

**TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)  
(PHASE-II)**

**INSTITUTIONAL DEVELOPMENT PROPOSAL**

for

**Sub-Component 1.2 : Scaling-up Post Graduate education and  
demand-driven R&D&I**

**AUGUST 2010**

**Submitted by**



**NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT**

## 1. INSTITUTIONAL BASIC INFORMATION

### 1.1 Institutional Identity

- Name of the Institution: **NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT**
- Is the institution AICTE approved? : **Yes/No**
- Furnish AICTE approval no. : **Governed by NIT Act 2007**
- Type of Institution : **~~Govt. funded/ Govt. aided/Private unaided/ Autonomous / other~~**
- Status of Institution : **~~Autonomous Institute as declared by University / Non-Autonomous / Deemed University / Constituent College/~~**Centrally funded Institution****
- Names of Head of Institution and Project Nodal Officers

Head & Nodal Officer	Name	Phone Number	Mobile Number	Fax Number	E-mail Address
Head of the Institution	Dr. G. R. C. Reddy	0495-2286100	09946163261	0495-2287250	<a href="mailto:director@nitc.ac.in">director@nitc.ac.in</a>
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Academic Activities	Dr. Sameer S.M	0495-2286720	09446500650	0495-2287250	<a href="mailto:sameer@nitc.ac.in">sameer@nitc.ac.in</a>
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Procurement	Dr. Ashok S.	0495-2286305	09446647271	0495-2287250	<a href="mailto:ashoks@nitc.ac.in">ashoks@nitc.ac.in</a>
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## 1.2 Academic Information

- Engineering Programmes offered in Academic year 2009-10

Sl. No.	Title of Programme	Level (UG,PG,PhD)	Duration (Years)	Year of starting	AICTE Sanctioned Annual Intake	Total Strength
1	Chemical Engineering	UG (B. Tech)	4 years	2008	82	328
2	Civil Engineering	UG (B. Tech)	4 years	1961	122	488
3	Computer Science & Engineering	UG (B. Tech)	4 years	1985	122	488
4	Electrical & Electronics Engineering	UG (B. Tech)	4 years	1961	122	488
5	Electronics & Communication Engineering	UG (B. Tech)	4 years	1980	123	492
6	Mechanical Engineering	UG (B. Tech)	4 years	1961	123	492
7	Production Engineering	UG (B. Tech)	4 years	1984	41	164
8	Bio Technology*	UG (B. Tech)	4 years	2008	30	90
9	Engineering Physics*	UG (B. Tech)	4 years	2009	30	60
10	B. Arch*	UG (B. Arch)	5 years	1999	41	205
11	Structural Engineering	PG (M.Tech)	2 years	1971	18	36
12	Traffic and Transportation planning	PG (M.Tech)	2 years	1985	18	36
13	Offshore structures	PG (M.Tech)	2 years	1987	18	36
14	Environmental Geotechnology	PG (M.Tech)	2 years	2006	18	36
15	Computer Science & Engineering	PG (M.Tech)	2 years	1998	18	36
16	Information Security	PG (M.Tech)	2 years	2006	18	36
17	Power Systems	PG (M.Tech)	2 years	1985	18	36
18	Power Electronics	PG (M.Tech)	2 years	1987	18	36
19	Instrumentation & Control	PG (M.Tech)	2 years	1971	18	36
20	Industrial Power & Automation	PG (M.Tech)	2 years	2006	18	36
21	Electronics Design & Technology	PG (M.Tech)	2 years	2001	18	36
22	Microelectronics & VLSI	PG (M.Tech)	2 years	2006	18	36
23	Signal Processing	PG (M.Tech)	2 years	2006	13	26
24	Telecommunication	PG (M.Tech)	2 years	2006	13	26
25	Industrial Engineering & Management	PG (M.Tech)	2 years	1984	18	36
26	Thermal Sciences	PG (M.Tech)	2 years	1989	18	36
27	Manufacturing Technology	PG (M.Tech)	2 years	1989	18	36
28	Material Science & Technology	PG (M.Tech)	2 years	2000	18	36
29	Energy Management	PG (M.Tech)	2 years	2000	18	36
30	Nanotechnology	PG (M.Tech)	2 years	2008	13	26
31	Mathematics & Scientific Computing*	PG ( M. Sc. Tech)	2 years	2006	18	36
32	Photonics*	PG ( M. Sc. Tech)	2 years	2008	13	26
33	Polymer Science & Technology*	PG ( M. Sc. Tech)	2 years	2008	13	26
34	MCA*	MCA	3 years	1988	41	123

\*Will be included in TEQIP if permitted by NPIU

- Accreditation Status of UG Programmes:

Title of UG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as 31 <sup>st</sup> Dec2009
Chemical Engineering	NO	-	-
Civil Engineering	YES	*	*
Computer Science & Engineering	YES	YES	-
Electrical & Electronics Engineering	YES	*	*
Electronics & Communication Engineering	YES	*	*
Mechanical Engineering	YES	*	*
Production Engineering	YES	*	*
Bio Technology	NO	-	-
Engineering Physics	NO	-	-
B. Arch	YES	NO	NO

\*Accredited in 1997 and 2004.

- Accreditation Status of PG Programmes:

Title of PG Programmes being offered	Whether eligible for accreditation or not	Whether accredited as on 31 <sup>st</sup> Dec. 2009	Whether "Applied for" as 31 <sup>st</sup> Dec2009
Structural Engineering	YES	*	*
Traffic and Transportation planning	YES	*	*
Offshore structures	YES	*	*
Environmental Geotechnology	YES	*	*
Computer Science & Engineering	YES	YES	-
Information Security	YES	YES	-
Power Systems	YES	*	*
Power Electronics	YES	YES	-
Instrumentation & Control	YES	*	*
Industrial Power & Automation	YES	*	*
Electronics Design & Technology	YES	YES	-
Microelectronics & VLSI	YES	*	*
Signal Processing	YES	*	*
Telecommunication	YES	*	*
Industrial Engineering & Management	YES	*	*
Thermal Sciences	YES	*	*
Manufacturing Technology	YES	YES	-
Material Science & Technology	YES	*	*
Energy Management	YES	*	*
Nanotechnology	NO	-	-
Mathematics & Scientific Computing	NO	-	-
Photonics	NO	-	-
Polymer Science & Technology	NO	-	-
MCA	YES	YES	-

\*Accredited in 1997 and 2004.

### 1.3 Faculty Status (Regular/On-Contract Faculty as on December 31, 2009)

Faculty Rank	No. of Sanctioned Regular Post	Present : Status : Number in Position By Highest Qualification												Total Number of regular faculty in Position	Total Vacancies	Total Number of Contract faculty in Position
		Doctoral Degree				Masters Degree				Bachelor Degree						
		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline		Engg. Discipline		Other Discipline				
		R	C	R	C	R	C	R	C	R	C	R	C			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15=</b> <b>(3+5+7+9+11+13)</b>	<b>16=</b> <b>(2-15)</b>	<b>17=</b> <b>(4+6+8+10+12+14)</b>
<b>Prof</b>	38	28	-	3	-	-	-	NIL	NIL	NIL	NIL	NIL	NIL	31	7	NIL
<b>Asso Prof</b>	86	27	-	11	-	2	-	NIL	NIL	NIL	NIL	NIL	NIL	40	46	NIL
<b>Asst Prof</b>	158	21	-	7	1	52	6	10	2	NIL	NIL	NIL	NIL	90	68	9
<b>Lec</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	282	76	-	21	1	54	6	10	2	NIL	NIL	NIL	NIL	161	121	9

Note: Faculty in Architecture and Management are not included.

Prof = Professor, Asso Prof = Associate Professor, Asst Prof = Assistant Professor, Lec=Lecturer, R=Regular, C=Contract

## 1.4 Baseline Data

S. No.	Parameters	
1	Total strength of students in all programmes and all years of study in the year 2009-10	<b>3679</b>
2	Total women students in all programmes and all years of study in the year 2009-10	<b>765</b>
3	Total SC students in all programmes and all years of study in the year 2009-10	<b>566</b>
4	Total ST students in all programmes and all years of study in the year 2009-10	<b>184</b>
5	Total OBC students in all programmes and all years of study in the year 2009-10	<b>419</b>
6	Number of fully functional p-4 and above level computers available for students in the year 2009-10	<b>400</b>
7	Total number of syllabus Text books and Reference books available in library for UG &PG students in the year 2009-10	<b>40580</b>
8	<b>% of UG student placed through campus interviews in the year 2008-09</b>	<b>97.2%</b>
9	<b>% of PG student placed through campus interviews in the year 2008-09</b>	<b>54.3%</b>
10	% of High quality under graduates(75% marks) in the year 2008-09	<b>32.3%</b>
11	% of High quality post graduates(75% marks) in the year 2008-09	<b>48.1%</b>
12	Number of research publications in Indian refereed Journals in the year 2008-09	<b>5</b>
13	Number of research publications in International refereed Journals in the year 2008-09	<b>125</b>
14	<b>Number of Patents obtained in the year 2008-09</b>	<b>NIL</b>
15	<b>Number of Patents filed in the year 2008-09</b>	<b>NIL</b>
16	Number of sponsored research projects completed in the year 2008-09	<b>10</b>
17	The transition rate of students in percentage from 1 <sup>st</sup> year to 2 <sup>nd</sup> year in the year 2008-09 for: (i) All students (ii) SC (iii) ST (iv) OBC	95.08% 88.12% 80.00% 98.78%
18	IRG from students fee and other charges in the year 2008-09 (Rs. In lacs)	<b>916.40</b>
19	IRG from commercialization of R & D products, consultancy & other sources in the year 2008-09 (Rs. in lacs)	<b>94.84</b>
20	Total IRG in the year 2008-09 (Rs. in lacs)	<b>1081.89</b>
21	Total recurring expenditure in the year 2008-09 (Rs. in lacs)	<b>3275.78</b>
22	<b>Number of Joint publications with National authors in the year 2008-09</b>	<b>5</b>
23	<b>Number of Joint publications with International authors in the year 2008-09</b>	<b>125</b>
24	<b>Number of R &amp; D products commercialized in the year 2008-09</b>	<b>NIL</b>
25	Number of Joint M.Tech programmes with institutions undertaken in the year 2008-09	<b>NIL</b>
26	Number Joint M.Tech programmes with Industry undertaken in the year 2008-09	<b>NIL</b>
27	Number of joint Ph.D with institutions undertaken in the year 2008-09	<b>NIL</b>
28	Number of joint Ph.D with Industry undertaken in the year 2008-09	<b>NIL</b>
29	Number of Joint consultanceis undertaken with Institutions in the year 2008-09	<b>NIL</b>
30	Number of Joint consultanceis undertaken with Industry in the year 2008-09	<b>NIL</b>

