching and Research Assistantships for significantly increasing enrolment in Masters and Doctoral programmes in Engineering disciplines, Faculty and Staff development, Establishment of new laboratories and Modernization and strengthening of libraries. During 2011-12, six Ph. D scholars are being given research assistantships/scholarships from TEQIP II. Also a few staff of the Institute was sent for training under TEQIP II.

**5.0 RESEARCH AND DEVELOPMENT ACTIVITIES**

**5.1 PH.D PROGRAMMES-EXISTING AND PROPOSED**

**DEPARTMENT OF ARCHITECTURE**

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

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

<b>Sl. No.</b>	<b>Name</b>	<b>Guide</b>	<b>Area of Specialization</b>	<b>Scheme(QIP/Part Time/Full time)</b>
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1.	Bimal.P, Architect Planner, Assistant Professor, Dept. of Architecture, NIT Calicut.	<b>Dr.P.PAnilkumar</b>	Landuse impacts and parametric characterization of Kerala's urban pattern –	<b>Internal</b>
2.	Chithra.K,Architect Planner, Assiastant Professor, Dept. of Architecture, NIT Calicut.	<b>Dr.P.PAnilkumar and Dr.Naseer.M.A</b>	Landuse Impacts' analysis in a medium scale urban area -	<b>Internal</b>
3	Smitha G	<b>Dr. Naseer M.A</b>	Remote Sensing application in Urban Planning	<b>Internal</b>
4.	Muhammed Sharief,, M.Arch,Dean, School of Architetcure, Karpagam School of Architecture, Coimbatore	<b>Dr.P.PAnilkumar and Dr.Naseer.M.A</b>	Climatic comfort as applied in vernacular architecture	<b>Part time</b>
5.	S. Katiravan, M.Arch, Chief Architect, Venkitaramanan Associates, Coimbatore.	<b>Dr.P.PAnilkumar and Dr.Arun</b>	Norms for green buildings for the Indian context	<b>Part time</b>
6.	Pradeep.p, Engineer planner, Town planning Dept. of Kerala	<b>Dr.P.P.Anilkumar</b>	Built up space vs Infrastructure capacity assessment.	<b>Part time</b>
7.	Amrutha.K, Landscape Architect.	<b>Dr.P.P.Anilkumar</b>	Solid waste disposal through landscape development and maintenance –	<b>Full time</b>
8	<b>Josna Raphael , M Arch, Associate Professor Govt Engineering College</b>	<b>Dr Kasthurba A K</b>	Urban conservation and Cultural continuity	<b>Part time</b>
9	<b>Anjana Bagyanathan, Landscape Architect.</b>	<b>Dr Kasthurba A K</b>	Urban Development and Landscape conservation	<b>Full time</b>

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

#### DEPARTMENT OF CHEMICAL ENGINEERING

a) Ph.D.'s completed under existing scheme:NIL

b) Ongoing Ph.Ds under existing scheme

S.	Name	Guide	Area of specialization	Scheme
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no				(QIP/Part time/full time)
1	Smt.S.Bhuvaneshwari	Dr.V.Sivasubramanian	Biosorption of heavy metals	Part time
2	Mr.Naveen Sankaran	Dr.V.Sivasubramanian	Modeling and Simulation of Industrial accidents	Full time
3	Mr. Haribabu K	Dr.V.Sivasubramanian	Effluent treatment using Inverse Fluidized Bed Reactor	Part time
4	Mr.Karthik.P	Dr.Shiny Joseph	Bioenergy	Full time
5	Mr.Vineesh Ravi	Dr.Shiny Joseph	Microdirect methanol fuel cell modeling and simulation	Part time
6	Ms. Najuma A	Dr.Lity Alen Varghese	Adhesives & surface coatings	Full time
7	Anu	Dr.Selvaraju	Modelling and simulation	Full time
8	Hariharan	Dr.Shiny Joseph	Preparation and characterisation of activated carbon from biomass	Full time
9	Rahul Antony	Dr.Selvaraju	Microfluidics: Modelling & Control of Microfluidic Reaction	Full time
10	R.Sivashankar	Dr.V.Sivasubramanian	Degradation of Dye stuff using Immobilisation and nano particles	Full time
11	Uma Krishnakumar	Dr.V.Sivasubramanian	Optimization of Biodiesel Production using solid metal oxide catalyst	Full time

#### DEPARTMENT OF CIVIL ENGINEERING

(a) Ph.Ds completed under Existing Scheme: NIL

#### (b) On-going Ph. D under existing scheme

Sl. No.	Name	Guide	Area of specialization	Scheme (QIP/Part time/Full time)
1	D. Sasikala	Dr. Mohammed Ameen	Structural Engg.	Part time
2	V Vishnu	Dr. P Syamala	Water Resources Engineering	Part time
3	Madhu Raj P C	Dr. J Sudhakumar	Building Science Engineering	QIP
4	Savitha C	Dr. S Chandrakaran Dr T.M. Madhavan Pillai	Geotechnical Engg	Full time
5	P Srinivasa Nagu	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg	QIP
6	Anil Kumar P.S	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg	QIP
7	Raneesh K Y	Dr. Santosh G Thampi	Water Resources Engineering	Full time
8	Hari G	Dr. N Sankar Dr. S Chandrakaran	Geotechnical Engg	Part Time
9	Gopan M	Dr. Santosh G Thampi	Environmental Engineering	Part time
10	Shamla Rasheed	Dr. K Sasikumar Dr P Syamala	Water Resources Engineering	Part time
11	Justine Jose	Dr. V Mustafa Dr. T P Somasundaran	Structural Engg	Full time
12	K Smitha	Dr. Santosh G Thampi	Water Resources Engineering	Full time
13	Sabeena M.V	Dr N Ganesan Dr PV Indira	Structural Engineering	Full Time
14	Mathew George	Dr Praveen Nagarajan Dr T.M. Madhavan Pillai	Structural Engineering	Part Time
15	Bharati Raj	Dr N Ganesan Dr AP Shashikala	Structural Engineering	Full Time
16	Anitha Jacob	Dr MVLR Anjaneyulu	Transportation	QIP

			Engineering	
17	Sreela P K	Dr MVLR Anjaneyulu	Transportation Engineering	QIP
18	Sivakumar M	Dr MVLR Anjaneyulu	Transportation Engineering	Part time (internal)
19	Sabna V	Dr. Santosh G Thampi	Environmental Engineering	Full time
20	Resmi P Nair	Dr. Santosh G Thampi	Water Resources Engineering	Full time
21	Chithra N.R	Dr. Santosh G Thampi	Water Resources Engineering	Part time (internal)
22	Anu V Thomas	Dr. J Sudhakumar	Building Science Engineering	QIP
23	Anjana Santhakumar	Dr. N Ganesan Dr. P V Indira	Structural Engg	QIP
24	Anjana S	Dr MVLR Anjaneyulu	Transportation Engineering	Full time
25	Aneesha Balaji	Dr. T M Madhavan Pillai Dr. Praveen Nagarajan	Structural Engg	Part time
26	Mary John C.	Dr. N Ganesan Dr. P V Indira	Structural Engg	Part time
27	Manjula N.K.	Dr. Praveen Nagarajan Dr. T M Madhavan Pillai	Structural Engg	Full time
28	Yashida Nadir	Dr. Praveen Nagarajan Dr. Mohammed Ameen	Structural Engg	Full Time-QIP
29	Seena P.	Dr. N Ganesan Dr. P V Indira	Structural Engg	Full Time-QIP
30	Sri. Ragesh P.P.	Dr. V Mustafa	Offshore Structures	Full Time-QIP
31	Smt. Sreelekha M.G.	Dr MVLR Anjaneyulu	Transportation Engineering	Full Time-QIP
32	Sri.B.Venkata Subbaiah	Dr. V Mustafa Dr. Santhosh G Thampi	Offshore Structures	Full Time-QIP-Poly
33	B.Kutumba Sastry	Dr K Sasikumar	Water Resources Engineering	Full Time-QIP-Poly
34	Safeer ali Abbas Ali	Dr. Arun C	Building Science Engg.	Full Time
35	Mohammed Abdul Akbar	Dr. V Mustafa	Offshore Structures	Full Time
36	Binil Gopinath	Dr. S Chandrakaran Dr. Kodi Ranga Swamy	Geotechnical Engg	Full Time
37	Asha C. Raju	Dr. Mathava Kumar S	Environmental Engg.	Full Time
38	Lila P.C.	Dr MVLR Anjaneyulu	Transportation Engineering	Part Time
39	V.S.Sanjjay Kumar	-----	Structural Engg	Part Time
40	Bybin Paul	Dr MVLR Anjaneyulu	Transportation Engineering	Part Time
41	S. Rajendra Prasad	Dr. P V Indira Dr. N Ganesan	Structural Engg	Full Time

(c). Proposed Ph.D. Programmes: NIL

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

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

Sl. No.	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1	Mr. Sajeev G P	Dr. M P Sebastian/Dr.Murali Krishnan	Web Caching	PT

2	Mr. Abdul Haleem P P	Dr. M P Sebastian/Dr Madhu Kumar S D	Mobile Networks	FT
3	Ms. Anitha V S	Dr. M P Sebastian/Dr Madhu Kumar S D	Adhoc and Mobile Network	QIP
4	Mr.K Santle Camilus	Dr.V K Govindan	Image Processing	FT
5	Mr.A Shajin Nagarjun	Dr. M P Sebastian	Adhoc Network	PT
6	Mr.Gylson Thomas	Dr.V K Govindan	Image Processing	PT
7	Mr. Prasad S M	Dr. V K Govindan / Dr. P S Sathi devi	Image Processing	QIP

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

Sl. No.	Name	Guide	Area of specialisation	Scheme (QIP/PT/FT)
1.	Mr. K R Chandrasekhara Pillai	Dr. M P Sebastian/ Dr. K Murali Krishnan	Network Security	PT
2.	Mr. Vinodu George	Dr. M P Sebastian// Dr. K Murali Krishnan	Security	PT
3.	Mr. Manu J Pillai	Dr. M P Sebastian	Mobile Networks	PT
4.	Mr. K.S.Valasaraj	Dr. Vineeth Paleri	Compilers	QIP
5.	Mr. Shyam P Joy	Dr. Priya Chandran	Information Security	PT
6.	Mr. Abdul Nazeer K A	Dr. M P Sebastian/ S D Madhu Kumar	Bioinformatics	PT
7.	Mr. Saidalavi Kalady	Dr. V K Govindan	Intelligent agents	PT
8.	Ms. Saleena N	Dr. Vineeth Paleri	Compilers	PT
9.	Ms. Jyothisha J. Nair	Dr. V K Govindan	Image Processing	FT
10.	Ms. Anu Mary Chacko	Dr. M P Sebastian/ S D Madhu Kumar	Network Security	PT
11.	Ms. Rekha R.	Dr. Vineeth Paleri	Compilers	FT
12.	Ms. Pournami P.N.	Dr. V.K. Govindan	Image Processing	PT
13.	Mr. Vinith R	Dr. V.K. Govindan	Image Processing	FT
14.	Ms. Pamela Vinita Eric	Dr. K. Murali Krishnan	Algorithms	PT
15.	Mr. Jayaraj P B	Dr. K. Murali Krishnan	Operating Systems	PT
16.	Mr. Jereesh A S	Dr. V.K Govindan	Image Processing	FT
17.	Ms. Lijiya A	Dr. K. Murali Krishnan	Image Processing	PT
18.	Ms. Saniya A	Dr. S D Madhu Kumar	Cloud Computing	PT
19.	Mr. Jithin R	Dr. Priya Chandran	Information Security	FT
20.	Mr.Unnikrishnan P	Dr. V.K.Govindan	Pattern Recognition	FT
21.	Ms.Shabeera T P	DR. Madhukumar S.D.	Cloud Computing	FT

**c. Proposed Ph.D. programmes**

**DEPARTMENT OF ELECTRICAL ENGINEERING**

**a. Ph.Ds completed during 2010-11**

Sl. No	Name	Guide	Area of specialization	Scheme (QIP/Part Time/ Full Time)
1	Haseena Hassan.	Paul Joseph & Abraham T Mathew	Biomedical signal processing	Full time
2	Smt. Jaimol Thomas	Dr. Ashok S & Dr. T L Jose	Development of optimal pricing strategy for industrial power	Part Time

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

Sl. No	Name	Guide	Area of specialization	Scheme (QIP/PT/ FT)
1	Saritha M	Paul Joseph & Abraham T Mathew	Biomedical image processing	Full time
2	Asha ND	Paul Joseph	Cardiac signal processing	Full time
3	Surya S Nair	Paul Joseph	Biomedical Engineering	Full time
4	Subha DP	Paul Joseph	EEG analysis	Part time
5	Reeda K	Paul Joseph	Nerve conduction studies	Part time
6	Thasneem Fathima N K	Paul Joseph	Biomedical Engineering	Full time
7	Jayachandran ES	Paul Joseph	Biosignal processing	Full time
8	Ahamed Sayed	Paul Joseph & Jeevamma Jacob	Heart rate variability	Part time
9	Nisha P V	Sindhu T K and Elizabeth P Cheriyan	Electromagnetic interference	Part time
10	Sony Kurian	Sindhu T K and Elizabeth P Cheriyan	Power Systems	Full time
11	Siny Paul	Sindhu T K	Nanocomposite Insulators	Part Time
12	Ismayil	Dr Sreeramkumar R and Sindhu T K	Power Systems	QIP
13	Meenu D Nair	Dr. Mukti Barai	Power Electronics	Full time.
14	Jagadanand G	Dr. Saly George, Dr Jeevamma Jacob.	Signal Digital processing.	Part Time
15	Kumaravel S	Dr. S Ashok	Micro Grid	Part Time
16	Mr. John George	Dr.T.L.Jose and Jeevamma Jacob	FACTS Controllers for Power Quality Improvement	Full Time
17	Smt. Sujalakshmi V.	Dr. K S Sivanandan & Dr. K M Moideenkutty	Control of self balancing system	Part Time
18	Sri. Sivakumar	Dr. Ashok S & Dr. Saly George	Electric Drives	Part Time
19	Smt. Mija S.J	Dr. Susy Thomas	Dynamic Control System	Full Time
20	Rinu Alice Koshy	Dr.Susy Thomas	Control Systems	Part time
21	Sri.K.G.Jolly	Dr.R. Sreeram Kumar, Dr. R. Vijaya Kumar	Intelligent Task Planning and Action selection in a Multi-agent Robot-Soccer System	Part-Time
22	Smt. Jaimol Thomas	Dr. Ashok S & Dr. T L Jose	Development of optimal pricing strategy for industrial power	Part Time
23	Rajeev T	Dr. Ashok S	Cloud Computing Applications in DG	QIP
24	Ms. Vasanthi V	Dr. Ashok S	Power Quality issues.	QIP
25	Mr. Amarun Nishad	Dr. Abraham T Mathew	Image Processing & Data	QIP

	T M	, Dr V.K. Govindan	Communication	
26	Mr. O. Asokan	Dr. R. Sreeram Kumar	Investigations on Voltage Instability Problems	Part Time
27	Mrs. R Sunitha	Dr. R Sreeram Kumar & Dr. Abraham T Mathew	Power system security	Internal
28	Smt. Sunitha. K.	Dr. Joy Thomas, IISc, Bangalore.	High Voltage Engg.	QIP
29	Smt. Preetha P.	Dr. Joy Thomas, IISc, Bangalore.	High Voltage Engg.	QIP
30	Ajay Babu	Dr. Ashok S	Investigations on Plug-in Vehicles	Full time
31	Rehna Nalakath	Dr. M P Nandakumar.	Control Systems, Optimal Control	Full time

**c. Proposed Ph.D programmes**

Name	Guide	Area of specialization	Scheme (QIP/Part Time/ Full Time)
Rajashree Raghavan	Dr.Susy Thomas	Control Systems	QIP
Abhilash T Vijayan	Dr Ashok S	Process Automation	QIP

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

a. Ph. Ds completed under Existing Scheme

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Mr. R. Rajavel	Dr. P.S. Sathidevi	Audio Visual Speech Recognition	FT
2	Mr. S.M. Prasad	Dr. P.S. Sathidevi	Palmprint Authentication	QIP Poly
3	Mr. Haris P A	Dr. C. K. Ali	Performance of Multiuser Detection in MCCDMA and MIMO OFDM Systems	FT

b. Ongoing Ph.Ds under existing scheme:

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/ PT/ FT)
1	Mr. Anzar S.M	Dr. P.S. Sathidevi	Multibiometrics	FT
2	Mr. Jayakumar E.P	Dr. P.S. Sathidevi	VLSI Signal Processing	PT
3	Mr. Lalmohan	Dr. Deepthi P.P & Dr. P.S. Sathidevi	Cryptography	PT
4	Ms. Jeeva K.A	Dr. Deepthi P.P & Dr. P.S. Sathidevi	Cryptography	PT
5	Ms. Lekshmi M.S	Dr. P.S. Sathidevi	CASA	PT
6	Smt. Byjubai. T. P	Dr. Elizabeth Elias	Compressive sensing	FT
7	Smt. Manju Manuel	Dr. Elizabeth Elias	2D Digital Filters	QIP
8	Sri. James. T. G	Dr. Elizabeth Elias	Variable Bandwidth Digital Filters	PT
9	Sri. Sakthivel. V. S	Dr. Elizabeth Elias	Filter Banks	PT
10	Smt. Bindhya. T. S	Dr. Elizabeth Elias	Trans multiplexers	PT
11	Smt. Shaeen. K	Dr. Elizabeth Elias	Filter Banks	FT
12	P.C. Neelakantan	Dr. A.V. Babu	Wireless Networks	FT
13	V.P. Harigovindan	Dr. A.V. Babu	Wireless Networks	FT
14	Sidharth Shelly	Dr.A.V. Babu	Wireless Networks	FT
15	Deepak K.S.	Dr.A.V. Babu	Wireless Networks	QIP
16	Thafasal Ijyas V. P.	Dr. Sameer S. M.	Wireless Communications	FT
17	Cibile K. Kanjrathumkal	Dr. Sameer S. M. and Dr.Lillykutty Jacob	Wireless Communications	QIP
18	Muneer P.	Dr. Sameer S. M.	Wireless Communications	FT
19	Namitha A. S.	Dr. Sameer S. M.	Wireless System Design	FT
20	Suja K.J	Dr. Rama Subrahmanyam Komaragiri	MEMS	PT
21	Abhilash Antony	Dr.Sreelekha G.	Video Compression	FT
22	Sudhish N.George	Dr. Deepthi P.P.	Multimedia Encryption	PT



23	Celine Mary Stuart	Dr. Deepthi P.P.	Channel Coding & Cryptography	QIP
24	Hari C V	Dr. Praveen Shankaran	Face Pose Estimation.	FT
25	Rashmi M	Dr. Praveen Shankaran	Nonlinear Manifold Embedding.	FT
23	Shahanas K T	Dr. C K Ali	Methods to Improve the performance of MIMO OFDM Systems	FT

c. Proposed Ph.D. programmes: NIL

#### DEPARTMENT OF MECHANICAL ENGINEERING

##### (a) Ph.D. Programmes – Completed under existing scheme

Sl. No.	Reg. No.	3. Name	4. Guide	5. Topic
1.	Y3DP25	Dinesh, K. K.	Dr. S. Jayaraj	Analysis of thermophoretic flow through an isothermal vertical parallel plate channel
2.	ME04P005	K.R. Nambiar	Dr. N. M. Nagarajan & Dr. M. A. Joseph	Laser assisted zone refining of metals: an investigative study of purification of silver using carbon dioxide laser as heat source
3.	P060009ME	Somashekar, K. P. (FT)	Dr. N. Ramachandran & Dr. Jose Mathew	Theoretical and experimental investigations on micro electric discharge machine processes
4.	P050024ME	Joseph, O. A.	Dr. R. Sridharan	Effects of flexibility and scheduling decisions on the performance of a flexible manufacturing system: simulation modeling and analysis
5.	P050025ME	Srividhya, P. K.	Dr. S. Jayaraj & Dr. C. Muraleedharan	Characterization and optimum usage of biomass in gasifiers
6.	ME04P006	Anil Kumar, S.H. (FT)	Dr. Biju T. Kuzhiveli	Investigation of natural convective heat transfer in a partitioned enclosure utilizing different fluids
7.	P060029ME	Ashok Kumar, T.V.	Dr. A. Ramaraju	Life cycle assessment and analysis of biodiesel development as fuel in compression ignition engine
8.	P050008ME	N.H. Siddalingaswamy (FT)	Dr. M. A. Joseph	Effect of vibration on solidification on Al-Si alloy casting using different no-bake moulding sand systems
9.	P060008ME	M Satyanaryana (QIP)	Dr. C. Muraleedharan	Investigation on vegetable oil methyl esters as alternative fuels to compression ignition engines
10.	P060028ME	Vinay Amrut Shirodkar	Dr. R. Sridharan & Dr. V. Madhusudanan Pillai	Modelling and analysis of the economic lot scheduling problem

##### (b.) On-going PhDs under the Existing Scheme -

###### Full Time

SI No.	Roll No.	Name	Guide	Area of specialization
1.	P080001ME	Sri. Manu V Thottackkad	Dr. P. K. Rajendrakumar	Tribology
2.	P080011ME	Sri. Talari Chinna Pamulety	Dr. V. Madhusudanan Pillai	Industrial Engineering
3.	P080021ME	Sri. Ahmed Saleel C	Dr. S. Jayaraj	Thermal Sciences
4.	P080022ME	Sri. Favas T. K.	Dr. Ghulam Jilani	Thermal Sciences
5.	P080015ME	Sr. Sreekanth K. J.	Dr. S. Jayaraj & Dr. N. Sudarsan	Energy Management
6.	P090016ME	Sri. Umar Ali K.	Dr. R. Radha Ramanan	Industrial Engineering
7.	P090030ME	Sri. Sreedhar Babu	Dr. K Prabhakaran Nair	Tribology
8.	P090044ME	Sri. Shiyas C. R.	Dr. V. Madhusudanan Pillai	Industrial Engineering
9.	P090057ME	Sri. Baiju .V	Dr. C. Muralidharan	Energy Management
10.	P090058ME	Sri. Arunkumar .O.N	Dr. R. Radha Ramanan	Industrial Engineering
11.	P090064ME	Sri. David S Vinaykumar	Dr. A. Shaija	Energy Management
12.	P100031 ME	Sri. Rajesh Vanchipura	Dr. R. Sridharan	Industrial Engineering

SI No.	Roll No.	Name	Guide	Area of specialization
13.	P100033ME (QIP)	Smt. Jayasree N.	Dr.R. Radha Ramanan	Industrial Engineering
14.	P100006ME	Sri. Sreejith C.C.	Dr. C. Muralidharan	Energy Management
15.	P100007ME	Sri. Vinod V	Dr. M. D. Narayanan	Design
16.	P110038ME	Sri. Premchand	Dr. M. D. Narayanan	Design
17.	P110006ME	Sri. Sajan T. John	Dr. R. Sridharan	Industrial Engineering
18.	P110030ME	Sri. Eby David	Dr. R. Manu	Manufacturing Technology
19.	P110018ME	Sri. Rakesh Hari	Dr. Biju T. Kuzhiveli	Cryogenics
20.	P110049ME	Salumuri S Lingeswara RAO	Dr. A. Shaija	Energy Management
21.	P110047ME	Prakash Naidu P	Dr. Jose Mathew	Manufacturing Technology

### Part Time

SI No.	Roll No.	Name	Guide	Specialization
1.	P070009ME	M. Srinivas	Dr. S. Jayaraj	Energy Management
2.	P070008ME	Sudheer, A. P.	Dr. R. Vijaykumar	Robotics
3.	P070010ME	Shijo Thomas	Dr. Shoban	Nano Science
4.	P070007ME	G. Varaprasad	Dr. R. Sridharan	Industrial Engineering
5.	P090012ME	Rohini Kumar B	Dr. C. Muralidharan	Energy Management
6.	P080026ME	K. Sekar	Dr. M. A. Joseph & Dr. Allesu	Casting
7.	P090009ME	Vinay V. Panicker	Dr. R. Sridharan	Industrial Engineering
8.	P090017ME	Sreenath, A. M.	Dr. Rajendra Kumar Dr. M. L. Joy	Design
9.	P090037ME	Sajith, K. G.	Dr. C. Muralidharan	Energy Management
10.	P100036ME	Pradeepmon T.G.	Dr. Sudarson	Industrial Engineering
11.	P100067ME	Kishor Kumar V V	Dr. Biju T. Kuzhiveli	Cryogenics
12.	P100077ME	Nidhi M B	Dr. V. Madhusudanan Pillai	Industrial Engineering
13.	P100072ME	Deepa Mohan	Dr. N. Sudarsan	Industrial Engineering
14.	P100015ME	P. V. Manu	Dr. A. Ramaraju	Thermal Sciences
15.	P100046ME	Senthil.S	Dr.A. Ramesh	Industrial Engineering
16.	P100005ME	Rajesh.T.N	Dr. Biju T. Kuzhiveli	Cryogenics
17.	P110074ME	Basil Kuriachan	Dr. Jose Mathew	Manufacturing Technology
18.	P110058ME	Chacko Reno Koshy	Dr. P. K. Rajendra Kumar	Tribology
19.	P110089ME	Saijal K. K.	Dr. K. Prabhakaran Nair & Dr. M. L. Joy	Design
20.	P110076ME	Jobin	Dr. Radha Ramanan	Industrial Engineering
21.	P110056ME	Remil George Thomas	Dr. R. Manu	Manufacturing
22.	P110091ME	Shaiju M R	Dr. P. Arun & Dr. S. Jayaraj	Energy Management
23.	P110019ME	K. Pratheesh	Dr. Allesu K	Metal Casting
24.	P110031ME	Rajesh V. R.	Dr. Biju T. Kuzhiveli	Cryogenics
25.	P110092 ME	Rony Johnson	Dr. Sudhakar Subudhi & Dr. P. Arun	Energy Management
26.	P110059 ME	Monikandan	Dr. P. K. Rajendra Kumar & Dr. M. A Joseph	Design
27.	P110066ME	Amit Aravind	Dr. M. L. Joy and Dr. K. Prabhakaran Nair	Design

### DEPARTMENTS OF MATHS

a.

#### Ph.D.s completed under Existing Scheme during 2011-12

Sl. No.	Name	Guide	Area of Specialization	Scheme(QIP/Part Time/Full Time)	Remarks
1.	Lineesh M.C	Dr.Jessy John C	Time series Modeling	Part time	Thesis

					submitted
2	Minu K K	Dr. Jessy John C	Wavelet Neural Network and Time series Modelling	Part time	Thesis submitted

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

Sl. No	Name	Guide	Area of Specialization	Scheme(QIP/PT/FT)
1	Dhanya V Mukundan	Dr Satyananda Panda	Fiber Dynamics	Full time
2	Babitha K V	Dr.Sunil Jacob John	Soft sets	Full time
3	Minirani S	Dr. Sunil Mathew	Fractal Interpolation	Full time
4	Mubeen M	Dr. V. Narayanan (MAT) & Dr. G. Abhilash (ECD)	Wavelets Analysis	Full time
5	Anoop N Nair	Dr. M. J. Jacob	Queuing Theory	Full time
6	Deepak D	Dr.Sunil Jacob John	Rough sets	Full time
7	Priyadarsan K P	Dr. Satyananda Panda	Fluid Dynamics	Full time
8	Rinju Balu K.K.	Dr. Sunil Mathew	Fractal Theory	Full time
9	Deepa J S	Dr. Ashish Awasthi	Numerical solutions to differential equations	Full time
10	Dharshanlal M Nair	Dr. Sunil Mathew	Weighted Graph Theory	Full time
11	Jinu B George	Dr. M S Sunitha	Fuzzy Graph theory	Part time
12	Shinoj T K	Dr.Sunil Jacob John	Multi sets	Part time
13	Bobby P Mathew	Dr.Sunil Jacob John	Rough Topology	Part time
14	K R Sandeep Narayan	Dr.M.S.Sunitha	Fuzzy Graph and its compliments	Part time
15	Shinto K G	Dr.Sushama C M	Optimization Techniques	Part time
16	G Shija	Dr.M.J.Jacob	Stochastic Processes	Part time
17	Chitralekha K	Dr.Jessy John C	Time Series Modelling and Forecasting	Part time
18	Mini Tom	Dr.M.S.Sunitha	Fuzzy Graph Theory	Part time
19	Linda J P	Dr.M.S.Sunitha	Fuzzy Graph Theory	Part time
20	Anjali Kishore	Dr.M.S.Sunitha	Coloring of Fuzzy graphs	Part time
21	Jyothis Thomas	Dr.Sunil Jacob John	Topology	Part time
22	Jill K Mathew	Dr. Sunil Mathew	Graph Theory	Part time
23	Shanas Babu P	Dr. Chithra A V	Graph Theory	Part time
24	Jinesh P Joseph	Dr. Ashish Awasthi	Numerical Techniques for singular perturbation	Part time
25	Shinoy George	Dr. Sushama C M	Optimization	Part time
26	Jayasree T G	Dr. Chithra A V	Graph Theory	Part time

c. **Proposed Ph. D programmes:** continuing with the existing programmes

**DEPARTMENT OF CHEMISTRY**

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1.	Mr Anil Kumar	<b>Dr. G. Unnikrishnan</b>	A study on pesticide migration in soil-water-plant environment using isotopically labelled potassium	Part-time

			phosphonate	
2	Mr P. Aneesh	Dr. G. Unnikrishnan	Modification of the properties of SBR latex by the addition of chitin nanoparticles	Part-time
3.	Ms. E. K .Silviya	<b>Dr. G. Unnikrishnan</b>	Nano-cellulose reinforced elastomers	Full-Time

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1	Suraj Varma	Dr. G. Unnikrishnan	Polymer Science & Technology	Full time
2	Riyasudheen N	Dr. Sujith A	Biomaterials	Full time
3	Rafeeqe P	Dr. G. Unnikrishnan	Polymer Science & Technology	Part time
4	Souda P	Dr.Lisa Sreejith	Surface Chemistry	Full time
5	Mohammed Ziyad P.A.	Dr. G. Unnikrishnan	Polymer Science & Technology	Part time
6	Sunil Kumar M	Dr. Sujith A	Polymer science & technology	Part time
7	Sangeetha C	Dr. G. Unnikrishnan	Polymer Science & Technology	Part time
8	Abineesh Babu	Dr. Lakshmi C	Bio-organic chemistry	Full time
9	James Baben George	Dr. G. Unnikrishnan	Polymer Science & Technology	Part time
10	Jasila K	Dr. Lisa Sreejith	Surface Chemistry	Full time
11	Dhanusha K.T	Dr. Lisa Sreejith	Surface Chemistry	Full time
12	Sruthi C	Dr. Suni Vasudevan	Bioinorganic Chemistry	Full time
13	Sheeja	Dr. Sujith A	Polymer science & Technology	Full time
14	Fasalu Rahman	Dr. Arunkumar C	Bio-inorganic Chemistry	Full time
15	Linet Rose	Dr. Lisa sreejith	Surface Chemistry	Full time
16	Rojisha V.C.	Dr. Parameswaran P	Computational Chemistry	Full time
17	Rahul Soman	Dr. C Arunkumar	Bio-inorganic Chemistry	Full time
18	Reshmi C.R.	Dr. A. Sujith	Polymer Science & Technology	Full time
19	Nijesh K	Dr. Parameswaran P	Computational Chemistry	Full time
20	Manju Chembath	Dr. Lakshmi C	Bio-organic chemistry	External
21	Anusha C	Dr. Parameswaran P	Computational Chemistry	Full time
22	Nimisha K	Dr. G. Unnikrishnan	Polymer Science & Technology	Full time

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

**DEPARTMENT OF PHYSICS**

(a) Ph.D. completed under existing scheme

Sl.No.	Name	Guide	Area of Specialization	Scheme
1.	Vijayakumar. S	Dr. Chandrasekharan. K	Non linear optics	Part time
2.	Sharfudheen K. N.	Dr. Chandrasekharan. K	Non linear optics	Full time

(b) Ongoing Ph.D. under existing scheme

Sl. No.	Name	Guide	Area of specialization	Remarks
1.	Aneesh .J	P. Predeep	Polymer Memmories	3 years completed
2.	Faseena .N.M	P. Predeep	Organic Electronics	2 years completed
3.	Sudheesh .P	Chandrasekharan .K	Non linear optics	3 years completed
4.	Siji Narendran	Chandrasekharan .K	Non linear optics	Progressing

5.	Ayishabi .P.K	Raghu Chatanathodi	Electronic Structure, Surface Phenomena	Part Time
6.	Satheesh Chandran. P. M	M. K. Ravi Varma	Optics	Progressing
7.	Renu Jose	P. Predeep	Photonics	Progressing
8.	Issac S. I.	M. K. Ravi Varma	Optics	Part Time, in progress
9.	Smijesh Nadarajan Achary	Chandrasekharan .K	Non linear optics	Started this year
10.	Yoosuf Ameen	Vari Sivaji Reddy	Organic Electronics	Started this year
11.	Suhail Kuttoth	M. K. Ravi Varma	Spectroscopy	Started this year
12.	Lakshmikanth .G	Raghu Chatanathodi	Electronic Structure, Surface Phenomena	Started this year
13.	Daughty John	Raghu Chatanathodi	Electronic Structure of Graphene and other nano structures	Started this year

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

#### **PHYSICAL EDUCATION SECTION**

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

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1. 2. 3. 4. 5. 6. 7. 8.	Baby Salini Shimjith Sangeetha Athul Meethal Akhilesh Edathodi Sumesh D Harry Benny Bipin Shankar	Dr. A.M. Najeeb	Physical education sciences	Part-time at Karpagam University & Bharathiar University

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

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

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

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full time)
1 2 3	Nadiya.M Preeti M Lakshmi Chandra	Dr.T.Radharamanan Dr.T.Radharamanan Dr. N Sudarsan	Finance Tech Management HR	Full time Part Time Part Time

c. **Proposed Ph.D. programmes**

#### **SCHOOL OF BIOTECHNOLOGY**

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

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

S. No	Name	Guide	Area of specialization	Scheme (QIP/Part time/ Full time)
1	Mr. B Praveen Kumar Reddy	Dr. Md. Anaul Kabir	Molecular Biology	Full time
2	Ms. Aswathy N	Dr. Md. Anaul Kabir	Protein folding	Full time

3	Mr. Wasim Uddin	Dr. Md. Anaul Kabir	Drug Resistance	Full time
4	Ms Vidhuna Sadanandan	Dr. A. Santhiagu	Enzyme technology	Full time
5	Mr. Jaya Prakash S	Dr. A. Santhiagu	Bioprocess technology	Full time
6	Mr. Yuvaraja K. R.	Dr. A. Santhiagu	Herbal Biotechnology	Full time
7	Ms. Divya A	Dr. A. Santhiagu	Bioprocess technology	Full time
8	Mr. Mahesh Kumar Teli	Dr. Rajnikant G.K	Drug design	Full time
9	Mr. Pradeep H.	Dr. Rajnikant G.K	Neuroscience	Full time
10	Mr. Shyam B. Nair	Dr. Rajnikant G.K	Nano Biotechnology	Full time
11	Mr. S. Md. A. Fayaz	Dr. Rajnikant G.K	Bioinformatics	Full time
12	Mr. Sinoy sugunan	Dr. Rajnikant G.K	Bioinformatics	Full time
13	Arun Anirudhan	Dr. Rajnikant G.K	Bioinformatics	Part time
14	Mr. Prakash A.	Dr. K. Rathinasamy	Cancer biology	Full time
15	Ms. Lakshmi mohan	Dr. K. Rathinasamy	Cancer biology	Full time
16	Ms. Geethu Chellapan	Dr. Aswati Nair	Plant Biotechnology	Full time
17	Ms. Keerthi Divakaran	Dr. Aswati Nair	Plant Biotechnology	Full time
18	Mr. Ganapaty .G	Dr. Aswati Nair	Plant Biotechnology	Full time
19	Ms. Saumya mary mathew	Dr. Suchithra.T.V	Enzymology	Full time
20	Mis. Anna Saju Kynadi	Dr. Suchithra.T.V	Bioplastics	Full time
21	Mis. Sareena .C	Dr. Suchithra.T.V	Enzymology	Full time

### SCHOOL OF NANO SCIENCE & TECHNOLOGY

a. Ph.Ds completed under Existing Scheme: NIL

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

Sl. No.	Name	Guide	Area of Specialization	Scheme (QIP/Part Time/Full Time)
1.	Binoy Baby	C. B. Sobhan	Modeling of Mini/microchannel flow with realistic surfaces;	Part time
2.	Shijo Thomas	C. B. Sobhan	Investigations on convective heat transfer in water-based Nanofluids	Part time
3.	Divya Haridas	C. B. Sobhan	Interferometric methods for temperature measurement	Part time
4.	Jasseela. S	C. B. Sobhan	Multi-scale modeling of phase change phenomena in Microchannels	QIP
5.	Mallikarjuna Rao Darla	Soney Varghese	Synthesis and characterization of liquid crystals	Full time
6.	Manjusha Mathew	N. Sandhyarani	Bioinspired nanomaterials and their application in sensors	Full time
7.	Uvais V. N.	Soney Varghese	Ferroelectric nonvolatile memory devices	Full time
8.	Sooraj K. Prabha	Sarith P. Sathian	Gas Surface Interaction in Nanosystems	Full time
9.	Parvathy R. Chandran	N. Sandhyarani	Targeted Drug Delivery using plasmonic Nanoparticles	Full time
10.	Ashitha T. A.	Sarith P. Sathian	Multiscale Thermal modeling of Microelectronic Devices	Part time
11.	Abdul Rasheed	N. Sandhyarani	Early Stage Diagnosis of Cancer	Full time
12.	Joe Francis T.	Sarith P. Sathian	Fluid Transport through Nanoscale Systems	Part time
13.	Jeetu S. Babu	Sarith P. Sathian	Thermal & Fluid Transport through Carbon Nanotubes	Full time
14.	Nandu Gopan	Sarith P. Sathian	Studies on Liquid Nanostructures	Full time
15.	Reny Thankam Thomas	N. Sandhyarani	Nanomaterials for environmental remediation	Full time
16.	Kulwant Singh	Soney Varghese	Piezoresistive MEMS	Full time
17.	Raji K.	C. B. Sobhan	Carbon Nanotube Synthesis	Full time

18.	Ajin C. Sajeevan	V. Sajith	Synthesis of Catalytic Nano particles and its application as Fuel additives	Full time
19.	S. Balamurugan	V. Sajith	Investigation on the Effect of Catalytic Nano particles in fuels on Combustion using Optical measurement Techniques	Full time
20.	Anjan R. Nair	Sarith P. Sathian	Nanoscale heat transfer	Full time
21	Subash C K	Soney Varghese	Piezo electric polymer nano composite	Full time
22	Robin Joyce	Soney Varghese	MEMS	Full time
23	Arun Kumar K V	Sarith P. Sathian	High altitude plumes	Project

#### Area of Specialization

- Nanofluidics
- Discrete Computation: Molecular Dynamics
- Rarefied Gas dynamics
- Nanomaterials and their applications
- Nanocatalysis
- Nanobiotechnology – drug delivery, bioinspired nanomaterials, sensors
- Nanofabrication and Characterization
- Liquid Crystal Display
- Interferometry

a.i. Proposed Ph. D programmes: NIL

#### 5.2 DETAILS OF PH.D DONE SO FAR

SI.No	Department	No.of Ph.D Completed	Scheme		
			QIP	FT	PT
1	Architecture	1	1	-	-
2	Civil Engineering	22	9	6	7
3	Computer Science	7	2	2	3
4	Electrical Engineering	17	2	-	15
5	Electronics and Communication Engineering	21	6	7	8
6	Mechanical Engineering	43	2	10	31
7	Mathematics	10	0	2	8
8	Chemistry	19	-	14	5
9	Physics	3	-	2	1

#### 5.3 PROPOSED PLAN FOR RESEARCH

##### DEPARTMENT OF ARCHITECTURE

- Department proposes to establish a Remote Sensing and GIS Laboratory
- Department is in the process of setting up a Material testing laboratory
- Department proposes to set up a Architecture Heritage Museum
- Department is developing a virtual design studio for furthering interaction in Architectural. Design studio work with other universities.
- Department is also developing Architectural Photography and Documentation lab.
- It is proposed to further develop the building science lab in the areas of acoustics, illumination, thermal studies and wind flow studies.