**1.5 Institutions to be eligible for participation in the project under the sub-component 1.2 must fulfill the following benchmarks:**

<b>S. No</b>	<b>Attainment Parameters</b>	<b>Benchmark Values</b>	<b>Institution's response (Yes/No)</b>
1	Does the Institution agree to implement all academic and non-academic reforms given as below: <ul style="list-style-type: none"> <li>• Implementation of Curricular Reforms</li> <li>• Exercise of autonomies</li> <li>• Establishment of Corpus Fund, Faculty Development Fund, Equipment Replacement Fund and Maintenance Fund</li> <li>• Generation, retention and utilization of revenue generated through variety of activities</li> <li>• Institutions to fill-up all existing teaching and staff vacancies</li> <li>• Delegation of decision making powers to senior functionaries with accountability</li> <li>• Improve Student Performance Evaluation</li> <li>• Provide faculty incentive for continuing education(CE), consultancy and R&amp;D</li> <li>• Obtaining accreditation</li> </ul>	YES	YES
2	Availability of academic autonomy as recognized by UGC for both UG and PG programmes	YES	YES
3	Presence of Board of Governors with an eminent academician or industrialist as the Chairman	YES	YES
4	Percentage of eligible UG programmes accredited or applied for	60%	70%
5	Percentage of eligible PG programmes accredited or applied for	40%	80%
6	Cumulative number of Ph.Ds produced in the last three academic years (2006-07, 2007-08, 2008-09) Or Cumulative number of M.Tech. produced in the last three academic years (2006-07, 2007-08, 2008-09)	5 50	25 679
7	Faculty positions filled on regular full time basis as percentage of total faculty positions sanctioned in accordance with the AICTE prescribed student to faculty ratio	65%	82%
8	Percentage of regular faculty with PhD in engineering* as percentage of total faculty	15%	65%

\*PhD in engineering and science for special Category States

## 2. INSTITUTIONAL DEVELOPMENT PROPOSAL (IDP)

### 2.1 Give the executive summary of the IDP

This Institutional Development Proposal (IDP) has been prepared by scrutinizing and consolidating the individual proposals received from all major Departments of the Institution that offer Post graduate and Ph. D programs. All allied departments which assist in running these academic programs are also encouraged to submit their proposals.

The overall objective of the proposal is to increase enrolment in postgraduate education and research and enhance research, development and innovation in engineering. This is envisaged to be accomplished through a multi-pronged strategy involving launching new PG programs, upgrading the quality of existing PG programs, establishing new PG labs, upgrading existing PG labs, attracting good quality students for the postgraduate education and research, developing an atmosphere conducive for research in the department, strengthening industry institute collaboration as well as collaboration with reputed institutes, organizations and professional bodies within and outside the country, training of faculty and supporting staff, encouraging faculty to attend seminars, workshops and conferences etc. It is expected that these measures will improve the visibility of the Institution and this, in turn, is expected to attract good quality students for post graduate education and research. The Institution will thus be able to contribute to the task of nation building much more effectively.

The fund requirements for the various action plans envisaged to achieve the above are highlighted in the following sections. The year wise fund allocations over the project period are: 2010-11: Rs. 0.625 Crore, 2011-12: Rs. 3.75 Crore, 2012-13: Rs. 3.75 Crore, 2013-14: Rs. 3.125 Crore, 2014-15: Rs. 1.25 Crore.

### 2.2 SWOT Analysis

As the strength, weakness, opportunities and threats of the various departments are different; it was decided to carry out the SWOT analysis at department level. The general guidelines stipulated in the PIP document were followed. The data collected from the various departments are consolidated and presented. The details are given in appendix A.

#### **Strengths**

- Well qualified and dedicated faculty
- Creamy layer of students through AIEEE for UG and through GATE for PG



- Good image due to 50 years standing Alumni in Senior / influential positions spread across the globe
- Periodic revision of curriculum – once in five years; incorporating latest trends in technologies.
- Well established credit based curriculum and a very credible examination system
- Academic/financial and functional autonomy
- Excellent central facilities – Computing / Library, digital library etc
- Sports facilities: Gym, Swimming Pool, Courts and Play grounds
- Very good placement in the past decades. High repute amongst corporates for recruiting from the campus
- Good performance in TEQIP (Phase I)
- Fully residential campus
- Institute's stature as next best option after IIT/IISc system for postgraduate studies.

### **Weaknesses**

- Inadequate and not qualified supporting staff
- Attracting students for higher studies in Engineering
- Journals and internet connectivity not par with that IITs
- Overloaded faculty members (very poor faculty–student ratio)
- Difficulty in prioritizing (teaching / research / short term courses / projects / institute responsibilities/ consultancy)
- Lack of meaningful collaboration with outside world – Industry /other Institutes
- Very poor teaching-Non Teaching staff ratio
- Few inter departmental research programs
- Procedural delay in administrative and academic activities
- Inadequate space for labs
- Deficiencies in certain outcomes in graduating students - Communication skills, Design/real world applications, Laboratory experience
- Inappropriate mode of teaching - Spoon-feeding, lack of active learning, inadequate classroom assessment, increasing proportion of new faculty with limited teaching experience, large proportion of faculty with limited industrial and research experience
- Lack of merit-based system or incentive/reward system for employees, inconsistencies in the quality of support staff, insufficient space for expansion, complicated and restrictive purchasing procedures, complicated and restrictive hiring procedures

- Administration/support/funding functions are lacking - there is unstable staffing for support functions, lack of support for assessment activities. Programs with national recognition need vigorous national publicity
- Infrastructures and labs need extensive maintenance and renovating with little funds to do so
- Failure to find sufficient alternative sources of revenue.

### **Opportunities**

- Increased intake of UG and PG students
- Innovative academic programs like Dual degree
- Large demand for quality education -Exchange Programmes & tie up with foreign universities
- Funding from TEQIP and other sources for improving infrastructure for Research
- Research Activities in terms of Ph.D work and sponsored research projects
- Training of technical supporting staff
- Tapping rich experience of Alumni and also tapping potential for building corpus fund, developing labs, collaborative programs with universities / industries etc
- Academic interaction with industry and other institutes
- A good number of alumni in very good positions in academics /Industry
- Institute stature attracting better M.Tech students
- Responding to pressures for outcomes assessment (accreditation) and for public accountability will push us to develop a culture of continuous improvement and apply to ourselves rigorous standards for performance and achievement
- Growing demand for graduate programs in teaching could lead to Masters/Specialist programs that appeal to teachers at variety of levels and expertise
- Use budget crisis as a way to become more innovative, eliminate non-essential elements in order to become more productive at essential functions.
- Make sure lack of funds does not cause NIT to give into lowering standards and having less qualified professors in their field of study.

### **Threats**

- Lack of incentives on par with IITs and other Institutes
- Inadequate fund allocation by government
- Foreign universities opening shops (under GATS education is under trade in services)

- Increase in self financing institutions – growing in infrastructure as well academic with foreign tie up etc.
- Lack of conducive environment for attracting good faculty/ retaining the existing faculty
- Deterioration of quality in teaching: Priorities get changed to more R & D and administrative activities without giving importance to teaching
- Quality of incoming students (language, analytical thinking, motivation)
- Improving retention rates by lowering academic standards which leads to decreased institutional value, reputation, and negative perception from the community
- Faculty recruitment suffers due to more emphasis on teaching than research and NIT's small town location
- Decrease in faculty and staff morale due to NIT's threatened reputation for quality

### **STRATEGIC OBJECTIVES**

A close examination of the SWOT analysis reveals that the Institute Strategic Plan should focus on the improvements that are related to students, teaching methods and faculty. Therefore, the following strategic objectives are proposed to address the weaknesses and threats related to various aspects of those issues.

- Recruit, nurture and retain outstanding students
- Recruit, nurture and retain outstanding faculty and staff
- Promote a strong sense of community and collegiality among the students, faculty, staff and alumni
- Improve teaching and learning through continuous assessment
- Promote research and consultation that address the immediate and long-term needs of the society
- Create a strong relationship with society in particular with industry to cooperate in the advancement of the country's economy
- Continue to develop and maintain an adequate infrastructure

**2.3 State the specific objectives and expected results of your proposal in terms of, “Scaling-up post graduate education and demand-driven R&D&I”. These objectives and results should be linked to the SWOT analysis.**

The overall objective is to increase enrolment in postgraduate education and research and enhance research, development and innovation in engineering. Under this component, the Institution proposes to start new postgraduate programs in addition to the existing programs, to provide an opportunity for aspiring, qualified students to improve their quality, to acquire higher degrees in their preferred specialization, to make technical manpower available in these areas to help in development and research activities as part of our task of nation building, to utilize the available technical skill and knowledge available in the Department more effectively etc.

It is proposed to offer M. Tech teaching assistantships to non-GATE qualified students. Also, the Institution proposes to offer PhD research assistantships every year. The existing number of fellowships is quite small and the above measure is expected to provide a big boost to R&D activities in the Institution.

The Institution also looks forward to improving facilities in the existing PG laboratories besides establishing a few new laboratories to cater to the needs of the new PG programs. The objective is to improve the quality of postgraduate education and research significantly.

The Institution intends to strengthen the already existing strong ties with the industry and extend it to the R&D&I as well. This will improve the quality of teaching at all levels besides improving the quality of research and making it more relevant and appropriate.