##### DEPARTMENT OF CHEMICAL ENGINEERING

Dr.V.Sivasubramanian, Development of Conductivity Method to Study the Characteristics of Inverse Fluidized Bed Bioreactor with Non-Newtonian Systems for Application in Industrial Effluent Treatment

##### DEPARTMENT OF CIVIL ENGINEERING

##### Proposed plan of research



- 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. Many of the laboratories are getting equipped under TEQIP project of the Ministry of Human Resources Development. 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.D's.
- Initiate research on rheology of Cementitious materials
- To carry out studies on application of fracture mechanics to cementitious materials
- To investigate the strength and behavior of Geo-Polymer concrete structural elements
- To carry out studies on the effect of Hybrid Fibres on the Strength and Behavior of High Performance Concrete.
- To study the effect of Ferro cement as a retrofitting material
- To develop sustainable concrete and other techniques
- To study Geo-Polymer Concrete and its structural applications
- to study the effect of hybrid fibres on the Properties of normal concrete
- Studies on strength and behavior of FRC shear wall
- Initiating research activity in Water Quality Modelling/Economics, Travel Demand Modelling
- Proposed Ph.D programs:Department of Civil Engineering wishes to broaden its research base by attracting sponsored research programmes funded by agencies other than the governmental agencies. It wishes to enter into memorandum of understanding with university departments abroad to take up joint research guidance leading to award of Ph.D degrees
- Setting up a fracture mechanics lab to understand, predict and improve the behaviour of reinforced concrete
- Biomechanics - Setting up a low -cost gait analysis lab
- Setting up Centre of Excellence in Transportation Engineering – Centre for Transportation Research, Education And Training (cTREAT). Proposal submitted to MHRD for a budget of Rs.816 crores.

#### **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

The department plans to start an International Centre of Excellence in Applied Computing, and has taken positive steps in this regard. One of the outcomes of ISB 2011(Indo-US Symposium on Biocomputing) was the resolution to set up such centre and the positive responses for enthusiastic co-operation in this regard from the array of distinguished scientists who were present for ISB 2011. Details of International collaboration with IUPUI, USA and other institutes are being worked upon.

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

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

Ongoing sponsored research projects are (1) 'Development of Centre for Distributed Energy Research' under DST-FIST (Rs 100 lakhs –Dr Ashok S), (2) Development of composite insulators for high energy storage applications under DST –FT (Rs 23 lakhs –Dr Sindhu T K), (3) Development of intelligent robot for fault diagnosis of power lines” under KSCSTE,Govt of Kerala (Rs 11 lakhs –Dr Ashok S (4) Investigation of distributed generation & integration on a laboratory scale Microgrid under DRDO (Rs 7 lakhs –Dr Elizabeth P Cherian.),

Dr Ashok.S has already submitted a research proposal on Development of Smart Controller for Plug-in Hybrid Electric Vehicle to DST (Rs. 80 lakhs) which is under review.

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



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

#### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Title of the Project	Investigator(s)	Sponsoring Agency	Amount Rs.
1	Intelligent GAIT Planning and Control of Humanoid Robot	Mr. A.P. Sudheer and Dr. R. Vijayakumar	DST	Rs. 31.04 lakhs
2	Development of Design & Evaluation Tools for Flexible Factories in a Lean Environment	Dr. V. Madhusudanan Pillai	ARDB	Rs 24.0 lakhs
3	Design, Development & Optimization of PV Thermal Solar Dryer with Energy Storage	Dr. C. Muraleedharan & Arun P.	Kerala State Council for Science, Tech. & Env.	Rs 15.0 lakhs
4	Design & Development of Electro Magnetically Driven Miniature Cryo-cooler for IR Sensor Array - Phase I	Dr. Biju T. Kuzhiveli	DRDO	Rs 50 lakhs
5	Development of a Fuzzy Analytic Hierarchy Process based vendor evaluation	Dr. R. Sridharan & Mr. Vinay V Panicker	DRDO	Rs. 9 Lakkh

#### DEPARTMENT OF MATHS

- Research programmes leading to Ph. D
- Areas of specialization:
  - Stochastic Processes
  - Time series Modelling
  - Operator Theory
  - Queuing Theory
  - Fuzzy Topology, Multi set Theory
  - Fuzzy Graph Theory
  - Fuzzy Optimization
  - Harmonic Analysis
  - Computational Fluid Dynamics, Modeling & Scientific Computing
  - Algebraic Graph Theory, Algorithms & Complexity
  - Optimization Theory
  - Fuzzy Graph Theory, Biocomputational modeling, Fractal Geometry
  - Applied Statistics, Reliability of systems
  - Numerical Analysis, Singular Perturbation

- Ongoing research projects

#### Projects ongoing

- Project titled “Fuzzy Graph Clustering” funded by Department of Atomic Energy, Govt. of India; coordinators Dr. M.S. Sunitha and Dr. Sunil Mathew.
  - Project titled “Fuzzy Networks” funded by University Grand Commission , Govt. of India; Coordinator Dr. Sunil Mathew.
  - Project titled “Applications of Partial Cuts in Graph Networks”, FRG Scheme of NIT Calicut; Coordinator Dr. Sunil Mathew.
  - Project titled “Fiber Dynamics”, FRG Scheme of NIT Calicut; Coordinator Dr. Satyananda Panda.
  - Project titled “Bayesian Reliability Estimation, Prediction and Test Plans for Multi- component Systems”; Coordinator Dr. Mahesh Kumar
- Submitted research proposals to different funding agencies

### DEPARTMENT OF CHEMISTRY

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

Polymer research group mainly focuses on the development and characterization of multi – phase polymer systems. This includes blends and short natural fiber reinforced polymer composites. The group is also interested in polymer – based nano composites. The development and characterization of polymer membranes for the separation of liquid mixtures, including 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 to various fields of interest. To materialize a molecular valve 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.

Developing transition metal based coordination complexes for binding interaction studies with mammalian DNA. This will give more insights into the mechanism and modes of binding, which will in turn facilitate development of new generation drugs with site specific activities.

The research of computational chemistry group mainly focuses on the applications of theoretical and computational methods to solve problems in organic, organometallic and main group chemistry as well as nano-materials. The most key aspect of the studies are structure, bonding, reactivity, reaction mechanism in molecular level and the growth of nanomaterial, their properties and reactivities in the nanoscale.

### DEPARTMENT OF PHYSICS

**Dr. Chandrasekharan .K**

Nonlinear optical study of organometallic complexes with nano & pico second time domain.

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

I have been awarded a project from Dept of science and Technology (DST) on a recently submitted proposal. A project under Faculty Research Grant (FRG) is also progressing. Cavity-enhanced

absorption spectroscopy (CEAS) and its applications are the main topics of the above two proposals. I am working on a proposal in collaboration with Dr. Ram Hashmonay of Environmental Corporation, North Carolina, USA, to improve on the design considerations of integrating nephelometers for atmospheric aerosol light extinction studies. Preliminary theoretical studies have been carried out by me and collaborators, the results from which are very encouraging and have resulted in an M.Sc.Tech (Photonics) final project.

**Dr. Vari Sivaji Reddy**

I am a solid state experimental physicist working on optoelectronic and charge carrier transport properties of organic semiconductor devices such as light emitting diodes, solar cells and bistable memory devices. My research interests include development of bulk hetero-junction solar cells based on organic semiconductor nanostructures and studies on switching mechanism of bistable memory devices based on organic semiconductors and metal nanoparticles. I am planning to submit a proposal to Department of Science and Technology (DST) under "Fast Track Scheme for Young Scientists" in the next few weeks time. At present, I am trying to setup a laboratory for organic and Nanoelectronics.

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

Light scattering investigations near the quadruple critical point in the quaternary liquid mixture Methyl-ethyl-ketone + water + secondary butyl alcohol (FRG-proposal under preparation) and non-linear dynamics in polymer solutions (project proposal under preparation).

**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. Biomodeling and Drug Design
7. Plant Molecular Biology
8. Neurobiology
9. Immuno Technology
10. Enzyme Technology
11. Cell Biology
12. Cancer Research

**SCHOOL OF MANAGEMENT STUDIES**

Continuing research in Management

**SCHOOL OF NANO SCIENCE & TECHNOLOGY**

Growth of Nanomaterials and Organic thin films using CVD, Thermal Evaporation, Laser Ablation and chemical synthesis.Characterization using SEM, AFM, current-voltage measurements. Nanotoxicology, nanocatalysis, Microfluidics and Nanofluidics

**5.4 INSTITUTE – INDUSTRY COLLABORATION**

**DEPARTMENT OF ARCHITECTURE**

Sl. No.	Name	Firm & Description of the work
1.	Dr Kasthurba A K	<b>Renovation of Tali temple and Miskal Mosque- ONGC, Govt. of India</b>
		<b>Retrofit of sea facing wall of Kannur fort, ASI Kerala Circle</b> Preparation of Technical report- Architectural conservation of Iringannoor temple, Vatakara and Thiruvangad temple , Tellicherry
2.	<b>Dr. P.P.Anilkumar Dr. Naseer M.A Ms. Chithra K Mr. Mohd. Firoz And Mr. Bimal P</b>	<b>Layout/masterplan preparation and Typology detailing</b> of Total Habitat development (THDP) for Attappady Hill Area Development Society (AHADS) for 3 tribal settlements namely Padavayal, Kolappadika and Thekkuppana at an approximate cost of Rs. 7 crores. Total projectwork constituted the tasks of Detailed Project Preparation (DPR), Typology development and the total project implementation in a span of about 12- 18 months. Income earned for

		the Institute -42 lakhs.
3.	<b>Dr. Naseer M.A And Mr. Bimal P</b>	Mathematical Park at JDT Islam. Master plan & DPR

#### 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, Branch Office, Sulthan Bathery, Wayanad Dist.
7	L & T, ECC division
8	Steel Complex Ltd. P.B No. 42, Feroke, 673631, Calicut
9	Kerala State Electricity Board
10	Kerala Water Authority
11	Malabar Institute of Medical Science Ltd. Calicut-16
12	The Assistant Engineer, N H Bypass Junction Nellikode, Civil Station, Kozhikode
13	The Secretary, Uralungal Labour Contract Co-Operative Society Ltd. Vatakara.
14	IVRCL Infrastructures & Projects Ltd, Indraneelam, Madathil Lane, Chevayoor (P.O), Kozhikode-17
15	Minor irrigation division, Kasargode
16	M/S Aban Constructions (P) Ltd. KWA - JBIC Drinking Water Project, Perumannamuzhi(Post), Kozhikode-673528
17	Mangalore port trust
18	The Assistant Executive Engineer, Office of the Assistant Executive Engineer, KRP Subdivision No.II, Vazhavatta.
19	Kalamassery Municipality, Cochin
20	Mahe Municipality
21	Corporation of Cochin
22	Many other Govt., Semi Govt. and Private Organisations

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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

#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. No.	Title of the Project	Firm & Description of work
1	Integrated Circuits and Systems for High-Speed Fibre Optic Links: Towards Terabit Ethernet	Submitted a project proposal to Information Technology Research Academy (ITRA) on the design of circuits and systems for high data rate optical communication link. This is a joint venture between IIT Bombay, NIT Calicut, NIT Trichy and Amritha University.

#### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No.	Title of the Project	Investigator(s)	Sponsoring Agency	Year of Starting	Amount Rs.

1	MOU signed between MED,NITC and UAB ( University of Alabama at Birmingham, USA)	HOD, MED	NA	July 2009	NA
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#### DEPARTMENT OF MATHS

Conducted a Training programme on “Business Statistics and Predictive Analytics”, for Arbitron Technology Services, India, Pvt (Ltd), Kochi by Department of Mathematics, NIT Calicut during 7<sup>th</sup> to 9<sup>th</sup> January 2012. Coordinators: Dr. Jessy John C & Dr. Mahesh Kumar.

#### DEPARTMENT OF CHEMISTRY

Sl. No.	Name	Firm & Description of the work
1	Different Rubber Companies	1) Assists the development of rubber and plastic products 2) Assisted the establishment of a rubber product unit at Koodaranji Calicut 3) Extends consultancy lubricant formulation 4) Provides technical solutions for adhesive industries

#### SCHOOL OF NANO SCIENCE AND TECHNOLOGY

Sl. No.	Name	Firm & Description of the Work
1.	V. Sajith C. B. Sobhan Hanas T. N. Sandhyarani	“Investigation on the application of Catalytic Nanoparticles as Diesel and Bio-diesel Additives” 1.20 Crores, Hindustan Petroleum Corporation Limited
2	C.B. Sobhan Shijo Thomas, Hanas T., Sajith V.	“Enhancement of Cooling using nanoparticles for applications at TATA Steel” 20 Lakhs, Tata Steel Pvt Ltd., Jamshedpur.

#### DEPARTMENT OF PHYSICAL EDUCATION

Sl. No.	Name	Firm & Description of the work
1	Cricket Stadium	Kerala Cricket Association. Conducted state and district activities. Developed and maintained the cricket infrastructure at their own cost by prioritizing NITC students’ activities

### 5.5 INNOVATIONS AND TECHNOLOGY TRANSFER

#### DEPARTMENT OF ARCHITECTURE

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

#### DEPARTMENT OF CHEMISTRY

Three patents are being processed from Dr. G. Unnikrishnan’s group

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

#### 6.1 INSTITUTE’S COUNCIL

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

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

## 6.2 BOARD OF GOVERNORS

### Constitution of Board of Governors (Pre NIT Act 2007 Pattern)

- The Chairman: An Eminent Technologist/Engineer/Industrialist/Educationist to be nominated by the Central Government.
- Nominee of the Ministry of Human Resource Development, Government of India.
- Nominee of the Department of Higher / Technical Education, Government of Kerala.
- Head of another Technical Institution in the Region or an eminent technologist, nominated by the Central Government.
- Director of Indian Institute of Technology, (in the region) or his nominee.
- Nominee of the UGC not below the rank of a Deputy Secretary.
- Nominee of the AICTE not below the rank of an Advisor.
- An Alumnus of the Institute from amongst alumni in Education/ Industry to be nominated by the Board of Governors.
- Two representatives representing large, medium and small scale industries to be nominated by the Central Government.
- One Professor/One Associate Professor of the Institute by rotation to be nominated by the Board of Governors.
- Director of the Institute-ex-officio, Member Secretary.

## 6.3 FINANCE COMMITTEE (Pre NIT Act 2007 Pattern)

The Finance Committee consists of the following members:

- The Chairman, ex-officio, who shall be the Chairman of the Committee.
- Two persons nominated by the Central Government
- Two persons nominated by the board from amongst its members
- The Director - ex-officio
- The Registrar, ex-officio Member Secretary

## 6.4 BUILDING AND WORKS COMMITTEE

The Building and works committee consists of the following members:

- The Director, ex-officio, who shall be the Chairman of the Committee
- One person nominated by the Central Government
- One person nominated by the Board from amongst its members
- The Registrar, ex-officio Member Secretary
- Dean, Planning & Development
- Nominee of the CPWD or the PWD (Civil Wing)
- Nominee of the CPWD or the PWD (Electrical Wing)

## 7.0 CONCESSION FOR SC, ST& HANDICAPPED STUDENTS

### 7.1 Concessions provided for students:

**Educational Concession to SC/ST/OEC/SEBC (under KPCR) students:** Students from Kerala are eligible for educational concessions from the SC & ST Development Departments as per the norms of Government of Kerala. Students from other State can apply for scholarships as per the rules of the respective States.

**In addition,** National Scholarships are also offered to Persons With Disabilities for pursuing technical and professional courses for recognized institutions by the National Handicapped Finance and Development Corporation (NHFDC) Faridabad on behalf of Ministry of Social justice & Empowerment, Govt.of India subject to fulfill the conditions laid out by them.

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

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

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

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

7.2 Concessions provided for staff: Faculty members are given concession in fee for Part Time Ph.D. Work.

## 8.1 FINANCIAL STATUS

### 8.2 ANALYSIS OF PLAN AND NON-PLAN GRANTS

Particulars	Rs. in lakhs			
	2008-09	2009-10	2010-2011	2011-2012
Govt. of India Grant (Non-Plan)	2159.90	3797.80	3500.00	3700.00
State Govt. Grant (Non-Plan)	Nil	Nil	Nil	Nil
Govt. of India Grant (Plan-General)	1675.00	3200.00	4000.00	3900.00
Govt. of India Grant (Plan-OSC)	R 316.00	R 43.00	R 400.00	R 0.00
	NR 6696.00	NR 4000.00	NR 2200.00	NR 1700.00

### 8.3 SOURCES OF FUNDS

Grants from MHRD and Internal Revenue Generated.

### 8.4 EXPENDITURE POSITION FOR LAST THREE YEARS

Particulars	Rs. in lakhs		
	2009-10	2010-2011	2011-2012
Expenditure position- (a) Under Plan (General)	3200.00	4527.85	4507.74
(b) Under Plan (OSC)	3737.47	2917.59	1700.00
Expenditure position – Under Non-Plan	4870.20	4909.23	4768.67

## 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 working hours of this centre is round the clock on all working days except the national holidays unless instructed otherwise. The centre is equipped with various systems, servers and softwares. Some of the computational softwares and packages for the other departments run from the servers maintained in the CCC. All students and staff in the institute are entitled to have a login in the centre. The centre has a maximum of 500 user capacity distributed in the 5 terminal rooms. The installed capacity in the 3 terminal rooms through structured networking at present caters about 200 users at a time. Apart from the routine activities and jobs, the centre undertakes services such as providing facility for credit laboratory, programming classes, faculty development programs, workshop and conferences, online test of various recruiting firms, online test conducted for students by faculty, summer school training and tests, feedback collection of the funding agencies, TEQIP activates, registration, teacher training evaluation, counseling of post graduate and undergraduate students for the 10 academic departments, training undertaken by the institute for

various Government firms, engaging social service training, providing staff for such services etc. A state of the art Super Computer Facility named as PURNA with 1.6 Tera FLOPS speed as fully been setup and commissioned recently and NIT Calicut is the first NIT to have the Super Computer Facility in this country. The Facility is accessible for all the departments and schools anywhere in the campus through networking. All Post graduate and Ph.D scholars and computational intensive UG students are welcomed to use this facility. The centre possesses a bundle of softwares, packages and OS for diversified applications. The centre is currently engaged in setting up facility for engineering work stations and also terminals for high performance computing facility for the use of students and faculty. On an average more than 600 users make use of the facility within CCC and accessed from various departments on per day basis presently. CCC plans to expand and transform in to a world class facility in the near future with a futuristic outlook by strongly activating the super computer user group activities, and encompassing Parallel Computing Servers, Multi-Processor Compute Servers, Application Servers Utility Servers etc.

#### **Available Resources**

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

**Main Features:** Speed 1.5 Tera FLOPS peak speed, 16 nods, **Efficiency** ~70% Linpack, **Operating system**-64 Bit Linux-HPC RHEL5.3, **Processor Architecture** - Harper town processor architecture Cluster **Management Suite** - Platform OCS Dell Edition V1.0(Cluster Management Tools such as Ntop, HPC, Cacti, PCM, OFED, Nagios Ganglia, Lava etc.), **Supported Compilers** - Intel Compiler Cluster Kit, GNU Compiler Collection (G++, G Fortan, G95), **Communication Network**(Primary and Out of Band)-GigaBit Connection through Management &Administrative GigaBit switch Out of Band switch (To connect to the entire NIT Campus), **Accessibility** - either in CCC or anywhere in the NIT campus.

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

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

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

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

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

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

#### Mechanical & Production Engineering

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

#### Nano Technology

- Molecular dynamics

#### Electrical & Electronics Engineering

- Signal processing

#### Civil Engineering

- Advanced Structural problems



#### Computer Science & Mathematics

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

#### Physics & Chemistry

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

#### Chemical Engineering

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

#### Electronics Engineering Department

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

#### Biotechnology

- Gene algorithm solving

##### User viewed Features

- Optimized libraries of g++, gfortran, Intel® C++ and Intel ® Fortran have been setup. These includes the Intel® Math Kernel Libraries
- Users of PURNA have various choices of Messages Passing Interface (MPI) libraries at their disposal. Open MPI which is preferred MPI of many of the world's fastest duper- computers is available .MPICH and MPICH2 which have been the MPI of choice for parallel data processing in many Universities has also been setup.
- Subroutine libraries that can calculate Discrete Fourier Transform in multiple dimensions such as Fast Fourier Transform in the West 2 (FFTW2) and FFTW3 have been setup in parallel operation mode.
- Quantum – ESPRESSO, a code for calculating electronic and structural properties materials from first principle quantum mechanical calculation has been setup to perform in parallel mode.
- LAMMPS, an open source code for the 51 isualiz of molecular dynamic evolution of Nanoscale systems has been 51 isualiz for peak performance on the cluster, using the g++ and FFTW2 libraries .
- RHEL 5.3 has been updated with the latest updates and various additional features such as NTFS file support was added
- Visual Molecular Dynamic Software was compiled and setup to 51 isualiz the tremendous amount of data generated as part of Molecular Dynamics Simulations

- Users can access, copy and modify data on their user accounts in PURNA as if it were an external hard disk connected to their system.

### **Servers**

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

#### **Server Details:**

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

**SUN - Fire –V2 10 ULTRA SPARK III**

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

#### **Systems**

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

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

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

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

#### **OS & Software**

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

## **9.1.2 CAMPUS NETWORKING CENTRE**

CNC consists of Networking unit, Software unit, Hardware maintenance unit and IP Phone unit

Campus Networking Centre (CNC) of the Institute manages the Internet connectivity (wired and wireless), web servers and mail server of the Institute. The campus is interconnected with about 21 KMs of fiber optic backbone network with 56 routed internal networks managed by UTM appliances and a wireless LAN .The NITC web server and mail server are high performance, quad core processor servers .The wireless LAN covers the entire campus with IEEE 802.11b/802.11g standards. Presently the network is served by 250 Mbps of Internet connectivity provided by BSNL under NMEICT scheme and 12 Mbps by RELIANCE. All the hostels are served with the Internet connectivity through wired service. The CNC functions on all days on a 24\*7 basis.

IP Phones are installed in all academic and administrative sections. The IP Phones and the IP Phone servers are managed by CNC

Hardware Maintenance unit provides a quality level service support that is designed to minimize system downtime in the entire campus. The services include installation and maintenance of computer and peripheral devices, software and operating system installations, and system configuration etc. This unit is also responsible for testing of systems supplied for conformance to stated standards and prior specified user requirements.

## 9.2 WORKSHOP

### CENTRAL WORKSHOP - FACILITIES AND WORKS UNDERTAKEN

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

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

- Centre Lathes– total of 44 nos –HARIHAR, KIRLOSKAR GD2- , MK brand Enterprise 1330, Turnmaster 35- INVESTA, CHAMUNDI HMT LATHE-. and PSG ALL GEARED TYPE141E-
- Shaping Machines- 8 nos- COOPER make, MODGIL make- and BATLIBOI make
- Slotting Machine- 1no. ROSCHER ELCHLERGerman make
- Milling Machines- 3 nos. PRECISION type, BS- PEDERSEN make, HMT Vertical type
- Radial Drilling Machines- 2 nos- BATLIBOI, VRZ grade 1, EIFCO model
- Drilling Machine- 4nos. DAULAT, PRAGA ½” CAPACITY, ½ HP, 3 Phase., WOLF make, WOLF HEAVY DUTY 1 ¼”
- Tool & Cutter Grinder- ADDISONS
- Tool Post Grinder- MPD H08
- Band Saw Machine– 1 no. LAXONS.
- Kirloskar Hack Saw Machine- 9” capacity
- Band Saw and Circular Saw Blade Sharpening Machine- ITALIAN MODEL
- Wolf Portable Grinder
- Precision Lathe Tool GrinderWOLF, G23
- Bench buffing machine- ROHIT
- Arc Welding equipment- TRANSFORMERS – 5nos. STROJEX (Czechoslovakian) – Trydyn K-320 and MALIK make
- Rectifier\_ 1 Kirloskar make 400 amps
- Portable Arc welding transformer- ELECTROWELD
- Gas welding equipment- Swiss make standard set
- Gas tungsten / metal arc welding setup- ADVANI-OERLIKON- THYROTIG
- Submerged arc welding outfit with flux drying oven - Advani Oerlikon
- Portable Flame cutting machine- ADOR MAKE
- ADOR make RANGER 400-B MIG WELDING SET UP
- ADOR make AP –100 Air plasma Cutting machine with circle and line master
- Spot welding machine- Advani Oerlikon, pedal operated
- Bench Grinder- 7 Nosdouble ended, with wheels
- PROTECH flexible shaft grinder- 2 Nos.
- All tools for fitting operations
- All carpentry tools
- BOSCH make power operated tools for carpentry, sheet metal and fitting works
- Air compressor. KAC Brand, 55 litre tank capacity, complete set- 2 nos.
- Metal cutting band saw
- Wood cutting band saw machine

- Wood working lathes, MYFORD ML-8 OF 4' make- 3 nos
- Universal wood working machine
- American model JIG saw machine- SPRUNGER J200 with accessories
- Belt & disc sander- BD-2.
- Circular saw
- Universal edge bending and folding machine- International make, for 4" dia tube
- Shearing machine- GULLIOTINE Power operated model UCG/48, to cut 3.2 mm 1220 wide sheets
- Shearing machine-
  - Samson English make- 14" blade, cutting size 1/8", with handle
  - Portable Electric Shear
- Riveting Machine
- Fly Press- Pillar type, MASTER
- Hydraulic Pipe Bending Machine- HYDROBRAND, 1" to 3"
- Spray-painting unit cylinder 1, stage, IMPERIAL
- Hand Operated Circle Cutting Machine
- Edge Folding Machine Type REF Indian make, 36" X 24
- Power hammer. 65 kg, National Small Ind. Corpn, New Delhi
- Pneumatic Forging Power Hammer NSE make
- Bar Cropping & Shearing Machine Russian make
- Conduit pipe bending Machine- METALEX, , hand operated
- Shell molding machine- Model 1218M, shell sand coating plant of capacity 10 kg.
- Shell testing equipment - Model VHH digital temperature Indicator, tester.
- Oil fired tilting Furnace- Sklener Crusibleless 200 lbs capacity
- Oil Preheater 1.5 KV capacity. Type GGOP 1.5
- Resistance furnace. Hindustan Furnace, capacity 10 kg, ammeter, voltmeter etc\_
- Hand Molding MACHINE- P.F.M. with hand operated head.
- Vibrating table for foundry works- 1 NO
- Metallic and ceramic moulds for castings
- Diesel generator. RUSTAM model, 30KVA
- GODREJ heavy-duty workbench with fittings.
- Air Blowers, Parsha 5 HP & 3 HP
- Swage block CI, 18X18X6"-6 nos.
- Surface plates- 2 Nos
- Marking off table- 3X3
- Platform Trolley
- Crane, Chain pulley block.

### 9.3. EDUCATIONAL TECHNOLOGY & LIBRARY

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

#### 9.3.1. CENTRAL LIBRARY

CENTRAL LIBRARY offers its services to about 5000 users comprising of undergraduate, post graduate students, research scholars, faculty and Supporting Staff from various Departments of the Institute/Centres/Sections. The Library uses LIBSYS Software version 7.0 for its operations. Collection is fully bar coded and offers Web OPAC service throughout the Campus LAN.

Current Print Holdings:-

- (a) Print Books

Sl. No.	Category	Books at the end of the year 2010-11	Books added during the year 2011-12	Total books as on March 2012
01.	General books	105396	2714	108110
02.	Books for SC/ST	12773	-	12773
03.	Reference books	5498	333	5831
	Total	123667	3047	126714

(b) Print Journals / Magazines/ Dailies

Category	Print Journals/Magazines/Dailies at the end of the year 2010-11	Print Journals/Magazines/Dailies added during the year 2011-12	Total Print Journals Magazines/ Dailies as on March 2012
National	93	05	98
International(P + O)	213	73	286
Dailies+ Weekly	16	01	17
Total	322	79	401

### 9.3.2. DIGITAL LIBRARY

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

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

Category	Additions during the year 2011-12	Total as on March 2012
Online e-Journals (through INDEST consortia)	-	2,941
E-books	-	63,552
E-Journals	-	4,077
E-Databases (EI-Village 2, Indian Standards, ASTM etc)	-	14,955
NITC Resources (Faculty reports, Students' thesis, Course notes)	67	47,021
Journal Back volumes	-	14,411
<b>Total</b>		<b>146957</b>

#### Major Hardware / Facilities of Digital Library

HP Storage server DL 3800

Wipro NET Power z2215

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

Dual Pentium Processor Compaq Server (Proliant ML 350 G2)

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

2 Xeon Processor Workstation (HP XW 8200)

69 Pentium IV Microsoft Windows XP client machines.

14 Core™ 2 duo Microsoft Windows XP client machine

Sonic WALL NSA 3500 Firewall

HP 6730 Note Book Computer

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

Datamax Barcode Printer, 2 KVM Switch.

30KVA APLAB UPS  
5 Cisco SRS 2024 switches

### 9.3.3 EDUSERVER

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

List of courses offered by the Edu server during the Winter semester 2011-12.

<a href="#">EE6494</a>	Seminar
<a href="#">EE6492</a>	Mini Project
<a href="#">EE6204</a>	Digital Protection of Power Systems
<a href="#">EE6404</a>	Industrial Load Modelling & Control
<a href="#">EE6402</a>	Process Control & Automation
<a href="#">CE 351</a>	Prestressed Concrete
<a href="#">CE6134</a>	Engineering Fracture Mechanics
ECU209	<a href="#">Electromagnetic Field Theory</a>
<a href="#">CE 200</a>	1 Mechanics of Solids

### 9.3.4 Programmes organized by ETL during 2011-12

- Awareness Program on “Web of Science” organized on 07<sup>th</sup> March 2012
- Awareness Program on “SCOPUS” organized on 13<sup>th</sup> March 2012

#### Staff position

Chairman (ETL)	: Dr. Raghu Chatanathodi'
Vice Chairman(ETL)	: Dr, R Manu
Librarian (Gr.I)	: Vacant
Librarian (Gr.II)	: Vacant
Supporting Library Staff	:

Sweety Mathew	Librarian Gr.III (Librarian In – charge)
P.S Lalithakumari	Librarian Gr IV
C G Balachandran Nair	Librarian Gr IV
J Sobhana	Librarian Gr IV
T. Jayarajan	Librarian Gr IV
C Latha	Librarian Gr IV
K P shaju	Librarian Gr IV
M K Chandramohan	Graphic Artist
K Jayaraman	Offset Machine Operator
K C Bishnu Bahadur	Library Attender
C. P Balan	Library Attender

### 9.3.5 Supporting office staff

N. Sukumaran Nair	U D Clerk
Savitri C	Peon
M T Karti	Sanitation Worker

Project Digital Library Technical Assistant	: 01
Project Digital Library Computer Assistant	: 03
Library Contract Staff	: 10
Library Helper	: 03
Office Assistant	: 01

## 9.4 LABORATORIES

### DEPARTMENT OF ARCHITECTURE

Sl.	Name of the Lab	Available	Maximum Batch	Weekly	No. of experiments
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No		Area Size Sq.m.	size	Hours Required as per Curricula	Prescribed	Conducted
1	Building Science Lab	180	5 batches x 6 students=30	4	12	12
2	CADD Lab	180	50 individuals	3	3	3
3.	Creative Arts Lab	180	50 individual	4	12	12

**DEPARTMENT OF CIVIL ENGINEERING**  
**Laboratories and Assets / Equipment Acquired**

Sl .No.	Name of the equipment	Quantity	Cost (₹)
<b>Transportation Engineering Lab</b>			
1	Stop watches	10	13,454
<b>Structural Engineering Lab</b>			
1	Steam curing chamber	1	13,55,000
<b>Concrete Lab</b>			
1	Slotted cylinder steel mould	3	28,000
2	Beam mould base plate	3	8,400
3	Vibrator shaft 40 mm	1	5,349
4	HP Single phase Vibrator	2	10,890
<b>Offshore Structures Lab</b>			
1	UPS	2	38333
<b>Water Resources Engineering Lab</b>			
1	UPS	1	19,167
<b>Environmental Engineering Lab</b>			
1	Micro processor fluoride meter	1	25,848
<b>CED Office</b>			
1	Public addressing system	1	35,850
2	Godrej furniture: Faculty table, computer table, faculty chair, computer chair, visitors chair etc.		9,98,845

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**c.1.a.I. Software Systems Laboratory**

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

**Faculty in charge : Mr. K. Muralikrishnan**

**Major Equipments:**

**Dell brand 16 node HPC cluster**

**Dell Optiplex GX 520n SFF Desktops – 75 Numbers**

Specifications: PIV 630 (3 G.Hz, 2 MB L2, 800 MHz FSB) / 512MB DDR2 533MHz SDRAM / 80GB SATA HDD / CDRW DVD Combo Drive / 17" Flat panel LCD monitor / Integrated Gigabit Ethernet Card / Keyboard / Optical USB mouse / SFF BTX cabinet

**Dell Power Edge SC1420 servers – 2 Numbers**

Specification: Dual Intel Xeon processors with EM64T support (3 G.Hz, 2 MB L2, 800 MHz FSB) / 2GB DDR2 400MHz ECC Memory / 2 x 80GB SATA HDD / CDRW DVD Combo Drive / 19" Flat CRT monitor / Integrated Dual Gigabit Ethernet / Keyboard / Mouse / ATX cabinet Liebert

**Dell Power edge 2950 server**

**Specification:** processor 2 \*Quad-Core Intel (R) Xeon (r) E5 430, 2x6MB Cache .2.66 GHz (from net), Chipset Intel 5000x or Higher Front Side Bus 1333MHz FSB, RAM 8 GB (4x2048), DDR-2 667 MHz ECC 2R Fully-Buffered Memory, Hard Disk Drive 4x146 GB 3.5 inch 15 K RPM SAS

HDD, Integrated Controller Card for 3.5"x6 Hard drive, C\$: Raid 5PER6/I or PERC5/I Integrated ,Optical Drive 8x SATA slim DVD+/-RW ,Video Embedded ATI ES 1000 with 16 MB memory ,Accessory Slots , Three PCI slots, either PCIe riser with three PCI Express slots (one x4 (x8 connector) and two x8) or two PCI-x 64-bit/133MHz and one PCI express x8 slots 4port SAS5/I integrated SAScontroller (no RAID) ,Integrated LAN Integrated Dual Broadcom Gigabit Network Card with 6 h TOE hardware enabled, Broadcom Jetstream 5708x4 PCIe Single Port Copper GbE NIC w /TOE ,IO Ports 2 serial, keyboard, mouse, 2VGA, 2Graphics, 5USB 2.0 ports 1 remote management port, 3 network RJ45

#### **Dell Optiplex 755**

Intel core 2 Duo 2.20 GHz 800 MHz front Side Bus 2MB L2 Cache, 2gb ddr2667MHz, 250Gb serial ATA, DVD-ROM/CD-RW Combination Drive, Dell 1707Fp Flat Panel Monitor, 1 serial , 1 parallel and 4 USB 2.0 Ports Two in Front, Dual gigabit Ethernet Integrated dell multimedia usb keyboard, dell 2 button with scroll usb mouse, ATX supply, embedded intel gigabit Network controller, Linux os

#### **20KVA UPS – 1 No.**

##### **Features:**

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

#### **(ii) Hardware & Embedded Systems Laboratory**

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

##### **Major Equipments:**

Function Generator: 16 Nos, CRO: 16 Nos  
Digital Trainer kit 15 Nos.  
Multiple output DC Power Supply: 16 Nos.,  
Digital Multimeter (5 Nos)  
IC Tester: 2 Nos., P4/1.6 MHz Computer: 20 Nos,  
LAN-T LAN Trainer: 1 Nos.

#### **Dell Optiplex GX 520nSFF Desktops – 5 Numbers**

Specifications: PIV 630 (3 G.Hz, 2 MB L2, 800 MHz FSB) / 512MB DDR2 533MHz SDRAM / 80GB SATA HDD / CDRW DVD Combo Drive / 17" Flat panel LCD monitor / Integrated Gigabit Ethernet Card / Keyboard / Optical USB mouse / SFF BTX cabinet

#### **XENITICS Desktop**

Specifications: PIV (2.8 G.Hz) / 512MB RAM / 40GB SATA HDD / CDR / 17" CRT monitor / Integrated Gigabit Ethernet Card / Keyboard / mouse / ATX cabinet

##### **Features:**

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

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

#### **Network Systems Laboratory**

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

Faculty in charge : Mr. Jayaraj P B

##### **Major Equipments:**



**1. Server Machine (2 Nos.):**

Dell PowerEdge SC1420 Server. (with Keyboard & PS/2 Mouse)

**2. Dell Desktops: (70 Nos):**

Machine Model	Optiplex 520	Quantity	Optiplex 520 with Wi-Fi card	Quantity	Optiplex 755	Quantity
<b>Processor</b>	PIV 2.8	53 Nos.	PIV 2.8	7 Nos.	Core 2 Duo	11 Nos.
<b>HDD</b>	80GB	53 Nos.	80GB	7 Nos.	250GB	11 Nos.
<b>RAM</b>	512MB	53 Nos.	512MB	7 Nos.	2GB	11 Nos.
<b>Disk Drives</b>	CD/DVD Combo	53 Nos.	CD/DVD Combo	7 Nos.	CD/DVD Combo	11 Nos.
<b>Floppy Drive</b>	3.5 inch	53 Nos.	3.5 inch	7 Nos.		
<b>Keyboard</b>	DELL(usb)	53 Nos.	DELL (usb)	7 Nos.	DELL (usb)	11 Nos.
<b>Mouse</b>	DELL optical (usb)	53 Nos.	DELL optical (usb)	7 Nos.	DELL optical (usb)	11 Nos.
<b>Monitor</b>	LCD 17"	58 Nos.	LCD 17"	2 Nos.	LCD 17"	11 Nos.
<b>Wi-Fi NIC</b>			Cisco Linksys 54Mbps	7 Nos.		

**3. Xenitis Desktop:(1No)**

One processor – PIV, HDD 40GB SATA, RAM 512Mb, CDDrive – CDROM, Floppy Drive – 3.5 Inch, Keyboard – 101 Mechanical, Mouse – Xenitis (optical scroll), Monitor CRT 17", 2 NIC card – 10/100 Ethernet

**4. Dell Precision Workstation: (1 No)**

One processor - Dual-core Intel® Core™ 2 Duo with 1066MHz FSB, 4MB L2 Cache, XD, VT, EIST, HDD 250GB SATA, RAM 4GB, DVD-RW, Keyboard (Multimedia 130 keys), optical mouse, N-vidia graphics card. 1Gbps Ethernet card

**5. Dell PowerEdge 1950:(1 No)**

One processor – intel xeon quad-core, RAM – 4GB, HDD 500GB(SATA, RAID, SAS),DVD combo drive, Keyboard (Multimedia 130 keys), optical mouse, 2 NICs 1GBps

**Features:**

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

**(iv) Image Processing & Multimedia Laboratory**

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

Faculty in charge: Ms. Subhasree M, Ms Pournami P. N

**Major Equipments:**

**Dell 760 Desktops** (250 GB HDD, 2 GB RAM) - 18 Nos.

Image processing workstation with image grabbing card and image processing software, IDL, MatLab

Canon N640Pex colour flatbed scanner (600 X 1200 dpi, 42 bit input)

Logitech Scanman hand-held scanner

Sony Handycam dcrPC-109 digital mini camcorder (10x optical, 120x digital zoom, 1.07 mega pixels)

Toshiba PocketPC (128MB, 32MB flash memory, 512MB CF card)

PULiNX TMC-76 digital camera with Fujinon TV zoom lens (1:12/12.5-75) and tripod

19" Electrohome colour monitor with RF input

Akai VS-F220 VHS video cassette recorder, HP LaserJet laser printer

PC running Windows XP (PIV, 512MB, Asus V9520 128MB AGP, LifeView WDM TV tuner, CD-RW)

Apple PowerMac G4 (G4 1Ghz, 256MB, MacOS X)

Two Apple eMacs(G4 1Ghz,128MB,MacOS X), Apple iBook(G3 800Mhz,128MB,MacOS X)

**Features:**

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

#### **(v) Computational Intelligence Lab**

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

Faculty in charge: Mr. K A Abdul Nazeer

##### **Major Equipments:**

Server: 1 No.

##### **DELL PowerEdge SC1420**

Dual Intel Xeon Processors with EM64 support

3.0 GHz, 800FSB, 2 MB L2 Cache

2 GB RAM DDR2 400 MHz ECC Memory

2 x 80 GB 7200 rpm SATA

DVD ROM CD-RW Combination Drive

19 inch FLAT CRT Monitor

ATI XL Graphics Controller 8MB video memory

##### **Dell OPTIPLEX 520 (20 Nos)**

3.0 GHz, 915 Intel original motherboard

512 MB DDR, 80 GB SATA HDD

17" FLAT Color Monitor

16x DVD ROM

##### **Dell OPTIPLEX 755 (11 Nos)**

Intel Core2 Duo, E6550 @ 2.33 GHz

1 GB DDR, 250 GB SATA HDD

17" FLAT Colour Monitor

16x CD RW/DVD

#### **10 KVA UPS: 1 No.**

##### **(Vi) Secure Computing Laboratory**

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

Faculty in charge: Dr. Priya Chandran

##### **Major Equipments:**

###### **Server Rack**

1. HP ProLiant DL 360 4p Server
2. Cisco 2800 Series Router
3. Cisco Catalyst 3560 G Series 24 port Switch
4. Master View plus KVM Switch CS 9138
5. Procurve Networking 24 Port Switch
6. HP L1766 Monitor

###### **Servers**

1. Sun Blade 1500 (2 Nos)
2. Dell Power Edge SC1420 (1 No.)

###### **Work Stations**

1. Dell Precision T 3400

###### **Desktops**

1. Dell Optiplux GX 520 (6 Nos)
2. HP Compaq (1 No.)
3. Apple M8570 (1 No.)

###### **Laptop**

1. HP Compaq nx6130 (1 No.)

###### **Printer**

1. Wipro LQ 1050 DX (1 NO)

###### **Wireless Access Point**

1. D-Link DWL 2100 AP (1 No.)

- **Direct Internet connectivity through campus network.**

#### **(vii) Bio-Computing Research Laboratory**

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

Faculty in charge: Mr. K A Abdul Nazeer

**Major Equipments:**

**Dell brand 16 node HPC cluster**

**Dell 760 Desktops** (250 GB HDD, 2 GB RAM) - 2 Nos.

**10 KVA UPS: 1 No.**

**Features:**

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

**(ix) Cloud Computing Laboratory**

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

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

**Benefits:**

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

Faculty in charge: Dr. S.D. Madhukumar

**(x) Web Streaming & Multimedia Laboratory**

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

The lab and equipment will be highly useful to the PG Students of the department as a laboratory which can be used for projects on streaming, multimedia.

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

Faculty in Charge : Mr. G. Gopakumar

**DEPARTMENT OF ELECTRICAL ENGINEERING**

**UG Laboratories :**

[Electrical Machines Laboratory](#), [Electrical Measurements Laboratory](#), [Control Systems Laboratory](#), [Electronics Circuits Laboratory](#), Electrical and Electronics Workshop

**PG and Research Laboratories :**

[Electrical Simulation Laboratory](#), [Power System Laboratory](#), [Power Electronics Laboratory](#), [Industrial Power & Automation Laboratory](#), [Embedded System Application Lab](#), [DCS Applications Lab](#), [Process Automation Lab](#), [Distributed Energy Research Lab](#).

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

1. Electronics Circuits Lab
2. Communication Engineering Lab

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

#### DEPARTMENT OF MECHANICAL ENGINEERING

S	Name of laboratory	Available Area size	Maximum Batch mgt.	Weekly hours as per curricula	No. of Experiments	No. of experiments conducted
1	Metrology lab	103 m <sup>2</sup>	9 batch/week	15 hours	24	21
2	Industrial Engg. lab	69m <sup>2</sup>	10batch/week	6hours	24	20
3	Production Engineering Lab	255 m <sup>2</sup>	10batch/week	15 hours	11	10
4	Heat Engines lab	821 m <sup>2</sup>	9 batch/week	15 hours	40	20
5	Thermal Science Lab	352m <sup>2</sup>	5 batch/week	15 hours	12	10
6	Vibration, Acoustics & Tribology Lab	168 m <sup>2</sup>	9 batch/week	15 hours	7	7
7	Hydraulics & FM lab	1110 m <sup>2</sup>	13batch/week	30 hours	24	21
8	Solar Energy Centre	400 m <sup>2</sup>	15 students	3 hours	6	6
9	Mechatronics Lab	160 m <sup>2</sup>	4 batch/week	3 hours	2	2
10	CAD/CAM Lab	100m <sup>2</sup>	25 students	9 hours	10	10
11	Computer Aided Graphics & Design Lab	20 m <sup>2</sup>	15 students	12 hours	10	10

#### DEPARTMENT OF MATHS

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

#### DEPARTMENT OF CHEMISTRY

- Polymer Science & Technology Laboratory
- Materials Research Laboratory
- Soft Materials Laboratory
- Bio – organic Chemistry Laboratory
- Bio – inorganic Chemistry Laboratory
- Inorganic and Bioinorganic Research Laboratory
- Theoretical and Computational Chemistry Laboratory
- Instrumentation Centre (with DSC, TGA, FTIR etc..)
- B.Tech Laboratory
- M.Sc. (Tech.) Laboratory

## DEPARTMENT OF PHYSICS

### B.Tech I year Physics Lab

- B.Tech EP General Physics Lab
- B.Tech EP Electronics Lab
- B.Tech EP Solid State Physics Lab
- M.Sc (Tech) General Physics Lab
- M.Sc (Tech) Electronics Lab
- M.Sc (Tech) Optics Lab
- Computer Centre & Computational Lab
- Critical Point Phenomena & Polymer Dynamics Lab

### Research Labs :

- Unconventional Electronics and Photonics Lab
- Laser and nonlinear optics Lab
- Computational Materials Science Lab
- Applied Optics and Instrumentation Lab
- Organic and Nano electronics laboratory
- Photonic Materials and Devices Laboratory

## SCHOOL OF BIOTECHNOLOGY

### a) B. Tech Laboratories

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

## SCHOOL OF NANO SCIENCE & TECHNOLOGY

1. Nanotechnology Research Laboratory
2. Nanoscience Research Laboratory
3. Fuels and Combustion Laboratory
4. Nano and Display Research Laboratory
5. Computational Nanotechnology Laboratory

## 9.5 HOSPITAL, POST OFFICE, SHOPPING CENTRE

### HOSPITAL

The institute has a Health Centre Providing the medical needs of students, staff and their families.

1. Dr.Celine. A .A is working as Resident Medical officer.
2. Dr. Balasubramanian MD was appointed in the Health centre on contract basis on every Wednesday 3.00pm to 5.00pm
3. **Paramedical Staff**
  - a) Mrs. Rosamma V J -Staff Nurse
  - b) Mr. Abraham P -Pharmacist

### **Adhoc Staff**

- a) Staff Nurse -1
- b) Lab Technician -1
- c) Nursing Assistant cum Attender -1
4. NIT Health centre Medical laboratory.

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

Institute, through insurance firms, offer a mediclaim policy for the students which offer upto Rs.35,000 for normal hospitalization and up to Rs.1,00,000 for accident related hospitalization for a nominal premium paid by the students.

#### **POST OFFICE**

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

#### **SHOPPING CENTRE**

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

### **9.6 PHYSICAL FACILITIES (GAMES & SPORTS)**

During the year, our cricket infrastructure continued to figure on the national cricket map of the country. The Kerala Cricket Association continued to patronize the stadium by voluntarily developing and maintaining the facility through out the year. Our student cricketers benefitted from the pucca infrastructure and performed to their potential. Mr. Sandip Patel, India International and National cricket Academy Supremo was the prize visitor on our stadium.

Other facilities available on the campus include:

Foot ball field, Hockey field, a second Cricket field, Floodlit Tennis Complex(3 clay courts & 1 synthetic court), Swimming pool, Gymnasium, Floodlit Basket ball court, Floodlit Volley ball court, Cricket Concrete wicket, 3 Badminton courts & 5 TT facilities in Auditorium.

### **9.7 OTHER FACILITIES**

#### **9.7.1 CENTRE FOR BIO-MECHANICS**

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 FOR RESEARCH**

**1.** Research interactions going on with the Department of Physical Medicine and Rehabilitation and the Department of Orthopaedics, Calicut Medical College. Development of improved external fixators, artificial limbs and braces using new materials and new technology is being envisaged. A few new project proposals are being prepared to initiate these works.

**2.** Interactions with the Dental College of the Calicut Medical College have been initiated a few years ago. A few postgraduate students from Dental College used the computer interfaced universal testing machine of the Centre for carrying out tests on dental filling materials and the glue used in dental repair. New interactions are being planned to be taken up.

#### **II OTHER FACILITIES**

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

#### **III NOTABLE ACHIEVEMENTS**

##### **A) PAST 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.

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

#### Patents

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

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

### 9.7.2 CENTRE FOR TESTING & CERTIFICATION – CTC

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

Faculty in Charge : Dr.K.S.Sivanandan

### 9.7.3 ENGINEERING UNIT FOR CIVIL AND ELECTRICAL WORKS

The status of works as on 31.03.2012

Sl. No	Name of the Building	Present Stage
1	Construction of building for Central Library	75% Completed
2	Mega Hostel - I	60% Completed
3	Construction of 100 Nos. Residential Quarters	Completed (By CPWD)
4	Construction of 500 Unit Single bedded Ladies Hostel	86% (By CPWD)
	Construction of building for MBA Classroom MBA Block Hostel Block Auditorium	By CPWD 74% 67% 45% 72%
6	Construction of 1500 Rooms Mega Hostel -II	By CPWD Work started

Renovation/Repair of Institute Buildings, Staff Quarters & Hostels and Renovation/Modification of Electrical Installations were also carried out.

#### 9.7.4. CAMPUS SCHOOL

##### Spring Valley School

Spring Valley School is a Senior Secondary Co-educational English Medium School functioning in the institute campus as one of the staff welfare measures, and was started functioning in 1991. The school is affiliated to the Central Board of Secondary Education, New Delhi with code No.930100. School is being managed by REC SPECTRA (Society for Promotion of Educational, Cultural and Training Activities), a charitable society registered under the Societies' Act (1860), the members of which are the faculty members of the institute. Most of the infrastructure facilities of the school like land, buildings, laboratories and playground etc. have been made available by the institute. The School has excelled in academics, could present its 17<sup>th</sup> batch of class 10<sup>th</sup> and 14<sup>th</sup> batch of class XII students for the Board Examinations in March 2012 and could achieve 100% pass both in Class X and XII. Smart class facilities and the School Band are being provided to strengthen the academic and co-scholastic abilities of the students. Apart from the formal academics, the students have participated and excelled in CBSE Kalotsav 2011 (Zonal Youth Festival), conducted by the Sahodaya School Complex, Malabar Region. Eleven students have gone to the State level Kalotsav. The 13<sup>th</sup> issue of School Magazine "CAMEO" was released during the Annual Day Celebrations on 13<sup>th</sup> January 2012.

##### Office Bearers as on 31.03.2012

- ⊙ Dr.M.N. Bandyopadhyay, Chairman, REC SPECTRA
- ⊙ Dr.Abraham T Mathew, Vice Chairman, REC SPECTRA & President, School Managing Committee.
- ⊙ Dr. K. Chandrasekharan, Secretary, REC SPECTRA & Manager cum Correspondent, Spring Valley School.
- ⊙ Dr.Sindhu T.K., Vice President, School Managing Committee.
- ⊙ Mr.P.Ananthakrishnan, Joint Secretary cum Treasurer, REC SPECTRA
- ⊙ Prof. Unnikrishnan Nambesan, Senior Principal
- ⊙ Mrs Shiny A, Principal

#### 10.0 NOTABLE ACHIEVEMENTS

##### 10.1 PAST ACHIEVEMENTS

###### DEPARTMENT OF ARCHITECTURE

- The department has conducted several short term courses and summer/winter term courses sponsored by AICTE and IEI
- The department has three excellent centers:  
Building Science Laboratory.  
CAAD Laboratory

###### Material Museum

- The department has carried out large number of consultancy works and also plays a major role in industry- institute interaction.
- The department has also carried out large number of research projects.
- The faculty of the department has published papers in National and International Journals and National and International conferences.
- Workshops and Short Term Courses have been organized by the faculty of the Department.

###### DEPARTMENT OF CIVIL ENGINEERING

1. The department had taken up training of local unemployed youth for self-employment under the Nehru Rozgar Yoganans (NRY) funded by Kerala Urban Development Finance Corporation. The training was given in Plumbing, Carpentry, Masonry and Landscaping. About 300 youths were trained under this programme
2. The Department of Civil Engineering is recognized as a Research Centre by Ministry of Human Resources Development as early as 1985.
3. The Department had three centres of excellence



- a. Vehicle Motion Analyser Laboratory
  - b. Non Destructive Testing Laboratory
  - c. Biomechanics Laboratory
4. The Department has already conducted more than 27 summer/winter schools sponsored by Indian Society for Technical Education and All India Council for Technical Education.
  5. The Department has organised in collaboration with Department of Training and Placement, more than 47 Short Term Courses in different fields of Civil Engineering
  6. The Department has organised a National Conference on Recent Developments in Materials and structures
  7. The Department has already produced 20 Ph.D Scholars in different fields of specialisation
  8. The Department has carried out more than 36 sponsored Research Projects funded by MHRD, DST, ISCHMS, AICTE, Ministry of Water Resources etc.
  9. The Department has been recognized as a Centre for Scrutinizing the Design of important Public Buildings, by the Government of Kerala.
  10. The Department has generates on an average Rs. 22 lakhs per year through testing and consultancy
  11. 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
  12. 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
  13. 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
  14. 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 TEQIP
    - Organized a 5-day Workshop on "Career Guidance and Preparation for Interview" for 80 students from colleges all over Kerala from November 29- December 3, 2007 as part of NSS activities, Conducted a 10 day special camp at Katippara Panchayat, Thamarassery, Kozhikode District from 7th December 2007 to 15th December 2007.

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

- Dr. Mukti Barai had reviewed three papers on IEEE transactions on Power Electronics.
- Dr. Rijil Ramchand had reviewed papers for the two journals, IEEE transactions on Power Electronics IEEE transactions on Industrial Electronics, and for the international conferences, IECON 2011 and NPEC 2011.
- Dr. Susy Thomas is the Member, Faculty of Engineering and Technology, Kerala University for the period 2010-2012.

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

- Dr. Madhusudhanan Pillai : Developed a supply chain role play game – Version three is developed in this year. This game is similar to the 'Beer Distribution Game' of MIT, USA. The previous versions are very widely used for research and as a lab experiment/exercise for UG (Production Engineering) and PG (Industrial Engineering and Management) programmes. This Game is probably the first of its kind in India.

- Dr. Madhusudhanan Pillai : Developed a 'Process Layout Planning Package' in this year. Online and standalone versions are developed. Standalone version allows the optimal layout development. Simulated annealing based algorithm is used for near optimal development of layout. This algorithm based layout was used in the lab classes of UG (Production Engineering) and PG (Industrial Engineering and Management) programmes. This package is probably the first of its kind in India.
- Dr. Madhusudhanan Pillai : Developed an exercise for performance analysis of a four stage serial supply chain under P-system inventory control at all stages of the supply chain using Excel spread sheet. This is used as an exercise for PG (Industrial Engineering and Management) programme.

#### DEPARTMENT OF MATHEMATICS

- Best research paper award for the faculty of NIT Calicut for the year 2009- awarded to **Dr. Sunil Jacob John**, Assistant Professor, Department of Mathematics.
- Department of Mathematics conducted an International Conference on Mathematical Modelling and Applications to Industrial Problems (MMIP 2011) during 28<sup>th</sup> -31<sup>st</sup> March 2011.
- A good number of research papers were published by the faculty members and Research scholars of the department.

#### DEPARTMENT OF CHEMISTRY

1. Established interactions with different research laboratories inside and outside India
2. Almost all faculties fetched externally funded projects
3. The PhD and PG students are well placed in both industry and academia.
4. Has produced **19** Ph.Ds so far

#### DEPARTMENT OF PHYSICS

##### Dr. P. Predeep

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

##### Dr. M. K. Ravi Varma

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

##### Dr. P. K. Madhavan Unni

- (i) Assistant Professor, Department of Physics, NIT-Calicut (2010 – present)
- (ii) Post-Doctoral Fellow, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel (2006-2008)
- (iii) Ph.D. in Physics, Department of Physics, Indian Institute of Science, Bangalore. (2006)
- (iv) Senior Research Fellowship (**SRF**) (2000-2003), Council of Scientific and Industrial Research (CSIR), Government of India.
- (v) Junior Research Fellowship (**JRF**) (1998-2000), Council of Scientific and Industrial Research (CSIR), Government of India.
- (vi) Qualified in the CSIR-UGC National Eligibility Test (NET) with JRF.
- (vii) University 2<sup>nd</sup> Rank in M. Sc. Physics Course of the University of Calicut, Kerala, India (1993-1995)

#### PHYSICAL EDUCATION SECTION

Sl. No	Name of the team	Award/ Laurel won
1.	Inter NIT Volley ball for boys at VNIT Nagpur	<b>Champions</b>
2.	Inter NIT Athletic meet at NITK Surathkal –girls & overall	<b>Champions</b>
3.	Inter NIT tournament at NITK surathkal- boys hockey	<b>Third place</b>
3.	Inter NIT Swimming at NIT Surat- boys	<b>Runner-up</b>

4.	Inter Professional SPREE at BITS Goa- Volley ball boys	<b>Runner-up</b>
5.	-----do----- Badminton girls	<b>Third place</b>
6.	District League championships – Boys Cricket	<b>Champions</b>
7.	District League championships- Boys Football	<b>Champions</b>
8.	District League Championships- Boys Basket ball	<b>Third place</b>
9.	State Shooting championships " Mr. Vishal K Pradeep, (B110355 AR)	<b>Gold medal</b>

## 10.2 ACHIEVEMENTS THAT TOOK PLACE DURING THE YEAR

### DEPARTMENT OF ARCHITECTURE

#### a. Publications

##### i. Journals

Sl No	Name of the Author	Title of the Paper	Name of Conference	Publications/Journals
1	Dr.Kasthurba A K	Sustainable development of Heritage sites	Institution of Engineers conference	Stapathi- National journal of traditional architecture Vol.8, Jan- March 2011, pp32-34
2	Dr.Kasthurba A K	Conservation of Tali Temple, Calicut	Institution of Engineers conference	Stapathi- National journal of traditional architecture Vol.9, April-June 2011, pp29-36
3	Dr.Kasthurba A K	Characterisation of Malabar Laterite as a Building Material June 2012	IES 2012, Kumamoto University, Japan 5-7 March 2012	International Journal of Earth Science and Engineering ISSN 0974-5904 2012 Vol.6 June 2012 ( available online) IJEE-IES2012
4	Dr. P.P.Anilkumar	'Impact Analysis of Critical Landuses on Urban Coastal Zones using the Coastal zone Health Index", , India,	Journal of the Institution of Town Planners	Volume-9, Number 2, April- June 2012 (ISSN 0537-9679)
5.	Dr.P.P.Anilkumar and Chithra.K	"Green Landuse planning as an alternate methodology for Sustainable Planning",	Journal of the Institution of Town Planners, India,	Volume-9, Number 1, January-March 2012. (ISSN 0537-9679).
6	Ar. Chithra K & Dr. Anilkumar P P	Green Landuse planning as an alternate methodology for sustainable planning,		Journallnstitute of Town Planners India, January – March 2012
7	M. A. Naseer, A. S. Dili, T. Zacharia Varghese	Passive control methods for a comfortable indoor environment: Comparative investigation of traditional and modern architecture of Kerala in summer		Energy and Buildings, 43, November 2011, 653- 664.
8	Ar.Bimal P	"Form Based Coding Regulation: A new approach to Urban Conservation		ITPI Journal, Volume 9, Number -2 April – June 2012
9	Ar.Bimal P	"Residential location choice with multi criteria"	'Geomatrix12', International conference held at IIT Bombay.	
10	Ar.Bimal P	Geodesign: an emerging application of geoinformatics & urban design	National symposium 2011 on 'Empowering Rural India Through Space Technology', Indian Society of Remote Sensing, Bhopal	

11	Ar.Bimal P	"Form Based Coding as tool for effective implementation of urban conservation"	All India Conference 2011, Institution of Engineers.	
12	Ar.Bimal P	"Residential location choice model: a case study of Calicut",	'G governance 2011', Regional conference at University of Kashmir, Srinagar.	
13	Er.Shyni.K	Natural Disasters and Sustainable Development: Issues And Concerns in Urban Areas	26 <sup>th</sup> Indian Engineering Congress, Bangalore	
14	Er.Shyni.K	Natural Disasters and Risk Management : Issue and concerns in Urban Areas	International Conference on Comprehensive Disaster Management, Tamil Nadu	

## ii. International Conferences

Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
Dr Kasthurba A K	Characterisation of laterite as a building material	IES 2012 held at Kumamoto University japan	5-7 March 2012
Dr.P.P.Anilkumar	'Life cycle analysis (LCA) and LEED's Green building certification criteria; an evaluation of their compatibility', from 3rd to 5th June 2011.	Presented at the International conference on Society, Technology and Sustainable Development (ICSTSD 2011), at the Amritha Institute of MedicalSciences (AIMS) Kochi	3rd to 5th June 2011.
Dr.P.P.Anilkumar	'Traditional and Vernacular Practices in Architecture- a Roadmap to Sustainable Development.'	Presented at the International conference on Society, Technology and Sustainable Development (ICSTSD 2011), at the Amritha Institute of MedicalSciences (AIMS) Kochi	3rd to 5th June 2011.
Dr.P.P.Anilkumar	'Adapted vernacular principles as an alternate route to sustainable architecture and development: a methodology framework'.	presented at the 4 <sup>th</sup> International congress of Environmental Research (ICER 2011), jointly organised by the journal of Environmental Research and development (JERAD) and sardar Vallabhai National Institute of Technology (SVNIT), Surat, Gujarat	14 <sup>th</sup> to 17 <sup>th</sup> December 2011.
Dr.P.P.Anilkumar	'India's LEED based Green building certification system; Critical review from a Life cycle analysis'	presented at the 4 <sup>th</sup> International congress of Environmental Research (ICER 2011), jointly organised by the journal of Environmental Research and development (JERAD) and sardar Vallabhai National Institute of Technology (SVNIT), Surat, Gujarat	14 <sup>th</sup> to 17 <sup>th</sup> December 2011.
Dr.P.P.Anilkumar	"Reinventing Vernacular Principles of Architecture for a more Sustainable quality of Urban Environment".	Presented at the 2 <sup>nd</sup> International Conference on 'Urban Quality of Life – a Vision towards better future' organized by the Department of Architecture, Faculty of Engineering of MTI University, Cairo at the Marriot, Cairo, Egypt.	18 <sup>th</sup> to 20 <sup>th</sup> of March 2012.
Dr.P.P.Anilkumar and Bimal.P.	'Residential location search Algorithm with Multi criteria',	presented at 'Geomatrix' an International Conference on Geospatial technologies and applications jointly organized by IIT Bombay and 'Inria'	from 26 <sup>th</sup> to 29 <sup>th</sup> February 2012 at IIT Mumbai.
Ar. Chithra K & Dr. Anilkumar P P	Integrating LCA in to LEED's green building rating system for a better quality of environment.	2 <sup>nd</sup> International Congress on Quality of Life organized by MTI University , Cairo, Egypt,	2012, March

		<b>(QOL2012)</b>	
Ar. Chithra K & Dr. Anilkumar P P	India's LEED based Green building certification system; Critical review from a Life cycle analysis perspective'	International Congress of Environmental Research <b>(ICER2011)</b> ,at National Institute of Technology, Surat	<b>December 2011</b>
Ar. Chithra K & Dr. Anilkumar P P	Life cycle analysis (LCA) and LEED's Green building certification criteria; an evaluation of their compatibility'.	International conference on Society, Technology and Sustainable Development <b>(ICSTSD 2011)</b> , at the Amritha Institute of Medical Sciences (AIMS) Kochi.	<b>June 2011</b>
Ar.Bimal P	"Residential location choice with multi criteria"	'Geomatrix12'	<b>2012</b>
Ar.Mohammed Firoz.C Dr.Haimanti Banerjee, Dr.Joy Sen	An Enquiry Into the Quality of Life in the Rural Urban Continuum –A Case study of Kerala, India ,International conference at MTI, Egypt	2 <sup>nd</sup> international conference of Quality of life – a vision towards better future march 2012	<b>2012</b>

### iii. National Conferences

Name of the Author	Title of Paper	Name of National conference	Vol, Year, p.p.
Dr. A.K. Kasthurba	Sustainable development of Heritage sites	Presented in the all India seminar on 'Relevance of Traditional Architecture in Modern Buildings' jointly organized by the Institution of Engineers, Departments of Architecture and Civil Engineering, NIT Calicut	15-16, September, 2011.
Dr. A.K. Kasthurba	Weathering mechanisms of laterite in Historic Monuments	Advances in Architecture, MIT Manipal	15-16 Dec.2011
Dr. A.K. Kasthurba	Engineering Properties of Malabar laterite on Profile characteristics Proceeding SA-7 pp	24 <sup>th</sup> IGI Conference Anna University, Chennai	19-22 October 2011
Dr.P.P.Anilkumar	"Vernacular Principles of Architecture; takeaways to the Modern context" at NIT Calicut during 15-16, September, 2011.	Presented in the all India seminar on 'Relevance of Traditional Architecture in Modern Buildings' jointly organized by the Institution of Engineers, Departments of Architecture and Civil Engineering, NIT Calicut	15-16, September, 2011.
Dr.Naseer M A.	Climate responsive building design: Lessons from Kerala vernacular residential buildings	All India Seminar on Relevance of Traditional Architecture in Modern Buildings of Institution of Engineers India	September 2011
Ar.Chithra K	Adapting traditional systems and practices for better environmental quality in modern context – A search in desert climate	All India Seminar on Relevance of Traditional Architecture in Modern Buildings,	September, 2011
Ar.Bimal P	Geodesign: an emerging application of geoinformatics & urban design	National symposium 2011 on 'Empowering Rural India Through Space Technology'	<b>2011</b>
Ar.Bimal P	"Form Based Coding as tool for effective implementation of urban conservation"	All India Conference 2011, Institution of Engineers.	<b>2011</b>
Ar.Bimal P	"Residential location choice model: a case study of	'G-governance 2011', Regional conference at University of	<b>2011</b>

	Calicut",	Kashmir, Srinagar.	
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**b. Community Services:**

SI No	Name of Faculty	Project Title	Duration
1	Dr. Kasthurba A.K. Principal Co-ordinator	TEQIP project on Advanced production linked training for women entrepreneur of Kakkodi Panchayath carried out by NIT Calicut Project cost: Rs 1, 25,000/-	Jan 2010- March 2011

**C. Other Academic and Administrative Services**

SI No	Name of Faculty	Academic and Administrative Services
1.	Dr. Kasthurba A.K.	Administrative responsibilities-HOD Architecture 2011 - Creative Arts Lab, In-charge
2.	Dr.P.P.Anilkumar	Member, IRCC Convener, Media committee, Convocation <i>And all other routine responsibilities 2012</i>
3.	<b>Dr. Naseer M A</b>	<ul style="list-style-type: none"> <li>- Member BUGS</li> <li>- Member In-house Construction Projects</li> <li>- Member Department Vigilance Committee</li> <li>- Member in Doctoral Committee</li> <li>- B Arch Program in charge</li> <li>- PhD Coordinator</li> </ul>
4.	Ar.Chithra K.	<ul style="list-style-type: none"> <li>- Class Chairperson- S8 (Winter 2011)</li> <li>- Staff in Charge- CAAD Lab</li> <li>- Member, Golden jubilee public relations committee, NITC</li> </ul>
5.	Ar.Mohammed Firoz C.	<ul style="list-style-type: none"> <li>- Class Chairperson- S4 (Winter 2011),S6 (Monsoon 2010)</li> <li>- Staff in Charge- CA Lab, Seminar Library</li> <li>- PTA Joint Secretary cum Treasurer</li> </ul>
6	Ar.Bimal P	<ul style="list-style-type: none"> <li>-FA to 2009 batch</li> <li>-Training coordinator</li> <li>-Department Time Table in charge</li> <li>-ASA faculty incharge</li> </ul>
7	Er.Shyni.K	<ul style="list-style-type: none"> <li>-FA to 2007 batch</li> <li>-Department Exam incharge</li> <li>-DCC Secretary</li> <li>-Seminar hall incharge</li> </ul>
8	Ar.Smitha.G	<ul style="list-style-type: none"> <li>-FA to 2010 Batch</li> <li>- Seminar &amp; Workshop convener</li> </ul>

**d. Conferences/Summer Schools/ Short Term Courses/ Workshops Conducted**

SI.No	Name of Faculty	Title	Coordinators	Duration & Period
1	Dr. Kasthurba A.K.	Short term training Programme on Maintenance, Repair and Retrofit of Constructed Facilities	Dr. Kasthurba A.K.	May 10-15, 2010
2.	Dr.P..P.Anilkumar	2 day workshop on ' <b>Appropriate Housing</b> ' by Padmasree Architect Shanker.	Dr.P.P.Anilkumar	16 <sup>th</sup> and 17 <sup>th</sup> March 2011-2 days
	Dr.P..P.Anilkumar	All India seminar on ' <b>Relevance of Traditional Architecture in Modern Buildings</b> ' jointly organized by the Institution of Engineers, Departments of Architecture and Civil Engineering, NIT Calicut at NIT Calicut	Dr.P..P.Anilkumar	15-16, September, 2011 -2 days
3.	Ar.Bimal P.	2 day workshop on Appropriate Housing by Architect G. Shanker	Dr.P.P.Anilkumar	16th and 17th March 2011.
4.	Ar.Smitha G.	2day workshop on Appropriate Housing by Architect G. Shanker	Dr.P.P.Anilkumar	16th and 17 <sup>th</sup> March 2011.

5.	Er.Shyni.K	Sustainable Habitat: Techniques and Practices	Dr.J sudhaKumar, Shyni.K, Reesha Bharath	13 <sup>th</sup> -17 <sup>th</sup> June 2011
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e. Expert Lectures delivered in Conferences/ Seminars/Workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr Kasthurba A. K	Maintenance and Repair of Buildings	February 2011	PWD Engineers of Trichur District Kerala State
		Sustainable development of Heritage sites	Sept 2011	IE India
		Conservation of Tali Temple, Calicut	May2011	IE India
		Sustainable Development of Heritage Buildings and Sites	29 Oct 2011	INTACH –Calicut Chapter & Rotary Club of Calicut
		Sustainable Conservation of Calicut Heritage	September 2011	Rotary Club of Calicut
		Development of Sarovaram Bio-Park, Calicut	28 Dec 2011	DTPC calicut
		Current Trends in Architecture Practice-	March 2011	LINFED, Kerala State ( meeting held at Calicut)
		Beareau of Indian Standards Meeting – revision of BIS IS 3620-1979	Feb 2012	BIS meeting held at CDOS , Jaipur, Rajasthan
2.	Dr.P.P.Anilkumar –‘Sustainability, climate responsiveness and energy efficiency dimensions of natural stones’	Invited to deliver an expert lecture titled during the International conference of Global stone Technology forum at Jaipur	15-16 <sup>th</sup> December, 2011.	The international conference was jointly organized by Centre for Development of Stones (CDOS), Govt. of Rajasthan and Federation of Indian Chambers of Commerce and Industry (FICCI).
3	Dr .Naseer M A.	Energy Efficient Buildings	14 <sup>th</sup> and 15 <sup>th</sup> Oct 2011	NITC
		Sustainable Habitat: Techniques and Practices	13 <sup>th</sup> TO 17 <sup>th</sup> June 2011	NITC
		All India Seminar on Relevance of Traditional Architecture in Modern Buildings of Institution of Engineers India	September 2011	IEI India

f. Details of Faculty who acquired Higher Qualification :NIL

g. Consultancy

Sl. No	Nature of Service	Organization	Revenue earned	Status
1.	Total Habitat development (THDP) for Attappady Hill Area Development Society (AHADS) for 3 tribal settlements namely Padavayal, Kolappadika and Thekkuppana at an approximate cost of Rs. 7 crores. Total projectwork constituted the tasks of Detailed Project Preparation (DPR), Typology development and the total project implementation in a span of about 12- 18 months..	Attappady Hill Area Development Society (AHADS)	42 Lakhs	Completed in March 2012.
2.	Architectural Design of a Student Facilitation Center for the University of Calicut	Calicut University	10 lakhs	Completed
4.	Renovation Works of Heritage Monuments- Tali temple and Miskal mosque;	GOI	3.5 Crores (project cost)	Completed



5	Retrofit of Kannur Fort	ASI	25,000	completed
6	Renovation of Iringannoor Temple, Vatakara	GOI	Rs 10,000	Completed
7	Renovation of Thiruvangad Temple, Tellicherry	Devasom Board	Rs 30,000	Ongoing
8	Mathematical Park – Master plan & DPR	JDT Islam	Rs.25000/-	Ongoing

**h. Patents acquired and filed: NIL**

**i. Student achievements: NIL**

**DEPARTMENT OF CHEMICAL ENGINEERING**

a. Publications

i. Journals

Name of the author	Title of the paper	Name of the journal	Vol. ,year ,pp
Dr. V.Sivasubramanian	Development of a mathematical model using statistical design of experiments for the determination of gas holdup in inverse-fluidized bed	MMIP 2011, NITC	1, 2011 497-503
S.Bhuvaneshwari V.Sivasubramanian	Biosorption of aqueous waste water using chitosan and desorption of chromium from biosorbent for effective use.	International research journal of chemistry and environment	15 (2), 2011 185-191
S.Bhuvaneshwari V.Sivasubramanian	Development and characterization of chitosan films	International journal of engineering research and application	1 (2), 2011 292-299
S.Bhuvaneshwari V.Sivasubramanian	Studies on the production of lactic acid from various water using <i>Lactobacillus</i>	International journal of modern engineering research	1,(2), 2011 292-299
S.Bhuvaneshwari V.Sivasubramanian P.Sruthi	Regeneration of chitosan after heavy metal sorption	Journal of scientific and industrial research- CSIR journal	71, 2012 266-269
S.Bhuvaneshwari V.Sivasubramanian	Comparative studies for chitosan yield and chelating ability of <i>A.niger</i> and <i>Rhizopus</i>	Indian journal of biotechnology-CSIR journal.	(accepted) 2012
P.Karthic Shiny Joseph	Comparison and limitations of bio-hydrogen production process – A review	International Journal of Advances in Engineering and Technology	2 (1), 2012 342-356

ii. International conference

Name of the author	Title of the paper	Name of the international conference	Vol. ,year ,pp
V.Sivasubramanian Haribabu K	Mathematical Model using Statistical Design of Experiments for the Determination of Minimum Fluidization Velocity in Inverse Fluidized Bed Bioreactor with Non-Newtonian Fluids	International Conference on Chemistry and Environment	2011
Haribabu K. V.Sivasubramanian	Determination of Mass Transfer Coefficient in an Inverse Fluidized Bed Reactor using Statistical and Dynamic Method for a Non - Newtonian Fluid	International Conference on Global Trends in Pure & Applied Chemical Sciences	2012
Preetham Godbole S Ramanathan Haribabu K V.Sivasubramanian	A study of oil-water emulsion size distribution using dynamic light scattering	CHEMCON -2011	2011
P.Karthic	Application of RSM on bio-	CHEMCON -2011	2011



Shiny Joseph	hydrogen production from glucose under dark fermentative process.		
Malladi V Pavan kumar N.Kaistha	Comparative study of two point decentralized control structures for a quaternary ideal reactive distillation column	CHEMCON 2011	2011
Malladi V Pavan kumar N.Kaistha	Stabilization of an unstable quaternary ideal reactive distillation	CHEMCON -2011	2011
Najuma Abdul Razack Lity Alen Varghese	Studies on the effect of phenolic resin modifications on the adhesive properties of epoxy resins	3 <sup>rd</sup> , International multi-component polymer conference.	2012

iii. National conference

Name of the author	Title of the paper	Name of the journal	Vol., year, pp
P.Karthic Shiny Joseph Aditi Gupta	Effect of initial pH and glucose concentration on bio-hydrogen production.	RTAE – 2011, NIT, Calicut	2011
Najuma Abdul Razack Lity Alen Varghese	Studies on the effect of phenolic resin modification on the adhesive properties of epoxy resins.	Advances in Organic and Physical chemistry	2012
Najuma Abdul Razack Lity Alen Varghese	Studies on the adhesive properties of epoxy resins and substituted Phenolics	Advances in material science: macro to nano-scales	2012

b. Community services:NIL

c. Other academic and administrative services

Name of the staff	Academic and administrative services
Dr. V. Sivasubramanian	Head - CHED, Invitee member Senate, Member in BOAC, Member in Financial Advisory Committee to The Director, Faculty Coordinator – Seminar, Co-ordinator – Proposal of new M.Tech program.
Dr. Shiny Joseph	Faculty Advisor, Class committee chairman, Project guide (Mini & major), Academic Auditor, Purchase committee member, Seminar In charge, Faculty incharge of Fluid Mechanics lab.
Dr. Lity	Department purchase committee member, Faculty Advisor, Class committee chairman, Project guide, PhD coordinator, Faculty in charge of Chemical Technology Lab, Final year project coordinator.
Dr. Aparna	Faculty Advisor, Class committee chairman, Project guide(Mini and major), Library incharge, Faculty in charge of Heat Transfer Lab, Mini project coordinator.
S. Bhuvaneshwari	Department Examination coordinator, Department coordinator for academic audit, Faculty in charge of Environmental Engineering Lab, Stock verification-Department incharge, Faculty advisor, Project Guide, Mini project coordinator.
Mr. Vineesh Ravi	Hostel Warden(C Hostel), Department Time table coordinator till 2012, Faculty Advisor, Faculty in charge of CRE & Process Control Lab, Project Guide(mini and major), Major project review member, CHEA faculty coordinator.
Dr. Selvaraju	Faculty Advisor, Dept. Library incharge, Dept. placement incharge, Final year Project co-ordinator, Faculty in charge of Mechanical Operations Lab, Mass Transfer lab, Mini project review member, Co-ordinator – Proposal of new M.Tech program.
Mr. Haribabu.K	Faculty Advisor, Faculty in charge of Environmental Lab, CHEA faculty coordinator, Major project review committee member.
Dr. Malladi V Pavan kumar	Faculty Advisor, Faculty in charge of Mechanical Operations Lab, Department timetable incharge from march 2012, Project guide.

d. Conference/Workshop/winter school/short term courses/workshops conducted

Sl. No	Title	Coordinators	Duration and period
1	Recent trends in Alternate energy	Dr.Selvaraju, Dr.Shiny joseph Smt. S.Bhuvaneshwari	June 9-10, 2011
2	FDP programme on computer application in chemical and biological engineering	Dr.Selvaraju Mr. Haribabu K	June 13-18, 2011

e. Expert lectures delivered in conference/seminar/workshops

Sl. No	Name of the staff	Title of the programme	Duration and period	Organization
1	Dr.V.Sivasubramanian	CEPEA 2012 National Conference on Chemical Engineering Processes in Environmental Applications	March 29-30, 2012	A.C.College of Tech., Anna University Chennai

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

g. Consultancy and testing :NIL

h. Patents acquired and filed:NIL

i. Student achievements :NIL

## DEPARTMENT OF CIVIL ENGINEERING

### a. Publications

Sl. No	Name of the Authors	Title of paper	Name of Journal/conference	Publications Details
1	Rangaswamy K., and Sekhar J. (2011). ""	<i>Undrained response and Liquefaction of Beach Soil Under Triaxial Loading</i>	<i>Proc. of Indian Geotechnical Conference IGC-2011, Kochi, Dec. 15-17,</i>	Paper No. 139, Vol-II, pp: 863-866
2	K. Vineetha and Rangaswamy K. (2011)	<i>Dynamic Analyses of Soil-Pile-Supetrstructure Interaction</i>	<i>Proc. of Indian Geotechnical Conference IGC-2011, Kochi, Dec. 15-17,</i>	Paper No. 135, Vol-II, pp: 855 – 858
3	Ameen, M., Prasad, B.K.R., and Gopalakrishnan, A.R.	<i>Modeling of Concrete Cracking—A Hybrid Technique of Using Displacement Discontinuity Element Method and Direct Boundary Element Method</i>	Int. Jl. Of Engineering Analysis with Boundary Elements	35, 2011, pp 1054-1059
4	Sajith, A.S., Pillai. T.M.M., and Ameen, M, (2011),.	<i>A simple method for the prediction of design dimensions of a rectangular TLSD</i>	Proceedings of the International conference – Earthquake Analysis and Design of Structures, EQADS 2011, PSG Tech, Coimbatore, India	pp. 277-285, December 1-3, 2011
5	Harikrishna M and Rajat Rastogi, (2012)	<i>Social and psychological factors influencing destination preferences of domestic tourists in India.</i>	<i>Leisure Studies</i> , The Journal of Leisure Studies Association, Routledge Group (partner of Taylor and Francis Group), London,	DOI:10.1080/02614367.2011.632781
6	Harikrishna M. and Rajat Rastogi, (2012)	<i>Identification of decision parameters influencing destination choices of Indian domestic tourists</i>	International Journal of Physical and Social Sciences (Int. Jls of Multidisciplinary Research Academy)	ISSN-2249-5984,Volume2, Issue 1, 233-263.
7	Ajit Janku Patil, Harikrishna M. and Rajat Rastogi, (2011)	<i>Mode choice modelling in the context of domestic leisure travel</i>	CD Rom proceedings of 1 <sup>st</sup> Conference of the Transportation Research Group of India (CTRG)	7 <sup>th</sup> -10 <sup>th</sup> December 2011, Bangalore.
8	Mani Jacob, Harikrishna M. and Rajat Rastogi,(2011)	<i>Modelling of destination choice for domestic leisure travel context</i>	Proceedings of 1 <sup>st</sup> Conference of the Transportation Research Group of India (CTRG)	CD Rom, 7 <sup>th</sup> -10 <sup>th</sup> December 2011, Bangalore.
9	Soumya, G., Harikrishna, M. and Anjaneyulu,	Estimation of Willingness-to-Pay Value for Bus Attributes	Book of Abstracts of Int. Conf. on Advances in Materials and Techniques in Infrastructure	September 28-30, 2011, page 102.