It is proposed to improve the skills of faculty and technical staff in the Institution by deputing them to undergo training in different specialized areas of engineering/management of their choice. This will benefit students at all levels and also improve the capability to perform consultancy and R&D activities. Also, it will help in enhancing institutional management capacity. Providing improved access to knowledge resources and strengthening the library is also envisaged as this is very vital to achieve the goals of this project. These measures would directly / indirectly help in networking with other institutes and working out arrangements for collaborative work. Expected results include attracting good quality students for the masters and research programs, increasing the enrolment in these programs, increasing the number of publications and enhancing the quality of publications, scaling up R&D&I activities, improving industry-institute linkage, enhancing the status of the institute among the general public as well as in the industry, thereby increasing the employment potential of graduating students, improving profiles and capabilities of faculty and technical staff etc.

**2.4 Provide an Action Plan for scaling-up enrollment into Masters and Doctoral Programmes (include measures to attract qualified students and maintain high quality standards).**

Sl. No	Key Activities	Project Months															
		1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48
1	Strengthening existing programs																
2	New programs																
3	Increasing intake in PG																
4	Increasing intake in Ph. D																
5	Offering Teaching Assistance ship																
6	Part-time Ph. D																
7	Sending students to leading labs. & other institutions																
8	Training to Faculty and Technical Staff																

**2.5 Provide an Action Plan for improving collaboration with industry.**

The following activities are envisaged to improve collaboration with Industry.

- The existing Industry-Institute Linkage cell of the Institute will be strengthened and its composition to be maintained as per the guidelines
- Conducting training programs catering to the requirements of the industry
- Conducting training programs, symposia, conferences etc in collaboration with the industry as well as professional bodies
- Taking up R&D activities of relevance to the industry
- Encouraging P G students to do their projects in Industry
- Sending U G students to do summer internships in Industry
- Combined Ph. D guidance for researchers working in industry, to work on problems of common interest.

- Increased enrollment of industry sponsored personnel for PG courses
- Working out MoUs, wherever feasible, for joint activities
- Enhance the existing consultancy activities by starting new extension centers.

## 2.6 Provide an Action Plan for:

- Quantitatively increasing and qualitatively improving research by the faculty individually, jointly and collaboratively.

Many of the actions listed above (sections 2.3, 2.4 and 2.5) will help accomplish this objective. Other measures that could be taken up are:

- Providing attractive incentives to faculty & students and recognizing their contributions in time.
  - Promote publications in refereed Journals by providing incentives. The Institution has been doing this for the last 3 years. The number can be increased.
  - Attract more Industry and Government sponsored R & D and consultancy projects. The Institution has been doing this activities and it is proposed to enhance this activities.
- Developing research interest among under graduate students
    - Instill research interest among under graduate students through the normal teaching process in the classes and laboratories.
    - Tailor the project work of UG students to be part of the ongoing research activities in the Department so that they can know better about various research areas and its prospects and societal relevance.
    - Arrange Invited lectures by experts from premier R&D establishments and institutes like IITs, IISc etc as well as from the industry.
    - Encourage under graduate students to undertake summer internship in IIT/IISC/other reputed labs.
    - Encouraging participation in workshops and industry sponsored research
  - Collaborating with Indian and foreign institutions in academic and research area through MoUs
    - Enhancement in R&D activities will naturally improve the visibility of the Department and bring faculty in contact with experts from Indian and foreign institutions

- Facilitating movement of faculty and research/ masters students from the institution to other Indian and foreign institutions – Faculty/student exchange programs.
- Networking with other Institutions for Joint research projects, degree programs etc.

**2.7 Faculty Development Plan from the first 18 months to achieve improved competence based on Training Needs Analysis (TNA) in the following areas. Attach the summary of Training Needs Analysis carried out.**

Training need analysis (TNA) was carried out among the faculty and presented below is a brief summary of the outcome of the TNA. The timing of training and the institution where the faculty intends to undergo training etc can be decided only at a later stage after examining the relevance & utility of the programs and the feasibility of attending the training.

- **Basic and advanced pedagogy training**

About 15% of the total faculties expressed their plans to undergo training in teaching methodology and academic quality management.

Short term courses on basic pedagogy, communication skills and teaching methodology are recommended for new faculty members and those with less than four years of teaching experience

Advanced courses on pedagogy are recommended for experienced faculty members. Many faculty members aim to write books on their respective areas, and many are involved in activities like reviewing course material, preparation of courses, curricula and syllabi. Suitable short or medium term courses are advised for all faculty members.

- **Subject / domain knowledge enhancement**

About 90% of the total faculties have plans to undergo training in areas related to their field of specialization/ work.

Short and medium term courses (3days, one week and two weeks programs) relating to subject and domain knowledge enhancement in all the major areas are recommended.

- **Attendance in activities such as workshops, seminars, etc.**

Almost 85% of the total faculties have expressed their willingness to attend such activities at both national and international level.

It is recommended for all the faculty members. Also it is proposed that faculty members may be allowed to attend good seminars and workshops even while the semester is on, after making suitable arrangements for rescheduling the lecture and lab classes, as many of the good workshops are held during such periods.

- **Improvement in faculty qualifications.**

Almost all the faculties are either having Ph. D already or are pursuing their PhD at IITs / IISc or have registered for their Ph. D in the Institution on part-time basis.

It is recommended that faculty members with Ph. Ds may be permitted to proceed with post doctoral research in the top universities in their area of research.

- **Improving research capabilities**

Efforts in this direction are already on and will be continued.

However, the greatest hindrance to research by faculty members is the extremely low faculty to student ratio, which leaves the average faculty member carrying the load of 2 faculty members, cutting out any room for research and development activities. Once the desired ratio is met, research output and capabilities will improve.

Exposure to new faculty members on the importance of research, research methodology, and skills such as research and technical report writing are also recommended.

## **2.8 Action Plan for training technical and other staff in functional areas.**

Training need analysis (TNA) was carried out among the technical staff / other staff and almost all of them intend to undergo training to enhance capability in their domain work in reputed institutes offering such training.

The following areas are broadly identified in which the training are proposed.

- Medium and short term training courses are proposed in their domain areas (like web technology, Linux administration, networking, data base management, common software packages like MATLAB, MULTISIM and repair & maintenance of lab equipment etc ).
- Further the technical and support staff are to be trained for supervisory and skill development in using state of the art equipment and technology.



- Medium and short term training programs for newly appointed technical staff to carry out routine laboratory tests as per BIS stipulations.
- Medium and short term training courses are proposed in office automation.

## **2.9 Describe the relevance and coherence of Institutional Development Proposal with State's/National (in case of CFIs) Industrial / Economic Development Plan.**

Our nation intends to create a large number of highly qualified and trained personnel to meet the expected future needs of the industry and contribute to economic growth. These requirements are quite stringent as far as any academic institution is concerned, since quality and quantity rarely go together.

We envisage a situation where a small number of highly qualified professionals are created. The rationale is many-fold: a) Industries, as of now, do not require highly qualified engineers in large numbers, since they largely are involved in developmental activities, (b) A small number of highly qualified people are sufficient to meet most technological challenges, (c) Creating highly qualified people is very costly, unlike the assembly line creation of a homogeneous lot.

Students with remarkable potential often keep away from higher studies due to the urgent need of a job. It makes sense to help them out in a big way and keep them in the main stream. We intend to provide a small student population with all possible facilities which would help to be highly professional. At the same time, out of a social responsibility, our lab facilities and highly trained human force are available to any industry, albeit, at a price.

Thus, through this IDP:

- It is proposed to have a systemic and sustainable strategy to make effective use of Educational Resources for scaling educational opportunity and excellence in the Indian context.
- It is proposed to strengthen the existing research laboratories and increase publishing of papers in peer reviewed Journals. This enhances the visibility of the Institution.
- Set up Centers of Excellence there by enhancing demand driven research.
- It is proposed to improve services to community and economy.
- It is proposed to improve quality PG students and Ph. D scholars

**2.10 Describe briefly the participation of departments/faculty in the proposal preparation and implementation.**

At the Department level, a meeting of all faculty in each Department was initially held where a briefing on salient features of the proposal was made either by HOD or by the TEQIP coordinator of the Department. This was followed by a discussion on the proposed action plan by the Department. The project document was circulated among the faculty groups working in different areas and they were asked to go through it and submit proposals in tune with the overall theme based on the discussions and consensus at the meeting. Simultaneously, a survey on training need analysis (TNA) was carried out among the faculty and technical staff to identify the needs and formulate a strategy for training. The proposals received from the faculty group were reviewed and consolidated. As in the previous stage of TEQIP funding, it is envisaged to implement the proposal with the active involvement of all faculty and technical staff of the Department.

**2.11 Describe the Institutional Project implementation arrangements.**

The following team will carry out the TEQIP implementation in the institute.

- Director of the Institute is the project Leader.
- A faculty at senior level is TEQIP Coordinator of the institute.
- There are 4 TEQIP Nodal Officers looking after procurement, Finance, Academic and Equity Plan working under a TEQIP Coordinator.
- Committees to be formed under these Nodal officers for looking after procurement, Finance, Academic and Equity Plan
- Each Department will have one TEQIP Coordinator who is responsible for liason work for all TEQIP activities.