	M.V.L.R. (2011)		Development (AMTID 2011), Kozhikode, Kerala	
10	Harikrishna M. and Rajat Rastogi, (2011)	<i>Identification of Latent Constructs influencing Destination Choice of Domestic Tourists– A Factor Analytic Approach</i>	Book of Abstracts of 12 <sup>th</sup> Int. Conf. Computers in Urban Planning and Urban Management (CUPUM), Lake Louise, Canada,	July 5-8, 2011, page 80.
11	Harikrishna, M. and Rastogi, R. (2011)	<i>Latent factors in destination choice selection: An exploratory study</i>	Int. Proc. Conf. on Sustainable Urban and Transportation Planning: Issues and Management Strategies, SVNIT Surat, India,	July 08-10, 2011, pp. 202- 209.
12	Bharati Raj , N.Ganesan and A.P.Shashikala (2011)	<i>Engineering Properties of Self- compacting Rubberized Concrete,</i>	Journal of Reinforced Plastics and Composites	Vol.30, No.23, December, 2011, pp. 1923- 1930.
13	N.Ganesan, P.V.Indira and S.Rajendra Prasad (2011)	<i>Strength and Behavior of SFRSCC and SFRC Wall panels under One way in- plane action</i>	Proceedings of the International Workshop on High Performance Fibre Reinforced Cement Composites (HPFRCC6), University of Michigan, Ann Arbor, USA	June 19- 22,2011, pp.269-276
14	N.Ganesan, P.V.Indira and S.P Thadathil (2011)	<i>Retrofitting of Multi-bay Multi- storied RC Frames for Lateral Load Resistance</i>	Journal of The Institution of Engineers (India)	Volume 92, May 18, 2011, pp. 18-23
15	S.Sheela and N.Ganesan (2011)	<i>Optimal Design of Different Shaped Polymer Modified Ferrocement Roofing/Flooring Elements using Genetic Algorithms</i>	Journal of The Institution of Engineers (India)	Volume 92, May 18, 2011, pp. 61-68
16	N. Ganesan , P. V. Indira, and M. V. Sabeena (2011)	<i>A Critical Review of Studies on Hybrid Fibre Reinforced Concrete</i>	Proceedings of international Conference on Advances in Materials and techniques for Infrastructure development	NIT Calicut, 28- 30 September 2011
17	N. Ganesan , P. V. Indira, and P. Jayashankar (2011)	<i>Micro-Mechanical Analysis of Nano concrete.</i>	Proceedings of international Conference on Advances in Materials and techniques for Infrastructure development	NIT Calicut, 28- 30 September 2011
18	N. Ganesan , P. V. Indira, and Anjana Santhakumar (2011)	<i>Studies on Geopolymer Concrete</i>	Proceedings of international Conference on Advances in Materials and techniques for Infrastructure development	NIT Calicut, 28- 30 September 2011
19	Biju M. S., Irfan K. Shah, George K. Varghese (2011)	<i>An investigation into the safe distance between well and onsite waste disposal systems: A case study from Kerala, India</i>	International Journal of Chemical and Environmental Engineering Systems (IJCEES)	Vol 2, Issue 1, p 11-15 (2011)
20	Rajendra Kumar Kaushal, George K. Varghese, Mayuri Chabudhara (2011)	<i>Municipal Solid Waste management in India- Current State and Future Challenges: A Review</i>	International Journal of Engineering Science and Technology (IJEST)	Volume 4, No. 4, p 1473-1489
21	George K. Varghese, Babu J. Alappat (2011)	<i>Introducing Environmental Forensics</i>	Journal of the Institution of Public Health Engineers, India	Volume 2011- 12, No. 2, p 19- 22
22	George K. Varghese, Babu J. Alappat (2011)	<i>Environmental Forensics: Legal Framework and Future in India</i>	Proc. Advances in Materials and Techniques for Infrastructure Development (AMTID 2011)	NIT Calicut, India, 28-30 Sep. 2011
23	Joone Joy, George K. Varghese (2011)	<i>Assessing monitory value of the nuisance caused by an MSW landfill</i>	Proc. Advances in Materials and Techniques for Infrastructure Development (AMTID 2011)	NIT Calicut, India, 28-30 Sep. 2011
24	Bharati Raj. J and	<i>Behaviour of Irregular</i>	Recent Trends in Civil	Volume 1, Issue

	A. P. Shashikala (2011)	<i>Concrete Buildings under Seismic Forces</i>	Engineering & Technology	1, August, 2011, pp 9-19
25	Jacob George, Anitha Jacob And Anjaneyulu M.V.L.R (2011)	<i>Modeling Highway Accidents Using ANN</i>	Proc. Advances in Materials and Techniques for Infrastructure Development (AMTID 2011)	NIT Calicut, India, 28-30 Sep. 2011
26	Krishnapriya M.G. and Anjaneyulu M.V.L.R. (2011)	<i>Performance Evaluation of Natural Rubber Modified Bituminous Mixes</i>	Proc. Advances in Materials and Techniques for Infrastructure Development (AMTID 2011)	NIT Calicut, India, 28-30 Sep. 2011
27	Anitha Jacob, Salma Fathima Saleem & Anjaneyulu MVLR (2011)	<i>Evaluation of geometric design consistency for two-lane rural highways using operating speed</i>	Proc. Conference of Transportation Research Group of India (CTRG)	DEC 2011, Bangalore, India
28	Anjana S., Remya S.R. & Anjaneyulu M.V.L.R (2011)	<i>Development of Accident Modification Factors for Urban Mid-blocks</i>	Proc. Conference of Transportation Research Group of India (CTRG)	DEC 2011, Bangalore, India
29	Sreela P.K Minu Mary Thomas & Anjaneyulu M.V.L.R (2011)	<i>An activity-based micro-simulation framework for Travel pattern analysis</i>	Proc. Conference of Transportation Research Group of India (CTRG)	DEC 2011, Bangalore, India
30	Sreelekha M.G, K.Krishnamurthy & Anjaneyulu M.V.L.R (2011)	<i>Spatial Analysis of Network Using Fractals</i>	Proc. Conference of Transportation Research Group of India (CTRG)	DEC 2011, Bangalore, India
31	Raneesh. K. Y. and Santosh.G. Thampi (2011)	<i>Assessment of climate change impact on streamflow in the Chaliyar basin</i>	Special issue on Climate Change of the Hydrology Journal - National	33, pp. 37-48, 2011
32	Resmi, G ., Thampi, S. G ., and Chandrakaran, S (2011)	<i>Removal of lead from wastewater by adsorption using acid activated clay</i>	International JI. of Environmental Technology	pp. 1-7, 2011
33	Raneesh. K. Y., and Santosh. G. Thampi (2011)	<i>A study on the impact of climate change on streamflow at watershed scale in the humid tropics</i>	Hydrological Sciences Journal	56 (6), pp. 946-965, 2011
34	Mukulath, G., Biju, M. S. and Thampi, S. G (2011)	<i>Dug Well contamination by septic tank effluent and remediation using coir geotextiles</i>	International Journal of Earth Sciences and Engineering	4(3), pp. 532-538, 2011
35	Nair, V. V., and Thampi, S. G (2011)	<i>A triple continuum transport model for colloid migration in fractured formations</i>	KSCE Journal of Civil Engineering	16(3), pp. 293-297, 2012
36	Nair, V. V., and Thampi, S. G (2011)	<i>Numerical modelling of contaminant transport in sets of parallel fractures with fracture skin</i>	Journal of Porous Media	15(1), pp. 95-100, 2012
37	Santosh. G. Thampi and Raneesh. K. Y. (2011)	<i>Impact of land use/ land cover and climate change on groundwater recharge in a humid tropical watershed using a simple hydrologic model</i>	3 rd International Geography Congress	6th to 8th May 2011
38	Amrutha, S.,	<i>Investigations of molecular</i>	Young Water Talents	4th July 2011

	Smitha, K., and Thampi, S. G. (2011)	<i>dynamics of water-carbon nanotube interactions</i>	Symposium 2011 organised by NTU, Singapore	
39	Sreedevi, S., and Thampi, S. G. (2011)	<i>Assessment of groundwater pollution vulnerability in the Chaliyar river basin</i>	Young Water Talents Symposium 2011 organised by NTU, Singapore	4th July 2011

b. **Community services**

**Dr. Santosh G Thampi:**

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

**Dr. P Syamala** : Member- Dam safety authority, River management committee, and advisory board-MICTRA

c. **Other Academic and administrative services**

Name of Faculty	Academic and administrative services
Dr. N. Ganesan	Dean (Planning & Development) Chairman and Member in many of the Doctoral Committees Member of Senate of NITC <ul style="list-style-type: none"> <li>• Vice Chairman International Conference on Advances and Techniques for Infrastructure Development (AMTID 2011)</li> <li>• PG Professor in Structural Engineering</li> <li>• Reviewer of 10 International and National Journals</li> <li>• Member District level Planning Committee Kozhikode</li> <li>• Technology transfer of low cost Ferrocement water tanks to Jalanidhi, Kerala Water Authority</li> <li>• Use of waste products such as flyash in concrete to promote sustainability in concrete construction works</li> </ul>
Dr. V Mustafa	Chairman/Member in many of the Doctoral Committees Member of Senate of NITC <ul style="list-style-type: none"> <li>• Member of the Board of Governance of PWD Engineering Design Organization; Government of Kerala</li> </ul> Coordinator of M.Tech programme in Offshore structures Class committee chair B. Tech programme in charge Planning and Revision of Curriculum Co ordinator – Department Consultancy projects
Dr. T P Somasundaran	Chairman Institute Canteen Committee Member of Senate of NITC Member in many of the Doctoral Committees
Dr. P Syamala	Head of the Department I/C of Water resources Lab. Member of Senate of NITC <ul style="list-style-type: none"> <li>• Member- Dam safety authority, River management committee, and advisory board-MICTRA</li> </ul> Member in many of the Doctoral Committees Faculty adviser for students of B.Tech (Civil) 2008 Admission



	Co ordinator – counselling students
Dr. S. Chandrakaran	<ul style="list-style-type: none"> <li>Expert member of TRDM to review water shed projects submitted to Govt. of Kerala</li> </ul> <p>Member of Senate of NITC  Member in many of the Doctoral Committees  Reviewer of Indian Geotechnical Journal  Reviewer of Journal of structural engineering</p> <ul style="list-style-type: none"> <li>Reviewer of International journal of geotextiles and geomembranes</li> </ul>
Dr. T Zacharia Varghese	Faculty adviser for students of B.Tech (Civil) 2009 Admission Member of Senate of NITC
Dr. J Sudhakumar	Member dept. purchase committee Member of Senate of NITC Faculty Adviser, 2009 Admission (Civil) Preparation of Time Table & Class Room for the Department
Dr. N Sankar	I/C of Geotechnical Engineering Lab. Member of Senate of NITC Chairman examination vigilance committee Member in many of the Doctoral Committees Coordinator of M.Tech programme in Environmental Geotechnology
Dr. M V L R Anjaneyulu	Chairman, UG admission for the Institute I/C of Transportation Engineering Laboratory Member of Senate of NITC <ul style="list-style-type: none"> <li>Coordinator of M.Tech programme in Traffic and Transportation planning</li> <li>Member, Departmental purchase committee</li> <li>Member, IRC - HRB - Identification, Monitoring and Research Application (IMRA) Committee.</li> </ul> Coordinator, State Technical Agency, PMGSY, NRRDA <ul style="list-style-type: none"> <li>Chaired the workshop on “Sustainable Transport Planning and Policy”, at Conference of Transportation Research Group of India (CTRG), 7th to 10th December, 2011, Vivanta, Bangalore.</li> </ul>
Sri K Saseendarn	Member of Senate of NITC I/C of Geotechnical Engineering Lab.- assistant
Dr. Mohammed Ameen	Head, Centre for Bio Mechanics Member of Senate of NITC Member of the Library Advisory Committee of NITC Member in many of the Doctoral Committees PhD Programme Coordinator of the Department Faculty Advisor for Civil batch 2010
Dr. P V Indira	Coordinator, Centre for Continuing Education Member of Senate of NITC Member in many of the Doctoral Committees Coordinator of M.Tech programme in Structural Engg
Dr. A P Shashikala	President of Civil Engineering Association I/C Offshore Engineering Lab Member of Senate of NITC Faculty adviser for students of B.Tech (Civil) 2007 Admission Member in many of the Doctoral Committees Faculty in charge of ISTE NITC Students Chapter
Dr. T M Madhavan Pillai	<ul style="list-style-type: none"> <li>Co ordinator – TEQIP Phase – II, A National programme launched by MHRD, Govt. of India, through World bank Fund, implemented by NPIU</li> </ul> <p>Member of Board of Studies (Civil Engineering) of University of Calicut  Reviewer of International Journal of Ocean Engineering – Elsevier  Adviser, (WS &amp; FS, Weaker students &amp; Foreign Students), NITC  Coordinator SC/ST cell of the Institute, NITC  Member of Senate of NITC  Member in many of the Doctoral Committees  Departmental information facilitation in-charge for Annual Report etc</p>

	Faculty Advisor for Civil batch 2011 Co -co ordinator – Department Consultancy projects
Dr. Santosh G Thampi	<ul style="list-style-type: none"> <li>• Co-ordinator, Student Counselling</li> </ul> Preparation of Time Table & Class Room of the Institute and Department I/C of CAD. Lab. I/C of water resources engineering lab. - assistant Department Co ordinator – World Bank Scheme TEQIP Committee <ul style="list-style-type: none"> <li>• Board of Examiners (PG), Water Resources Engineering, Bangalore University</li> </ul> Faculty i/c, Departmental Web Page Management Member in many of the Doctoral Committees Reviewer of International Journal for Numerical Methods in Fluids <ul style="list-style-type: none"> <li>• Reviewer of International Journal Special Topics and Reviews in Porous Media</li> <li>• Faculty Advisor for Civil batch 2011</li> </ul>
Dr. K Sasikumar	Faculty adviser for students of B.Tech (Civil) 2007 admissions I/C of Survey Lab.
Dr. Arun C	Faculty adviser for students of B.Tech (Civil) 2010 Admission I/C Departmental Computer Centre Member, Departmental purchase committee Data base of Alumni
Dr. Sajith A S	Staff Editor of Institute Magazine Lab-in Charge of SM/Concrete/Structural Lab, CED I/C of CAD. Lab.-assistant Faculty Adviser, 2008 Admission (Civil) Vice President – Civil Engineering Association (CEA) Faculty i/c, Departmental Web Page Management-assistant
Dr. Praveen Nagarajan	<ul style="list-style-type: none"> <li>• Lab-in Charge of SM/Concrete/Structural Lab, CED</li> </ul> I/C of Seminar Labrary Co-ordinator, B. Tech project evaluation Faculty adviser for students of B.Tech (Civil) 2008 Admission Co-cordinator of PG programme, CEA Data base of Alumni
Ms.Chitra N R	Warden for Ladies Hostel Faculty adviser for students of B.Tech (Civil) 2008 Admission I/C of drawing office
Smt. Reesha Bharath K	Faculty adviser for students of B.Tech (Civil) 2009 Admission Warden NITC hostel
Dr. Vinu Palissery	Faculty Adviser, 2009 Admission (Civil) Co-coordinator of M.Tech programme in Offshore structures
Dr. K Rangaswamy	<ul style="list-style-type: none"> <li>• Faculty Advisor – 2010 admission</li> <li>• Member, B. Tech &amp; M. Tech project valuation</li> <li>• Warden, NITC Hostel (PG 2)</li> <li>• Co-coordinator of M.Tech programme in Environmental Geotechnology</li> <li>• I/C of Geotechnical Engineering Lab-assistant.</li> </ul>
Dr. K Krishna Murthy	<ul style="list-style-type: none"> <li>• Executive Engineer (I/C), NIT Calicut</li> <li>• Secretary to the Department</li> <li>• Co-coordinator of M.Tech programme in Traffic and Transportation planning</li> <li>• Member, B. Tech project evaluation</li> </ul>
Sri. M Sivakumar	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2010</li> <li>• I/C of Transportation Engineering Laboratory</li> </ul>
Dr. Mini Ramanan	<ul style="list-style-type: none"> <li>• Member, B. Tech project evaluation</li> <li>• Faculty Advisor of the current S6 Civil 2008 Batch</li> </ul>
Dr. Madhav Kumar S	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2010</li> <li>• I/C of Environmental Engineering Lab.</li> </ul>
Sri. D Sathish Kumar	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2011</li> </ul>
Dr. Debraj	<ul style="list-style-type: none"> <li>• Faculty Advisor for Civil batch 2011</li> </ul>

Bhattacharya	• I/C of Environmental Engineering Lab.
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d. **Conferences/Summer/Winter Schools/ Short term Courses/Workshops Conducted:**

SI No	Name of Staff	Title of the Programme	Organisation
1	Dr. A P Shashikala	International Conference on Advances in Materials and Techniques for Infrastructure Development (AMTID 2011)	NIT Calicut during 28-30 September 2011 (Co-sponsored by CSIR, DRDO, DST, KSCSTE)
2	Dr. Anjaneyulu M V L R	Five day training programme on "Traffic & Transportation Planning"	For officials of Town & Country Planning Department, Government of Kerala, during 18 – 22 July, 2011 . NIT Calicut
3	Dr. Anjaneyulu M V L R	One Day Workshop on "Coir Geotextiles and their use in Rural Roads"	NIT Calicut during 27 <sup>th</sup> February, 2012

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

SI No	Name of Staff	Title of the Programme	Organisation
1	Dr. Kodi Ranga Swamy	Seismic ground response analysis and soil liquefaction in short term course titled "Advances in design of structures"	Govt. Engineering College, Kozhikode, 12-17 December 2011
2	Dr. Sajith A S	"Structural Control- an overview" and "Structural control using Tuned Mass Dampers and Tuned Liquid Dampers" in the short term training programme on "Advances in Design of Structures"	GEC Kozhikode during 12th to 17th December 2011
3	Dr. T M Madhavan Pillai	Lectures in "Quality Improvement Programme on IS: 800-2007 (Third Revision)".	Toc H Institute of Science & Technology, Kochi in Association with Indian Concrete Institute and ISTE, 24 <sup>th</sup> -25 <sup>th</sup> , November, 2011
4	Dr. N Ganesan	Keynote paper on "High performance steel fibre reinforced concrete" in the 12 <sup>th</sup> National Conference on Technological trends	CET Trivandrum 19-20, August 2011
5	Dr. N Ganesan	Special lecture on "Good Construction Practices".	CWSA (Concrete Workers Supervisors Association), 6 <sup>th</sup> January 2012
6	Dr. N Ganesan	Expert lecture on High Performance Concrete for Coastal Environment	The Indian Concrete Institute, Cochin, 6 <sup>th</sup> September, 2011
7	Dr. N Ganesan	Delivered Special Lecture on High Performance Concrete.	The annual meet of GRACE in October, 2011
8	Dr. N Ganesan	International workshop on Advances on concrete materials, keynote papers on "Steel Fibre reinforced Concrete" IWACME 2012	23 <sup>rd</sup> & 24 <sup>th</sup> January, 2012 Adiparasakthi Engineering College, Melmaruvathur, Tamil Nadu.
9	Dr. N Ganesan	Short term training programme on "Construction Engineering and Quality Assurance" Lecture on "Non destructive testing Techniques"	MES College of Engineering on 23 <sup>rd</sup> February 2012
10	Dr. N Ganesan	Chief Guest & Resource person for STTP on "Advances in Structural Steel design as per IS: 800-2007"	Department of Civil Engineering., Govt. College of Engineering, Trichur, 27 <sup>th</sup> February 2012
11	Dr. Anjaneyulu M V L R	Conducted the Tutorial on Road Safety Audit at Conference of Transportation Research Group of India (CTRGI).	7th to 10th December, 2011, Vivanta, Bangalore

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

Sri. Sajith A S: Acquired Ph. D degree (from NIT Calicut)

g. **Consultancy and testing**



Sl. No.	Client/Organisation	Revenue Earned (₹)	Status
1	Wayanad District Panchayat	25,33,000	Ongoing
2	The Executive Engineer, Office of the Executive Engineer, Karapuzha Project Division, Kalpetta.	1,50,000	Completed
3	M/s.Valsaraj & Damodaran Pvt. Ltd., Structural and Foundation Consultant, 28/60-A2, G107, 1st Floor, Panapitty Nagar, Kochin -682030.	20,000	Completed
4	The Assistant Executive Engineer, Office of the Assistant Executive Engineer, Sub Division, Vadakara.	82,725	Completed
5	The Corporation Engineer, Calicut corporation.	8,000	Completed
6	Department of Toen & Consultancy Planning, Govt. of Kerala.	2,75,750	Completed
7	Sri.Manikant Prasad, Manager Project, Era Infra Engineering Ltd., Construcation of Mega Hostel at NITC..	5,000	Completed
8	The Assistant Engineer, Office of the assistant Engineer, NH Section, Koduvally.	25,000	Completed
9	The Secretary Kollam Pisharikavu Temple, Kollam Quilandy..	50,000	Completed
10	Gobal English School, 12/222, Global House, Pantheerankavu, Kozhikode.	15,000	Completed
	<b>Total amount for consultancy carried out during 2009-2010</b>	<b>31,64,475</b>	
11	<b>Total amount for testing carried out during 2010-2011</b>	<b>7,90,300</b>	Completed
	<b>Grand Total</b>	<b>39,54,775</b>	

h. Patents acquired and filed: NIL

i. Student achievements :NIL

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

Sl No	Name of Faculty	Title of the Programme	Duration and Period	Organisation
1	Dr. Kodi Ranga Swamy	National Workshop on "Technical document on Geotechnical/Geophysical Investigations for Seismic Microzonation studies of urban centres in India"	19 <sup>th</sup> August 2011	NDMA, New Delhi
2	Dr. Kodi Ranga Swamy	ASCE conference on Geosynthetic lining solutions and related issues	25 <sup>th</sup> February, 2012	IISC Bangalore.
3	Dr. Kodi Ranga Swamy	Workshop on "Strategies to attain excellence in impact making research and development"	3 & 4 February 2012	NIT Calicut
4	Dr. Sajith A S	International conference – Earthquake Analysis and Design of Structures, EQADS 2011	December 1, 2 & 3, 2011	PSG Tech, Coimbatore
5	Dr. P V Indira	International Conference on Advances in Materials and techniques for Infrastructure development	28-30 September 2011	NIT Calicut
6	Dr. M.VL.R.Anjaneyulu	International Conference on Advances in Materials and techniques for Infrastructure development	28-30 September 2011	NIT Calicut
7	Dr. M.VL.R.Anjaneyulu	Conference of Transportation Research Group of India (CTRG)	7-10 December, 2011	Vivanta, Bangalore
8	Dr. Santhosh G Thampi	Application of NIH ReSyP Software	28. 11. 2011 to 02.12. 2011	National Institute of Hydrology (NIH), Roorkee
9	Dr. Santhosh G Thampi	Workshop on HYDRUS	04.02.2012 to	Dept. of Civil Engineering,

			05.02.2012	IISc, Bangalore and Karnataka State Council for Science and Technology (KSCST) (Jointly by Utrecht University, The Netherlands, and IISc, Bangalore)
10	Dr. Santhosh G Thampi	Research Tools for Evaluating Availability and Safety of Surface Water and Groundwater	06.02.2012 to 10.02.2012	Dept. of Civil Engineering, IISc, Bangalore and Karnataka State Council for Science and Technology (KSCST) (Jointly by Utrecht University, The Netherlands, and IISc, Bangalore)

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

### a. Publications

#### i.

#### Journal

Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
Madhukumar S.D, Anju K.S., Asha Mary Joseph, Indu John, N. Subha, Reshma Ann Thomas	Virtual Machine Placement based on VM-PM Compatibility	TheMediterraneanJournal ofComputersand Networks	Accepted for publication
K.S Sreejini, Lijiya.A and V.K Govindan	M-FISH Karyotyping a new approach based on Watershed Transform	International Journal off Computer Science, Engineering and Information Technology(IJCSEIT)	April 2012, Vol-2, No-2 105-117
Ranjith P, Priya Chandran and Shalini Kaleeswaran, ,	On Covert Channels between Virtual Machines, Journal in Computer Virology(JICV)	Springer.	(Accepted for publication)

#### ii. International Conference

Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
K. A. Abdul Nazeer, M. P. Sebastian and S. D. Madhukumar	Enhancing the K-means Clustering Algorithm by Using a O(nlogn) Heuristic Method for Finding Better Initial Centroids	International Conference on Emerging Applications of Information Technology- EAIT 2011, IEEE Computer Society, Kolkata, India	To appear in IEEE Explore
Lijiya.A, K.S Sreejini and V.K Govindan	M-FISH Chromosome Images Classification by Watershed based Segmentation Approach	International conference on Advances in Computer, Electrical and Electronics Engineering	March 25-27, 2012
Suresh Chandra Moharana,, Madhu Kumar S D, Lskrao Chimakurthi, S.M.M.M Kalyan Kumar	Power Efficient Resource Allocation For Clouds Using Ant Colony Frame Work	International Conference on Advances in Computing & Communication (ICACC – 2011), NIT Hamirpur	8 <sup>th</sup> to 10 <sup>th</sup> of April 2011
Gopakumar G and Achuthsankar S. Nair	Lacunarity analysis of genomic sequences: A potential bio-sequence analysis method	The 5 <sup>th</sup> International Conference on Bioinformatics And Biomedical Engineering, Wuhan, China. May 10-12 2011	2011
Gopakumar G and Achuthsankar S. Nair	Fractal dimensions of protein sequences in a protein-protein interaction network enables prediction of hubness property	The 5 <sup>th</sup> International Conference on Bioinformatics And Biomedical Engineering, Wuhan, China. May 10-12 2011	2011

LeenaSilvester.M and V K Govindan	Convolutional NeuralNetwork based Segmentation	5th International Conf. On Information processing (ICIP 2011) Bangalore	August 5th - 7th, 2011. (Ref.96-S)
Jobin Raj and V K Govindan	Unsupervised color image Segmentation by clustering into multivariate Guassian,	5th International Conf. On Information processing (ICIP 2011)Bangalore	August5th - 7th, 2011. (Ref.96-S)
Arjun P R and V K Govindan	Stereo corresponding using census based dynamic programming and segmentation	5th International Conf. On Information processing (ICIP2011) Bangalore	August 5th - 7th, 2011. (Ref.96-S).
Bitla Srinivas and V K Govindan,	A modified approach to the new data compressionmethod	International Conference on Computer Science and Informatics (ICCSI 2011), Bhubaneswar,India.	June 19-20, 2011
D V Lavanya and V K Govindan	Dynamic thread pool based service tracking manager	International Conference on Computer Science and Informatics (ICCSI 2011), Bhubaneswar, India	June 19-20, 2011.
Krishna Chaitanya and V K Govindan	Quantifying the Overheads in FUSE based File Systems	International Conference on Nanosciences engineering and Advanced Computing (ICNEAC 2011), SCET Narsapur, A.P, India.	July 8-10 2011,

iii. National Conference :NIL

b. Community Services

**IGNITE- 2011** : IGNITE 2011 was a two day workshop on “The essence of computing” for high school students of Government and aided schools in Calicut district was organized by CSED in April 2011. 40 students from 40 different government/aided schools in Kozhikode district participated in the programme.It was co-ordinated by Dr.Priya Chandran

c. Other Academic and Administrative Services

Name of Staff	Academic and Administrative Services
Dr Priya Chandran	HOD, CSED. Programme Co-ordinator, M. Tech(CSE) and M. Tech(CSE(IS)), Member of Senate, BPGS and BUGS. Chairperson/ Member of several doctoral committees. Administrative responsibility for CNC/CCC (as HoD, CSED)
Dr. Vineeth Paleri	Ph.D Programme Co-ordinator, Professor In Charge- Institute Website, Member-Senate
Mr. Vinod Pathari	MCA Programme Co-ordinator
Dr. K. Murali Krishnan	BOG Member
Dr. Sudeep K S	Faculty-in-charge of DSS, CSED coordinator for NIT Sikkim
Ms.Pournami P.N.	Warden, Ladies Hostel .
Mr. Gopakumar G	Faculty in Charge, Campus Networking Centre
Dr. Madhu kumar S.D	Chairman ETL, Member- Institute Research Committee and PTA Secretary
Dr. V. K Govindan	Dean(Academic), Member-Senate, BOAC Chairman, PTA President

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

Sl.No	Title	Coordinators	Duration & Period
1	Indo US workshop on Biocomputing – ISB 2011	Dr. S.D Madhu Kumar, Dr.Mathew Palakal and Dr.G.K Rajanikant	12-13 September 2011 ( two days)

e. Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. S.D Madhu Kumar	Tech Fest	One day- invited lecture ( March 2012)	Govt. Engineering College Sreekrishnapuram
2	Dr. Sudeep K.S.	Lectures on applications of Graph Theory Faculty Development Programme (FDP) on 'Applications of Discrete Mathematical Structures to Engineers'	from 12-18 June 2011.	Department of Mathematics, NIT Calicut.
3	Dr. Sudeep K.S.	Lectures on Graph Algorithms Five Day Workshop on Graph Algorithms	January 30 - February 3, 2012 at Cochin University of Science and Technology.	Department of Computer Applications, Cochin University Of Science And Technology, Cochin, Kerala.
4	Dr. Sudeep K.S.	Lectures on Max-flow min-cut theorem A short term training program on Discrete mathematics and GraphTheory.	2-4 February 2012 at College of Engineering, Trivandrum	Department of Mathematics, College of Engineering Trivandrum in association with Department of Science and Technology.

- f. Details of Faculty, who acquired Higher Qualification: NIL  
g. Consultancy and testing: NIL  
h. Patents acquired and filed: NIL

i. Student achievements

**GATE 2011 RESULTS: B.Tech(2007-11) Batch**

Name	Marks(out of 100)	Score(out of 1000)	Rank
Nithin M Varma	83	1000	6
Indu John	78	973	20
Abhimanyu M A	73	912	58
K Dinesh	67.33	843	164
Sarath Krishna	63.33	794	286
Satyam Doraswamy	60.67	762	428
<b>GATE 2011 RESULTS: B.Tech (2008-12) Batch- 6<sup>th</sup> Semester B.Tech</b>			
Name	Marks (out of 100)	Score (out of 1000)	Rank
<b>Jayakumar A</b>	68.33	855	137
<b>Shankar V</b>	65	814	223
<b>Anand J</b>	61.67	774	369
<b>Chaitanya Naik</b>	60	753	482

**DEPARTMENT OF ELECTRICAL ENGINEERING**

a. Publications/Journal (2011-12)

Name of the Author	Title of paper	Name of Journal / Conference	Publication Details
<b>Paul Joseph</b> & 8 other authors , Rajendra Acharya being the first author	An integrated diabetic index using heart rate variability signal features for diagnosis of diabetes	Computer methods in Biomechanics and Biomedical Engineering	VO. 00, No:2011, 1-13 Taylor & Francis
<b>Sreelekshmi R.S, Sunitha R</b>	Analysis of Inverter Fed Microgrids For Different Modes	International Conference on Electrical Engineering and	7 <sup>th</sup> April, 2012, Goa, pp 86-90.

	Of Operation In Matlab/Simulink	Computer Science(ICEECS-2012)	
Jayasankar V N., Sindhu. <b>T.K.</b>	Optimal Design of a Hybrid Micro-grid for a Remote Village	International Conference on Emerging Technological Trends in Advanced Engineering Research	ICETT Feb – 20, 21, 2012
Cibumol Babu, <b>Sindhu. T.K.</b>	Super magnetic Energy Storage System for micro grid	IEEE National Conference on recent trends in Electrical Engineering	Feb. 2012.
Seena K R , <b>Sindhu T.K.</b>	Power synchronization control of VSC- HVDC transmission for weak AC system	International conference on Electrical Engineering and computer science	May 12 <sup>th</sup> 2012. pp 172-180
<b>P. Preetha</b> and M. Joy Thomas.	AC Breakdown Characteristics of Epoxy Nanocomposites	IEEE Transactions on Dielectrics and Electrical Insulation	Vol. 18, Issue 5, pp. 1526-1534, October 2011.
<b>P. Preetha</b> and M. Joy Thomas.	Influence of Nanofillers on the Surface Electrical Discharge Resistance of Epoxy Insulation Used in HV Power Apparatus	International Journal of Emerging Electric Power Systems	Vol. 12, Iss. 2, Article 1, pp.1-18, June 2011.
<b>Jagadanand G,</b> Lalgy Gopi, <b>Dr. Saly George,</b> <b>Dr. Jeevamma Jacob.</b>	Modeling and Detection of Inter-Turn Fault in Induction Motors using Wavelet Entropy Estimation.	International Review of Electrical Engineering (IREE).	Vol 7, N.1. Jan – Feb 2012. PP 4332-4339.
Chintan Patel, <b>Rijil Ramchand,</b> K. Sivakumar, Anandarup Das, and K. Gopakumar	A Rotor Flux Estimation during Zero and Active Vector Periods using Current Error Space Vector from a Hysteresis Controller for a Sensorless Vector Control of IM Drive.	IEEE Transactions on Industrial Electronics	June 2011
P. P. Rajeevan, K. Sivakumar, <b>Rijil Ramchand,</b> Chintan Patel, and K. Gopakumar	A Seven-level Inverter topology for IM Drive using Two-level Inverters and Floating Capacitor Fed H-Bridges.	IEEE Transactions on Power Electronics	June 2011
Sukumar De, Debmalya Banerjee, K. Sivakumar, <b>Rijil Ramchand,</b> Chintan Patel and K. Gopakumar	Multilevel Inverters for Low Power Application.	IET Power Electronics	July 2011
Chintan Patel, Rajeevan P P, Anubrata Dey, <b>Rijil Ramchand,</b> K. Gopakumar, and Marian P. Kazmierkowski	Fast Direct Torque Control of an Open-End Induction Motor Drive Using 12-Sided Polygonal Voltage Space Vectors.	IEEE Transactions on Power Electronics	January 2012
<b>Rijil Ramchand,</b> K. Gopakumar, Chintan Patel, Sivakumar K, Anandarup Das, and Abu-Rub Haitham	Online Computation of Hysteresis Boundary for Constant Switching Frequency Current Error Space Vector Based Hysteresis Controller for VSI fed IM Drives.	IEEE Transactions on Power Electronics	March 2012
<b>P. Balamurugan,</b> <b>S. Kumaravel,</b> and <b>S. Ashok.</b>	Optimal Operation of Biomass Gasifier Based Hybrid Energy System.	Int Journal of Renewable Energy.	Vol. 20.11 (2011), pp 345-354, Sept 2011
<b>Ashok S.</b>	PLC based peak load control for chemical industries.	World Journal of Engineering.	Vol 8, (1), 2011, pp35-43
MA Mujeebu; MZ Abdullah; <b>Ashok S.</b>	Husk-Fuelled Steam Turbine Cogeneration for a Rice Millwith Power Export- A Case Study.	Int Journal: Energy Sources, Part A: Recovery, Utilization, and Environmental Effects.	Vol 33, Issue-8, 2011, pp724-734

Sudha Balagopal, <b>Ashok S.,K P Mohandas</b>	Coordination of multilateral trades in electricity markets via power vectors.	European Transactions on Electric Power, Wiley Publications.	2011, Vol 21, No 3 pp 561-575
Dey, Anubrata; <b>Rijil Ramchand</b> ; Rajeevan, P.P.; Patel, Chintan; Mathew, K; Gopakumar, K	Nearly constant switching frequency hysteresis current controller for general n-level inverter fed induction motor drive.	IECON – 2011, Australia	November 2011
Chintan Patel, <b>Rijil Ramchand</b> , Rajeevan P P, K. Sivakumar, Anandarup Das, K. Gopakumar, and Marian P. Kazmierkowski	Direct Torque Control Scheme of IM Drive with 12-sided Polygonal Voltage Space Vectors.	EPE-2011, Birmingham, UK	August 30 – September 1, 2011
Nafeesa K, <b>Saly George</b> .	“Starting performance optimization of fuzzy logic based ac voltage controller-fed induction motor drives”.	International Journal of Industrial Electronics and Control.	Volume 4, Number 1, 2012, pp. 15–25.
Nafeesa K, <b>Saly George</b> .	“Computer Simulation of Two-leg ac Voltage Controller-fed Induction Motor under Starting Condition”.	International Journal of Computer Applications	Volume 4, December 2011, pp. 19-24.
Nafeesa K, <b>Saly George</b> .	“Performance Comparison of Two-leg and Three-leg AC Voltage Controller-Fed Three Phase Induction Motor Drive”.	Journal of Electrical Systems.	Volume 8, 2012, pp. 13-22.

b. **Community services :NIL**

c. **Other Academic and Administrative services**

Name of Staff	7. Academic and Administrative Services
Subhash K M	Assitant Coordinator , Continuing Education Cell Programme Officer , NSS Cell NITC
Dr. Rijil Ramchand	Deputy Chairman, PG Admissions
Dr. Rijil Ramchand	Co-coordinator, TEQIP Phase II
Dr. Rijil Ramchand	FRG Coordinator
Dr Ashok S	Procurement Coordinator TEQIP-2, Prof l/c UG academic matters

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

Sl. no	Title	Coordinators	Duration and Period
1	International workshop on <i>Advancement on ECG Analysis and Interpretation Techniques</i> (“AECGAI”)	Dr. M V Vaidyan Mr. Subhash K M	2 days. 18 <sup>th</sup> & 19 <sup>th</sup> , February, 2011
2	Faculty Development Programme (MHRD-AICTE) on "Smart Grid Engineering",	Dr Ashok S & Kumaravel S	(2 weeks) 22 May-4 June 2011

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

Sl. No	Name of staff	Title of the programme	Duration and Period	Organization
1.	Dr.Susy Thomas	Expert lecture - Non-linear control systems and Applications	29 and 30th March 2012	Visiting faculty at Govt. Engg. College



		-		Barton Hill
2.	Ashok S	Invited Keynote talk on "Green Energy –Future Energy".	8 <sup>th</sup> Feb 2012.	All India seminar on Green Kerala , by Rajiv Gandhi Youth Foundation.
3.	Ashok S	Invited talk on "Power Shortage Vs Power Quality"	6 <sup>th</sup> Dec. 11	IEEE Malabar Section, Calicut.
4.	Ashok S	Computer based Tutorial on "Energy management". AICTE Summer School on Power Management for Sustainability.	19 <sup>th</sup> Nov. 2011	CIT Coimbatore
5.	Ashok S	Invited Talk on "Energy management of motors & pumps", Summer School on Energy Auditing & Management.	13 <sup>th</sup> Oct. 2011	CET Trivandrum,
6.	Jagadanand G	Expert lecturer series, Visiting Faculty scheme.	One day. Oct 2011.	GEC, Trichur.

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

g. **Consultancy and testing**

Sl. No	Nature of service	Faculty involved	Organization	Revenue earned	Status
1	Testing of Cables, UPS	Dr Ashok S	KESB, GE, Eaton Power ware	Rs 1.2 lakhs	completed

h. Patents acquired and filed:NIL

i. **Students' Achievements**

Mr. Aswath V S, 2010 Batch Electrical Engg student has scored 2<sup>nd</sup>rank in GATE 2011. Many students in Electrical Engg. Department had scored all India score less than 100 in GATE 2012

## DEPARTMENT OF ELECTRONICS & ENGINEERING

a. Publications

i. Journal

Name of the Author	Title of the paper	Name of Journal	Vol, Year. PP
S. M. Prasad, V. K. Govindan, <b>P. S. Sathidevi</b>	Authentication using Wavelets and Contourlets	Journal of Security and Communication Networks [Wiley-Interscience publishers]	4, 2011, pp. 577–590.
R. Rajavel and <b>P. S. Sathidevi</b>	Adaptive reliability measure and optimum integration weight for decision fusion audio-visual speech recognition	Journal of Signal Processing Systems (Springer)	DOI 10.1007/s11265-011-0578-x (Published online : 02 February 2011)
R. Rajavel and <b>P. S. Sathidevi</b>	A new GA optimized reliability ratio based integration weight estimation scheme for decision fusion audio-visual speech recognition	Journal of Signal and Imaging Systems Engineering (Inderscience) Int. J. Signal and Imaging Systems Engineering	4, NO. 2, 2011, pp. 123 –127.
K. Santle Camilus, V. K. Govindan and <b>P. S. Sathidevi,</b>	Pectoral muscle identification in mammograms	Journal Of Applied Clinical Medical Physics	12, No. 3, Summer 2011 ( <a href="http://www.jacmp.org/index.php/jacmp/article/view/3285">http://www.jacmp.org/index.php/jacmp/article/view/3285</a> )
Dr. Elizabeth Elias	<u>design of frequency response masking fir filter in the canonic signed digit space using modified artificial bee colony algorithm original research article</u>	Elsevier Journal of engineering applications of artificial intelligence.	available online 6 march 2012
Dr. Elizabeth Elias	Artificial Bee Colony	Elsevier, Signal Processing	doi 89(2009)2274-

	Algorithm for the design of multiplier-less non-uniform filter bank Tran multiplexer”, International Journal of Information Sciences		2285, 2011
A Gopakumar and Lillykutty Jacob	Power Aware Range-free Wireless Sensor Network Localization using Neighbor Distance Distribution	Wireless Communications and Mobile Computing	In Press
Harigovindan V.P, Babu A.V and Lillykutty Jacob	Ensuring Fair Access in IEEE 802.11p based Vehicle-to-Infrastructure Networks	EURASIP Journal on Wireless Communications and Networking	In Press
P.C. Neelakantan and A.V. Babu	Connectivity Analysis of One-dimensional Vehicular Ad Hoc Networks in Fading Channels	Eurasip Journal on Wireless Communications and Networking (Springer Open)	2012:1, DOI:10.1186/1687-1499-2012-1
A.V. Babu and Susan Joshy	Maximizing the Data Transmission Rate of a Cooperative Relay System in an Underwater Acoustic Communication Channel	Wiley International Journal on Communication Systems	2012; 25:231–253, DOI: 10.1002/dac.1266
A.V. Babu and V.K. Muhammad Ajeer,	Analytical Model for Connectivity of Vehicular Ad Hoc Networks in the Presence of Channel Randomness,	Wiley International Journal on Communication Systems	2012; DOI: 10.1002/dac.1379.
V.P. HariGovindan, A.V. Babu and Lillykutty Jacob	Bit-based Fairness in IEEE 802.11p Vehicle-to-Infrastructure Networks	Springer LNCS	Vol 7135/2012, 328-337, DOI:10.1007/978-3-642-29280-4_39.

a.ii. International Conference

Name of the Author	Title of the paper	Name of International Conference	Vol, Year. PP
Sivaram Prasad Mudunuri , <b>Sathidevi P. S.</b>	A novel adaptive audio watermarking using a random waveletpacket tree and singular value decomposition	IATED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, Crete, Greece	June 22 – 24, 2011, pp. 118-122
<b>Sathidevi P. S.</b> , Sunny Dayal Vanambathina	Time and pitch scale modification of speech using wavelet packet transform and sinusoidal modeling	IATED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, Crete, Greece	June 22 – 24, 2011, pp. 112-117
Manju Manuel and Dr. Elizabeth Elias	Design of Multiplier – less FRM FIR Filter using Artificial Bee Colony Algorithm	20th International Conference on Circuit Theory and Design (ECCTD at Linkoping, Sweden	29 to 31 August 2011
Lillykutty Jacob and P. M. Ameer	Computationally Efficient Routing for Large Scale Wireless Sensor Networks	IEEE Tencon, Bali, Indonesia	Nov 2011
P.C. Neelakantan and A.V. Babu	Selection of Minimum Transmit Power for Network Connectivity in Vehicular Ad Hoc Networks,	IEEE COMSNETS	2012
Jaikummar M G & Sreepad Karmalkar	calibration of mobility and interface trap parameters for high temperature toad simulation of 4h-sic vdmofets	2011 International Conference on Silicon Carbide and Related Materials (ICSCRM 2011) Cleveland, Ohio, USA.	11-16 September 2011
Raghu, I.; Deepthi, P.P.	Multimodal biometric encryption using ridge and iris feature map	<a href="#">2012 IEEE Students' Conference on Electrical, Electronics and Computer</a>	pp. 1-5



		<a href="#">Science (SCEECS)</a> , 01 Mar - 02 Mar 2012, MANIT Madhya Pradesh, India	
Arun Raj R, Sudhish N. George, Deepthi P P	An expeditious Chaos based Digital Image Encryption	IEEE International Conference on Recent Advances in Information Technology (RAIT – 2012) March 16 - 17, 2012, Indian School of Mines, Dhanbad, India.	pp. 14-18
Jithendra K.B., Lalmohan K.S., Deepthi P.P.	FPGA implementation of secure time shared hash stream cipher	International Conference on Computational Intelligence and Communication Systems, 7-9 October 2011, Gwalior, India.	pp. 381-385
Shanthini K. S, Deepthi P. P.	Ridge Feature Map based Biometric Encryption	IASTED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, 2011, Crete, Greece	pp. 208- 214
Resmi K. Rajan, Deepthi P. P, Sudhish N. George	A New Scheme for Digital Fingerprinting of Images based on Low Density Parity Check Codes	IASTED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, 2011, Crete, Greece	pp. 215-222
Jilna P, Lalmohan K. S, Deepthi P. P	Hardware Efficient Implementation of Encryption and Key Exchange based on Elliptic Curves	IASTED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, 2011, Crete, Greece	pp. 230-235
Ashok L, Deepthi P. P, Celine M. Stuart	Embedding Secrecy in Channel Coding with Low Density Parity Check Codes	IASTED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 – 24, 2011, Crete, Greece	pp. 236-241
Arun B. Alosious, Sreelekha G	Quality improvement of H.264/AVC FRExt by incorporating perceptual models	2011 Annual IEEE India Conference (INDICON)	pp. 1 – 6, 16-19 December 2011
Koparde G. Prashant, G. Sreelekha	A Complete Wavelet Based Perceptual Video Coder	IASTED International Conference on Signal and Image Processing and Applications (SIPA 2011), June 22 - 24, 2011 Crete, Greece.	June 22 - 24, 2011, pp. 159-164
Subeesh Vasu, Sudhish N George, Deepthi P P	An Integrity Verification System for Images using Hashing and Watermarking	IEEE International Conference on Communication Systems and Network Technologies (CSNT-2012) May 11 -13, 2012, Rajkot, India.	2012 , pp. 85 - 89
Geethu R S, Sudhish N George, Krishna Kumar M	A Proposal for Source Separation of Heartbeat Sounds and its FPGA Implementation	IEEE International Conference on Communication Systems and Network Technologies (CSNT-2012) May 11 -13, 2012, Rajkot, India.	2012, pp. 755 - 758
Neetha George, Sudhish N George, Apren T.J and Lal M.J	Enhancement of Weak Sinusoidal Signals Using Advanced ALE Techniques	IEEE 4th International Conference on Electronics Computer Technology (ICECT-2012), April 6-8, 2012	2012
P. Sudharsan and P. Sankaran	Fusion Based Multi Scale RETINEX with Color Restoration for Image Enhancement	IEEE International Conference on Computer Communication and Informatics (ICCCI 2012), Coimbatore, India	10-12 January, 2012.
A. S. Unde, Premprakash V. A. and P. Sankaran	Semi-Automatic Tumor Segmentation Based on Modified Sparse Field	IEEE International Conference on Computer Communication and Informatics (ICCCI 2012),	10-12 January, 2012.

	Method	Coimbatore, India	
J. Foytik, P. Sankaran, and V. K. Asari.	Tracking and recognizing multiple faces using Kalman filter and modular PCA.	International Conference on Complex Adaptive Systems - CAS 2011, Complex Adaptive Systems (Editor in Chief: Cihan H. Dagli), Chicago, IL, USA, vol. 1, (Procedia Computer Science, vol.6), pp. 256-261,	31 October - 02 November 2011.

### iii. National Conference

Name of the Author	Title of the paper	Name of National Conference	Vol, Year. PP
Ameer PM and Lillykutty Jacob	Localization Using Stochastic Proximity Embedding for Underwater Acoustic Sensor Networks	2012 National Conference on Communications (NCC 12), IIT Kharagpur	Feb 2012
Rajyavardhan Reddy. P, Thafasal Ijyas V. P and Sameer S. M	A Conjugate Direction Search Algorithm for ML Estimation of Frequency Offsets in OFDMA Uplink	18th National Conference on Communications (NCC 2012)	February 2012
Finto Raphel and S. M. Sameer	A Novel Interim Channel Estimation Technique for MIMO Mimicking AF Cooperative Relay Systems	18th National Conference on Communications (NCC 2012)	February 2012
Nitha M Biju, Rama Komaragiri	Dual Gate Enhancement-Mode JFET (DG-JFET) For Ultra-Low Power Applications	SCEES 2012	IEEE conference publications
Sarath S, Rama Komaragiri	Feasibility Study Of AC Bridges In MEMS PressureSensors	SCEES 2012	IEEE conference publications
Nitha M Biju, Rama Komaragiri	Simulation Study Of DG-JFET For Ultra- Low Power Applications And Behavior Of Its Parasitic Components	VLSI & Embedded System (VLES 2012)	2012, 13-18
Aswathy M, Rama Komaragiri	Simulation Studies Of Tunnel Field Effect Transistors (TFET)	VLSI & Embedded system (VLES 2012)	2012, 19-24
Reddy .B.S.P and B.Bhuvan	Design of ultra-wideband balun-low noise amplifiers	2012 IEEE Students' Conference on Electrical, Electronics and Computer Science	2012 <a href="http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=6184792">http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=6184792</a>
A. S. Unde, Premprakash V. A., P. Sankaran	A Novel Edge Detection Approach on Active Contour for Tumor Segmentation.	Student Conference on Engineering and System, MNNIT Allahabad, India	2012
P. Sudharsan and P. Sankaran	An Automated Multi Scale RETINEX with Color Restoration for Image Enhancement	Proceedings of the IEEE National Conference on Communications (NCC) 2012, Kharagpur, India.	February 3-5, 2012
K. C. R. Varma, Sudharsan P. and P. Sankaran	Application of Quad Tree for Low Bitrate Compression	2 <sup>nd</sup> National Conference on Computational Intelligence and Signal Processing, Guwahati.	2-3 March, 2012

### b. Community Services

Dr.Sameer S. M.	Secretary, IEEE Malabar Subsection
Raghu C.V.	NSS Program Officer

### c. Other Academic and administrative services

Name of Staff	Academic and Administrative Services
Dr. P.S. Sathidevi	<ul style="list-style-type: none"> <li>Head of the Dept from July 2011 onwards</li> </ul>

Dr. Elizabeth Elias	<ul style="list-style-type: none"> <li>• NTS matters</li> <li>• Ph.D Co-ordinator</li> </ul>
Dr. Lillykutty Jacob	<ul style="list-style-type: none"> <li>• Dean (Faculty Welfare)</li> </ul>
Dr. P C Subramaniam	<ul style="list-style-type: none"> <li>• CCC of 2010 batch B.Tech ECE</li> <li>• FA of Sikkim 2010 batch B.Tech ECE</li> <li>• Class Committee Chairperson B.Tech (2010 Batch)</li> <li>• Faculty Advisor, B.Tech (2010 Batch)</li> </ul>
Dr. G. Abhilash	<ul style="list-style-type: none"> <li>• BPGS representative</li> <li>• Co-ordinator - B.Tech Major project</li> </ul>
Dr. C. K. Ali	<ul style="list-style-type: none"> <li>• Class Committee Chairperson - B.Tech (2009 Batch)</li> <li>• Faculty Advisor, B.Tech (2009 Batch)</li> <li>• Coordinator - B.Tech Mini project</li> </ul>
Dr. A.V. Babu	<ul style="list-style-type: none"> <li>• Program Coordinator, M. Tech. Telecommunication</li> <li>• Faculty -in-Charge of Laboratories:DST-FIST Lab Telecommunication Technology Lab</li> <li>• M. Tech. Admission (ECE)</li> <li>• Coordinator - M.Tech (ECD) Major Project</li> </ul>
Mr. R.Suresh	<ul style="list-style-type: none"> <li>• Placement committee member</li> <li>• Faculty -in-Charge of Laboratories: SPCOM lab</li> <li>• Class Committee Chairperson, B.Tech (2009 Batch)</li> <li>• Faculty Advisor, B.Tech (2009 Batch)</li> </ul>
Dr. S. M. Sameer	<ul style="list-style-type: none"> <li>• Warden, NITC Hostels</li> <li>• Academic Coordinator, TEQIP</li> <li>• BUGS representative</li> <li>• Faculty Advisor, B.Tech (2011 Batch)</li> <li>• Purchase and TEQIP Coordinator, ECED</li> </ul>
Dr. Rama Subrahmanyam Komaragiri	<ul style="list-style-type: none"> <li>• Program Coordinator M.Tech in VLSI and Microelectronics</li> <li>• Class Committee Chairman VLSI and Microelectronics</li> <li>• In-charge Simulation lab</li> <li>• Coordinator NMDC (National MEMS Design Centre)</li> <li>• 8th and 9th April 2011, Conference chair ICVIC 2011</li> <li>• Member, International Program committee - International Workshop On Embedded Computing And Communication Systems</li> <li>• Reviewer for conference on IEEE Recent Advances in Intelligent Computational Systems, 22-24 Sep 2011</li> <li>• Reviewer for European Physical Society journal</li> <li>• Reviewer for Micro &amp; Nano Letters</li> <li>• Faculty coordinator ISTE student chapter</li> </ul>
Mr. Jaikumar.M.G	<ul style="list-style-type: none"> <li>• Exam Coordinator ECED</li> </ul>
Dr. Deepthi P.P.	<ul style="list-style-type: none"> <li>• Faculty -in-Charge of Laboratories: IC Lab</li> <li>• Department Time-table in-charge</li> <li>• Program Co-ordinator of M.Tech (Signal Processing)</li> <li>• Member of Institute Research and Consultancy Committee (IRCC)</li> <li>• Coordinator - M.Tech (ECE) Major Project</li> </ul>
Dr. Sreelekha G.	<ul style="list-style-type: none"> <li>• Member of Institute Magazine Committee (SANDESH)</li> <li>• Faculty Advisor, B.Tech (2011 Batch)</li> <li>• Faculty -in-Charge of Laboratories: DSP Lab</li> <li>• Member of NITC Nursery School Management Committee</li> </ul>
Mr. V. Sakthivel	<ul style="list-style-type: none"> <li>• Faculty -in-Charge of Laboratories: EC lab</li> </ul>
Mr. B. Bhuvan	<ul style="list-style-type: none"> <li>• Warden, A Hostel</li> <li>• Co-coordinator, SMDP II</li> </ul>

	<ul style="list-style-type: none"> <li>• Faculty In charge, VLSI Lab</li> <li>• Faculty advisor, 2008 B.Tech Batch</li> <li>• ECEA in-charge</li> </ul>
Raghu C.V.	<ul style="list-style-type: none"> <li>• Jt. Secretary/Treasurer CREC PTA</li> <li>• Program Co-ordinator; M.Tech Electronic Design and Technology</li> <li>• Faculty -in-Charge of Laboratories: PSoC Lab</li> <li>• Department Library in-charge</li> <li>• Coordinator - M.Tech (ECB) Major Project</li> </ul>
Ms. Suja K J	<ul style="list-style-type: none"> <li>• Faculty Advisor, B.Tech (2008 Batch)</li> </ul>
Ms. Bindiya T S	<ul style="list-style-type: none"> <li>• Faculty Advisor, B.Tech (2009 Batch)</li> </ul>
Mr. Ameer P M	<ul style="list-style-type: none"> <li>• Faculty Advisor, B.Tech (2010 Batch)</li> <li>• Faculty -in-Charge of Laboratories: Communication Lab</li> </ul>
Mr. Jayakumar E P	<ul style="list-style-type: none"> <li>• Faculty Advisor, B.Tech (2010 Batch)</li> </ul>
Mr. Sudhish N George	<ul style="list-style-type: none"> <li>• Staff amenities</li> <li>• Faculty -in-Charge of Laboratories: Embedded systems lab</li> </ul>
Dr. Praveen Shankaran	<ul style="list-style-type: none"> <li>• Department Council Secretary ECED</li> <li>• Faculty IIC intercom.</li> <li>• Faculty -in-Charge of Laboratories: Workshop</li> <li>• Member, comprehensive exam committee of the Department of ECE.</li> </ul>

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

Sl. No.	Title	Coordinators	Duration & Period
1	Advances in Wireless Communication and Networking Technologies (AWCNT-2011)	Dr. Babu A. V. and Dr. Sameer S. M.	13 <sup>th</sup> to 24 <sup>th</sup> June 2011
2	National Workshop on "CMOS Analog Circuit Design"	Dr. Sameer S. M. and Mr. Bhuvan. B	12 <sup>th</sup> to 13 <sup>th</sup> November 2011
3	FDP on VLSI Technology	Dr. Rama Subrahmanyam Komaragiri	23rd to 28th May 2011
4	One day workshop on Matlab and its applications	Dr. Rama Subrahmanyam Komaragiri & Dr. Sreelekha G	17th march 2012

e. Expert lectures delivered in Conferences/ Seminars/ workshops

Sl. No.	Name of Staff	Title of the Programme	Duration & Period	Organization
1	P C Subramaniam	Keynote address: National Seminar on Frontier Technologies in RF Engineering	4 – 6 April 2011	CUSAT, Cochin
2	A.V. Babu	National Seminar on Stochastic processes Talk on 'Some Applications of Stochastic Models in Communication Engineering'	3 MARCH 2012	KMCT college of Engg. Calicut
3	Dr. Rama Subrahmanyam Komaragiri	Invited talk	3 hours, 29th June 2011	SVKP & Dr. KS Raju Art and Science College Penugonda, West Godavari Dist., Andhra Pradesh
4	Dr. Rama Subrahmanyam Komaragiri	COSMA 2011	2 hours, 15th Dec. 2011	Amrita School of Engineering, Coimbatore, NIT Calicut
5	Dr. Rama Subrahmanyam Komaragiri	National workshop on RECENT TRENDS IN VLSI DESIGN	3 hours, 3rd & 4th February 2012	SARANATHAN COLLEGE OF ENGINEERING
6	Dr. Rama	FDP on VLSI Technology	18 & 23rd to	NIT Calicut

	Subrahmanyam Komaragiri		28th May 2011	
7	B.Bhuvan	National workshop on CMOS Analog Circuit Design	2 days (12-11-2011 & 13-11-2011)	NIT Calicut
8	Raghu C.V.	Faculty development program on System level modeling, design, analysis.	2 Hr lecture in a Two week program June 2011	CUSAT, Kochi
9	Dr. Praveen Shankaran	FDP on Product development for security applications	June 14 <sup>th</sup> , 2011	Department of ECE, Cochin University of Science and Technology
10	Dr. Praveen Shankaran	FDP on Image processing for security applications	January, 2011	Department of ECE, Sree Narayana Gurukulam College of Engineering.

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

g. Consultancy and Testing: Nil

h. Patents Acquired & Filed

Sl. No.	Name of Staff	Title	Year
1	Dr. Sameer S.M.	A Novel Joint Maximum Likelihood Estimator for Carrier Frequency Offset, Timing Offset and Channel Impulse Response for Orthogonal Frequency Division Multiple Access (OFDMA) Uplink Communication Systems.	2011

i. Student achievements

1. Ms. Nitha , M. Biju and Ms. Aswathy M of M.Tech Microelectronics & VLSI from the Department of Electronica & Communication Engineering were awarded best paper awards in the conference VLES 2012.
2. S. Unde, Premprakash V. A., P. Sankaran, won the best paper award in Student Conference on Engineering and System, MNNIT Allahabad, India, 2012.

## DEPARTMENT OF MECHANICAL ENGINEERING

### a. Publication in Journal/Conferences

Sl. No.	Publication in Journals
1.	Arunkumar O.N. and T. Radharamanan, "Analysis of Effects of Working Capital Management on Corporate Profitability of Indian Manufacturing Firms" International Journal of Business Insights and Transformation Volume 5 Issue 1 (October 11-March 12) PP 71-76
2.	Baiju. V, Muraleedharan. C, "Performance study of a two stage solar adsorption refrigeration system", Int. Nat. Journal of Engineering Science and Technology, Vol. 3, No. 7, PP. 5754-5764, July 2011.
3.	Bipin Balaram, Narayanan, M.D. and Rajendrakumar, P.K., "Optimal design of multi-parametric nonlinear systems using a parametric continuation based Genetic Algorithm approach", <i>Nonlinear Dynamics</i> , Vol. 67, Issue 4, (2012) pp. 2759–2777
4.	C. R. Shiyas, and V. Madhusudanan Pillai, (2012), A Non-linear Programming Model for the Machine Grouping and a Genetic Algorithm based Solution Methodology. <i>International Journal of Computer Application</i> , Vol. 38, Issue 8, pp. 37 – 41.
5.	C. R. Shiyas, and V. Madhusudanan Pillai, (2012), A zero-one integer programming model for the design of manufacturing cells. <i>International Journal of Engineering Science and Technology</i> , Vol. 4, Issue 1, pp. 144 – 1550.
6.	Chinna T Pamulety and V. Madhusudanan Pillai, (2011), <a href="#">Impact of History of Customer Demand Information in Supply Chain Performance</a> . International Journal of Computer Application (IJCA) Proceedings on International Conference on Technology Systems and Management (ICTSM) (3):34–38, 2011. Published by Foundation of Computer Science.

Sl. No	Publication in Journals
7.	Chinna T Pamulety, and V. Madhusudanan Pillai, (2012), Performance analysis of supply chains under customer demand information sharing using role. <i>International Journal of Industrial Engineering and Computations</i> , Vol. 3, pp. 337 – 346.
8.	Christiansun Antony Alumkal, G. Prabhakara Rao and V. Madhusudanan Pillai, (2011), <a href="#">Analysis of robust and adaptive designs for dynamic part population</a> , <i>Int. J. Business Performance and Supply Chain Modelling</i> , Vol. 3, Issue 2, pp. 124 - 140.
9.	Jibi Job, Jerin Joseph, and V. Madhusudanan Pillai, (2011), <a href="#">Performance comparison of process and adaptive cellular layouts using simulation</a> , <i>Int. J. Advanced Operations Management</i> , Vol.3, No. 2, pp. 188 – 200.
10	John, L., Ramesh, A and Sreedharan, R (2012), Humanitarian Supply chain management: A critical review, <i>International Journal of Services and Operations Management</i> , accepted for publication.
11.	Joseph, O.A and Sridharan, R., 2011, "Analysis of Dynamic Due-Date Assignment Models in a Flexible Manufacturing System", <i>Journal of Manufacturing Systems</i> , Vol. 30, No. 1, pp. 28-40.
12	Joseph, O.A and Sridharan, R., 2011, "Effects of Flexibility and Scheduling Decision Rules on the Performance of an FMS: Simulation Modelling and Analysis", <i>International Journal of Production Research</i> , iFirst 1-22, DOI: 10.1080/00207543.2011.575091.
13	Joseph, O.A and Sridharan, R., 2011, "Effects of routing flexibility, sequencing flexibility and scheduling decision rules on the performance of an FMS: Simulation Modelling and Analysis", <i>International Journal of Advanced Manufacturing Technology</i> , Vol. 56, No. 1, pp. 291-306.
14	Joseph, O.A and Sridharan, R., 2011, "Evaluation of routing flexibility of a flexible manufacturing system using simulation modelling and analysis", <i>International Journal of Advanced Manufacturing Technology</i> , Vol. 56, No. 1, pp. 273-289.
15	Joseph, O.A and Sridharan, R., 2011, "Modelling and Analysis of Routing flexibility, Sequencing flexibility and Scheduling Decisions in a Flexible Manufacturing System", Accepted for publication in the <i>International Journal of Applied Decision Sciences</i> , Vol. 4, No. 4, pp. 362-384.
16	Joseph, O.A and Sridharan, R., 2011, "Ranking of Scheduling Rule Combinations in a Flexible Manufacturing System Using Preference Selection Index Method", <i>International Journal of Advanced Operations Management</i> , Vol. 3, No. 2, pp. 201-216.
17	Joseph, O.A and Sridharan, R., 2011, "Simulation Modelling and Analysis of Routing Flexibility of a Flexible Manufacturing System", <i>International Journal of Industrial and Systems Engineering</i> , Vol. 8, No. 1, pp. 61-81.
18	Joseph, O.A and Sridharan, R., 2011, "Simulation Modelling and Analysis of the Performance of a Flexible Manufacturing System," <i>Modeling, Measurement and Control: Series D: Production Engineering and Management</i> , <i>International Journal of the Association for the Advancement of Modelling &amp; Simulation Techniques in Enterprises (AMSE)</i> , France, Vol. 32, No. 1, pp. 14-31.
19	Joseph, O.A and Sridharan, R., 2011, "Simulation-based metamodels for the analysis of dynamic due-date assignment in a flexible manufacturing system", <i>International Journal of Applied Management Science</i> , Vol. 3, No. 4, pp. 341-367.
20	Krishna Kumar Krishnan, Shokoufeh Mirzaei, Vijayaragavan Venkatasamy and V. Madhusudanan Pillai, (2011), <a href="#">A comprehensive approach to facility layout design and cell formation</a> , <i>International Journal Advanced Manufacturing Technology</i> , DOI 10.1007/s00170-011-3523-z.
21	Krishna Kumar Krishnan, Shokoufeh Mirzaei, Vijayaragavan Venkatasamy and V. Madhusudanan Pillai, (2012), A comprehensive approach to facility layout design and cell formation, <i>International Journal Advanced Manufacturing Technology</i> , Vol. 59, pp. 737 – 753.
22	M Satyanarayana, C. Muraleedharan, "A Comparative study of vegetable oil methyl esters (biodiesels)," <i>Int. Journal of Energy</i> . Vol 36: pp 2129-2137, 2011.
23	M. Satyanarayana, C. Muraleedharan, "Comparative studies of biodiesel production from rubber seed oil, coconut oil and palm oil including thermogravimetric analysis," <i>Int. Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental Effects</i> . Vol 33: pp 925-937, 2011.
24	Madhusudanan Pillai, V., Irappa Basappa Hunagund, Krishna K. Krishnan, (2011), <a href="#">Design of robust layout for Dynamic Plant Layout Problems</a> . <i>Computers &amp; Industrial Engineering</i> , Vol. 61, pp. 813–823.
25	Manoj Mathew and Rajendrakumar, P.K., "Optimization of process parameters of boro-carburized low carbon steel for tensile strength by Taquchi method with grey relational analysis", <i>Materials and Design</i> , Vol.32, Issue 6, (2011), pp. 3637-3644
26	Manu V. Thottackkad, Rajendrakumar, P.K. and Prabhakaran Nair, K., "Experimental Evaluation on the Tribological Properties of Coconut Oil by the Addition of CuO Nanoparticles", <i>International Journal of Precision Engineering and Manufacturing</i> , Vol. 13, No. 1, (2012), pp. 111-116
27	Nadiya M & Radha Ramanan T, "Assessing the Efficient and Sustainable Performance of Indian MFIs." <i>Cost Management</i> . (Thomson Reuters) (Accepted. Forthcoming 2012-2013)
28	Nadiya M & Radha Ramanan T., "What Discriminates the Operational Self-Sustainability of Indian MFIs: A Multiple Discriminant Analysis Inquiry" <i>Cost Management</i> . (Thomson Reuters) (Accepted for publication in Special Issue on Microfinance, 2012)
29	Nadiya M, Francisco Olivares-Polanco & Radha Ramanan T. "Dangers in Mismanaging the Factors



Sl. No	Publication in Journals
	Affecting the Operational Self-Sustainability (OSS) of Indian Microfinance Institutions (MFIs)—An Exploration into Indian Microfinance Crisis.” Asian Economic and Finance Review. (Accepted for publication)
30	O.A Joseph, and R. Sridharan, 2011, “Development of Simulation-Based Metamodels for the Analysis of Routing Flexibility, Sequencing Flexibility and Scheduling Decision Rules on the Performance of an FMS”, International Journal of Operational Research, Vol. 12, No. 3, pp. 333-361.
31	Radha Ramanan, T., Sridharan, R., Kulkarni Sarang Shashikant, and Noorul Haq, A., 2011, “An artificial neural network based heuristic for flow shop scheduling problems, Journal of Intelligent Manufacturing, Vol. 22, No. 2, pp. 279-288.
32	Ramesh, A., Banwet, D. K. and Shankar, Ravi (2011), Evaluation of supply chain collaboration: A case of apparel retail industry, International Journal of productivity and Performance Management, Vol.60, No.2,pp.82-98.
33	Shaija, A. and Narasimham, G.S.V.L., "Natural Convection in a Horizontal Annulus with an Inner Heat Generating Solid Square Cylinder and an Outer Isothermal Circular Boundary", international Journal of Computational Thermal Sciences, 3(2); 89-102 (2011).
34	Shaija, A. and Narasimham, G.S.V.L., "Natural Convection in a Horizontal Annulus with an Inner Heat Generating Solid Square Cylinder and an Outer Isothermal Circular Boundary", international Journal of Computational Thermal Sciences, 3(2); 89-102 (2011).
35	Somashekhar, K.P., Jose Mathew and Ramachandran, N., “Multiobjective optimization of micro-WEDM parameters using Grey Relational Analysis with Taguchi method”, 2011, Proceedings of Institution of Mechanical Engineers, Part C. Journal of Mechanical Engineering Science.
36	Sooraj V. S. and Jose Mathew, “An experimental Investigation on the machining characteristics of microscale end milling”, Int. J. of Adv. Manuf. Technology (2011), pp. 56951-58.
37	Sreejith C. C., Arun P., and Muraleedharan C., Thermo-chemical analysis of biomass gasification by Gibbs free energy minimization model-Part: I (Optimization of pressure and temperature), International Journal of Green Energy, Available online, March 2012.
38	Sudhakar subudhi & Jaywant H Arakeri,"Flow Visualization in Turbulent Free Convection over Horizontal Smooth and Grooved Surfaces", International Communication in Heat and Mass Transfer, Vol.39, page.414-418, 2012.
39	Sudhakar subudhi & Jaywant H Arakeri,"Plumes dynamics and heat transfer over horizontal grooved surfaces", Experimental Heat Transfer, Vol.25, page.58-76, 2012.
40	Sudhakar subudhi, KR Sreenivas & Jaywant H Arakeri, "Natural ventilation in a model room", Transactions in ASME: Journal of Thermal Science and Engineering Applications, Vol.4, page.011003-1-9, 2012.
41	Sudhakar subudhi, KR Sreenivas & Jaywant H Arakeri,"Real Source-Sink Pair", International Journal of Heat & Mass Transfer, Vol.55, page.1650-1660, 2012.
42	Suresh Kumar M. R., and V. Madhusudanan Pillai, (2012), Planning Annualised hours when spike in demand exists. <i>International Journal of Industrial Engineering and Computations</i> , Vol. 3, Issue 3, pp. 313 – 320.
43	Suresh Kumar, N. and Sridharan, R., 2011, “Simulation-based comparative analysis of the performance of a flexible manufacturing system operating under part movement policy and tool movement policy,” International Journal of Industrial and Systems Engineering, Vol. 9, No. 4, pp. 388-411.
44	T Radha Ramanan, Muhammed Iqbal, Umarali, “A Particle Swarm optimization approach for permutation flow shop scheduling problem. International Journal of Simulation Modelling and Design Optimization (Accepted for publication)
45	Vinay A. Shirodkar, V. Madhusudanan Pillai and R. Sridharan, 2011, “On the feasibility of sequence-dependent set up economic lot scheduling problem,” International Journal of Production Research, Vol. 49, No. 10, pp. 2925-2939.
46	Vinay A. Shirodkar, R. Sridharan and V. Madhusudanan Pillai, (2011), <a href="#">Effective allocation of idle time in the group technology economic lot scheduling problem</a> , International Journal of Production Research, Vol. 49, Issue 24, pp. 7493 - 7513.
47	Vinay V. Panicker and R. Sridharan, 2011, “Development and analysis of heuristic algorithms for a two-stage supply chain allocation problem with a fixed transportation cost”, Accepted for Publication in the International Journal of Services and Operations Management.
48	Vinay V. Panicker and R. Sridharan, 2011, “Modelling supply chain decision problem with fixed charge – a review”, International Journal of Business Performance and Supply Chain Modelling, Vol. 3, No. 3, pp. 195-207.
49	Vinay, V.P., Sridharan, R., and Ebenezer, B., 2011, “Three-Stage Supply Chain Allocation with Fixed Cost”, accepted for publication in the Journal of Manufacturing Technology Management.
50	Vinod, V. and Sridharan, R., 2011, “Simulation modeling and analysis of due date assignment methods and scheduling decision rules in a dynamic job shop production system”, International Journal of Production Economics, Vol. 129, No. 1, pp. 127- 146.

Sl. No	Publication in International Conferences
1.	A.Shaija and GSVL Narasimham," Numerical Investigation of the Temperature and Flow Distributions and Development of Correlations in the Annulus" in ICFMHTT 2012 : International Conference on Fluid Mechanics, Heat Transfer and Thermodynamics, in Zurich, Switzerland during Jan 15-17, 2012.
2.	A.Shaija, and GSVL Narasimham, 2012. "Numerical Investigation of the Temperature and Flow Distributions and Development of Correlations in the Annulus" in ICFMHTT 2012 : International Conference on Fluid Mechanics, Heat Transfer and Thermodynamics, held in Zurich, Switzerland during 15-17 January, 2012.
3.	Ayneendra, B., and Madhusudanan Pillai, V., (2011), A Genetic Algorithm for a Multi-constrained Robust Cell Design. Proceedings of the Second International Conference on Simulation Modelling and Analysis, COSMA 2011, 14 – 16 December 2011, pp 544 – 551, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore.
4.	Ayneendra, B., and Madhusudanan Pillai, V., (2011), A Robust Multi-period Cell Formation Model. Proceedings of the International Conference on Advances in Supply Chain and Manufacturing Management, Abstract proceedings – Page No. 124, December 16– 18, 2011, IIT Kharagpur, India.
5.	Chinna Pamulety, T. and Madhusudanan Pillai, V., (2011), Statistical Process Control-Based Inventory Management in Serial Supply Chains.Proceedings of the 2011 International Conference on Advances in Supply Chain and Manufacturing Management, Abstract proceedings – Page No. 29, December 16– 18, 2011, IIT Kharagpur, India.
6.	Deepak G Philip, Jose Mathew, "Experimental Investigation and Optimization of Process Parameters in Micro Drilling using Vibration Assisted Micro EDM", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp. 174-177.
7.	Dinesh Setti, Jose Mathew, "Modeling of Surface Roughness in Micro End Milling through Response Surface Method", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp. 459-462.
8.	Ebenezzer, B., Vinay, V.P., and Sridharan, R., 2011, "Information Sharing and Echelon Inventory Management for Supply Chain Excellence", International Conference on Excellence in Management practices (ICEMP), Kristu Jayanti College of Management & Technology, April 15-16, 2011. (Best paper Award)
9.	Girish K., Sanjay, K, Jithin C.R., Vinay, V.P. and Sridharan R., "Service Innovation for the User Interface of an ATM Catering to the Needs of the Student Community", Accepted for Publication in the IEEE International Conference on Industrial Engineering and Engineering Management (IIEEM2011) Dec. 6-9, 2011, National University of Singapore, Singapore.
10.	Jayakumar K., Jose Mathew, M.A. Joseph, "Analysis and Prediction of Milling Characteristics of A/SiCp MMC", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp. 359-364.
11.	Jibi Job, and V. Madhusudanan Pillai, (2012), Performance Evaluation of Cellular Manufacturing Systems Using Adaptive and Robust Layouts in Multi-period Demand, Proceedings of the International Simulation Conference of India 2012, (Abstract on Conference page no. 32) 2 – 4 February 2012, IIT Bombay, India
12.	K.Sai Santhosh, A. Shaija: "Detoxification of Dairy Waste Water By Using Compound Parabolic Concentrator (CPC) And Oxidising Agent", International Joint conference on Emerging Intelligent Sustainable Technologies-EIStCON-2012, May 3-4th 2012,Dayanand Sagar College of Engineering Bangalore. pp 23-28.
13.	M Nadiya & T Radha Ramanan. "Assessing the Efficient and Sustainable Performance of Indian Microfinance Institutions", to be presented at the Third International Conference on Institutional and Technological Environment for Microfinance", January 4-7, 2012, held at New Delhi, organized by Burgundy School of Business, France.
14.	M Nadiya & T Radha Ramanan."Probing On The Efficiency And Sustainability Status Of Indian Microfinancing Institutions: A Data Envelopment Analysis Application", presented in absentia Tthe Second European Research Conference on Microfinance, June 16-18, 2011, held at University of Groningen, Netherlands, organized by University of Groningen, Netherlands.
15.	M Nadiya & T Radha Ramanan."What Discriminates the Operational Self-Sustainability (OSS) Status of Indian Microfinance Institutions (MFIs): A Multiple Discriminant Analysis Inquiry", the Third International Conference on Institutional and Technological Environment for Microfinance, January 4-7, 2012, New Delhi, organized by Burgundy School of Business, France.
16.	M Nadiya "An Inside View of the Factor Affecting the Sustainability of Indian MFIs", presented and published at Oikos UNDP Young Scholars Development Academy, August 21-26, 2011, Indian Institute of Management, Bangalore, organized by Oikos and UNDP
17.	Mathew J Joseph, Jose Mathew, "Investigation of Quality of Micro-EDM Drilled Holes using Tubular Electrodes", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp. 188-191.