**2.12 Provide an Institutional Project budget in Table No.34**

**Table-34:**

**Institutional Project Budget for Sub-Component 1.2**

(Rs. In Crore)

Sl. No.	Activities	Project Allocation	Financial Year				
			2010-11	2011-12	2012-13	2013-14	2014-15
1	Infrastructure improvements for teaching, training and learning through:						
	(i) Establishment of new laboratories for new and existing PG programmes, faculty research, etc.	4.125	0.20625	1.2375	1.2375	1.03125	0.4125
	(ii) Updation of learning resources	0.375	0.01875	0.1125	0.1125	0.09375	0.0375
	(iii) Procurement of furniture	0.25	0.0125	0.075	0.075	0.0625	0.025
	(iv) Modernization and strengthening of libraries and increasing access to knowledge resources	0.5	0.025	0.15	0.15	0.125	0.05
	(v) Refurbishment (Minor Civil Works)	0.375	0.01875	0.1125	0.1125	0.09375	0.0375
2	Providing Teaching and Research Assistantships for significantly increasing enrolment in existing and new Masters and Doctoral programmes in Engineering disciplines	2.5	0.125	0.75	0.75	0.625	0.25
3	Enhancement of R&D and institutional consultancy activities	0.625	0.03125	0.1875	0.1875	0.15625	0.0625
4	Faculty and Staff development for improved competence based on TNA	1.25	0.0625	0.375	0.375	0.3125	0.125
5	Enhanced interaction with Industry	0.625	0.03125	0.1875	0.1875	0.15625	0.0625
6	Institutional Management Capacity Enhancement	0.25	0.0125	0.075	0.075	0.0625	0.025
7	Implementation of Institutional Reforms	0.125	0.00625	0.0375	0.0375	0.03125	0.0125
8	Academic Support for weak students	0.25	0.0125	0.075	0.075	0.0625	0.025
9	Incremental Operating Cost	1.25	0.0625	0.375	0.375	0.3125	0.125
<b>TOTAL</b>		<b>12.5</b>	<b>0.625</b>	<b>3.75</b>	<b>3.75</b>	<b>3.125</b>	<b>1.25</b>



- The plan for items 2, 3, 5 and 7 is detailed under Sections 2.5, 2.7, 2.9.
- The plan for item 6 is detailed under section 2.6 (developing research interest among students)
- Item 8 is already satisfied.
- Our Institute has the policy of conducting interviews for new appointments whenever a significant number of applicants apply. And the applications can be sent at anytime by the candidates. This is expected to take care of item 9.
- Regular faculty without Ph. D either registers as an internal candidate or goes on QIP to other institutions. Over the next 4 years, most of these faculty members are expected to complete their degree requirements. This is expected to take care of item 10.

**2.14 Give an action plan to ensure that the project activities would be sustained after the end of the project.**

- Enhancement in the number of Masters and Research Scholars and the quality of education imparted and research will attract good students and faculty to the Institute. This will also result in increasing industry-institute collaboration and the number of R&D activities as well as consultancy projects. This will ensure that the tempo created by the project will be sustained even after its completion.
- With sufficient faculty strength, faculty members will be able to sustain the project activities by devoting time to continue the R&D and consultancy activities to generate funds for the sustenance of the project.
- Sufficient revenue would be generated during the Project phase through consultancy projects, industry sponsored projects, testing and calibration etc. It is expected that these activities are possible through the various action plan envisaged in the TEQIP Project.

**2.15 Provide Procurement Plan for the first 18 months for Goods and Civil Works in Table-36 and Consultant Services in Table-37 with budget and timeframe.**

Table-36 & Table-37 are added at the end of proposal (page no. 23 & 24)

**2.16 Provide any other information related to special academic achievements of the institution.**

Publications (Papers, books, manuals, etc.),

patents, innovations : 650 (In the last 3 years)

Conferences organized in the last 3 years

and proceedings published : 2

Seminars and workshops organized : 38 (In the last 3 years)

Awards and recognition received by the faculty : 18 (In the last 3 years)

Collaboration with foreign Universities : 2

(National Kaohsiung University, Taiwan)

(Dong-A University, South Korea)

Consultancy Revenue : 90 Lacs (In the last three years)

**2.17 Provide an action plan for organising a Finishing School and for improving the academic performance of SC/ST/OBC/academically weak students through innovative methods, such as remedial and skill development classes for increasing the transition rate and pass rate with the objective of improving their employability.**

- Conducting remedial classes for 1<sup>st</sup> year students to improve the transition rate from 1<sup>st</sup> to 2<sup>nd</sup> year. The Institute had been doing these classes until the 2007. Due to lack of interest from the students' side this had to be stopped. It is proposed to start these classes through this project.
- Conducting training program for weaker section of students. The Centre for Research and Education for Social transforms-Calicut (CREST) had conducted a training program at IIT Delhi, aimed at personality and communication skill development for weaker section of students. It is proposed to conduct similar program for students of our Institution. These programs can be arranged through Section for Weaker students / Centre for Value Education of the Institution (both the units are functioning in our Institution)
- We had organized finishing schools for students who have already completed their courses. It is proposed to conduct the similar programs for final year students who are in need of such training.

Table-36

18-month Procurement Plan for Works and Goods\* for Sub-Component 1.2

Name of the institution with location: NATIONAL INSTITUTE OF TECHNOLOGY, P.O. NIT CAMPUS, CALICUT – 673601, KERALA (State)

Package No.	SI No.	Activities	Description of Works/Goods	Estimated Cost (Rs)	Method of Procurement	Design/ Investigation/ Completion/ Specification/ Finalization (Date)	Sanctioned Estimate (Date and Value)	Preparation of Bid Document (Date)	Receipt of Bank's No Objection to Bidding Document ** (Date)	Bids		Contract Award (Date/Value)	Date of Completion of Contract
										Invitation (Date)	Opening (Date)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	1	Purchase of equipments	To buy equipments for new PG programmes.	72,00,000.00									
	2		To buy equipments for strengthening labs for existing PG programmes and faculty research.	72,00,000.00									
2	3	Update learning resources	To buy updated softwares required for learning & research.	6,56,250.00									
	4		To buy resources required for modern teaching methods	6,56,250.00									
3	5	Procurement of furniture	To buy furniture required for building new laboratories	8,75,000.00									
4	6	Modernization and strengthening of libraries	To buy latest books in various engineering disciplines	8,75,000.00									
	7		To update knowledge resources available in digital form for improving quality of teaching and research in engineering disciplines	8,75,000.00									

\* Goods cover Equipment, Furniture and Books and Learning Resources

\*\* Applicable in case of 'Prior Review' by the World Bank.

Note: For Column 6, state ICB/NCB/Direct Contracting/Shopping method as appropriate

**Table-37**  
**18-month Procurement Plan for Consultant Services for Sub-Component 1.2**

Name of the institution with location: NATIONAL INSTITUTE OF TECHNOLOGY, P.O. NIT CAMPUS, CALICUT – 673601, KERALA (State)

Sl No.	Activities	Description of Services	Estimated Cost (Rs)	Method of Selection@	TOR Finalization (Date)	Advertisement (Date)	◆ RFP Final Draft to be Forwarded to the Bank (Date)**	No Objection From the Bank For RFP (Date)**	RFP Issued (Date)	Proposals Received (Date)	Evaluation (Date)	No Objection by the Bank (Date)**	Contract Value and Date of Award	Contract Completion (Date)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

◆ RFP (Request for Proposal): Same as 'Bid Document' #Technical and Financial

\*\* Applicable in case of 'Prior Review' by the World Bank.

@ State whether (i) DSingle firm of individual; or (ii) Competitive procedure. If competitive, then state whether Quality & Cost Based Selection (QCBS) or Quality Based Selection (QBS) procedure.



**ANNEXURE – A**

**SWOT ANALYSIS DATA RECEIVED  
FROM  
DIFFERENT DEPARTMENTS**

**ANNEXURE - B**

**LIST OF BOARD OF GOVERNORS (BOG) MEMBERS  
OF  
NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT**

**LIST OF BOG MEMBERS OF NATIONAL INSTITUTE OF TECHNOLOGY, CALICUT**

<b>Sl. No</b>	<b>Name</b>	<b>Address</b>	<b>Occupation</b>	<b>Position</b>
1	Shri. S.C. Tripathi	27, Sector 15 A, Noida - 201 301, UP	Retd. Secretary, Govt. of India	Chairman (Appointed by Ministry of HRD)
2	Shri. Kuruvila John	Principal Secretary, Higher Education Dept., Govt. of Kerala, Secretariat, Thiruvananthapuram - 695 001	Principal Secretary, Govt. of Kerala	Member (Nominee of Government of Kerala)
3	Shri. S.K. Ray	Financial Advisor, Integrated Finance Division, MHRD, Department of Secondary & Higher Education, Govt. of India, C Wing, Shastri Bhavan, New Delhi – 110 001	Financial Advisor (IFD)	Member (representing MHRD Govt. of India)
4	Prof. R. Krishnakumar	Department of Mechanical Engg, Indian Institute of Technology Madras, Chennai - 600 036	Professor	Member (Nominee of Director IIT Madras)
5	Dr. P. Prakash	Joint Secretary, University Grants Commission, Bahadurshah Zafar Marg, New Delhi -110 001	Joint Secretary, UGC	Member (representing UGC)
6	Shri. S.N. Sasidharan Kantha	Managing Director Kerala Rare Earths & Minerals Ltd.P.B. No. 73, VIII/224,Market Road, Alwaye – 683 101	Managing Director, KREML	Member (representing small scale industry)
7	Shri. Rajiv Vasudevan	#1D, Pinewood Skyling City Park, Jawahar Nagar, Kadavanthara, Kochi - 682 020	Service	Member (Representing Alumni of the Institute)

8	Prof. P. B. Sharma	Director Delhi College of Engineering Shahabad Daulatpur Main Bawana Road , Delhi – 683 101	Director, Delhi College of Engineering	Member (Nominee of Govt. of India)
9	Shri. N . K Sinha	Joint Secretary (T) MHRD, Shastri Bhavan, New Delhi – 110 001	Joint Secretary (T), MHRD	Member (from MHRD)
10	Dr. E.Gopinathan	Professor, Electronics & Communication Engineering Department & Dean (P&D), National Institute of Technology Calicut, NIT Campus P.O, Calicut - 673 601	Professor, NITC	Member (representing faculty of the Institute)
11	Dr. K.S.Sivanandan	Professor, Electrical & Electronics Engineering Department, National Institute of Technology Calicut, NIT Campus P.O, Calicut - 673 601	Professor, NITC	Member (representing faculty of the Institute)
12	Dr G R C Reddy	Director, National Institute of Technology Calicut, NIT Campus P.O, Calicut - 673 601	Director, NITC	Member

**ANNEXURE – C**

**LIST OF PUBLICATIONS  
IN  
JOURNALS/CONFERENCES  
FOR THE  
LAST THREE YEARS**

**List of publications of NIT Calicut for the year 2006-07**  
**Conferences (National & International) & Journals (National & International)**