Sl. No	Publication in International Conferences
18	Mukesh M, Jose Mathew, R. Vijayakumar, P. S. Suvin "Mathematical Modeling to Predict the Cutting Force and Thrust Force in Micro Turning Process", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp. 66-68.
19	Rajendrakumar, P.K., Manu V. Thottackkad and Prabhakaran Nair, K., "Experimental Studies on the Tribological Behaviour of Engine oil (SAE15W40) with the Addition of CuO Nanoparticles", <i>Proceedings of the 66th Annual Meeting &amp; Exhibition, Society of Tribologists and Lubrication Engineers (STLE)</i> , Atlanta, USA, 15-19 May, 2011.
20	Rajesh, V. and Sridharan R., "Effect of Varying Levels of Setup Time on Makespan Criteria: A Comparative Study of Two Algorithms on SDST Flow Shop", Proceedings of the Eleventh Global Conference on Flexible Systems Management, Indian Institute of Management Kozhikode, December 9-12, 2011.
21	S. Jayaraj, A. Shaija, and C.A. Saleel, 2011, "Computational Simulation of Backward Facing Step Flow Using Immersed Boundary Method", WORLD COMP, LAS VEGAS, July 18-22.
22	S. Jayaraj, A. Shaija, and C.A. Saleel, Computational Simulation of Backward Facing Step Flow Using Immersed Boundary Method, WORLD COMP 2011, LAS VEGAS, July 18-22, 2011.
23	Saurabh Srivastava, A. Shaija: "Mathematical Modeling and Simulation Analysis of PEM Fuel Cell", International Conference on Electronics and Communication Engineering- ECE 2012, May 20th 2012, IIMT Bhubaneswar. pp 179-185.
24	Shravani Srisailam, Jose Mathew, "Experimental Study and Optimization of Machining parameters of Micro-Wire EDM", Proceedings of International Conference on Precision, Meso, Micro and Nano Engineering (COPEN), Dec. 2011, pp.184-187.
25	Sreejith C C, Muraleedharan C., Arun P, Modelling of biomass thermo-chemical gasification using artificial neural networks- Second International conference on Modelling and Simulation- COSMA -2011 at Amrita University Coimbatore December 2011.
26	Sreejith C. C., Arun P., and Muraleedharan C., Thermochemical Steam gasification of Biomass- Theoretical Analysis of SynGas", Proc. of the 5th International Conference on Advances in Mechanical Engineering (ICAME-2011), June 06-08, 2011, S.V. National Institute of Technology, Surat.
27	Suresh Kumar M. R., and Madhusudanan Pillai, V., (2011), Planning annualised hours with fully variable holiday weeks. Proceedings of the Eleventh Global Conference on Flexible Systems Management, (Abstract on Conference souvenir page no. 32), 9 – 12 December 2011, IIM Kozhikode.
28	Suresh Kumar M. R., and Madhusudanan Pillai, V., (2011), Planning Annualised Hours with Individualised Holiday Periods. Proceedings of the Second International Conference on Simulation Modelling and Analysis, COSMA 2011, 14 – 16 December 2011, pp 531 – 537, Amrita School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore.
29	Suresh Kumar M. R., and Madhusudanan Pillai, V., (2011), The effect of changing weightage value on relative capacity shortages in annualised hours planning. Joint International Conf. on Advanced Materials-2011, ICAM 2011, 19th & 20th Aug. 2011, pp 461 – 467, BTLIT, Bangalore, India.
30	T.J.S. Jothi, K. Srinivasan, and Duck Joo Lee, "Higher order moment analysis of Jet Noise," XX International Symposium on Air Breathing Engines, ISABE 2011, Gothenburg, Sweden. September 12-16, 2011.
31	Vinay A. Shirodkar, R. Sridharan, and V. Madhusudanan Pillai, "A Heuristic Generating Feasible Schedules for Group Technology Economic Lot Scheduling Problem", International Conference on Mathematical Modelling and Applications to Industrial Problems (MMIP 2011), March 28-31, 2011.
32	Vinay A. Shirodkar, R. Sridharan, and V. Madhusudanan Pillai, "Obtaining integer lot sizes in the economic lot scheduling problem, Proceedings of the International Conference on Operations and Management Sciences (ICOMS-11), Institute of Management Technology, Nagpur, January 28-29, 2011. (Best paper Award)
33	Vinod. V and R. Sridharan, 2011, "Development and Analysis of Simulation-Based Metamodels for a Dynamic Job Shop with Sequence Dependent Setup Times", Proceedings of the Eleventh Global Conference on Flexible Systems Management, Indian Institute of Management Kozhikode, December 9-12, 2011.
34	Vipin B., and Sridharan, R., "Measurement of Routing Flexibility of a Flexible Manufacturing System", Proceedings of the Second International Conference on Latest Trends in Simulation Modelling and Analysis (COSMA2011), Amrita Vishwa Vidyapeetham, Coimbatore, December 14-16, 2011.

Sl. No	Publication in National Conferences
1.	Abdul Nazar, K. P., and Madhusudanan Pillai, V., (2011), Simulation Modelling and Analysis of a Push System Using ARENA. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 81 – 85, Department of Mechanical Engineering, NIT Calicut, Kerala, India.
2.	Ayneendra, B., and Madhusudanan Pillai, V., (2011), A Mathematical Model for a Robust Cell Design under a Dynamic Production Environment and its Comparison with an Adaptive Design Approach. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 35 – 41, Department of Mechanical Engineering, NIT Calicut, Kerala, India.
3.	M Nadiya & T Radha Ramanan. "Determining the Discriminators of the Operational Self-Sustainability (OSS) Status of Indian Microfinance Institutions (MFIs): A Multiple Discriminant Analysis Application" National Conference on Emerging Trends in Industrial Engineering and Management (ETRIM 2011), July 11-12, 2011.
4.	Baiju .V, Muraleedharan .C, ANN Modelling of Solar Adsorption Refrigeration System, National Conference on Emerging Trends in Industrial Engineering and Management, 11-12 July, 2011, NIT Calicut.
5.	Baiju, V, Muraleedharan, C, "Analysis of adsorbent bed in a solar adsorption refrigeration system", Proc. Of National Conference on Advances in Energy Conversion, Manipal University, February 2011.
6.	Baiju, V, Muraleedharan, C, "Exergy analysis of adsorption refrigeration system", National Conference on Refrigeration and Air conditioning, IIT Madras, July 2011.
7.	Baiju. V, Muraleedharan. C, "Analysis of adsorbent bed in a solar adsorption refrigeration system". Proceedings of 4th National conference in Advances in Energy Conversion Technologies, Manipal, India, Feb 4-6, 2011.
8.	Baiju. V, Muraleedharan. C, "Experimental study of Activated carbon- Methanol solar adsorption refrigeration system", Proceedings of National conference on Refrigeration and Air-conditioning, IIT Madras. India, July 7-9 2011.
9.	Baiju. V, Muraleedharan. C, ANN Modeling of Solar Adsorption Refrigeration System, Proceedings of National conference on Emerging Trends in Industrial Engineering and Management, NIT Calicut, July 11-12, 2011.
10	Baiju. V, Muraleedharan. C, Modelling of Solar Adsorption Refrigeration System by Using Artificial Neural Network, 12th National conference on Technological trends, College of Engineering Thiruvananthapuram , Kerala 19-20 August 2011 (Communicated).
11.	Chinna Pamulety, T., Veerapratap, E. and Madhusudanan Pillai, V., (2011), Performance Analysis of some Inventory Policies under Average Demand Process. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 91 – 96, Department of Mechanical Engineering, NIT Calicut, Kerala, India.
12	Ebenezer, B., Vinay V. P., and Sridharan, R., "Impact of Information Sharing in Supply Chain Performance: A Simulation Study", Proceedings of the National Conference on Emerging Trends in Industrial Engineering and Management (ETRIM 2011), National Institute of Technology Calicut, Kerala, India, July 11 12, 2011, pp. 74-80.
13	Irappa Basappa Hunagund and Madhusudanan Pillai, V., (2011), Development of a Heuristic for Layout Formation for Quadratic Assignment Problem. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 115 – 119, Department of Mechanical Engineering, NIT Calicut, Kerala, India. (This is a highly commented paper in the conference)
14	J.Nagaraju, S.Vamsikrishna, S. Ashok, A.Shaija: "Hybrid Photovoltaic-Thermosyphon Water Heating system", National conference on Emerging research and advances in mechanical sciences – ERA 2011, March 23 <sup>rd</sup> 2011, Velammal Engineering College, Chennai. pp 379-385.
15	J.Nagaraju, S.VamsiKrishna, S. Ashok, A.Shaija: "Hybrid Photovoltaic-Thermosyphon Water Heating system", National conference on Emerging research and advances in mechanical sciences – ERA 2011, March 23 <sup>rd</sup> 2011, Velammal Engineering College, Chennai. pp 379-385.
16	K Sai santhosh and A. Shaija "Detoxification of Dairy Waste Water By Using Compound Parabolic Concentrator (Cpc) And Oxidising Agent", Interscience Joint Conference On Emerging Intelligent Sustainable Technologies (EISTCON-2012) may 3 -4, Dayanand Engineering College, Banglore, India.
17	K Sai santhosh, C. Muraleedharan and A. Shaija "Modelling of solar thermal energy storage system using inorganic PCM", National Conference On Recent Trends In Engineering & Science (NCRTES-2012), April 20– 21, Prestige Institute Of Engineering & Science, Indore, Madhya Pradesh.
18	K.Sai Santhosh, C. Muraleedharan, A. Shaija: "Modeling of Solar Thermal Energy Storage System by Using PCM as a Storage Material", National Conference on Recent Trends in Engineering and Science- NCRTES 2012, April 20-21st 2012, Prestige Institute of Engineering and Science, Indore, M.P. pp 28-32.

Sl. No	Publication in National Conferences
19	Neethu kailas and A. Shaija “performance analysis of a portable solar powered thermoelectric cooler”, National Conference On Advances In Mechanical Engineering- 2012, SM patel hall, pharmacy campus ,karawand, april 21, Shirpur, Maharastra.
20	Neethu kailas and A. Shaija “Thermal modeling and experimental analysis on a stepped basin solar still with jute cloth as energy storage medium”, emerging trends in mechanical engineering (ETME 12), June 1, ITM university, Gurgaon, Haryana,India
21	Neethu Kailas, A. Shaija: “Performance Analysis of a Portable Solar Powered Thermoelectric Cooler”, National Conference on Advances in Mechanical Engineering- NCAME 2012, April 21st 2012, R. C. Patel Institute of Technology, Shirpur.
22	Nidhi, M. B., and Madhusudanan Pillai, V., (2011), Development of Green Supply Chain Transformation Matrix from Environment Management System. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 68 – 73, Department of Mechanical Engineering, NIT Calicut, Kerala, India.
23	Saurabh srivastava, C. Muraleedharan and A. Shaija “solar dryer and its performances analysis”, national conference on recent trends in engineering & science (NCRTEs-2012), April 20– 21, Prestige Institute of Engineering & Science, Indore, Madhya Pradesh.
24	Saurabh Srivastava, C. Muraleedharan, A. Shaija: “Solar Dryer and Its Performance Analysis”, National Conference on Recent Trends in Engineering and Science- NCRTEs 2012, April 20-21st 2012, Prestige Institute of Engineering and Science, Indore, M.P. pp 22-27.
25	Shiyas, C. R., Christiansun Antony, A. and Madhusudanan Pillai, V., (2011), An adaptive approach for the design of dedicated manufacturing cells under dynamic demand. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 30 – 35, Department of Mechanical Engineering, NIT Calicut, Kerala, India. (This is a highly commented paper in the conference)
26	Sreejith C C, Muraleedharan C., Arun P, Biomass gasification- Optimization of working conditions of gasifier, National Conference on Emerging Trends in Industrial Engineering and Management, 11-12 July, 2011, NIT Calicut.
27	Suresh Kukkadapu, B. Rohinikumar, C. Muraleedharan, Experiments on Solar Thermal Water Pump National Conference on Energy System & Energy, Feb 18 - 19, 2011, B.M.S. College of Engineering, India.
28	Suresh Kumar M. R., and Madhusudanan Pillai, V., (2011), Effect of Relative Efficiency on Relative Capacity Shortages in Planning Annualised Hours with Individualised Holiday Weeks. Proceedings of the National Conference on Emerging TRends in Industrial Engineering and Management (ETRIM2011), July 11-12, 2011, pp. 212 – 217, Department of Mechanical Engineering, NIT Calicut, Kerala, India.
29	Vamshidhar Reddy, M., Vinay V. P., and Sridharan, R., “Impact of Information Sharing in Supply Chain Performance: A Simulation Study”, Proceedings of the National Conference on Emerging Trends in Industrial Engineering and Management (ETRIM 2011), National Institute of Technology Calicut, Kerala, India, July 11 12, 2011, pp. 97-100.
30	Vipin B., and Sridharan, R., “Entropic Measurement of Machine Flexibility of a Flexible Manufacturing System”, Proceedings of the National Conference on Emerging Trends in Industrial Engineering and Management (ETRIM 2011), National Institute of Technology Calicut, Kerala, India, July 11 12, 2011, pp. 23-29.

b. **Community Services:NIL**

c. **Other Academic & Administrative Services:NIL**

d. **Conferences/summer/winter school/short term courses/workshop conducted**

Duration	Event(s)
6 January 2011	Golden Jubilee lecture was delivered by Mr. Vimal Kumar Viswanathan, PhD Scholar at Texas A&M University, USA on the title: “ <b>Product Design Theory &amp; Methodology</b> ”
19 January 2011	Golden Jubilee lecture was delivered by Dr. K.B.M. Nambudiripad, Retired faculty of MED, NIT Calicut on the title: “ <b>Elimentary Concepts Revisited</b> ”
20 January 2011	Golden Jubilee lecture was delivered by Mr. Manu S. Madav, Graduate RA at John Hopkins University, USA on the title: “ <b>Nature as an Inspiration for Robotics</b> ”
3 March 2011	Golden Jubilee lecture was delivered Mr. George Koshy, Advisor – VSSC Thiruvananthapuram on the title: “ <b>India’s Lunar Mission - Chandrayaan</b> ”
4 & 5 April 2011	Technical workshop on “ <b>Research Methodology</b> ”
	Golden Jubilee lecture by Dr. Albert Meij, Fachhochschule Kaiserslautern, GERMANY on the title: “ <b>Post-Graduate Study in Germany</b> ”

Duration	Event(s)
May 2011	AoC signed with the <b>University of Applied Sciences, Department of Engineering, Fachhochschule Kaiserslautern, GERMANY</b>
25 May 2011	Golden Jubilee lecture delivered by Prof. Satish V. Kailas, Mech. Engg. Deptt., IISc Bangalore on the title: <b>“Friction Stir Welding and Friction Stir Processing”</b>
2 June 2011	Golden Jubilee lecture delivered by Prof. T.T. Narendran, Dept. of Management Studies, IIT Madras on the title: <b>“Research Ethics”</b>
6-11 June 2011	Faculty Development Programme on <b>“Recent Advances in Fluid Power Control”</b>
11 -12 June 2011	Technical workshop on <b>“Fuel Cell Technology”</b>
14-24 June 2011	ISTE W/s on <b>“Thermodynamics in Mechanical Engineering.”</b> Under the ICT Scheme
20-26 June 2011	Faculty Development Programme on <b>“Advances in Manufacturing Engineering”</b>
26 June - 2 July 2011	Faculty Development Programme on <b>“Advances in Hybrid Energy Systems</b>
4-9 July 2011	Faculty Development Programme on <b>“Recent Development in Design of Press Tools, Jigs and Fixtures”</b>
10-16 July 2011	Faculty Development Programme on <b>“Advanced Flow Measurement &amp; Visualization Techniques”</b>
18-22 July 2011	Faculty Development Programme on <b>“Multivariate Data Analysis for Management Research”</b>
11 &12 July 2011	National Conference on <b>“Emerging Trends in Industrial Engineering and Management” (ETRIM 2011)</b>
4 August 2011	Golden Jubilee lecture by Prof. V. Sampath, Dept. of Material Science, IIT Madras on the title: <b>“Shape-Memory Alloys”</b>
September 2011	First International Professor, <b>Dr. Mihir Sen</b> visit to MED from the University of Notre Dame, Indiana, USA To spend 3 weeks in the <b>Energy Management Laboratory</b>
22 September 2011	Golden Jubilee lecture by Dr. Om Prakash Singh, TVS Motor Co. Hosur on the title: <b>“An Integrated Approach for Engine Cooling System Diagnosis-Theory, Modeling and Experiments”</b>
29 September 2011	Golden Jubilee lecture by Prof. Mihir Sen, University of Notre Dame, Indiana, USA on the title <b>“Complex Systems in Thermal and Mechanical Engineering”</b>
14 &15 October 2011	Technical workshop on <b>“Energy Efficient Buildings”</b>
12 October 2011	Golden Jubilee lecture by Prof. Mihir Sen, University of Notre Dame, Indiana, USA on the title: <b>“Synchronization of Thermal and Mechanical Oscillations”</b>
10-13 December 2011	XXII National Conference on <b>“IC Engines &amp; Combustion” (NCICEC 2011)</b>
14-16 December 2011	Second International Conference on <b>“Simulation Modeling &amp; Analysis” (COSMA2011)</b> jointly with AMRITHA VISHWA VIDYAPEETAM, Coimbatore
17 December 2011	Post-Conference Symposium on <b>“Simulation Modeling &amp; Analysis”</b>
12-22 December 2011	ICT workshop on ‘Solar Photovoltaic’s: Fundamentals Technologies and Applications’

e. **Expert lecture delivered in conferences/seminars/workshops**

Sl. No	Name of the staff	Title of the programme	Date	Organization
1	Dr. R. Sridharan , Dr. T. Radha Ramanan & Dr. A. Ramesh	Research Methodology	November 19, 2011	MES Engineering College, Kuttipuram, Malapuram , Kerala
2	Dr. A. Ramesh	Conference on “Data Mining: Tools and Techniques”	September 8, 2011	Sathbama University, Chennai
3	Dr. R. Sridharan	Research Domains in Power Electronics and Power Systems	May 30, 2011	Amal Jyothi College of Engineering

f. **Details of faculty who acquired Higher Qualification :NIL**

g. **Consultancy and Testing**

Sl. No	Nature of service	Organization	Revenue earned
1	Two five day courses on Metrology and Computer Aided Inspection for trainees	M/s NTTF, Tellicherry,	Rs 58,822/-
2	Testing/Calibration carried out at Metrology Lab	Various Local Industries	Rs 27,189/-

**DEPARTMENT OF MATHS**

- Department of Mathematics organized Seventh Annual Conference of Academy of Discrete Mathematics and Applications and Graph Theory Day VII (ADMA 2011) during 9-11 June 2011.

- Department of Mathematics organized two FDPs.

1. FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE) during 30.05.2011 to 03.06.2011.

2. FDP on “Applications of Discrete Mathematical Structures to Engineers” (ADMSE 2011) during 12- 18 June 2011

- Department of Mathematics coordinated two expert lectures.

1. Expert lecture by Prof. A Krishnamoorthy, Emeritus Professor of Applied Mathematics, Department of Mathematics, Cochin University of Science and Technology on “Markov Decision Theory” on 17<sup>th</sup> February 2012.

2. Lecture series by Dr. Aleksander Grm, Center for Computational Continuum Mechanics (C3M), Slovenia on “Numerical Computations in C++ with emphasis on PDEs” during 07-05-2012 to 18-05-2012.

- Started collaborative project with University of Ruhuna, Matara, Sri Lanka with the aid of Indo-Sri Lanka Foundation.

- Scientific visit of faculty members of MAT to foreign universities.

[1] Dr. Satyananda Panda visited Department of Mathematics, University of Coimbra, Portugal, Sept. 2011.

[2] Dr. Satyananda Panda visited Department of Mathematics, University of Ruhuna, Matara, Sri Lanka, Nov. 2011.

a) **Journal Publications: 21**

i. Journal Publication details:

Sl No.	Name of the author	Title of paper	Name of Journal-volume, issue	National / International
1	Sameena K , Sunitha M.S	On g- distance in fuzzy trees	“The Journal of Fuzzy Mathematics , (International Fuzzy Mathematics Institute) Vol. 19, No. 4, pp- 787 – 791, 2011.	International
2	Sameena K , Sunitha M.S	Clustering using distance in fuzzy graphs	International Journal of Computational and Applied Mathematics ISSN 1819-4966 Volume 7, Number ), pp. 83-89, 2012	International
3	Sunil Mathew, Sunitha M.S.	Cycle connectivity in weighted graphs	Proyecciones Journal of Mathematics, 30(1), pp.1-7, 2011.	International
4	Sunil Mathew, Sunitha M.S	A generalization of Menger’s theorem	Applied Mathematical Letters, 24, pp. 2059-2063, 2011.	International
5	Sunil Mathew	Partial trees in weighted graphs-I	Proyecciones Journal of Mathematics, 30(2),pp. 163-174, 2011.	International
6	Sunil Mathew, Sunitha M.S	Some remarks on fuzzy bipartite graphs	Advances in fuzzy sets and systems, 10(1), pp. 45-56, 2011.	International
7	S.K.Parida, M.	MHD heat and mass	Arabian Journal for Science and	International



	Acharya, G. C. Dash and S. Panda	transfer in a rotating system with periodic suction	Engineering, 36, 1139-1151, 2011.	
8	S.K.Parida, M. Acharya, G. C. Dash and S.Panda	MHD flow past a rotating porous plate through porous medium rotating about a non-coincident parallel axis	Jr. of Modelling Measurement and Control B, Mechanics and Thermics, 80(2) 88, 2011.	International
9	Babitha K V, Sunil Jacob John	Generalised intuitionistic fuzzy soft sets and its application	Gen. Math. Notes , Vol. 7, No. 2, December 2011.	International
10	Babitha KV, Sunil Jacob John	Transitive closures and ordering on softsets	Computers and Mathematics with Applications, 62(2011) 2235-2239, 2011.	International
11	Girish K P, Sunil Jacob John	Rough multisets and Information Multisystems	Advances in Decision Sciences, Volume 2011, Article ID 495392, 17 pages doi:10.1155/2011/495392	International
12	Girish K P, Sunil Jacob John	Multiset Topologies Induced by Multiset Relations	Information Sciences, 188(2012) 298-313	International
13	Girish K P, Sunil Jacob John	Rough Multisets and its Multiset Topology	J.F. Peters et al. (Eds): Transactions on Rough Sets XIV, LNCS 6600, pp. 62-80, 2011.	International
14	T. Baiju, Sunil Jacob John	Subparacompactness in L-topological spaces	Journal of Fuzzy Mathematics, Vol. 19(1), 234-246, 2011.	International
15	Jyothis Thomas, Sunil Jacob John,	$\mu$ -Compactness in Generalized topological spaces	Journal of Advanced Studies in Topology, Vol. 3, No. 3, 2012, 18 -22	International
16	Shinoj T K, Sunil Jacob john	Intuitionistic Fuzzy Multisets And Its Application in Medical Diagnosis	International Journal of Mathematical and Computational Sciences, 6(2012) 1-4.	International
17	Sanjay P K, and S. Thangavelu	"Revisiting Riesz transforms on Heisenberg groups"	Revista Mathematica Iberoamericana, 28(4), 2012.	International
18	S.K. Parida, S. Panda and M. Acharya	Magneto-hydrodynamic (MHD) flow of second grade fluids in a channel with porous wall	Meccanica Springer, 46, 1093-1102, 2011.	International
19	Minu K K, Jessy John C	Volterra Kernel Identification by Wavelet Networks and its Applications to Nonlinear Nonstationary Time Series	Journal of Information and data management Vol.1, No.1, Feb. 2012. Pp 4-9.	International
20	Ashish Awasthi and M K Kadalbajoo	<i>The Midpoint Upwind Finite Difference Scheme for Time-Dependent Singularly Perturbed Convection-Diffusion Equations on Non-Uniform</i>	<b>(a)</b> International Journal for Computational Methods in Engineering Science and Mechanics, <a href="#">Volume 12, Issue 3</a> , 2011	International

		<i>Mesh</i>		
21	M S sunitha, K R Sandeep Narayan	Types of Arcs in Complement of a Fuzzy graph	Mapna J of Sci, Vol 10, No. 2, 2011, pp 75 - 81.	National

**1.a.i.l.a.i.a.i. Conference Publications: 4**

Conference Publication details:

Sl No.	Name of the author/authors	Title of paper	Conference – Date & Place	National / International
1.	M S Sunitha	Fuzzy graphs	Proceedings of the UGC sponsored National Seminar on Fuzzy Logic and its Applications, Sept- 27 - 29, 2011, organised by PG DDepartment of mathematics, KE College , Mannanam, Kerala	National
2.	M S sunitha, Anjaly Kishore	An Algorithm for Chromatic Number of Fuzzy graphs	Proceedings of the AICTE sponsored National Conference on Recent Trends in Advanced Mathematics, Feb.- 3 - 4, 2012, organised by Department of Applied Sciences, Vidya Academy of Science and Technology, Thrissur, Kerala.	National
3.	P. K. Sanjay	Riesz transforms on Heisenberg groups	Twelfth Discussion Meeting in Harmonic Analysis organised by the Indian Statistical Institute, Kolkata, December 27 - 29, 2011.	National
4.	K P Somashekhar, Prakash P Naidu, S.Panda and J. Mathew	Finite volume approximation for micro electric discharge machining process	Proceedings of Int. conference on Precision, Meso, Micro and nano Engineering, College of Engineering Pune, 442-446, 2011,	International

**b) Community Services**

Name of Staff	Academic and administrative Services
Dr. M. J. Jacob	Member of doctoral committees of various departments Warden- PG 2 Hostel
Dr. Jessy John C	HOD, MAT from 01.01.2011 till date Chairperson - Seventh Annual Conference of Academy of Discrete <b>Mathematics</b> and Applications and Graph Theory Day VII (ADMA 2011) during 9-11 June 2011 conducted at NIT Calicut. Member of doctoral committees of various departments Member, TBI governing committee, NIT Calicut
Dr. V. Narayanan	Faculty for UG Admissions and CCB admissions Member of doctoral committees of various departments
Dr. Chithra A.V.	Member of doctoral committees of various departments Warden- Ladies Hostel
Dr. Sunil Jacob John	Member of doctoral committees of various departments Warden- B Hostel
Dr. M S Sunitha	Associate Editor NITC Research Review Delivered expert lectures Member of doctoral committees of various departments Faculty for UG Admissions and CCB admissions
Dr. C M Sushama	Member of doctoral committees of various departments
Mr. Lineesh M. C	Faculty in-charge of Club Mathematica
Dr. Satyananda Panda	Member of doctoral committees of various departments.
Dr. Sunil Mathew	Deputy Chairperson – PG Admissions Member of doctoral committees of various departments

	Warden- Apartments
Dr. Mahesh Kumar	Member of doctoral committees of various departments Warden – C Hostel

**C.Other Academic & Administrative Services:NIL**

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

Sl. No	Title	coordinators	Duration and period
1.	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	Dr. Mahesh Kumar, Dr. Ashish Awasthi	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011 - 5 days
2.	Seventh Annual Conference of Academy of Discrete Mathematics and Applications and Graph Theory Day VII (ADMA 2011)	Dr. M.S. Sunitha & Dr. Sunil Mathew	9-11 June 2011 - 3 days
3.	FDP on “Applications of Discrete Mathematical Structures to Engineers” (ADMSE 2011)	Dr. Sunil Mathew & Dr. M.S. Sunitha	12- 18 June 2011 - 7 days

**e .Expert lectures delivered in conferences/seminars/workshops**

Sl. No.	Name of staff	Title of the programme	Duration and period	Organization
1.	Dr. Chithra A V	STTP on “Recent Mathematical Tools for Solving Engineering Problems”	25 <sup>th</sup> – 29 <sup>th</sup> April 2011	Viswajyothi College of Engineering and Technology, Vazhakulam, Moovattupuzha.
2.	Dr. Mahesh Kumar	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011	Department of Mathematics, NIT Calicut
3.	Dr. Jessy John C	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011	Department of Mathematics, NIT Calicut
4.	Dr. Satyananda Panda	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011	Department of Mathematics, NIT Calicut
5.	Dr. Ashish Awasthi	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011	Department of Mathematics, NIT Calicut
6.	Mr. Lineesh M C	FDP on “Advances in Numerical and Statistical Techniques for Engineers (ANSTE)	30 <sup>th</sup> May 2011 to 3 <sup>rd</sup> June 2011	Department of Mathematics, NIT Calicut
7.	Dr. Sunil Mathew	FDP on “Applications of Discrete Mathematical Structures to Engineers” (ADMSE 2011)	12 <sup>th</sup> – 18 <sup>th</sup> June 2011	Department of Mathematics, NIT Calicut
8.	Dr. M S Sunitha	FDP on “Applications of Discrete Mathematical Structures to Engineers” (ADMSE 2011)	12 <sup>th</sup> – 18 <sup>th</sup> June 2011	Department of Mathematics, NIT Calicut
9.	Dr. Sunil Jacob John	FDP on “Applications of Discrete Mathematical Structures to Engineers” (ADMSE 2011)	12 <sup>th</sup> – 18 <sup>th</sup> June 2011	Department of Mathematics, NIT Calicut
10.	Dr. Satyananda Panda	Numerics with Matlab, Refresher Course	August 2011	Kannur University, Kerala
11.	Dr. Satyananda Panda	Workshop on “Fluid Dynamics in Porous Media”	12 <sup>th</sup> – 14 <sup>th</sup> September 2011, 3 days	Coimbra, Portugal
12.	Dr. M. S. Sunitha	National Seminar on “Fuzzy Logic and its Applications”	27 <sup>th</sup> – 29 <sup>th</sup> September 2011, 3 days	K.E. College, Mannam, Kottayam
13.	Dr. Sunil Mathew	National Seminar on “Topology, Fractals, their Fuzzy Generalizations and Applications”	13 <sup>th</sup> – 14 <sup>th</sup> October 2011, 2 days	St. Dominic’s College, Kanjirapally



14.	Dr. Satyananda Panda	UGC Workshop- Introduction to Knoppix: Open source for Mathematics	3 <sup>rd</sup> November 2011, 1 day	University of Calicut, Kerala
15.	Dr. Satyananda Panda	Indo-UK symposium - Temperature effects on the centrifugal spinning process of viscous fibers	5 <sup>th</sup> - 6 <sup>th</sup> November 2011, 2 days	IIT Mumbai
16.	Dr. Satyananda Panda	Industrial Mathematics	9 <sup>th</sup> November 2011, 1 day	Department of Mathematics, University of Ruhuna
17.	Mr. Sanjay P K	Riesz transforms on Heisenberg groups	27 <sup>th</sup> -29 <sup>th</sup> December 2011	12 <sup>th</sup> Discussion meeting in Harmonic Analysis organized by ISI Kolkata.
18.	Dr. Jessy John C	A training programme on 'Business Statistics and Predictive Analytics', for Arbitron Technology Services, India, Pvt (Ltd), Kochi,	7 <sup>th</sup> - 9 <sup>th</sup> January 2012, 3 days	Department of Mathematics, NIT Calicut
19.	Dr. M. J. Jacob	A training programme on 'Business Statistics and Predictive Analytics', for Arbitron Technology Services, India, Pvt (Ltd), Kochi,	7 <sup>th</sup> - 9 <sup>th</sup> January 2012, 3 days	Department of Mathematics, NIT Calicut
20.	Mr. Lineesh M C	A training programme on 'Business Statistics and Predictive Analytics', for Arbitron Technology Services, India, Pvt (Ltd), Kochi,	7 <sup>th</sup> - 9 <sup>th</sup> January 2012, 3 days	Department of Mathematics, NIT Calicut
21.	Dr. Mahesh Kumar	A training programme on 'Business Statistics and Predictive Analytics', for Arbitron Technology Services, India, Pvt (Ltd), Kochi,	7 <sup>th</sup> - 9 <sup>th</sup> January 2012, 3 days	Department of Mathematics, NIT Calicut
22.	Dr. Sunil Mathew	National Seminar on "Recent Trends in Mathematics: Topology and Its Applications"	9 <sup>th</sup> - 10 <sup>th</sup> February, 2012, 2 days	Govt. College, Kottayam
23.	Dr. Sunil Mathew	National Seminar on "Emerging Trends in Science and Current Affairs"	6 <sup>th</sup> - 7 <sup>th</sup> February, 2012, 2 days	Jyothi Engineering College, Cheruthuruthy, Thrissur
24.	Dr. Sunil Jacob John	National Seminar on "Recent Trends in Mathematics: Topology and Its Applications"	9 <sup>th</sup> - 10 <sup>th</sup> February, 2012, 2 days	Govt. College, Kottayam
25.	Dr. Sunil Mathew	National Seminar on "Quality Enhancement in Higher Education through Student Support & Progression"	2 <sup>nd</sup> - 3 <sup>rd</sup> March 2012, 2 days	St. Mary's College, Thrissur
26.	Dr. Sunil Jacob John	National Seminar on "Discrete Mathematics and Applications"	1 <sup>st</sup> - 3 <sup>rd</sup> March 2012, 3 days	Assumption College, Changanassery in Association with Kerala Mathematical Association
27.	Dr. Krishnan Paramasivam	National Level Seminar on "Recent Trends in Distance in Graphs"	12 <sup>th</sup> -13 <sup>th</sup> March 2012, 2 days	Department of Mathematics, Ayya Nadar Janaki Ammal College (Autonomous) Sivakasi
28.	Dr. Satyananda Panda	Introduction to Matlab: UGC refresher course	26 <sup>th</sup> March 2012, 1 day	University of Calicut, Kerala

f. **Details of faculty who acquired higher qualification during 2011-12: Nil**

g. **i) Consultancy and testing:**

1. Dr. Jessy John C – Member of Mahatma Gandhi National Rural Employment Guarantee scheme – Time and Motion Study Phase II, under LSGI, Govt. of Kerala, coordinated by KILA.

2. Dr. Jessy John C, Dr. Mahesh Kumar conducted a training programme on 'Business Statistics and Predictive Analytics', for Arbitron Technology Services, India, Pvt (Ltd), Kochi, during January 7– 9, 2012.

ii) **Collaborative Research Project:**

**Title:** Surface temperature reconstruction from free surface data in thin film on a stretching sheet.  
**Coordinators:** Dr. Satyananda Panda, MAT, NIT Calicut and Dr. M. Abeyratne, Department of Mathematics, University of Ruhuna, Matara  
**Financial Support:** Indo-Sri Lanka Foundation, Grant. No-125/11, Dt. 21-9-2011, Amount: 1,50,000.00

h. **Patents acquired and filed:NIL**

i. **Student achievements:**

- Research Scholars of Department of Mathematics published research papers in various international/national journals and conferences (details are available along with the publications of the faculty members).
- Four M.Sc.(Tech.) students (2009 admissions) presented research papers in national conferences.
- Quite a few students of the M.Sc. (Tech.) in Mathematics and Scientific Computing have obtained internship in reputed institutions like TIFR/IISc/Arbitron Pvt. Ltd. etc.