Sl. No.	Name of the Authors	Title of paper	Name of Journal/conference	Publications Details
1.	Jafarali, P., Ameen, M, Mukherjee, S., and Prathap, G	Variational Correctness and Timoshenko Beam Finite Element Elastodynamics	Journal of Sound & Vibration 299, 2007, pp 196-211	Journal
2.	Ameen, M., & Thana, H.K	Finite element analysis of dynamic stability of columns under periodic loading	Journal of Zhejiang University Science A Vol 8, No. 2, 2007, pp 245-256	Journal
3.	Ameen, M., & Suresh, A	Optimal Design of Fuzzy Structural Systems using Genetic Algorithm	Journal of Institution of Engineers (India) 87, 2006, pp 58-63	Journal
4.	Dr. N. Ganesan, Dr. P. V. Indira & Ruby Abraham.	Design of High Performance Concrete Mixes using Factorial Design	<i>Journal of Structural Engineering</i> Vol. 33 (3), 2006, pp.247-250	Journal
5.	Dr. N. Ganesan, Dr. P. V. Indira & Santhosh Kumar P.T.	Ultimate Strength of Steel Fibre Reinforced Self Compacting Concrete Flexural Elements	<i>The Indian Concrete Journal</i> Vol.80, No.12, 2006, pp. 8-15	Journal
6.	Dr. N. Ganesan, Dr. P. V. Indira & Santhosh Kumar P.T.	Durability Aspects of Steel fibre Reinforced SCC	<i>The Indian Concrete Journal</i> Vol. 80, No.5, May 2006, pp. 31-37	Journal
7.	Dr. N. Ganesan, Dr. P. V. Indira & Ruby Abraham	Compressive Constitutive Behaviour of Steel Fibre Reinforced High Performance Concrete Subjected to Cyclic Loading	<i>The 10<sup>th</sup> East Asia- Pacific Conference on Structural Engg. and Construction Asian Institute of Technology, Bangkok, Thailand</i> 3 to 5 August, 2006	Conference
8.	T M Madhavan Pillai & Veena G	Fatigue Reliability Analysis Of Fixed Offshore Structures – A First Passage Problem Approach	Journal of Zhejiang University Science A Vol 7, No. 12, 2006, pp 1839-1845	Journal
9.	Chandrakaran.S., Vijayan.P and Ganesan.N	Vertical stiffness of rectangular footings embedded into elastic half space	Indian geotechnical journal 36(3) , 2006, pp 195-219	Journal
10.	Chandrakaran.S., Vijayan.P and Ganesan.N	A simplified procedure for design of machine foundations subjected to vertical vibrations	Indian geotechnical journal vol 88, MAY 2006, PP3-12	Journal
11.	Chandrakaran.S., Sanker.N and Nagu.P.S	Behaviour of nylon reinforced Clayey soils	Proc. 2 <sup>nd</sup> National conference on recent advances in civil engineering, CUSAT, Kochi Dec. 2006 , vol1, pp163-169	Conference
12.	Chandrakaran.S., Vijayan.P and Ganesan.N	Prediction of amplitude of vertical vibrations of embedded footings	Proc. Indian geotechnical Conference Dec. 2006 Vol 1, PP 200-204	Conference
13.	Chandrakaran.S., Sanker.N & Subaida.E.S	Tensile behaviour of coir yarns and woven coir geotextiles	Proc. National conference on foundation and reinforced soil structures IGS Roorkee, vol 1. 2006, pp 181-184	Conference
14.	Chandrakaran.S., Vijayan.P and Ganesan.N	A simplified procedure for design of machine foundations subjected to rocking vibrations	Journal of structural engineering vol 33, MAY 2006, PP81-90	Journal
15.	Anjaneyulu, M.V.L.R, Nagaraj, B.N. & Naik, S.C	DEA approach for performance analysis of STUs	Indian Journal of Transport Management Vol. 30, No. 4, Oct – Dec, 2006, 392-409	Journal
16.	Anjaneyulu, M.V.L.R & Leema Peter	Use of Fuzzy Logic for Estimation of O-D Matrix from Link Volume Counts	Proc. National Conference on Recent Advances in Civil Engineering, CUSAT 3-4 Dec., 2006	Journal
17.	Anjaneyulu, M.V.L.R,	Modelling Carbon Monoxide Pollutant	Proc., XVII. International	Conference

	Harikrishna, M & Chenchu Obulu	Due to Road Traffic	Enformatika Conf. December 08-10, 2006, Cairo, Egypt	
18.	Anjaneyulu, M.V.L.R & Dhanya	Development of a Traveller Information System for a part of Calicut City	Proc. National Conference on GIS, GPS & RS Applications in Transportation Planning & Management, Chennai 21-22 Nov., 2006	Conference
19.	T.P.Somasundaran, A.P.Shashikala, Daini John	Performance evaluation of masonry infilled building frames	Proceedings of the 10 <sup>th</sup> East Asia Pacific Conference on Structural Engineering and Construction, Bangkok, Thailand August 3-5, 2006	Conference
20.	A.P. Shashikala, Sujata P	Prediction of wave parameters using Adaptive Network based Fuzzy Inference system'	15 <sup>th</sup> Congress of Asia Pacific Division of International Association of Hydraulics Engineering & Research, IITM Chennai August 7-10, 2006	Conference
21.	Gylson Thomas and V K Govindan	Computationally efficient filtered-backprojection algorithm for tomographic image reconstruction using Walsh transform	Journal of Visual communication and image representation, Elsevier, 2006	Journal
22.	A. Shajin Nargunam and M. P. Sebastian,	Distributed Cluster based Routing Scheme for Mobile Ad Hoc Networks	Journal of Computer Science (JCS), Vol 2, No.1, pp 24-34, July-August 2006.	Journal
23.	A. Shajin Nargunam and M. P. Sebastian	Fully Distributed Security Architecture for MANET	International Review on Computers and Software (IRECOS), Naples (Italy), Vol 1, No.2, pp 164-172, September 2006.	Conference
24.	P. Sreenivasa Rao and M. P. Sebastian	"EQMRP: The Enhanced Multicast Routing Protocol,"	Journal of CSI, Vol 36, No.3, pp. 8-16, July- September 2006.	Journal
25.	A. Shajin Nargunam and M. P. Sebastian,	Security Aware Routing Protocol for Mobile Ad Hoc Networks	International Journal of Information Acquisition (World Scientific Publishing), Vol. 3, No. 3 (2006) 233-245.	Journal
26.	Ghirmay Desta and M.P. Sebastian	Binary Tree-based Auto Configuration Technique for Mobile Ad Hoc Networks	4th International Conference on Computer Science and its Applications (ICCSA- 2006), San Diego, USA, PP. 43-50, June 2006.	Conference
27.	A. Shajin Nargunam and M. P. Sebastian	A Cluster Based Security scheme for Mobile Ad Hoc Networks	2nd IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob'2006), Montreal, Canada, pp. 391-396, June 2006.	Conference
28.	Madhu Kumar S.D , Umesh Bellur and V.K Govindan	Adaptive Overlays for Event Based Middleware- A Case for Chordal Reliability Rings.	Fourteenth International Conference on Advanced Computing and Communications (ADCOM 2006), IEEE press, pp-38-43, Mangalore, India, December 2006.	Conference
29.	Madhu Kumar S.D and Umesh Bellur	An Underlay Aware, Adaptive Overlay for Event Broker Networks	Proceedings of the 5th International Workshop on Adaptive and Reflective Middleware ( ARM '06), colocated with ACM Middleware '06, Melbourne, Australia,	Conference

			November, 2006	
30.	Priya Chandran and Sruthy C N	Automatic generation of Code Generators using RTL Descriptions	Young Horizon- Journal of Computing and Informatics, November 2006	Journal
31.	Prasanth G and K A Abdul Nazeer	A 4 kbps LPC Vocoder with Very Low Complexity	Young Horizon- Journal of Computing and Informatics, November 2006	Journal
32.	K G jolly, K P Ravindran, R Vijayakumar, R.Sreerama Kumar	Intelligent Decision Making in a Robot-Soccer System through Compounded Artificial Neural Network	Int.Jl. of Robotics & Autonomous Systems, Vol No.55 (2207), 589-596, 2007	International Journal
33.	Dr. Susy Thomas	'Intelligent Switching Surface for Variable Structure Adaptive Model Following Control'	IEEE International Conference on Intelligent Systems (IEEE-IS'06), London, Sep 2006	Conference
34.	Elizabeth P Cheriyan	Formulation of network model for large power systems	National power system conference, IIT Roorkee, Dec 2006	Conference
35.	Dr. S Ashok	Peak Load management in steel plants	Int. Journal of Applied Energy, Vol. 83 July (2006) pp 413-424	International Journal
36.	Dr. S Ashok	Electricity Pricing Strategy for Hydro Electric Power Under Deregulation	International Review of Electrical Engineering (IREE), Vol 1, No 5, Dec 2006, pp 603-608	International Journal
37.	Dr. S Ashok	Wavelet based Multifunction relay for EHV transmission lines	Electrical India, Vol.46, No.6, pp 48-54, June 2006	Journal
38.	C A Babu & Dr. S Ashok	Optimal Load Scheduling for Peak Demand Management in Electrolytic Process Industries	Int. Conference on Production & Industrial Engg, CPIE-2007, 22-24 March 2007	Conference
39.	Dr. S Ashok	Transformer Differential Protection-A new approach	International Conference on Power System Protection, CPRI Bangalore, 20-21 Feb 2007	Conference
40.	SP Singh, Ashok S,	Development of a Portable Hybrid Energy Simulation Model	International Conference on Fluid Mechanics and Power, IITB, 7-9 Dec 2006, paper no. 1901	Conference
41.	SP Singh, Ashok S,	Design & Development of a Portable Hybrid Energy System	International Congress on Computational Mechanics and Simulation, IITG, 8-10 Dec 2006, paper no. b057	
42.	Dr. S Ashok	Modeling of Integrated power Conditioner For Photovoltaic Systems	IEEE conference on Industrial Electronics and applications, NUS, Singapore, 24-26 May 2006, pp1098-1102	Conference
43.	G Pradeepkumar, S. Ashok, and Jose K. Kakkaserry	Development of a Two Stage Concentrator for Solar Photo Voltaic System	National Conference on Energy Management –EMMEA 2007, 2-3 March 2007, pp 275-283	Conference
44.	Reghuram, Ashok S,	Maximum Power Tracking System for Wind Energy Systems	3rd National Conference-PCID 2007, Feb 16-17, 2007, BAIT, Tamilnadu, pp 157-161	Conference
45.	Arvind Kumar, Ashok S.,	“Transformer Differential Protection Using	3rd National Conference-PCID 2007, Feb 16-17, 2007, BAIT,	Conference



		Wavelets”,	Tamilnadu, pp 226-229.	
46.	Sreenivas B,Ashok S,	“Modeling of D-Statcom using Voltage Regulation Technique “	3rd National Conference-PCID 2007, Feb 16-17,2007, BAIT, Tamilnadu, pp 298-300.	Conference
47.	Ompraksah K,Ashok S.,	“Wavelets based Distance Protection	3rd National Conference-PCID 2007, Feb 16-17,2007, BAIT, Tamilnadu, pp 206-209	Conference
48.	Reji P, Ashok S	., Pricing Model for Hydro-Electric Generating Stations under Regulated Power Market,	National Conference on Advanced Energy Research, IITB, 4-5 Dec 2006 pp 46-51	Conference
49.	SP Singh, Ashok S,	“ Development of a Portable Hybrid System Simulation Model “	National Conference on Advanced Energy Research, IITB, 4-5 Dec 2006 pp 228-233	Conference
50.	Siddartha P, Ashok S,	“Gas turbine based Cogeneration for a steel plant”,	National Conference for PG and PhD Scholars under TEQIP, NITTE, Mangalore, 28-29 April 2006, Paper no. 2	Conference
51.	Hareesh K, Ashok S,	“Trigeneration for a steel plant”,	National Conference for PG and PhD Scholars under TEQIP, NITTE, Mangalore, 28-29 April 2006, Paper no. 3	Conference
52.	Raja P ,Ashok S.,	“MPPT of Solar PV Systems”,	National Conference on PCTCON-06, organized at PSNA College of Engg, Dindigul, TN,India , 26 April 06, pp 206-211 (Best Paper )	Conference
53.	U.Rajendra Acharya , Paul Joseph ,N. Kannathal, Choo Min Lim , Jasjit. S Suri	Heart rate variability : a review.	Med Bio Eng Comput - DO1 10.1007/s 11517-006 0119-0 Springer 2006	
54.	V I Thajudin Ahamed, P. Dhanashekharan ,A. Naseem, T. K. Abdul Jaleel, Karthcik N.G ,Paul K Joseph .	“A novel pattern recognition technique for quantification of heart rate variability”,	International conference on Biomedical and pharmaceutical engineering, Singapore .2006	Conference
55.	Karthick N.G , Thajudin Ahamed V.I, Paul K Joseph	“Music and EEG: A study using non linear methods”	International conference on Biomedical and pharmaceutical Engineering , Singapore 2006	Conference
56.	V I Thajudin Ahamed, P Dhanasekaran and Paul Joseph K	“Differentiation of Heart Rate Time Series from Electroencephalogram and Noise”-	International journal of biomedical sciences Vol.2 Number 1 2007 ISSN 1306-1216	International Journal
57.	Elizabeth Elias, Sheeba V. S	“Design of Two-Dimensional Signal adapted filter bank from One Dimensional Filter”s	Proceedings of the 6th WSEAS International Conference on Simulation, Modeling and Optimization, Lisbon, Portugal, September 22-24, 2006 pp 118-123	Conference
58.	Elizabeth Elias, Sheeba V. S	Two-Dimensional Two Channel FIR Signal Adapted Filter Banks	NORCHIP, 2006, 20-21 November 2006, Linköping, SWEDEN	Conference
59.	Elizabeth Elias & K.M. Abdul Hameed	Linear Phase Orthogonal Cosine Modulated N-Band Wavelets for Image	NORCHIP, 2006, 20-21 November 2006, Linköping, SWEDEN,	Conference
60.	Elizabeth Elias & Sheeba V. S	Two-Dimensional FIR Signal Adapted Filter Banks	13th IEEE International Conference on Electronics,	Conference

			Circuits and Systems., 2006	
61.	Elizabeth Elias & K.M. Abdul Hameed	Regular linear phase modulated lapped transforms for image coding,”	IEEE International Conference on Image Processing (ICIP2006), USA, October 2006.	Conference
62.	Elizabeth Elias & K.M. Abdul Hameed	Design of regularity constrained linear phase modulated lapped transforms,”	Proceedings of IEEE Nordic Signal Processing Symposium (NORSIG), Iceland, June 2006, pp. 174-177	Conference
63.	Elizabeth Elias & K.M. Abdul Hameed	“M-Channel Linear Phase Cosine Modulated Filter Banks with Perfect Reconstruction	In proceedings of WSEAS conference on Multimedia Systems and Signal Processing (MUSP), China, April 2006, pp 157-162.	Conference
64.	Elizabeth Elias & Sheeba V.S	" Design of signal Adapted Nonuniform Filter Banks Using Tree Structure",	IEEE International Symposium on Circuits and systems ISCAS-2006 – Kos ,Greece,21-24 May-2006.	Conference
65.	Elizabeth Elias, Sheeba V. S	“Different Approaches for the Design of IFIR Compaction Filter”	International Journal of Signal Processing Volume 4 No. 1 2007 ISSN 1304-4478, pp No.17-23	Journal
66.	Elizabeth Elias, Sheeba V. S	FIR Principal Component Filter Banks in Echo Cancellation”	CSI journal, Young Horizon- Computing and Informatics, vol 1, no 1, November 2006, 28-31.	Journal
67.	Elizabeth Elias, Sheeba V. S	“Design of Two-Dimensional Signal Adapted Filter Banks for Application in Image Processing”	WSEAS Transactions On Signal Processing Issue 9, Vol. 2, September 2006 ISSN: 1790-5022 1281 -1286	Journal
68.	Elizabeth Elias, Sheeba V. S	Two-dimensional FIR signal adapted filter banks: Optimality and design,	Elsevier Signal Processing 87 (2007) pp 2381–2391	Journal
69.	Elizabeth Elias and K.M. Abdul Hameed	“M-Channel Cosine Modulated Filter Banks with Linear Phase Analysis and Synthesis Filters”	Elsevier Signal Processing, 2007	Journal
70.	Elizabeth Elias and K.M. Abdul Hameed	“On Linear Phase M-channel cosine modulated Filter Banks	WSEAS Transaction on Signal processing, Issue 4, Volume 2, pp 484-489, April 2006	Journal
71.	Sridhar K N and Lillykutty Jacob	Performance Evaluation and Enhancement of A Link Stability Based Routing Protocol for MANETs	Int. J. High Performance Computing and Networking (IJHPCN), InderScience, Vol 4, No.1/2, pp. 66-77, 2006	Journal
72.	Venkatesh Obanaik, Lillykutty Jacob, A L Ananda	Secure Performance Enhancing Proxy: To Ensure End-to-End Security and Enhance TCP Performance over IPv6 Wireless Networks	Computer Networks, Elsevier, vol 50, pp 2225-2238, 2006	Journal
73.	A.V.Babu and Lillykutty Jacob	Service Differentiation Schemes in IEEE 802.11 WLANs with Variable Frame Size	International Journal of Computers and Applications, ACTA Press (in press)	Journal
74.	A.V.Babu and Lillykutty Jacob	Fairness Analysis of IEEE 802.11 Multirate Wireless LANs	IEEE Transactions on Vehicular Technology (in press)	Journal
75.	Lillykutty Jacob and Pung Hung Keng	Wireless and Mobile Network Management Research in Asia	Intl J. of Network Management,Wiley InterScience, Vol. 17, No. 2, March-April 2007	Journal
76.	Asha Vijayakumar and G. Abhilash	Jordan Representation of Perfect Reconstruction Filter Banks Using Nilpotent Matrices	WSEAS Transactions on Signal Processing, May 2006, pp 704- 709	Journal

77.	Deepthi.P.P, Celine Mary Stuart, Sreelekha.G and P.S. Sathidevi	Compression Tolerant DCT Based Perceptual Image Hash Incorporating Human Visual System Model	IEEE International Conference on Signal & Image Processing, Vol.II, pp. 662-665, 7-9 December, 2006	Conference
78.	Deepthi.P.P, Vidya. S.B and P.S. Sathidevi	Generation of innocent shares for visual cryptography	IEEE International Conference on Signal & Image Processing, Vol.II, pp. 659-661, 7-9 December, 2006	Conference
79.	Abida.K, Deepthi P.P. and P.S. Sathidevi	New Methods for Gray Level and Color Visual Cryptography	<b>International conference on Advanced Computing and Communication ICACC 2007, Chennai ,pp.716-719, 9-10 February, 2007</b>	Conference
80.	C.K.Ali and Saikat Majumdar	Holder exponent estimation and denoising of multifractal Brownian motion in noisy environment	Second National Conference on Innovations in Information and Communication Technology (NCICT-2006), PSG College of Technology, Coimbatore ,7-8 July 2006,pp 273-277	Conference
81.	Sameer S M, R V Rajakumar	A hybrid Synchronization for the frequency offset correction in OFDM	13 <sup>th</sup> National Conference on Communication, IIT Kanpur, January – 2007	Conference
82.	C R Manoj, Abhinva Mangal, V Ramgopal Rao, Hiroshi Iwai	Parasitic Effects in Multi-gate MOSFETs	International Workshop on Nano CMOS, 2006, Japan	Conference
83.	E. Abhilash, M. A. Joseph and Prasad Krishna	“Prediction of dendritic Parameters and Macro Hardness Variation in Permanent Mould Casting of Al-12% Si alloys Using Artificial Neural Networks”	FDMP Vol. 2, No. 3, 2006	Journal
84.	Dhanish, P.B. and Jose Mathew	A Fast and Simple Algorithm for Evaluation of Minimum Zone Straightness Error from Coordinate Data,	International Journal for Advanced Manufacturing Technology32,(2007), pp. 92-98	Journal
85.	Dhanish, P.B. and Jose Mathew	Effect of CMM Point Coordinate Uncertainty on Uncertainties in Determination of Circular Features, Measurement	39 (2006) pp. 522-531	Journal
86.	Gerardo Carbajal, C. B. Sobhan and G. P. Peterson	Dimensionless Governing Equations for Vapor and Liquid Flow Analysis of Heat Pipes	AIAA Journal of Thermophysics and Heat Transfer, Vol. 20, No. 1, pp. 140-144, 2006.	Journal
87.	Gerardo Carbajal, C. B. Sobhan and G. P. Peterson	Numerical Study of Heat Pipe Heat Spreaders with Large Periodic Heat Inputs	AIAA Journal of Thermophysics and Heat Transfer, Vol. 20, No. 4, pp. 835-841, 2006.	Journal
88.	C. B. Sobhan and G. P. Peterson	Recent Investigations of Fluid Flow and Heat Transfer in Microchannels	Journal of Engineering and Machinery, Vol. 47, pp. 10-67, 2006 (Invited paper).	Journal
89.	Yongping Chen, C. B. Sobhan and G.P. Bud Peterson	Review of Condensation Heat Transfer under Microgravity Conditions	AIAA Journal of Thermophysics and Heat Transfer, Vol. 20, No.3, pp.353-360, 2006	Journal
90.	G. Carbajal, C. B. Sobhan, G. P. Peterson, D. T	Qucheillalt and H.N.G. Wadley, Thermal Response of a Flat Heat Pipe Sandwich Structure to a Localized Heat Flux,	International Journal of Heat and Mass Transfer, Vol. 49, No. 21-22, pp. 4070-4081, 2006	Journal
91.	C. B. Sobhan, R. L. Rag and G. P. Peterson	A Review and Comparative Study of the Investigations on Micro Heat Pipes	International Journal of Energy Research, 2007 (Special Issue) - Invited Paper (in print, available	Journal