**DEPARTMENT OF CHEMISTRY**

a. Publications

a.A.a.ii.i.1.a.i. Journal

Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
N. Riyasudheen, A. Sujith	Formation behavior and performance studies of EVA/PVP blend membranes prepared by non-solvent induced phase inversion method	Desalination	294, 2012, 17-24
C.P. Muhammed Kutty, M. Jahfar, M. Sunil Kumar, A. Sujith, G. Unnikrishnan	Organic vapour permeation through membranes based on ethylene propylene diene monomer and polyvinyl chloride	Journal of Elastomers and Plastics	2011 [In Press]
P. Aneesh, Rosilda Selvin, G. Unnikrishnan, Hsiu-Ling Hsu, M. Bououdina,	A facile method for the fabrication of hierarchical porous nanocrystalline zeolite silicalite-1	International Journal of Materials Engineering Innovation	2, 1, 2011, 30- 37
Sreekumar P. A., Joseph K., Unnikrishnan G. and Thomas S	Surface Modified Sisal Fiber Reinforced Eco-Friendly Composites: Mechanical, Thermal and Diffusion studies	Polym. Compos.	32(1), 2011, 131-138.
Manoj, K.C., Prajitha Kumari, Unnikrishnan, G	Cure Characteristics, Transport Behaviors and Mechanical Properties of Black Filler Reinforced EPDM/NBR Blend System	J. Appl. Polym. Sci	120(5), 2011, 2654-2662
Sreekumar P. A., Selvin Thomas P., Jean Marc Saiter, Unnikrishnan G. and Sabu Thomas	Viscoelastic and Thermal Properties of Eco-friendly Composites Fabricated by Resin Transfer Molding	J. Reinf. Plast.Comp	30(17), 2011, 1509-1516
Sreekumar P. A., Jean marc Saiter, Kuruvilla Joseph, Unnikrishnan G. and Sabu Thomas	Electrical Properties of Sisal Fibre Reinforced Polyester Composites Fabricated by Resin Transfer Moulding	Composite Part A: Applied Science and Manufacturing	43(3), 2011.507-511.

a.A.a.ii.i.l.a.ii. International Conference

Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
Renu Jose, A. Sujith, P.Predeep	Effect of concentration and humidity on the formation of porous polymer films using styrene butadiene copolymer	Optics 11, NIT Calicut, <b>AIP Conference Proceedings</b>	1391, 2011, 808
Suraj Varma, Guthrie J. T. and Unnikrishnan G.	Development and Characetrization of Ethylene Vinyl Acetate Copolymer/Chitin nanocomposites	Advances in Polymer Science and Technology, APSRT- Kharagpur	2011, 198
Silviya E. K., Tania Francis, Unnikrishnan G., Soney Varghese and Guthrie J. T.	Dispersion of Cellulose Whiskers in EVA Matrix	Challenges in nanoscience and Technology, CNT-2011	2011
Silviya E. K., Unnikrishnan G. and Tania Francis	Organic Vapour Permeation through Poly(ethylene-co-vinyl acetate)/Cellulose Composite Films	Advances in Polymer Science and Rubber Technology, APSRT	2011

a.A.a.iii.  
Conference :NIL

National

b.  
Services

Community

Name of Staff	Details
G. Unnikrishnan	For college students and teachers, delivered 14 lectures for inculcating aptitude and passion for research in chemistry
Dr. A. Sujith	Programme Coordinator, National Service Scheme, NIT Calicut
Mr. Prakash Peter	Member of the integrated socio economic survey of Chathamangalam Grama panchayath conducted by NSS unit of NITC Volunteer, pain and Paliative Care Society, Medical College, Calicut

c.  
Academic and Administrative Services

Other

Name of Staff	Academic and Administrative Services
Dr. Lakshmi C	1. Faculty advisor, S6 M.Sc (Tech ) Polymer Science and Technology 2. Stores and Purchase in charge, chemistry department 3. HOD from November 2011 onwards
Dr. A. Sujith	1. Programme Corodinator, National Service Scheme, NIT Calicut 2. Ist Year B.Tech Laboratory Coordinator
Dr. Lisa Sreejith	1. First year B.Tech Coordinator
Mr. Prakash Peter	1. Staff in charge of stores and purchase

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

Sl.No	Title	Coordinators	Duration & Period
1	Faculty Development Programme : Current Trends in Organometallic Chemistry	Dr. Parameswaran P. Dr. Suni Vasudevan	4 <sup>th</sup> – 8 <sup>th</sup> July, 2011
2	National Seminar on Development of Chemistry through Ages	Dr. Lisa Sreejith	4 <sup>th</sup> – 6 <sup>th</sup> August 2011
3	Inspire 2011	Dr. A. Sujith (Joint Coordinator)	Dec, 2011
4	FDP on Materials Present & Future Perspectives	Dr. Lakshmi C, Dr. A. Sujith	12 <sup>th</sup> – 16 <sup>th</sup> Dec, 2011

e. Expert lecturers delivered in Conferences/Seminar/workshops

Sl. No.	Name of Staff	Title of the Programme	Duration and Period	Organization
1	Dr. C. Arunkumar	FDP Programme on Current Trends in Organometallic Chemistry	5 days, 4 <sup>th</sup> – 8 <sup>th</sup> July 2011	NIT Calicut
		FDP Programme on Materials: Present and Future Perspectives	5 days, 12 <sup>th</sup> – 16 <sup>th</sup> December 2011	NIT Calicut
		Celebration of International	2 days, 28 <sup>th</sup> -29 <sup>th</sup>	St. Thomas Higher Secondary

		Year of Chemistry, Kimia 2011	October 2011	School, Engandiyur, Thrissur (Dist), Kerala
		One of the judges, Science exhibition held on 04-11-2011 as "Spring Fair 11	04-11-2011	Spring Valley School (Senior Secondary co-educational English Medium School), NIT Calicut
		<b>Session chair, (Optical communications – Session 10) for Optics 11 - International Conference on Light, NIT Calicut, 23<sup>rd</sup> – 25<sup>th</sup> May, 2011</b>	<b>23<sup>rd</sup> – 25<sup>th</sup> May, 2011</b>	NIT Calicut
2.	Dr. Parameswaran P.	Faculty Development Programme : Current Trends in Organometallic Chemistry	5days, 4 <sup>th</sup> – 8 <sup>th</sup> July, 2011	NIT Calicut
		National Seminar on 'Nanoscience and Programming in Chemistry'	2 days, 8th -9th Dec, 2011	St. Thomas' College, Thrissur-Kerala
		National Seminar on Recent Trends in Chemistry CHEMSEM 2012	2 days, 28 <sup>th</sup> – 30 <sup>th</sup> January, 2012	K.K.T.M. Govt. College Pullut, Kerala
		National Seminar	1 day	MAMO College Calicut, Kerala
3.	Dr. Lakshmi C	Faculty Development Programme : Current Trends in Organometallic Chemistry	5days, 4 <sup>th</sup> – 8 <sup>th</sup> July, 2011	NIT Calicut

- f. Details of Faculty, who acquired Higher Qualification:NIL  
g. Consultancy and testing:NIL  
h. Patents acquired and filed:NIL  
i. Student achievements:NIL

#### DEPARTMENT OF PHYSICS

- a. Publications  
i. Journal

Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p
Shahul Hameed.T.A, Aneesh.J, M.R.Baiju and <b>P.Predeep</b>	Comparison of Electrical and Optical Behaviors of MEH-PPV and MEHPPV/CNT blend based Polymer Light Emitting Diodes	<b>Transaction of Indian Institute of Metals (Springer)</b>	<b>64(3)</b> 2011) 283
<b>P.Predeep</b> and Bhadrakumari.S,	Microstructural Studies of YBCO/LLDPE Superconductor / Polymer Compositesusing XRD and Raman Spectroscopy	<b>Philosophical Magazine Letters</b>	<b>91(6)</b> , (2011) 40
<b>P. Predeep</b> , Shahul Hameed, and M.R.Baiju	Effect of Annealing of HIL on Electrical and optical properties of OLED ( <b>Invitedpaper</b> )	<b>Solid State Phenomena</b>	<b>171</b> (2011) 19
<b>P Predeep</b>	Magnetic behavior of functionally modified spinel NiO.4CaO.6Fe <sub>2</sub> O <sub>4</sub> nanoferrite	<b>International Journal of Modern Physics B</b>	<b>25(14)</b> (2011) 1971
<b>P.Predeep</b> and Bhadrakumari.S	Microstructure of YBCO/Semicrystalline Polymer Composites and its Effect on Percolation	<b>J Supercond. and Nov Magn,</b>	<b>24</b> (2011):1403
P. Neena, Anisha Mary Mathewa, <b>P. Predeep</b>	Synthesis of highly translucent semiconducting thin films from elastomernanoparticles	<b>Optoelectronics and Advanced Materials – Rapid Communication</b>	<b>5(9)</b> , (2011) 985
Anisha Mary Mathew, <b>P. Predeep</b>	Styrene butadiene co-polymer based conducting polymer composite as an effective corrosion protective coating	<b>Progress in Organic Coatings,</b>	(2011), doi:10.1016/j.porgcoat.2011.09.011
<b>P. Predeep</b> , Anisha Mary Mathew	Intrinsically Conducting Rubbers: Toward Micro Applications	<b>Rubber Chemistry and Technology</b>	<b>84(3)</b> (2011) 366
<b>P. Predeep</b> and S. Najidha	Iodine doping of prevulcanized natural rubber latex and its effect on dynamicalmechanical properties	<b>Rubber Chemistry and Technology</b>	<b>84</b> , 474 (2011); doi:10.5254/1.3592289
T.K.Jaysree and	Non-isothermal crystallization	<b>J. Thermal Analysis.</b>	(In Press: DOI:

<b>P.Predeep</b>	behavior of styrene butadiene rubber/ high density polyethylene binary blends	<b>and Calorimetry</b>	10.1007/s10973-012-2257-y)
<b>P.Predeep</b>	Effect of Low and Chronic Radiation Exposure: A Case-Control Study of Mental Retardation and Cleft Lip/Palate in the Monazite-Bearing Coastal Areas of Southern Kerala	<b>Radiation research 177</b>	109 (2012) DOI: 0033-7587/12
T. A. Hameed Shahul, M. R. Baiju, J. Aneesh, <b>P. Predeep</b>	Impedance spectroscopic studies of Organic Light Emitting Diodes with dimethylsulphoxide doped hole injecting and lithium fluoride electron injecting layers	<b>Optoelectronics and Advanced materials – Rapid communications</b>	6(1,2) 2012, 91
Anisha Mary Mathew, <b>P. Predeep</b>	Styrene butadiene co-polymer based conducting polymer composite as an effective corrosion protective coating	<b>Progress in Organic Coatings</b>	<b>74 (2012) 14</b>
Chandrasekharan .K et.al	$\chi^{(3)}$ measurements in Schiff's base derivatives, Effect of metal nanoparticles		<b>Feb 2012</b>
Chandrasekharan .K et.al	Third order non linear optical response of newly synthesized acceptor/donor substituted propylidene aryloxy acet hydrazide		<b>Jan 2012</b>
Chandrasekharan .K et.al	Preparation and study of non linear optical response in Au and Ag nanoparticles doped PVA/PVP films		<b>Dec 2011</b>

O'Leary, D. M., A. A. Ruth, S. Dixneuf, J. Orphal and <b>R. Varma</b>	"The nearinfrared cavity-enhanced absorption spectrum of methyl cyanide"	<b>J. Quant. Spectrosc. Radiat. Transfer</b>	<b>113, 1138 – 1147 (2012)</b>
V.S. Reddy and A Dhar,	Optical and charge carrier transport properties of polymer light emitting diodes based on MEH-PPV	Physica B: Condensed Matter	Vol. 405, pp. 1596-1602
R. Huber, A. A. Anappara, G. Günter. A. Sell, S. De Liberato, C. Ciuti, G. Biasiol, L. Sorba, A. Tredicucci, A. Leitenstorfer,	Switching ultrastrong light-matter coupling on a subcycle scale	J. Appl. Phys	109 (vol), 102418 (page) (2011)

i.A.a.ii. International Conference

<b>Name of the Author</b>	<b>Title of Paper</b>	<b>Name of International Conference</b>	<b>Vol, Year, p.p</b>
P. Predeep et.al	Effect of concentration and humidity on the formation of porous polymer films using Styrene Butadiene Co-Polymer	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391, 808 (2011)
P. Predeep et.al	Write once read memory device from Tris-8(hydroxyquinoline) aluminium and Indium tin oxide nano particles	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391,805 (2011)
P. Predeep et.al	Development of nano porous polymer membranes by swift heavy ion irradiation	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391, 796 (2011)
P. Predeep et.al	Effect of concentration on the conductivity of ITO nano composite	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391, 781 (2011)
P. Predeep et.al	A Raman investigation of YBCO/Linear low density	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and	1391, 666 (2011)

	polyethylene (LLDPE) Composites	Characterization; Optics 2011: International conference on light	
P. Predeep et.al	Degradation and leakage currents in AIQ3 and MEH-PPV based organic light emitting diodes	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391, 184, (2011)
P. Predeep et.al	Structure analysis of Iodine doped Polyamide Nylon 6 complex films by FTIR spectroscopy and X-ray diffraction studies	AIP Conf. Proc. Optics; Phenomena, Materials, Devices and Characterization; Optics 2011: International conference on light	1391, 128 (2011)
Chandrasekhara n .K et.al	Effect of electric field on nonlinear optical properties of hydrazone doped PMMA films	ICRAM	2012
Chandrasekhara n .K et.al	DFWM studies and ultrafast optical kerr effect measurements of third-order nonlinear optical response in a charge transfer organic material	Optics '11	May 23-25, 2011
P. M. S. Chandran, C. P. Krishnakumar, W. Yuen, M. J. Rood and <b>R. Varma</b>	An Open-path Laser Transmissometer for Atmospheric Extinction Measurements	Optics: Phenomena, Materials, Devices, and Characterisation	AIP Conf. Proc. 1391, 288 – 290.

(iii). National Conference:

Name of the Author	Title of Paper	Name of National Conference	Vol, Year, p.p
P. Predeep et.al	DSC analysis of low density polyethylene/conducting natural rubber nanoparticles composites	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Conducting polypyrrole interacted elastomeric composite by plasma polymerization technique	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Effect of Iodine doping on polyamide nylon 6 films	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Effect of temperature on the performance of organic light emitting diodes	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Synthesis of thermoresponsive nanogels by laser irradiation	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Preparation of conducting composite film with natural rubber and PEDOT: PSS for application in optoelectronic devices	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012
P. Predeep et.al	Bistable memory device based on Natural Rubber molecules	99 <sup>th</sup> Indian science congress, Bhuvanesar	2012

i.A.b. **Community Services**

**Dr. P. Predeep**

- Member: IEEE
- Member: Optical Society of America, (OSA)
- Member of SPIE
- Vice President: Thermophysical properties Society of India.
- Member: Indian Society for the Scientists of Disordered Materials.



- Life member of the Indian Association of Physics Teachers
- Member, Indian Physics Association
- Executive Committee member, Asian Thermophysical properties association
- Member, Board of Editors, Research Journal of Pure and Applied Physics
- Member, Editorial Board, Journal of Engineering and Applied Sciences

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

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

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

(i). President, NITC Staff club

**Dr. Aji .A. Anappara**

(i). Assisted in GATE-2012 entrance examination

i.A.c. Other Academic and Administrative services

<b>Name of staff</b>	<b>Academic and Administrative services</b>
Dr. Chandrasekharan .K	HOD – Physics, BUGS Member, BPGS Member, Senate Member
Dr. Raghu Chatanathodi	Vice-Chairman & Chairman, ETL
Dr. Aji .A. Anappara	Examination In-charge, Dept. in charge of Library In-charge of dept. website, DC member of several students
Dr. M.K. Ravi Varma	Represented Physics in BPGS meetings, Taught Physics at NIT Sikkim on deputation, Served as faculty advisor to 2 Ph.D students, 1 M.Sc. Tech (Photonics) student and one batch of M.Sc. Student, Served as DC member for several Ph.D students, Served as a member of PhD comprehensive examination in Chemistry, Nanoscience and Technology, Mathematics and Physics departments
Dr. Vari Sivaji Reddy	Coordinator - Physics (PH1001) Course , B.Tech 1 <sup>st</sup> year co-ordinator
Dr. P.K. Madhavan Unni	<ol style="list-style-type: none"> <li>1. Warden, NIT-Sikkim students at NITC (July. 2011-present)</li> <li>2. Warden, PG-Flats ( July. 2011 – present)</li> <li>3. Faculty Advisor (Aug 2010 – present) B. Tech Engg. Physics (2010-Batch)</li> <li>4. Class Committee Chairman (Monsoon and Winter Semester 2011-2012) Semester V, VI – B. Tech Engg. Physics Students</li> <li>5. Department Time-Table In-charge ( Dec. 2010-Present)</li> <li>6. B. Tech. Physics Lab (PH1091) Co-ordinator Monsoon Semester (July. 2011 – Dec 2011)</li> <li>7. B. Tech. Physics Lab (PH1091) Co-ordinator Winter Semester (Dec. 2011 – May. 2012)</li> <li>8. Invigilator for JEE 2011 (April 2011)</li> <li>9. Doctoral Committee Member of : (a) Ms. Sheela M. Joseph (Dept. of Physics, NITC) (b) Mr. Suhail K. (Dept. of Physics, NITC)</li> <li>10. Course Faculty for the following courses:  <b>Monsoon Semester (Aug-Dec. 2011) :</b> (1) PH1001 (B. Tech. Semester – I) (2) SHA 605 (M. Sc. Tech (photonics), Semester-III)</li> </ol>

	(3) SHA 798 (M. Sc. Tech. (Photonics), Semester-V) Mini-project (Co-ordinator) (4) PH1091 (B. Tech. Lab) <b>Winter Semester (Dec. 2011 – May 2012):</b> (1) PH1001 (B. Tech. Semester-II) (2) PH2006 (B. Tech. Engg. Physics, Semester IV) (3) SHA 799 (M. Sc. Tech. (photonics), Semester VI) Major Project Course (Co-ordinator) (4) PH1091 (B. Tech. Lab) (5) ZZ1094 (B.Tech. EP, Sem-IV), Co-ordinator (6) PH1002 (B. Tech. Sem-1), Co-ordinator + faculty Major Project Course (Co-ordinator)
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i.A.d. Conferences/Summer/Winter School/Short term courses/Workshops conducted

Sl. No	Title	Coordinators	Duration & Period
1.	INSPIRE 2011	Dr. P. Predeep Dr. M.K. Ravi Varma	Dec 20 to 24, 2011
2.	Optics 2011	Dr. P. Predeep Dr. M.K. Ravi Varma	May 18 to 21, 2011
3.	One day workshop on Clean Energy	Dr. P. Predeep	Feb 22, 2012

i.A.e. Expert lectures delivered in Conferences/Seminar/Workshops

Sl. No.	Name of Staff	Title of the programme	Duration & Period	Organization
1.	Dr. P. Predeep	Invited lecture		ASC, University of Calicut (2011)
2.	Dr. P. Predeep	Invited lecture		SHAR, ISRO, (AP) 2011
3.	Dr. P. Predeep	Invited talk		Amalagiri College, Sept.2011
4.	Dr. P. Predeep	Invited talk		IMN, University of Nantes, France
5.	Dr. P. Predeep	Invited talk		99th Indian Science Congress Bhuvaneswar, Jan. 2012
6.	Dr. P. Predeep	Invited lecture		ASC, Kannur University, Oct.2011
7.	Dr. P. Predeep	BRNS theme meeting on Synchrotron Radiation		RR Centre for Advance Technology Indore, March 2012
8.	Dr. P. Predeep	National Conference on Materials		University of Rajasthan, Jaipur, March 2012
9.	Dr. Aji .A. Anappara	Graphene: Black in colour, bright in future	2 hours	Dept. of Chemistry, NITC

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

g. Consultancy & Testing

Sl. No.	Nature of Service	Organization	Revenue Earned	Status
1.	BIOMASS samples, testing physical properties	NITC, Physics for Airport authority of India, Calicut	Rs. 1103/-	Completed

**PHYSICAL EDUCATION SECTION**

a.i.l.a.i.l.a. Publications

i. Journal :



Sl no	Names of the Journals	Title of the paper & Date	Author (s) Name	Remarks
i.	Journal of Physical Education and Sports Science by NAPESS	"The Indispensability of Olympic Values in University Education", New Delhi-Vol: 1, Article :8, P-44, 2011.	Dr. A.M Najeeb	National
ii.	American Sports Journal	"The Olympic Statement" September 2011	Dr. A.M Najeeb	International
iii	National Association of Physical Education & Sports Sciences Journal.	" Dry –Vs- Wet Fitness Wins the Bet" New Delhi – Vol: 2/ 1 Article 1D : 3	Dr. A M Najeeb	International Online.

ii. International Conference

Sl no	Names of the conferences	Title of the paper with Month & Date	Remarks
i.	Ist International Conference on Sports Economics & Vision of London Olympics 2012 hosted by Delhi University Sports Council, University of Delhi, N. Delhi.	" Olympic Values Education Programme in Campus" 17 to 19 April 2012, New Delhi.	International
ii.	11 <sup>th</sup> International Session for Directors of National Olympic Academies hosted by International Olympic Academy, at Ancient Olympia, Greece.	"Interdisciplinary approaches in the teaching of Olympic Principles to students" 11 to 18 May 2011, Olympia, Greece.	International

iii. National Conference : NIL

a.i.l.a.i.l.b.

Service : NIL

a.i.l.a.i.l.c.

Academic and Administrative Services:NIL

a.i.l.a.i.l.d.

Summer/Winter School/Short term Courses/ Workshops conducted

a.i.l.a.i.l.e. Expert lecturers delivered in Conferences/Seminar/workshops

Community

Other

Conferences/

Sl. No	Title of the platform	International / National	Duration		Co-ordinator, co-coordinator, Delivered Lecture (s)
			Starting month & Year	Ending Month & Year	
i.	11 <sup>th</sup> International Session for Directors of National Olympic Academies hosted by International Olympic Academy, at Ancient Olympia, Greece.	International	11 <sup>th</sup> May 2011	18 <sup>th</sup> May 2011	Delivered Lecture on " Interdisciplinary approaches in the teaching of Olympic Principles to students"

a.i.l.a.i.l.f. Details of Faculty, who acquired Higher Qualification

a.i.l.a.i.l.g. Consultancy and testing :NIL

a.i.l.a.i.l.h. Patents acquired and filed:NIL

a.i.l.a.i.l.i. Student achievements :NIL

### SCHOOL OF NANO SCIENCE & TECHNOLOGY

a. Publications

a.i.l.a.i.l.i.i. Journal

Sl. No.	Name of the Author	Title of Paper	Name of Journal	Vol, Year, p.p.
1	Sooraj K. Prabha and Sarith P. Sathian	Determination of accommodation coefficients of a gas-mixture in a nanochannel with molecular-dynamics	Microfluidics and Nanofluidics	Accepted for publication, 2012

2	Jeetu S. Babu and Sarith P. Sathian	Combining molecular dynamics simulation and transition state theory to evaluate solid-liquid interfacial friction in carbon nanotube membranes	Physical Review E	85, 2012, 051205.
3	Sooraj K. Prabha and Sarith P. Sathian	<a href="#">Molecular-dynamics study of Poiseuille flow in a nanochannel and calculation of energy and momentum accommodation coefficients</a>	Physical Review E	85, 2012, 041201.
4	Nandu Gopan and Sarith P. Sathian	<a href="#">Molecular Dynamics Studies in Nanoscale Liquid Structures: Geometry and Thermal Effects on Nanojet</a>	Molecular Simulation	38, 2012, 179-188.
5	Jeetu S. Babu and Sarith P. Sathian	<a href="#">The role of activation energy and reduced viscosity on the enhancement of water flow through carbon nanotubes</a>	Journal of Chemical Physics	134, 2011, 194509.
6	K. Raji, Shijo Thomas and C. B. Sobhan	A Chemical Kinetic Model for Chemical Vapor Deposition of Carbon Nanotubes,	Applied Surface Science	v. 257, No. 24, pp 10562-10570, 2011
7	Shijo Thomas and C. B. Sobhan	A review of experimental investigations on thermal phenomena in nanofluids	Nanoscale Research Letters	6:377, 2011.
8	V. Sajith and C. B. Sobhan	Characterization of Convective Heat Transfer in Channels of Small Cross Section using Digital Interferometry	Heat and Mass Transfer	47:505-518, 2011.
9	Sajith, Divya Haridas, C. B. Sobhan and G.R.C. Reddy	Convective Heat Transfer Studies in Macro and Mini Channels using Digital Interferometry	International Journal of Thermal Sciences	Vol. 50, No.33, 2011, pp. 239-249.
10	Binoy Baby and C. B. Sobhan	Investigations on Forced Convection in Compact Passages with Surface Irregularities	Heat Transfer Engineering	2012 (Available online).
11	Harish Ganapathy, Emlin V and V. Sajith	"Experimental Investigation on the Effect of Surface Particle Interactions during Pool Boiling of Nanofluids"	International Journal of Thermal Science,	(Elsevier) 50, pp. 2318 - 2327, 2011.
12	V. Sajith and C. B. Sobhan	"Characterization of Heat dissipation from a Microprocessor chip using Digital Interferometry"	IEEE Transactions on Components and Packaging Technologies (Accepted )	2011
13	Manjusha Mathew, S. Sureshkumar, N. Sandhyarani	Synthesis and Characterisation of Gold-Chitosan Nanocomposite and Application of resultant Nanocomposite in Sensors	<i>Colloids and Surfaces B: Biointerfaces</i>	2012, 93, 143-147
14	ParvathyR Chandran, M.Naseer, M. Udupa, N. Sandhyarani	Size controlled synthesis of biocompatible gold nanoparticles and their activity in the oxidation of NADH,	<i>Nanotechnology,</i>	2012, 22 , 015602
15	Manjusha Mathew, N. Sandhyarani	A novel electrochemical sensor surface for the detection of hydrogen peroxide using cyclic bisurea/gold nanoparticles composite.	<i>Biosensors and Bioelectronics</i>	2011, 28, 210-215

16	Mallikharjuna Rao, Soney Varghese	"Synthesis and characterisation of azomethine class thermotropic liquid crystals and their application in nonlinear optics,"	Liquid crystals	2011, 1-8.
17	Kulwant singh, Soney Varghese, V N Uvais, Prachi Sharma and Ashish Kumar.	"Growth Kinetics for Thermal Oxidation of Silicon – The Special case for VLSI/MEMS Technology,"	IUP Journal of Science and technology,	2011, 7 – 13.

ii. International Conference

Sl. No.	Name of the Author	Title of Paper	Name of International Conference	Vol, Year, p.p.
1	Hanas T and G Unnikrishnan	Mechanical Properties of Nano-Silica Reinforced Acrylonitrile Butadiene Rubber	Proceedings of International Conference on Functional Polymers 2011	Jan 28-30, 176-184, NIT Calicut. Kerala
2	Naveen KV, Hanas T and G Unnikrishnan	Development and Characterization of NBR/ Silica Nanocomposites	Proceedings of International Conference on Functional Polymers 2011	Jan 28-30, 240-246, NIT Calicut. Kerala
3	Naveen KV, Hanas T and Unnikrishnan G,	Study on Development and Characterization of Nitrile Butadiene Rubber/Silica Nanocomposites	Proc. of the 5th International Conference on Advances in Mechanical Engineering	June 06-08, 2011 S.V. NIT, Surat, Gujarat.
4	Gibin G, Krishna SR, Sumitesh D, Hanas T, Shijo T and Sobhan CB	Erosion phenomena of Nanofluids on Ductile and Brittle Materials,	3rd International conference on frontiers in Nanoscience and Technology, Cochin nano-2011	Aug 14 – 17.
5	Harish Ganapathy, Emlin V and V. Sajith	Semi - analytical modeling of pool boiling of Nanofluids", ,	IMECE 2011, ASME 2011 international Mechanical engineering Congress & Exposition	November 11 -17, 2011, Denver, Colorado, USA.
6	Harish Ganapathy, Emlin V, Anant Narendra Parikh and V. Sajith	"Experimental Investigation on Surface Particle Interactions during Pool Boiling of Nanofluids"	ASME 2011 9 <sup>th</sup> International conference on Nanochannels, Microchannels and Minichannels	June 19 -22, 2011, Edmonton, Canada
7	Abdul Rasheed P. and N. Sandhyarani	Synthesis of Fluorescent MgO nanoparticles for biomedical applications.	Bangalore Nano, Bangalore, 2011.	2011
8	Manjusha Mathew and N. Sandhyarani,	Electrochemical glucose biosensor based on palladium nanoparticles decorated carbon nanotube	Cochin nano, Cochin, 2011.	2011
9	Parvathy R. Chandran, Dijo Prasannan and N. Sandhyarani,	Green synthesis of gold and silver nanoparticles using root extract of <i>Asparagus racemosus</i> .	Cochin nano, Cochin, 2011.	2011
10	Reny Thankam Thomas and N. Sandhyarani,	Size dependent and doping effect on the photocatalytic degradation of congo red using titanium dioxide nanoparticles	Cochin nano, Cochin, 2011.	2011
11	Manjusha Mathew and N. Sandhyarani,	Electrochemical detection of lead using chitosan gold	CRSI National Symposium, Trivandrum, 2010.	2010

		nanocomposite.		
12	Vaishakh Nair, N. Sandhyarani	Studies on the Photodegradation of TiO <sub>2</sub> Incorporated Polyethylene –Film Under Visible Light and UV Radiation,	International Conference on Advances in Polymer Technology, Kochi, India, 2010	2010
13	Sharu B.K., Krishna Sabareesh, Sumitesh Das, Shijo Thomas, C B Sobhan	Convective Heat Transfer Characteristics of TiO <sub>2</sub> nanofluid at high pressures	Cochin Nano 2011	2011
14	Jishnu S., Hanas T, Donna Mathew	Investigations of the influence of nanoclay modifications on poly benzoxazine/silica fibre composites	Cochin Nano 2011	2011
15	K Raji, C B Sobhan	Temperature dependence of Thermal conductivity of single walled CNT	Cochin Nano 2011	2011
16	Jeetu S. Babu, Sarith P. Sathian	Effect of chirality on the flowrate and viscosity of water confined in carbon nanotubes	Cochin Nano 2011	2011
17	Nandu Gopan, and Sarith P. Sathian.	Effect of pressure and temperature in water nanojet generation through carbon nanotubes	Cochin Nano 2011	2011
18	Jeetu S. Babu, and Sarith P. Sathian.	Hydrodynamic analysis of ion movement over graphene using transition state theory	International Conference on Nanoscience and Technology. Hyderabad 2012.	2012
19	Rajshree, Subash C K, Uvais V N, Soney Varghese.	Nanoscale Mechanical behavior of polyimide/MWCNT Composite By Nanoindentation	Advances in Materials Science : Macro to Nano Scales, Union Christian College Aluva, Kerala.	

iii. National Conference : NIL

**b. Community Services :NIL**

**c. Academic and administrative Services**

Sl. No.	Name of Staff	Academic & Administrative Services
1.	C. B. Sobhan	Head
3.	Sarith P. Sathian	1. Central Computer Centre in Charge 2. Co-ordinator, M. Tech. & Ph. D. Students, SNST 3. Lab-in-Charge, Computational Nanotechnology Laboratory, SNST 4. Member, Purchase Committee, SNST
4.	Sajith V.	1.Coordinator, Nanofuels Laboratory 2. Co co-ordinator, Nanotechnology Research Lab 3. Time Table in charge, SNST

		4. Member, Purchase Committee, SNST 4. Faculty Advisor, SAE Collegiate Club, NITC
5.	Soney Varghese	1. SEM and SPM Manager 2. Convenor, Purchase Committee, SNST
6.	Hanas T.	1. Centre Manger, SEM Centre 2. Exam-in-Charge, SNST 3. Associate Editor, Research Review 4. Faculty-in-charge, Club Unwired, NITC 5. Coordinator, NIAH
7.	Shijo Thomas	1. Staff Secretary, SNST 2. Faculty Advisor, SAE Collegiate Club, NITC 3. Faculty-in-Charge of Enquire, Quiz Club, NITC 4. Staff Editor, TechNanos (News Letter of SNST)

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

Sl. No.	Name of staff	Title of the programme	Duration & Period	Organization
1.	Dr.N.Sandhyarani Dr.Soney Varghese	FDP on "Advanced Nanomaterials Process, Characterization and Applications"	6-12 July 2011	NIT Calicut

e. Expert lectures delivered in conferences/seminars/workshops

Sl. No.	Name of staff	Title of the programme	Duration & Period	Organization
1	C.B. Sobhan, N. Sandhyarani, Sarith P. Sathian, Soney Varghese, Sajith V., Shijo Thomas, Hanas T.	Advanced Nanomaterials Process, Characterization and Applications.	July 2011	NIT Calicut.
2	Dr.C.B.Sobhan	One day workshop on Heat Pipes	One day	Government College of Engg, Kannur
3.	Dr.N.Sandhyarani	Functionalized nanomaterials for chemical and bio sensor development, Chennai Chemistry conference.	2011	Chennai

f. Details of faculty who acquired higher qualification:NIL

g. Consultancy and testing :NIL

h. Patents acquired and filed

- Gibin George, Hanas T., Shijo Thomas, Sajith V., C.B. Sobhan, A system for determining material surface erosion caused by impingement of nanofluids on pipes carrying nanofluids. Indian Patent Filing no: 181/KOL/2011 dated 11.2.2011
- Gobinath N., Sajith V., Hanas T., Shijo Thomas, C.B. Sobhan, A process for determining lubricant composition in a vapour compression refrigeration system to enhance the coefficient of performance. Indian patent filing no: .683/ KOL / 2011dt 18.05.2011; US patent (PCT) filing no:PCT/IN2011/000514

(i) Student achievements :NIL

## SCHOOL OF MANAGEMENT STUDIES

### a. Publications

i. Journal :NIL

### ii. International Conference

Name of the Author	Title of Paper	Name of International conference	Vol, Year, p.p.
Dr. Muhammad Shafi	TESTING THE EFFICIENCY OF INDIAN STOCK MARKET: A CASE OF SELECT IT COMPANIES IN BOMBAY STOCK EXCHANGE	4th International Business and Social Science Research Conference DATES: 5-7 January 2011	ISBNISBN : 978-1-922069-03-0

iii. National Conference: NIL

b. Community Services: NIL

c. Other Academic and Administrative Services: NIL

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

Sl.No	Title	Coordinators	Duration & Period
1	Conducted course on "Corporate Governance and Social Responsibility"	Dr.Muhammad Shafi	19 Mar 2012
2	Workshop on Data Analysis Using SPSS	Dr.Muhammad Shafi	19 July 2011

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

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

g. Consultancy and testing: NIL

h. Patents acquired and filed: NIL

i. Student achievements :NIL

## SCHOOL OF BIOTECHNOLOGY

### a. Publications

#### i. Journal

Name of the Author	Title of the paper	Name of conference	Publications/ Journal
Bae ON, Rajanikant GK, Min J, Smith J, Baek SH, Serfozo K, Hejbian S, Lee KY, Kassab M, Majid A. L	ck activation mediates neuroprotection during ischemic preconditioning.	Journal of Neuroscience	2012 (Accepted).
Pradeep H, Rajanikant GK	Nanochannels: biological channel analogues	IET Nanobiotechnol	6(2), 2012, 63-70
Nair SB, Teli MK, Pradeep H, Rajanikant GK	Computational identification of novel histone deacetylase inhibitors by docking based QSAR	Comput Biol Med	2012 [Epub ahead of print]
Jagetia GC, Rajanikant GK	Acceleration of wound repair by curcumin in the excision wound of mice exposed to different doses of fractionated $\gamma$ radiation	Int Wound J	9(1), 2012, 76-92
Teli MK, Rajanikant GK	Identification of novel potential HIF-prolyl hydroxylase inhibitors by in silico screening	Mol Divers	16(1), 2012, 193-202
Nair SB, Dileep A, Rajanikant GK	Nanotechnology based diagnostic and therapeutic strategies for neuroscience with special emphasis on ischemic stroke	Curr Med Chem	19(5), 2012, 744-56
Fayaz SM, Rajanikant GK	A critical appraisal of the functional evolution of P2Y12 antagonists as antiplatelet drugs	Curr Pharm Des	18(12), 2012, 1625-34
Teli MK, Rajanikant GK	Pharmacophore generation and atom-based 3D-QSAR of novel quinoline-3-carbonitrile derivatives as Tpl2 kinase inhibitors	J Enzyme Inhib Med Chem	2011. [Epub ahead of print]

<a href="#">M. Anaul Kabir</a> , <a href="#">Wasim Uddin</a> , <a href="#">Aswathy Narayanan</a> , <a href="#">Praveen Kumar Reddy</a> , <a href="#">M. Aman Jairajpuri</a> , <a href="#">Fred Sherman</a> and <a href="#">Zulfiqar Ahmad</a>	Functional Subunits of Eukaryotic Chaperonin CCT/TRiC in Protein Folding	Journal of Amino Acids.	2011; 2011: 843206
M.S.Khan, P.Singh, A.Azhar, A.Naseem, Q.Rashid, M.A.Kabir and M.A.Jairajpuri	Serpin inhibition mechanism : A delicate balance between native metastable state and polymerization.	Journal of amino acid,	Vol. 2011, Article I.D 606797.

ii. International Conference:

Name of the Author	Title of Paper	Name of International Conference	Vol, Year, p.p.
Mahesh Kumar Teli, Rajanikant G. K	Identification of novel HIF Prolyl Hydroxylase inhibitors by pharmacophore based virtual screening: A new approaches	International Conference on Genomics and Proteomics	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
Syam B. Nair, Mahesh Kumar Teli, Pradeep H. and Rajanikant G. K	3d-Qsar And pharmacophore generation of benzimidazole and imidazole derivatives as histone deacetylase inhibitors	International Conference on Genomics and Proteomics	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
Fayas SM and Rajanikant G. K	Role of Hemagglutinin (HA) in 2009 H1N1 Pandemic and exploitation of HA Protein as a Potential Drug Target	International Conference on Genomics and Proteomics	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
Mahesh Kumar Teli, Rajanikant G. K	Identification of novel HIF Prolyl Hydroxylase inhibitors by in silico virtual screening	Indo-US Workshop on Biocomputing (ISB-2011)	National Institute of Technology Calicut, Calicut, Kerala, India, 12-13 September 2011
Aswathy N., Ummu Habeeba K., Praveen Kumar Reddy, Wasim Uddin, M. Anaul Kabir	Post translational modifications of CCT subunits- A Bioinformatic Analysis	International Conference on Genomics/Proteomics (ICGP 2011),	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
P.K. Reddy, Wasim U. Aswathy N. U.Habeeba and M.A.Kabir	Isolation and characterization of negative regulators for L-sorbose utilization on <i>Candida albicans</i> .	International Conference on Genomics/Proteomics (ICGP 2011),	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
Wasim U ,P.K. Reddy, Aswathy N. U.Habeeba and M.A.Kabir	A Novel molecular mechanism for fluconazole resistance in <i>Candida albicans</i>	International Conference on Genomics/Proteomics (ICGP 2011),	National Institute of Technology Calicut, Calicut, Kerala, India, 14 - 16 July 2011
Aswathy Narayanan, Praveen Kumar Reddy, Wasim Uddin and M.A.Kabir	Understanding the functional aspects of the eukaryotic chaperonin CCT in <i>Saccharomyces cerevisiae</i>	International Conference On Yeast Biology (ICYB 2011),	IITB, December 2011, Proceedings of ICYB 2011 pp:44
Wasim U ,P.K. Reddy, Aswathy N. and M.A.Kabir,	Fluconazole resistance Vs chromosome copy number in opportunistic fungal pathogen <i>Candida albicans</i>	International Conference On Yeast Biology (ICYB 2011),	IITB, December 2011, Proceedings of ICYB 2011 pp:91
P.K. Reddy, Wasim U. Aswathy N. and M.A.Kabir	Understanding the regulation of L-sorbose utilization in human fungal pathogen <i>Candida albicans</i>	International Conference On Yeast Biology (ICYB 2011)	IITB, December 2011, Proceedings of ICYB 2011 pp:64

iii. National Conference:

Name of the Author	Title of Paper	Name of National Conference	Vol, Year, p.p.
Resna A K, Geethu, Sumna, Aswati Nair R	Cell wall degrading hydrolytic enzymes of <i>Pythium myriotylum</i> , a necrotrophic phytopathogen.	Kerala Science Congress	2012, : 237



Resna A K, Geethu, Sumna, Aswati Nair R	Experimental and theoretical investigations on the anti-oomyceteous activity of paromomycin targeted against <i>Pythium tubulin</i>	Kerala Science Congress	2012, 238
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b. Community Services:

Organized a laboratory demonstration programme for students of GHS School, Mavoor on 19.11.2011.

c. Other Academic and Administrative Services: NIL

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

Sl.No	Title	Coordinators	Duration & Period
1.	International Conference on Genomics/Proteomics (ICGP 2011),	Dr. A. Santhiagu	3 days, 14 to 16-July 2011

e. 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.	Emerging Trends in Nanoparticle Characterization Techniques – Need for Harmonization	2011	Manipal College of Pharmaceutical Sciences, Manipal University, Manipal,

## 11.0 ANNEXURES

### 11.1 INSTITUTE'S COUNCIL

1. Dr. M N Bandyopadhyay, Director & Chairman
2. Dr. V K Govindan, Dean (Academic)
3. Dr. N Ganesan, Dean (P&D)
4. Dr. R Vijayakumar, Dean ( F&W)
5. Dr. Jose Mathew, Dean (R&C)
6. Dr. C Muraleedharan, Dean (SW)
7. Dr. A Kalanidhi, External member
8. Dr. Dr. R M Vasu, External member
9. Dr. Evangeline Manickam, External member
10. Dr.T L Jose, Professor,EED
11. Dr. Prabhakaran K, Prof.MED
12. Dr. T P Somasundaran, Prof. CED
13. Dr.Mustafa V, Prof. CED
14. Dr. S Chandrakaran, Professor,CED
15. Dr. P Syamala, HOD CED
16. Dr. Muhammed Ameen, Prof. CED
17. Dr. MVLR Anjaneyalu, Prof. CED



18. Dr. A P Sasikala, Prof. CED
19. Dr. N Sankar, Prof. CED
20. Dr. Zacharia Varghese, Prof. CED
21. Dr. J Sudhakumar, Prof. CED
22. Dr. Indira P V, Prof.CED
23. Dr. T M Madhavan Pillai, Prof. CED
24. Dr. Priya Chandran, Professor & Head,CSED
25. Dr. P Vineeth Kumar, Prof. CSED
26. Dr. Paul Joseph, Prof. EED
27. Dr. Abraham T Mathew, Prof. EED
28. Dr. R Sreeram Kumar, HOD, EED
29. Dr. Susy Thomas, Prof. EED
30. Dr. Jeevamma Jacob, Prof. EED
31. Dr. K S Sivanandan, Prof. EED
32. Dr.M V Vydian, professor,EED
33. Dr. Ashok S, Prof. EED
34. Dr. P S Sathidevi, HOD ECED
35. Dr.Lilly Kutty Jacob, Prof. ECED
36. Dr. Elizabeth Elias, Prof. ECED
37. Dr. T K Suresh Babu, Prof. T & P
38. Dr. K Chandrasekharan, Prof. Physics
39. Dr. P Pradeep, Prof. Physics
40. Dr. Jessy John C, HOD MAT
41. M J Jacob, Prof. Maths
42. Dr. S Jayaraj, Prof. MED
43. Dr. K Allesu, Prof. MED
44. Dr. R Sridharan, HOD MED
45. Dr. N Ramachandran, Prof. MED
46. Dr. P K Rajendrakumar, Prof. MED
47. Dr. A Ramaraju, Prof. MED

48. Dr. M L Joy , Prof. MED
49. Dr. V Sivasubramanian, HOD CHED
50. Dr. Kasthurba A K, HOD ARC
51. Dr. G Unnikrishnan, Prof. Chemistry
52. Dr. Lakshmi C, HOD Chemistry
53. Dr. Anaul Kabir,HOD,SBT
54. Dr. C B Sobhan, HOD SNST
55. Dr. P V Ramachandran, Prof. MED
56. Dr. P C Subramaniam, Prof. ECED
57. Sri. P K S Raja, Registrar & Secretary

## 11.2 BOARD OF GOVERNORS

1.	Chairman	Dr. C.G. Krishnadas Nair, Hony. President , Society of indian Aerospace Technologies & Industrie,s AeSI Building, Suranjandas Road, Off:Old Madras Road, Bangalore - 560075(Karnataka)
2.	Ex. Officio Member	Dr. M N Bandyopadhyay, Director, National Institute of Technology, Calicut (Kerala)
3.	Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical Education, Department of Higher Education, Ministry of Human Resource Development, New Delhi
4.	Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource Development, New Delhi
5.	Member	Prof. M Vijayan, Distinguished Professor and Homi Bhaba Chair, Molecular Bio Physics Unit, Indian Institute of Science, Bangalore - 560012(Karnataka)
6.	Member	Smt. Uma Pillai, IAS Former Secretary, Ministry of Tourism and Former Secretary, Department of Defence Production & Supplies, Government of India
7.	Member	Dr. T.K. Suresh Babu,Professor(T&P),NIT Calicut.
8.	Member	Dr.Muralikrishnan K,Assistant Professor(CSE),NIT Calicut.
9.	Secretary	Registrar,National Institute of Technology, Calicut (Kerala).