			online	
92.	Narayanan, M. D., S. Narayanan and Chandramouli Padmanabhan	Nonlinear system identification using multiple trials	<i>Nonlinear Dynamics</i> , 48, 341-360 (June, 2007),	Journal
93.	Narayanan, M. D., S. Narayanan and Chandramouli Padmanabhan	Parametric identification of nonlinear systems using chaotic excitation	July, 2007), , <i>ASME Journal of Computational and Nonlinear Dynamics</i> , 2, 225-231	Journal
94.	Vinod V. and Sridharan, R	Scheduling a Hybrid-Job Shop Production System: Simulation Modelling and Analysis	Proceedings of the UGS Sponsored National Conference on Recent developments in Production & Operations Management (POM – 2007), Annamalai University, March 23 – 24, 2007, pp. 12-16.	Conference
95.	Vinod V. and Sridharan, R	An Experimental Investigation of Scheduling Policies in a Dynamic Job Shop Production System Using Simulation Modelling and Analysis	Proceedings of the National Conference on Modeling and Simulation Techniques in Manufacturing Engineering, Panimalar Engineering College, Chennai, March 16, 2007, pp. 49-54.	Conference
96.	Kulkarni Sarang Shashikant, Sridharan, R. and Radharamanan, T	A Hybrid Neural Network-Genetic Algorithm Approach for Permutation Flow Shop Scheduling Problem	Proceedings of the National Conference on Modeling and Simulation Techniques in Manufacturing Engineering, Panimalar Engineering College, Chennai, March 16, 2007, pp. 70-74.	Conference
97.	C. B. Sobhan and Renju Kurian,	Development Of An Interferometric Method For Measurement Of Thermal Conductivity Of A Transparent Medium	8th Biennial ASME Conference on Engineering Systems Design and analysis (ESDA 2006), Torino, Italy, 4-7 July, 2006.	Conference
98.	S. Venkat Reddy and C. B. Sobhan	Computational Analysis of Wire-Sandwiched Micro Heat Pipes, International Conference on Renewable Energy Scale-up Development	(ICRESD), Southeast University, Nanjing, China, Nov. 16-17, 2006 (Invited paper)	Conference
99.	C. B. Sobhan, N. Sankar, Nithin Mathew and Rahul Ratnapal	Molecular Dynamics Modeling of Thermal Conductivity of Engineering Fluids and its Enhancement Using Nanoparticles	CANEUS 2006 Micro-Nano Technology for Aerospace Applications, Toulouse, France, 2006.	Conference
100.	V Sajith, M. Sandhya and C. B. Sobhan	An investigation into the effect of inclusion of cerium oxide nanoparticles on the physicochemical properties of Diesel oil,	ASME International Mechanical Engineering Congress, Chicago, Illinois, USA, November 5-10, 2006	Conference
101.	Gaurav Nair, Gayathri Venugopal, Jewel Chrsty Jose, V. Krishnaprasad, Sreenath A.M., Vishnu T.R	Simulation and Experimental Study of a Non-linear Self-inverting Furuta Inverted Pendulum	Proc. of International Conference on Control, Instrumentation and Mechatronics Engineering (CIM'07), pp. 184-192, 2007	Conference
102.	Bindu, M.D., Rajendrakumar, P.K. and Joseph, M.A	Friction and Wear Studies of Modified-Vibrated Aluminium Silicon Alloys”,	Abstracts of International Conference on Industrial Tribology (ICIT-2006), IISc, Bangalore, Nov-Dec., 2006, pp. 207.	Conference
103.	L.Niranjan,Shijo Thomas	Experimental investigation on the	International Conference on	Conference

	and V.Sajith	effects of cold and hot EGR using diesel and bio-diesel as Fuel	Energy and Environment, Universiti Tenaga Nasional, Malaysia, 28-30 August 2006	
104.	M.R.Madhusoodanan, V.Sajith and C.B.Sobhan	Experimental investigations on the critical heat flux in nanofluids	National conference on recent trends in Mechanical Engineering [RTME -2007], Saranathan College of Engineering, Tiruchirappalli, February 10,2007	Conference
105.	Shijo Thom..as	Evaluation of performance and emissions of a single cylinder diesel engine fueled with bio diesel from palm oil	National Conference on Energy Management in Marine and Engineering Applications (EMMEA- 2007), 2-3 March, 2007	Conference
106.	Digamberrao, M. S. and Madhusudanan Pillai, V	Material requirement analysis under rejection for a serial production system using simulation	Proceedings of the National Conference on Recent Development in Production and Operations Management, 1- 4, Annamalai University, Annamalaiagar, India, 23-24 March, 2007, pp.1-4	Conference
107.	N. Suresh, Gopalkrishna Pillai and Jose Mathew	Investigations into the effects of electron beam welding on thick Ti-6Al-4V Titanium Alloy	7 <sup>th</sup> Asia Pacific Conference on Materials Processing held at National University, Singapore Dec 4-6, 2006	Conference
108.	Dr. P. Praadeep	A Novel Intrinsically Conducting Polymer for Optoelectronic Applications from Acrylonitrile-Butadiene Rubber (NBR)	Journal of Optoelectronics and Advanced Materials 9(7) (2007) 2082	Journal
109.	Dr. P. Praadeep	Glass Transformation Studies in Bulk Ge-Se-Bi Glass System	Glass Physics and Chemistry 33(6) (2007)	Conference
110.	Dr. P. Praadeep	Development of Transparent Flexible Conducting thin films by In-situ Dispersion Polymerization of Pyrrole in Pre Vulcanized NR Late	Materials and Manufacturing Processes 22 (2007)	Conference
111.	Dr.G. Unnikrishnan	The behaviour of styrene butadiene rubber/acrylonitrile butadiene rubber blends in presence of chlorinated hydrocarbons.	<i>Journal of Polymer Research</i> <b>13</b> , 297( 2007)	Journal
112.	Dr.G. Unnikrishnan	Thermal behaviour of styrene butadiene rubber/ poly((ethylene-co-vinyl acetate blends: thermogravimetric and differential scanning calorimetric analyses.	<i>Thermal Analysis and Calorimetry</i> (Published Online),2007	Conference
113.	Dr.G. Unnikrishnan	Compatibilization of heterogeneous styrene butadiene rubber/poly(ethylene-co-vinyl acetate) blends.	<i>Progress in Rubber, Plastics and Recycling Technology</i> , 23 (2), 111-134(2007).	Conference
114.	Dr.G. Unnikrishnan	Cure characteristics, morphology and mechanical properties of ethylene propylene diene Monomer / acrylonitrile butadiene rubber blends	<i>Journal of Applied Polymer Science</i> <b>105(2)</b> , 908 – 914, ( 2007) .	Journal
115.	Dr.G. Unnikrishnan	Sorption and mechanical properties of nitrile rubber comapatibilized natural rubber/ poly (ethylene-co-vinyl acetate) blends	<i>Journal of Elastomers and Plastics</i> (In Press) ,2007	Journal
116.		A comparative study on mechanical properties of sisal leaf fibre reinforced	<i>Composites Science and Technology</i> <b>67</b> ,453(2007).	Conference

	Dr.G. Unnikrishnan	polyester composites prepared by resin transfer and compression moulding techniques		
117.	Dr.G. Unnikrishnan	Diffusion of aromatic hydrocarbons through styrene butadiene rubber/poly (ethylene-co-vinyl acetate) blends	3rd National Conference on Polymers (Polymer blends and Composites), Dept. of Polymer Science & Technology, Sri. Jayachamarajendra College of Engineering, 15&16 March 2006	Conference
118.	Dr.G. Unnikrishnan	Studies on coconut shell charcoal reinforced natural rubber composites	Silver Jubilee Conference of Indian Council of chemists, Birla College, Kalyan , P-109 27-29 December 2006.	Conference
119.	Dr.G. Unnikrishnan	Molecular sorption of substituted benzenes by chloroprene modified nitrile rubber/ natural rubber blends, 93 <sup>rd</sup> Indian Science Congress, P-44.	93 <sup>rd</sup> Indian Science Congress, P-44 1-7 January 2007.	Conference
120.	Dr.G. Unnikrishnan	Water sorption properties of polyvinyl alcohol and poly vinyl alcohol starch films	19 <sup>th</sup> Kerala Science Congress, P-116 , 29-31 January 2007.	Conference
121.	Dr.G. Unnikrishnan	Sorption and mechanical properties of poly(ethylene –co-vinyl acetate compatibilized nitrile rubber/ natural rubber blends	Current Scenario in nanotechnology: The role of chemistry, MAMO College, Makkam, Calicut , P-67 22 &23 February 2007.	Conference
122.	Dr. K.Chandrasekharan	Nonlinear optical studies of 1-3-diaryl-propenones containing 4-methyl thiophenyl moieties-	<i>Optics Communications</i> (2007) 269 235-240	Conference
123.	Dr. K.Chandrasekharan	Nonlinear optical studies of a newly synthesized copolymer containing oxadiazole and substituted thiophenes"	<i>Optics Communications</i> (2007) 271 236-240	Conference
124.	Dr. K.Chandrasekharan	Third order nonlinear optical studies of newly synthesized poly oxadiazoles containing 3,4-dialkoxythiophenes using Z-Scan Degenerate four wave mixing methods	<i>Chemical Physics</i> . (2006) 331 125-130	Conference
125.	Dr. K.Chandrasekharan	$\chi^{(3)}$ measurements and optical limiting in dibenzylideneacetone and its derivatives.	<i>Chemical Physics</i> (2006) 324, 699-704	Conference
126.	Dr. K.Chandrasekharan	Studies on nonlinear optical parameters of bis-chalcone derivatives doped polymers	<i>Polymer</i> (2006) 47, Issue 10, 3565-3567	Conference
127.	Dr. K.Chandrasekharan	Z-scan and Degenerate Four Wave Mixing studies on newly synthesized copolymers containing alternating substituted thiophene and 1,3,4-oxadiazole units	<i>J of Physics B At.Mol.Opt.Physics</i> (2006) 39 3747-3756	Journal
128.	Dr. K.Chandrasekharan	al Studies of Newly Synthesized Polyoxadiazoles Containing 3,4-dialkoxythiophenes using Z-scan and Degenerate Four Wave Mixing Methods	<i>Chemical Physics</i> . (2006) 331 125-130	Conference
129.	Dr. K.Chandrasekharan	Nonlinear optical properties p-(N,N-dimethylamino) dibenzylideneacetone doped polymer	<i>Material Research Bullatin</i> (In press)	Conference