## 11.3 FINANCE, BUILDING AND WORKS AND OTHER COMMITTEES

### MEMBERS OF THE FINANCE COMMITTEE

1	Chairman, BOG	Dr. C.G. Krishnadas Nair, Hony. President , Society of indian Aerospace Technologies & Industrie,s AeSI Building, Suranjandas Road, Off:Old Madras Road, Bangalore - 560075(Karnataka)
2	Member	Dr. M N Bandyopadhyay, Director, National Institute of Technology, Calicut (Kerala)
3	Member	Special Secretary or Additional Secretary or Joint Secretary dealing with Technical Education, Department of Higher Education, Ministry of Human Resource Development, New Delhi
4	Member	Financial Advisor, Department of Higher Education, Ministry of Human Resource Development, New Delhi
5	Member	Smt. Uma Pillai, IAS Former Secretary, Ministry of Tourism and Former Secretary, Department of Defence Production & Supplies, Government of India
6	Member	Dr. T.K. Suresh Babu, Professor (T&P), NIT Calicut.
7	Secretary, BOG	Registrar, National Institute of Technology, Calicut (Kerala).

### MEMBERS OF BUILDINGS AND WORKS COMMITTEE

Sl. No	Name	Address
1	Dr.M.N.Bandyopadhyay	Director, National Institute of Technology, Calicut, NIT Campus PO, Calicut 673 601
2	Dr.S.Chandrakaran	Professor,CED, NIT Calicut.
3	The Registrar	Secretary (BWC), NIT Calicut.
4	Dr. K.Krishnamurthy,	Executive Engineer,NIT Calicut.
5	Dr. N.Ganesan	Dean, Planning & Development
6	Dr. Muralikrishnan,	Asst. Professor, CSED,NIT Calicut.
7	Shri.Rajesh Singh,	Dy. Secretary (NITC), Dept. of Education, MHRD, Sasthribhavan, New Delhi – 110 015
8	Sri.K.Sundaran,	Chief Engineer, Office of the Chief Engineer, Local Self Govt. Dept.,3 <sup>rd</sup> Floor, Revenue Complex, Public Office Compound, Thiruvananthapuram - 695 033Ph: 0471 2324951 Mobile No. 9447009951, 9447455486
9	Shri.S.V. Avudaiappan	Executive Engineer (Elec.), CPWD, Kakkanad,Kochi.Mobile No. 9446073729

#### 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	FRG project at NITC	Mr. Haribabu	NITC	2011	5 lakhs	
2	FRG project at NITC	Mr. Vineesh Ravi	NITC	2011	5 lakhs	
3	FRG project at NITC	Dr.Selvaraju	NITC	2010	5 lakhs	
4	FRG project at NITC	Smt. S. Bhuvaneshwari	NITC	2010	5 lakhs	
5	DST project	Smt. S. Bhuvaneshwari	NITC	2009	20 lakhs	

##### DEPARTMENT OF CIVIL ENGINEERING

SI No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (``)	Status
1	Seismic Evaluation of Existing Multi-storey buildings in Kozhikode district"	Dr. Praveen Nagarajan	KSCSTE, Kerala	2011	9.9 lakhs	On going
2	Development of an Interoperable Spatial Database of Road Network for Calicut District	Dr. M.VL.R.Anjaneyulu	NRDMS DST, Govt. of India	2008	16.81 lakhs	On going
3	Investigation of Performance Characteristics of modified bituminous mixtures	Dr. M.VL.R.Anjaneyulu	Kerala State Council For Science, Technology And Environment	2008	10.21 lakhs	On going
4	Development of Activity based Models for Forecasting of Travel Demand, in collaboration with Centre of Excellence in Urban Transport	Dr. M.VL.R.Anjaneyulu	Indian Institute of Technology Madras, sponsored by Ministry of Urban Development	2010	9.99 lakhs	On going
5	Development of A Toolbox for Evaluation and Identification of Urban Road Safety Improvement Measures, in collaboration with	Dr. M.VL.R.Anjaneyulu	Indian Institute of Technology Madras, sponsored by Ministry of Urban Development	2010	15.00 lakhs	On going

	Centre of Excellence in Urban Transport					
6	Simplified Models for Torsional Mode Prediction of Tall Buildings under Earthquake	Dr. T P Somasudaran	Kerala State Council For Science, Technology And Environment	2009	11.90 lakhs	On going
7	Use of Coir Pith for Airport Soft Ground Arrester System	Dr. MVLR Anjaneyulu; Dr. S. Chandrakaran, Dr. A.P. Shashikala, Dr. K. Rangaswamy, and Sri. Sajith A.S.	Coir Board, MMSME, GOI, Kochi, Kerala.	2011	113.124 lakhs	On going
8	Study of Long Term Performance Of Pavements Reinforced With Coir Geotextiles	Dr. MVLR Anjaneyulu	Coir Board, MMSME, GOI, Kochi, Kerala	2011	268.114 lakhs	On going

#### DEPARTMENT OF ELECTRICAL ENGINEERING

Sl. No	Title of the project	Investigators	Sponsoring Agency	Year of Starting	Amount (Rs)	Status
1.	"A Closed Loop Control Strategy for Selective Harmonic Detection and Elimination for Generic Multilevel Inverter Configuration"	Dr. Mukthi Barai.	NITC	2011	5 Lakhs	Completed the literature study and planning for prototype buildup.
2.	Development of composite insulators for high energy storage applications	Sindhu T K	DST	2011	24 Lakhs	ongoing
3.	Development of nano composite insulators.	Sindhu T K	FRG	2011	5 Lakhs	ongoing
4.	Development of Centre for Distributed Energy Research'	Dr Ashok S	DST-FIST	2009	100 lakhs	ongoing
5.	Development of intelligent robot for fault diagnosis of power lines	Dr Ashok S	KSCSTE	2011	11 lakhs	ongoing

#### DEPARTMENT OF ELECTRONICS & ENGINEERING

Sl. No.	Title of the Project	Investigators	Sponsoring Agency	Year of Starting	Amount (Rs)	Status
1	Optimization of Power Semiconductor devices	Dr. Rama Subrahmanyam Komaragiri	NIT Calicut	2010	4,68,000	Ongoing
2	MEMS Design Centre	Dr. Rama Subrahmanyam Komaragiri	NPMASS	2009	Various software bundles are awarded	Ongoing

#### DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Project Title	Period	Amount Received	Funding Agency	Status	Name(s) of faculty involved
1	Analysis and modeling of world class manufacturing systems	2009-2012	Rs.25 Lakhs	AICTE	In progress	Dr. R Sridharan Dr. V Madhusudanan Pillai Dr. T Radha Ramanan
2	ICT project on production management systems	2010	Rs. 4 lakhs	MHRD	In progress	Dr. T Radha Ramanan
	Concurrent Monitoring, Supervision and Impact Assessment Study of	2011	Rs 16.78 lakhs	MRD	Sanctioned	Dr. V. M. Pillai & Dr. R. Sridharan

Sl. No	Project Title	Period	Amount Received	Funding Agency	Status	Name(s) of faculty involved
3	Mahatma Gandhi National Rural Employment Guarantee Act					
4	Time & Motion Study	2011	Rs 3.0 lakhs	KILA	Sanctioned	Dr. V. Madhusudanan Pillai
5	Retractable mobile low cost homes for economically under developed regions	2011	Rs 2,25,000/-	Talent Search Student's Projects	Sanctioned	Mr. A. P. Sudheer
6	Orthopedic driller	2011	Rs 50,000/-	NIT Calicut	Completed	Dr. N. Ramachandran
7	Modeling and experimental analysis of micro end milling processes	2011	Rs 22,300/-			Dr. Jose Mathew
8	Analysis of a new design for Rubber Sheet Curing	2011	Cost: Rs 5000/-			Dr. Arun P. and Dr. S. Jayaraj

#### DEPARTMENT OF MATHEMATICS

Sl. No	Title of the project	Investigators	Sponsoring agency	Year of starting	Amount(Rs.)	Status
1	Clustering using fuzzy graphs	Dr. M S Sunitha & Dr. Sunil Mathew	NBHM	2009	Rs. 3,09,500	On going
2	Fiber dynamics MHD fluids	Dr. Satyananda Panda	FDP, NITC	2008	Rs. 5,00,000	On going
3	Fuzzy Networks	Dr. Sunil Mathew	UGC	2010	Rs. 70,000	Completed
4	Applications of Partial Cuts in Graph Networks	Dr. Sunil Mathew	FRG Scheme of NIT Calicut	2010	Rs. 5,00,000	On going
5	Bayesian Reliability Estimation, Prediction and Test Plans for Multi-component Systems	Dr. Mahesh Kumar	FRG Scheme of NIT Calicut	2011	Rs. 5,00,000	On going
6	Business Statistics and Predictive Analytics	Dr. Jessy John C, Dr. Mahesh Kumar	Training programme for Arbitron Technology Services, India, Pvt (Ltd), Kochi	Jan. 7-9, 2012	Rs. 1,35,000	Conducted

#### DEPARTMENT OF CHEMISTRY

Sl. No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Rs)	Status
1.	Development of Pro-fluorophore scaffolds to study peptide aggregation and conformational transitions	Dr. Lakshmi C	DST	2011	20.7 Lakhs	Ongoing
2.	Design and Synthesis of Spiropyran-Based Size Tunable Ionophore- Modular Systems for Ion-transport, Sensing and Antimicrobial Properties	Dr. Lakshmi C	FRG, NITC	2010	5 lakhs	Ongoing
3	Development of Au(III) polypyridyl complexes as antiproliferative	Dr. Suni Vasudevan	NIT Calicut	2010	5,00,000	Ongoing

	agents					
4	Novel Functionalized Porphyrinic Coordination Arrays, Polymers and Frameworks: Synthesis and Properties	Dr. C. Arunkumar	DST	2012	21,80,000	Will be implemented
5	Multiferroic polymer nanocomposite structures for spintronic memory devices	Dr. G. Unnikrishnan	Inter NIT Project	2008-2011	4,00,000	
6	Development and characterization hierarchical zeolites for fine chemical synthesis	Dr. G. Unnikrishnan	DST	2012-	39,70,000	

#### DEPARTMENT OF PHYSICS

Sl. No	Title of the project	Investigators	Sponsoring Agency	Year of starting	Amount (Rs.)	Status
1.	Electronic structure studies of adsorption of unsaturated hydrocarbons on metal catalysts	Raghu Chatanathodi	CSIR	2012	19 Lakhs	Ongoing

#### SCHOOL OF NANO SCIENCE & TECHNOLOGY

Sl. No	Title of the project	Investigators	Sponsoring agency	Year of starting	Amount in Rs.	Status
1	Holographic Studies on Mini Channels for Optimal Thermal Design of Microelectronic Systems	C. B. Sobhan and V. Sajith	DST	2006	20 Lakhs	Completed
2	Investigations on Convective Heat Transfer in Liquid Loops with Nanofluids,	C. B. Sobhan, Shijo Thomas & Hanas T.	BRNS	2007	20 Lakhs	Completed
3	Enhancement of Sensitivity of Peptide Nanotube Based Biosensors Using Gold Nanoparticles	N. Sandhyarani	Dept. of Science and Technology	2007	19.14 Lakhs	Ongoing
4	Multifunctional Plasmonic Nanoparticles for Target Specific Drug Delivery: Synthesis, Evaluation and Toxicological Studies	N. Sandhyarani	Dept. of Biotechnology	2008	45.18 Lakhs	Ongoing
5	Design, Development and Optimization of Miniature and Micro Heat Pipes for Thermal Management of Avionic Devices	C. B. Sobhan, Dr. K.Prabhakaran Nair & V. Sajith	ARDB	2009	10 Lakhs	Ongoing
6	Enhancement of Cooling using nanoparticles for applications at TATA Steel	C.B. Sobhan Shijo Thomas, Hanas T., Sajith V.	TATA Steel	2009	20 Lakhs	Ongoing
7	Investigation on the application of Catalytic Nanoparticles as Diesel and Bio-diesel Additives	Sajith V. C. B. Sobhan Hanas T. N. Sandhyarani	NITC-HPCL Collaborative Project	2010	1.2 Crores	Ongoing
8	DSMC Simulation of Rocket Exhaust Plumes	Sarith P. Sathian	ARDB/DRDO	2010	20 Lakhs	Ongoing

**SCHOOL OF BIOTECHNOLOGY**

SI No	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Rs)	Status
1	Regulation of L-sorbose utilization in human fungal pathogen <i>Candida albicans</i>	Dr. Md. Anaul Kabir	DST	2010	Rs. 32,32,200	Ongoing
2	Development of an extractive fermentation process for enhanced alkaline phosphatase production by recombinant <i>Bacillus licheniformis</i> in aqueous two phase systems	Dr. Santhiagu A	DST	2010	Rs. 17,93,600	Ongoing
3	Molecular and functional characterization of putative ZzR1 resistance gene from <i>Zingiber zerumbet</i> , a wild relative of ginger	Dr. R. Aswati Nair	DBT	2010	21.01 lakhs	Ongoing
4	Molecular cloning and characterization of terpene synthase involved in zerumbone biosynthesis from <i>Zingiber zerumbet</i>	Dr. R. Aswati Nair	DST	2010	16.85 lakhs	Ongoing

5	Identification and characterization of phytochemicals from Indian medicinal herbs for their potential application in cancer chemotherapy	Dr. Rathinasamy K	DBT	2011	19.56 laksh	Ongoing
6	Characterizing the interactions of chlorpromazine with the mitotic kinesin Eg5 and tubulin: Implications in cancer chemotherapy	Dr. Rathinasamy K	DST	2010	38.05 lakhs	Ongoing
7	Investigation of the neuroprotective effects of purmorphamine, a sonic hedgehog agonist against ischemic injury in vitro	Dr. Rajanikant G. K.	DST	2011	27.0 lakhs	Ongoing
8	Combination Therapy in Ischemic Stroke: Evaluation of Synergistic Neuroprotective Effects of Paroxetine and Everolimus	Dr. Rajanikant G. K.	DBT	2011	14.0 lakhs	Ongoing
9	Bioinformatics Infrastructure Facility for Biology Teaching through Bioinformatics	Dr. Rajanikant G. K.	DBT	2011	20.0 lakhs	Ongoing
10	Transcript profiling of differentially expressed gene (s) involved in the downstream step (s) leading to artemisinin biosynthesis on GA <sub>3</sub> induction	Dr. R. Aswati Nair	KSCSTE	2012	16.0 lakhs	Ongoing

#### 11.5 FACULTY POSITION (As on 31.03.2012)

	<i>*Professor</i>	<i>*Asst.</i>	<i>*Lecturer</i>	<i>Total</i>
<b>Architecture</b>				
<b>Sanctioned</b>	1	4	7	12
<b>In Position</b>	0	3	5	8
<b>Vacant</b>	1	1	2	4
<b>Chemical</b>				
<b>Sanctioned</b>	2	3	7	12
<b>In Position</b>	0	3	6	9
<b>Vacant</b>	2	0	1	3
<b>Civil</b>				
<b>Sanctioned</b>	6	12	23	41
<b>In Position</b>	6	8	17	31
<b>Vacant</b>	0	4	6	10
<b>Computer</b>				
<b>Sanctioned</b>	5	9	19	33
<b>In Position</b>	3	1	17	21
<b>Vacant</b>	2	8	2	12
<b>Electrical</b>				
<b>Sanctioned</b>	5	11	22	38
<b>In Position</b>	4	6	16	26
<b>Vacant</b>	1	5	6	12
<b>Electronics &amp; Communication</b>				
<b>Sanctioned</b>	5	10	19	34
<b>In Position</b>	2	9	13	24
<b>Vacant</b>	3	1	6	10
<b>Mathematics</b>				
<b>Sanctioned</b>	3	5	11	19
<b>In Position</b>	0	6	09	15
<b>Vacant</b>	3	-1	02	4
<b>Mechanical</b>				
<b>Sanctioned</b>	10	14	28	52
<b>In Position</b>	7	10	25	42



<b>Vacant</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>10</b>
<b>Science &amp; Humanities</b>				
<b>Sanctioned</b>	<b>2</b>	<b>5</b>	<b>11</b>	<b>18</b>
<b>In Position</b>	<b>2</b>	<b>7</b>	<b>7</b>	<b>16</b>
<b>Vacant</b>	<b>0</b>	<b>(-2)</b>	<b>4</b>	<b>2</b>
<b>Bio Technology</b>				
<b>Sanctioned</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>In Position</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>7</b>
<b>Vacant</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Management</b>				
<b>Sanctioned</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
<b>In Position</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>
<b>Vacant</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Training &amp; Placement</b>				
<b>Sanctioned</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>4</b>
<b>In Position</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>
<b>Vacant</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>Total</b>				
<b>Sanctioned</b>	<b>40</b>	<b>74</b>	<b>149</b>	<b>263</b>
<b>Additional</b>	<b>3</b>	<b>6</b>	<b>10</b>	<b>19</b>
<b>Grand Total</b>	<b>43</b>	<b>80</b>	<b>159</b>	<b>282</b>
<b>In Position</b>	<b>25</b>	<b>57</b>	<b>123</b>	<b>205</b>
<b>Vacant</b>	<b>15</b>	<b>23</b>	<b>36</b>	<b>74</b>

\* Designation given are as per the nomenclature prior to 6<sup>th</sup> CPC revision.

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

##### ADMINISTRATIVE STAFF-OFFICERS

Sl. No.	Designation	Name
<b>INSTITUTE OFFICE</b>		
1	Registrar	Dr.Abraham T Mathew (till 25.07.2011 FN) Sri. P K.Satheeshkumar Raja (from 25.07.2011 AN )
2	Deputy Registrar (Academic)	Sri. T. Raghunathan
3	Deputy Registrar (Administration)	Sri. P K. Satheeshkumar Raja
4	Deputy Registrar (S&P)/Finance Officer on Special Duty(S&P)	Sri. M. Radhakrishnan Sri. T P Chandran (from 02.01.2012)
5	Deputy Registrar (F)	Sri. P K. Satheeshkumar Raja (till 25.07.2011 FN) Sri. M. Radhakrishnan (from 25.07.2011 AN )
6	Officer on Special Duty(Establishment)	Sri.M Krishnan (from 04.01.2012)
7	Internal Audit Officer	Sri. Ramesh Ambadi
8	Asst. Registrar	Vacant
9	Financial Assistant	Vacant
10	Senior Superintendent	Smt. Devaki.P.P
11	Senior Superintendent	Smt. Rugmini.C.P
<b>LIBRARY</b>		
12	Librarian	Vacant
13	Librarian (Gr.II)	Vacant
<b>HOSPITAL</b>		
14	Lady Medical Officer	Vacant
15	Resident Medical Officer	Dr. (Ms.) A.A. Celine
<b>ENGINEERING UNIT</b>		
16	Asst. Exe. Engineer	Vacant
	Divisional Accountant	Smt. Beena John
<b>HOSTEL OFFICE</b>		
17	Hostel Manager	Vacant
<b>TPL</b>		
	Senior Project Leader	Vacant

**NON TEACHING STAFF STRENGTH**

Sl. No	Designation	Sanctioned
<b>COLLEGE &amp; DEPARTMENTAL OFFICES</b>		
1	Junior Superintendent	6
2	P.A. to Director	1 (1 vacant)
3	U.D. Clerk	20
4	L.D. Clerk	19 (14 vacant)
5	Fair Copy Superintendent	1
6	Typist/Data Entry Operator	5 (4 vacant)
7	Confidential Assistant	9 (5 vacant)
8	Duplicating Machine Operator	1 (1 vacant)
9	Store Keeper	4 (4 vacant)
10	Duffedar	1(1vacant)
11	Peon	18 (5 vacant)
<b>ENGINEERING UNIT</b>		
1	Assistant Engineer (Electrical)	1
2	Assistant Engineer (Civil)	2
3	Overseer Gr.I /Sr. Mechanic	2
4	Draftsman Gr. I.	1 (1 vacant)
5	Overseer Grade III	2 (2 vacant)
6	Mechanic (Water supply), Plumber/ Mason Trade	6 (4 vacant)
7	Mechanic (EMU)	5 (3vacant)
8	Senior Mechanic (Engg. Unit)	9
9	Senior Mechanic (EMU)	5
<b>a.i. LIBRARY</b>		
1	Librarian Gr. III	1
2	Librarian Gr. IV	9 (2 vacant)
3	Attender, Library	6 (4 vacant)
4	Bookbinder	1 (1 vacant)
5	Graphic Artist	1
6	Offset Machine Operator	1
7	Digital Library Technician	1 (1 vacant)
<b>a.ii. HOSPITAL</b>		
1	Staff nurse	2 (1 Vacant)
2	Pharmacist	1
3	Attender Hospital	1 (1 vacant)
<b>a.iii. HOSTEL</b>		
1	Stewards	5
2	Matron-Ladies Hostel	1
<b>a.iv. GUEST HOUSE</b>		
1	Guest House Manager	1 Vacant
2	Cook-cum-butler	1 (1 vacant)
3	Bearers-cum-Room boy	2
<b>a.v. COLLEGE VEHICLES SECTION</b>		
1	Driver	4 (3 vacant)
2	Vehicle Cleaner	2 (1 vacant)
<b>a.vi. WATCH AND WARD STAFF</b>		
1	Sergeant	1 (vacant)
2	Watchmen	6 (1 vacant)
3	Watchman-cum-Gardener	16 (2 vacant)
4	Gardener	1
<b>a.vii. SANITATION</b>		
1	Sanitation worker	16 (3 vacant)
2	Sweeper-cum-Sanitation worker	6 (2 vacant)
3	Part-time Sweeper	25 (25 vacant)

**NON-TEACHING STAFF (ACADEMIC)**

<b>DEPARTMENT OF CIVIL ENGINEERING</b>
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1	Instructor	1
2	Senior Mechanic, Lab Technician	9 (3 vacant)
3	Mechanic	4 (4 vacant)
<b>DEPARTMENT OF ARCHITECTURE</b>		
1	Senior Mechanic	2 (1 vacant)
2	Draftsman Gr. II	1 (vacant)
<b>DEPARTMENT OF ELECTRICAL ENGINEERING</b>		
1	Instructor	1
2	Senior Mechanic	11
3	Mechanic	2 (2 Vacant)
<b>DEPARTMENT OF ELECTRONICS &amp; COMMUNICATION ENGINEERING</b>		
1	Instructor	1
2	Senior Mechanic, Lab Technician	4 (1 vacant)
3	Mechanic	3 (2 vacant)
<b>DEPARTMENT OF COMPUTER SCIENCE ENGINEERING</b>		
1	System Analyst	1
2	System Programmer	1
3	Computer Operator	1
4	Computer Technician	1
5	Senior Mechanic	1
6	Mechanic	5 (3 vacant)
<b>DEPARTMENT OF MECHANICAL ENGINEERING</b>		
1	Draughtsman Gr. I	1(1 vacant)
2	Foreman	1
3	Supervisor	2
4	Instructors	2
5	Senior Mechanic	25 (5 vacant)
6	Mechanic	7 (7 vacant)
<b>CENTER FOR BIO-MECHANICS</b>		
1	Senior Mechanic	1
2	Mechanic	1(vacant)
<b>DEPARTMENT OF SCIENCES &amp; HUMANITIES</b>		
1	Lab Assistant	4 (2 vacant)
<b>TRAINING AND PLACEMENT CELL</b>		
1	Marker	2(2 vacant)

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

##### DEPARTMENT OF CIVIL ENGINEERING

Staff members deputed/sponsored for Training, Learning: 2

##### TECHNICAL TRAINING TO NON TEACHING STAFF

Sl. No	Name of the Staff	Title of the Programme	Duration and Period	Organization
1	Praveen Kumar.P (UDC) Venugopal .A (UDC)	20 <sup>th</sup> Hindi Conference & Workshop at Mysore	24.05.11 to 26.05.11	Raj Bhasha Avam, Prabandhan Vikas Sanstha Delhi
2	K.Mohanadas (JS)	Residential management Development programme on Advance Tax, TDS and Tax planning at Mysore	09.08.2011 to 12.08.2011	The Institute of Cost and Works Accountants of India, New Delhi
3	M T Varghese(AE) T E Thomas(AE)	Residential Management Programme on Contract Management at Goa	18.10.2011 to 21.10.2011	The Institute of Cost and Works Accountants of India, New Delhi
4	Radhakrishnan.M (DR(F)) Ramesh Ambadi (IAO) Muraleedharan P(JS) Soosykutty J L(UDC)	Preparation of Financial Statements of Autonomous Bodies at Trivandrum	18.11.2011 to 19.11.2011	Comptroller and Auditor General of India in collaboration with the Institute of Chartered Accountants of India

	Sobhana T(LDC)			
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5	K.Mohanadas (JS) Praveen Kumar.P (UDC)	Tutorial on Taxation Accounting in Tally ERP9 at Calicut	16.12.2011 to 17.12.2011	Corporate Relations Private Ltd. Trivandrum
6	Ramesh Ambadi (IAO) Raghunadhan. T (DR Academic)	31 <sup>st</sup> Residential Training Programme for CPIOs/CAPIOs/SPIOs/Noda l Officers on the Right to Information Act, 2005 at Hyderabad	02.03.2012 to 04.03.2012	Institute of Public Administration Bangalore

## 11.8. SCHOLARSHIPS & AWARDS

### CREC Silver Jubilee Endowment Trust Scholarships

CREC Silver Jubilee Endowment Trust (SJET) of the Institute, a registered body with the Director as Chairman, Deans & Heads of Departments as ex-officio and other nominated members as Trustees, currently awards 65 CREC scholarships of Rs. 600 to 1000/- each per month to the students. The number and the value of the scholarships for a year will vary depending on the availability of funds and the sponsors. The SJET will invite applications from the students, and Heads of the departments/ a sub-committee will scrutinize the applications, and verifies the data with the students and others. The scholarships are awarded to the deserving students based on their academic merits, economic backwardness and other performance parameters. The SJET scholarships include.

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 1 <sup>st</sup> Batch Scholarship
7.	RECCAA, Mumbai Scholarships (2 Nos.)
8.	CSAI (Class of 2000) Scholarships (4 Nos.)
9.	REC 76 – 81 Batch Scholarships (2 Nos.)
10.	10 years of XXXII <sup>nd</sup> Batch (CREC 96) Scholarship
11.	REC Calicut 1982 Batch Scholarship
12.	NITC (REC) 1983 Batch Scholarship
13.	REC Calicut, Class of '84 Trust Scholarship
14.	CREC 80-85 Batch Scholarship
15.	Padmanabhan Scholarship in Memory of All Departed Souls of 77 Batch, CREC
16.	Capt. Mohammed Memorial Endowment Scholarship
17.	Nitin Sharma Memorial Scholarship
18.	1997 – 2001 CSE B. Tech. Batch Scholarship
19.	Joseephus M T, John Sebastian & Luthufi K T Memorial Scholarship 2004-08 Batch
20.	Mariveetil Raghunath Memorial Endowment Scholarship

## 11.9 THE PARENT TEACHER ASSOCIATION

### **A report on Important Activities of PTA during the year 2011-2012**

CREC Parent –Teacher Association has been originated as charitable society keeping the objective of developing the educational, cultural, and training activities of students who are admitted in CREC (presently NIT Calicut) on no profit not loss basis. In 2011 Dr. T .P. Somasundaran, Dean Academic (UG), Dr. C Muraleedharan, Professor of MED , and Mr. Raghu C V, Asst. Professor of ECE were nominated as President, Secretary, Joint Secretary cum Treasurer, respectively. Since, Dr. T .P. Somasundaran has given the charge of Dean Academics to Dr. V.K Govindan and Dr. C. Muraleedharan took the charge of Dean (Students Welfare), Dr. V.K. Govindan, Dean Academics and Professor of Computer Science & Engineering and Dr. S.D Madhu Kumar, Associate Professor, CSE Department took their respective charges in the Association.

Activities of PTA for the year 2011-2012 started with Executive and Annual General Body meetings held on 26<sup>th</sup> July 2011. One of the major outcomes of this meeting was the decision to conduct PTA meetings department wise. The meeting stressed on the point of importance of PTA and the need of more active involvement of PTA in institute activities.

In the meeting, it was decided to continue the support extended to various organizations inside the campus. PTA donated an amount of Rs.50,000/- for Ragam,. The PTA gave an amount of Rs. 1,75,000/- as Scholarships to financially needy students under SJET Trust. In addition, a total amount of Rs. 45,180/- was given to some needy students as essential financial support to continue their regular studies in the Institute. The PTA spent an amount of Rs.1,70,000/- towards cash prize for the branch toppers who were honored during the Convocation. Each of the topper was awarded with an amount of Rs.5,000/-. PTA funded for the purchase of a computer and Printer for the Academic section of the main office.

PTA executive committee met on 6<sup>th</sup> January 2012. The modalities for conducting the department wise PTA meetings were discussed and approved. All the departments conducted Department wise PTA meeting during the winter 2012 semester. More than 800 parents in total attended these meetings. These meeting were found to be extremely useful and many valuable suggestions came during these meetings. A meeting of the department PTA coordinators was held on 20<sup>th</sup> July 2012. It was proposed to sponsor students for presenting papers in International conferences, appoint counselors for attending needy students, buy water coolers for all department buildings and to help the NITC health centre in getting a medical ambulance for handling medical emergencies. These suggestions will be discussed in the Annual General Body planned on 15<sup>th</sup> September and decisions will be taken.

An office was setup for the CREC PTA. Furniture, computer, and printer were procured for the office. The office is functioning in First floor of the new Administrative Block. A webpage ( [http:// www.nitc.ac.in/crecpta](http://www.nitc.ac.in/crecpta) ) and email id ( [crecpta@gmail.com](mailto:crecpta@gmail.com) ) are created for the CREC PTA. A part time office staff has been appointed on contract basis for looking after the day to activities of the PTA office.

#### 11.10 NATIONAL SERVICE SCHEME

##### National Service Scheme: Report 2011-12

National Institute of Technology Calicut has four N.S.S units with a total volunteer strength of 400. N.S.S. is a part of the Under Graduate curriculum of NITC and it is compulsory that each student has to complete 75 contact hours of work of social relevance to get a pass grade in the course. Following is a brief report of our activities in the year 2011-12.

National service scheme, NIT cell actively participated in blood donation activities this year. NSS got an award from Indian Medical Association for the activities in health sciences and especially in blood donation activities. The unit did several educational programmes for mentally retarded students outside the campus during December. NSS also did many social works in association with social service group of IIM Kozhikode. Free entrance coaching was also provided for the higher secondary students from schools around the campus. A special camping programme has been conducted at wayanad, Calicut.

#### 11.11. Training & Placement Statistics

##### PLACEMENT 2011- 12

<i>NO</i>	<i>Date</i>	<i>COMPANY</i>	<i>B Tech</i>	<i>AR</i>	<i>MC A</i>	<i>PG</i>	<i>TOTAL</i>	<i>Effective Total</i>
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1	02.08.11	Texas 10.5/11.5L	4			1	5	5
2	03.08.11	Broadcom6.7/7.7L	4			2	6	11
3	04.08.11 04.08.11	Amazon 17L	3		1		4	15
4	07.08.11	ABB 5L						--
5	07.08.11	Oracle App 8L	12				12	27
6	08.08.11	Oracle ST10L	11			1	12	39
7	09.08.11 10.08.11	GS 11L	7				7	46
8	09.08.11 10.08.11	Bajaj 5.6L	6				6	52
9	10.08.11	IOCL 10L	6				6	58
10	10.08.11 11.08.11	NetApp7/8L	3			1	4	62
11	12.08.11 13.08.11	NVIDIA 9/10L	4				4	66
12	12.08.11 13.08.11	Chronus 8/9L	1				1	67
13	12.08.11 13.08.11	M&M 5/6L	2			2	4	71
14	12.08.11	Telcon 6.5L	1				1	72
15	##	IBM(intern)ISL6.2L				3	3	75
16	15.08.11 16.08.11	Commvault 6.4L	0		2		2	77
17	17.08.11 18.08.11	Deolitte 6.3L	28		3		31	108
#	##	ABB 5L	7				7	115
18	18.08.11 19.08.11	Tejas 6.2/7.4	6			1	7	122
19	23.08.11 24.08.11	Tata motors5.2L	13				13	135
20	24.08.11 25.08.11	Cypress 7/7.8L	2			2	4	139
21	24.08.11 25.08.11	L&T 3.8/4.3L	7			5	12	151
22	26.08.11 27.08.11	FMCTech 5.1L	3				3	154
23	26.08.11 27.08.11	SAP Lab 6.5L	6			1	7	161
24	28.08.11	Ittiam 6.5L	1				1	162
25	29.08.11	Honda 4.1L	3				3	165
26	30.08.11	Sourcebits 5-6 L	0				0	165
27	11.09.11	Synopsys10/11L	1			1	2	167



28	12.09.11 13.09.11	IBM ISL7L	0			3	3	170
29	13.09.11	Mu Sigma 4.3L	8				8	178
30	14.09.11 15.09.11	TCE 3.5/4 L	7			4	11	189
31	14.09.11 15.09.11	McAfee 7L	1		1		2	191
32	15.09.11 16.09.11	Paypal 8L	2			1	3	194
33	16.09.11	Siemens4.3L	6				6	200
#	16.09.11	M&M5/6L	3				3	203
34	20.09.11 21.09.11	CDOT 7.2/7.9L	7			2	9	212
35	20.09.11	Reliance Ind 5L	21				21	233
36	21.09.11 22.09.11	ZS 7.2L	10				10	243
37	26.09.11 27.09.11	Yahoo 10/11L	1			2	3	246
38	28.09.11	ARM 8.2L	3				3	249
39	03.10.11	Intergraph3.8L	5			1	6	255
40	09.10.11 10.10.11	Symphony3.75L	0		1		1	256
41	11.10.11	Renesas Mobile 5.3L	3			1	4	260
#	#	IBM ISL7L				2	2	262
#	#	CDOT 7.2/7.9L	1				1	263
42	16.10.11 17.10.11	Unisys 4.5L	2				2	265
43	25.09.10 17.10.11	Safran 3.5L	3				3	268
44	19.10.11	Kennametal 4.2L	4				4	272
45	19.10.11	Verizon 4.91/5.01L	11		5	1	17	289
46	22.10.11	Maruthi4.5L	4				4	293
47	22.10.11	Cavium5.4L	0				0	293
48	29.10.11	Tavant 4.8L	9		4	2	15	308
49	29.10.11 30.10.11	Oracle Fin Ser 6.9L	4		1		5	313
50	30.10.11 31.10.11	IVY Tech Devl 10L	0		4		4	317
51	30.10.11 31.10.11	IVY Tech Test 6L	3		1		4	321
52	31.10.11	Quest 3.3L	0			7	7	328
53	02.11.11 03.11.11	HAL 6L	27				27	355
54	04.11.11	KITCO3/3.24L					-	-
55	04.11.11	Ericsson4.5/6L	1			1	2	357
56	09.11.11	BOC 4.7L	2				2	359
57	09.10.11 09.11.11	L&T ECC3.75/4.25L						

58	11.11.11	Foster Wheeler4L	5			5	364	
59	17.11.11 18.11.11	Ernst & Young4.5L	7		1	8	372	
60	18.11.11 19.11.11	Bharat Bijlee 4.5L	4			4	376	
61	21.11.11 22.11.11	BEL CRL 6.5L			6	6	382	
#		Intel 9L			4		386	
62	05.12.11 06.12.11	Parker 4.5L	4			4	390	
63	07.12.11	Bosch 4.7L	2			2	392	
64	08.12.11	Enzen global 4L	3		1	4	396	
65	09.12.11	CCCL 3.6L	3			3	399	
#	16.12.11	KITCO3/3.24L	2		3	5	404	
66	14.12.11	Dristi soft5.5L			1	1	405	
67	19.12.11	L&Tramball 3.5L	4		1	5	410	
#	#	Intel 9L			2	2	412	
68	23.12.11	Powergrid12L	2			2	414	
69	23.12.11	Total Env3.6L	4	2		6	420	
70	27.12.11	MCF 3L	3			3	423	
71	03.01.12	Samsung5.5/6.6	2		2	4	427	
72	04.01.12	NTPC 10L	7			7	434	
73	05.01.12	Infosys3.25/3.5L	20		2	5	27	461
74	05.01.12 06.01.12	Ingesoll Rand 4.5L	8			8	469	
#	09.01.12	L&T ECC3.75/4.25L	2			2	471	
75	09.01.12	IBM-GBS3.5/3.75L	28		3	4	35	506
76	12.01.12	HCLinfo3.75L	3			3	509	
77	14.01.12	Magnetc Merali 4L	4			4	513	
78	17.01.12	V I T 5.4L			2	2	515	
79	21.01.12	Mukand4.4L	4			4	519	
80	23.01.12	EPCOS4L	1		3	4	523	
#	29.01.12	L&T ECC3.75/4.25L	3	4		7	530	
81	03.02.12	Century Link 5L	3			3	533	
82	06.02.12	Voltas3.4L	0			0	533	
83	06.02.12	HCL Tech3.25/3.5L	8		1	5	14	547
84	08.02.12	SUZLON4.5L	1			2	3	550
85	08.02.12	OracleG E7L	0			0	0	550
86	08.02.12	Elgi 3.5L				1	1	551
87	16.02.12	Nev Lignate 7L	3				3	554
88	18.02.12	Sathyam Venture 3	0			0	0	554
89	18.02.12	PRDI5L				3	3	557
90	20.02.12	MRF 3.5L	0			0	1	558
91	23.02.12	Arbitron3.5L	1			1	2	560
92	09.03.12	Suntech4L	4				4	564
93	13.03.12	Google 20L	0				0	564
94	16.03.12	L G 4.5L	0			0	0	564
95	16.03.12	Rancore	0				0	564
96	03.04.12	Tejas Engg4L	-			4	4	568
#	05.04.12	VIT 5L	-			1	1	569
97	11.04.12	Sharda Univ 4.5L	-			7	7	576
98	18.04.12 19.04.12	WAPCOS6.5L	5				5	581

99	25.04.12 26.04.12	Amritha 4.5L	-			4	4	585
100	25.04.12	Tata elxi3.5L	0				0	585
101	phone	Mc dermott 22.6L	-			2	1	587
102	07.05.12	Illahiya 4.5L	-				0	587
103	25.05.12	KRIBHCO 6.6L	1				1	588
104	30.05.12	OMPL 6.5L	2				2	590
105	07.06.12	Tayota Kirlosker4L					2	592
#	09.06.12	L&T ECC				12		604
	16.02.12	Nev Lignate 7L						
			446+7	6	30	121		605+7