130.	Dr. K.Chandrasekharan	Third order nonlinear optical properties and optical limiting in donor/acceptor substituted 4'-methoxy chalcone derivatives	Applied Physics B Laser and Optics ( In press)	Conference
131.	Dr. K.Chandrasekharan	Third order nonlinear optical properties and two photon absorption in newly synthesized phenyl sydnone doped polymer	Synthetic Metals 157 (2007) 142-146	Conference
132.	Dr. K.Chandrasekharan	Study of third order nonlinearity in 3-(4-chlorophenyl)-1-(4-methoxyphenyl) prop-2-en-1-one	Internatioanl conference on Optoelectronics, Fiber Optics and Photonics (Photonics 2006 – University of Hydreabad) Dec.13-16, 2006	Conference
133.	Dr. K.Chandrasekharan	$\chi^{(3)}$ enhancement in a donor substituted chalcone	<i>Internatioanl conference on Optoelectronics, Fiber Optics and Photonics</i> (Photonics 2006 – University of Hydreabad) Dec.13-16, 2006	Conference
134.	Dr. K.Chandrasekharan	Third order Nonlinear optical Studies of a Novel conjugated copolymer containing 3,4-dialkokythiophene	<i>Internatioanl conference on Optoelectronics,Fiber Optics and Photonics</i> (Photonics 2006– University of Hydreabad) Dec.13-16 2006	Conference
135.	Dr. Lisa Sreejith	Gelatin – SDS interaction in presence of urea derivatives	Proceedings of the SilverJubilee Conference of Indian Council of Chemists Birla College,University of Mumbai , Kalyan, December 2006	Conference
136.	Dr. Lisa Sreejith	Self assembly of soft materials and subsequent liquid crystal formation in presence of Octanol and KBr	Proceed International Conference on Nanomaterial & its Applications NIT Trichy , Feb.2007	Conference
137.	Dr. Lisa Sreejith	Liquid Crystal Formation in Aqueous CTAB Solution with higher alcohols	Proceedings of the International Symposium for Research Scholars on Metallurgy, Materials Science & Engineering (ISRS-2006).IITM, Chennai, Feb.2007	Conference
138.	Dr. Lisa Sreejith	Viscometric studies on the interaction of Gelatin with SDS & CTAB – A Comparison	Proceedings of the International conference on Nanomaterial and it's Applications NIT, Trichy ,February 2007.	Conference
139.	Dr. Lisa Sreejith	Surfactants interaction with ureas- A viscometric study"	Proceedings of the national Conference at Jaipur University,Jaipur , Feb.2007	Conference
140.	Sameena.K. , M.S. Sunitha	, "Strong arcs and maximum spanning trees in a fuzzy graph",	International Journal of Mathematical Sciences (Serial Publications New Delhi), Volume 5, No 1,17-20 June (2006).	Journal
141.	Sameena.K. , M.S. Sunitha	Characterization of g-self centered fuzzy graphs, The Journal of Fuzzy Mathematics	International Fuzzy Mathematics Institute, Loss Angeles Accepted	Journal

142.	Sameena.K , M.S. Sunitha	On g-distance in fuzzy trees,	International Journal of Mathematics and Systems (Serial Publications New Delhi, Accepted).	Journal
143.	Sameena.K , M.S. Sunitha	M-strong arcs and effective degrees in a fuzzy graph,	National Seminar on Frontiers of Discrete and Fuzzy Mathematics, 16-18 February 2006, S.B. College Changanacherry 72 – 77.(Eds. T. Thrivikraman, Joseph Mathews	Conference
144.	M.S. Sunitha	Connectivity in Fuzzy Graphs	National Seminar on Modern Trends in Graph Theory, 20-21 January 2006, Newman College, Thodupuzha 11-15.(Eds. T. Thrivikraman Sr. Gracy Joseph).	Conference
145.	M.S. Sunitha	Connectivity in Fuzzy Graphs	National Seminar on Frontiers of Discrete and Fuzzy Mathematics, 16-18 February 2006, S.B. College Changanacherry 72 – 77. (Eds. T. Thrivikraman, Joseph Mathews).	Conference
146.	Manjunath A.S , Sunil Jacob john	On Bag Relations Bull	Kerala, Math . Ass. Vol 3 No.2 15 – 22 (2006)	Conference
147.	Sunil Jacob John	On some good L- extension of Para and Meta Compact spaces	Int. journal of Applied Mathematics Analysis and Applications , vol 1, No.2 , pp 203-213 (2006)	Journal
148.	K.K.Thampi, M.J.Jacob , N.Raju	Batch arrival ;of claims in the classical risk model	Journal Insurance and Risk Management Vol. IV 08, June06	Journal
149.	V.V.Musko, M.J.Jacob , K.O.Ramakrishnan , A.Krishnamoorthy , A.N .Dudin	Multiserver queue with addressed retrials	Annals of Operations Research 141 (2006)	Conference

**List of publications of NIT Calicut for the year 2007-08  
Conferences (National &International) & Journals (National &International)**

Sl. No.	Name of the Authors	Title of paper	Name of Journal/conference	Publications Details
1.	Dr.Chandrakaran.S Dr.Ganesan.N Sri.Vijayan.P	Rocking stiffness of embedded circular footings	International conference on geotechnical engineering	Dec. 2007, vol. 1, pp4
2.	Dr Chandrakaran.S Sri.Praveen.A	Experimental investigations into concentration dependant chloride diffusivity in glass beads and fine sand	Journal of Porous media	Issue 3, vol.10,2007, pp 287-292
3.	Ms Resmi.G Dr.Chandrakaran S Dr Santosh.G Thampi	Experimental investigation on adsorption behaviour of lead on lateritic soil.	National conference on advances in civil engineering	2008 ACE08, Bhatkal, Karnataka
4.	Sri.P Nagarajan Dr T M Madhavan Pillai Dr N Ganesan	Design of simply supported deep beams using IS 456: 2000 and Strut and Tie method	Journal of Institution of Engineers India,	Vol 88, May 2007, pp 38-43



5.	Sri.P Nagarajan Dr T M Madhavan Pillai Dr N Ganesan	Improved design recommendations for simply supported deep beams using Strut and Tie method	Journal of Structural Engineering	Vol 34, No.3 Sept. 2007, pp 209-213
6.	Dr. N. Ganesan Dr. P V. Indira Ruby Abraham	Behaviour of Steel Fibre Reinforced High Performance Concrete Members under Flexure	Jl of Institution of Engineers India	Vol.88, May 2007, pp.20-23
7.	Dr. N. Ganesan Dr. P V. Indira Ms Ruby Abraham	Effect of confinement on SFRHPC subjected to uniaxial compression.	<i>Proc. Int. Conf. HPRCC 5</i> , Mainz, Germany, 10-13 July 2007	
8.	Dr. N. Ganesan Dr. P V. Indira Ms Ruby Abraham	Flexural Behaviour of SFRHPC Members Subjected to Repeated Loading	National conference on Recent Developments in Structural Engg. (RDSE-2007), MIT, Manipal	30 <sup>th</sup> Aug. to 1 <sup>st</sup> Sept. 2007
9.	Dr. N. Ganesan Dr. P V. Indira Sri.Santhoshkumar P. T	Application of Steel Fibre Reinforced Self Compacting Concrete to Beam-Column Joints.	Structural Engg. World Congress - 2007, Bangalore	2-7, November 2007
10.	Ms Sumam. K.S Dr Thampi, S.G Sri. Sajikumar, N	Approaches for Sustainable Solid Waste Management- A Case Study with Specific Reference to the State of Kerala	<i>Proc. Int. Conf on Sustainable Solid Waste Management</i> Anna University, Madras	September 2007
11.	Sri.Ansu.V MVLR Anjaneyulu. Dr	(a) Economic Appraisal of Development of an Intermediate Port – A Case Study of Beypore Port	Indian Ports Journal	Vol. 39, No. 2, Oct. 2007, pp 5-25
12.	Ms Resmi, G Ms Reshma, P. P Dr S. Chandrakaran Dr Santosh. G. Thampi	(b) Contaminant Transport in the Subsurface Environment and the Role of Modelling	National Conference on Learning Organizations in Indian Scenario	March 2008
13.	Ms Keerthi.M.G Dr MVLR Anjaneyulu	(c) Rural Road Network Planning Using GIS-A Case Study In Palakkad District	Proc.National Conference & Exposition on Rural Roads, NRRDA, New Delhi	22-24 May, 2007.
14.	Ms Radhika.K.O Dr MVLR Anjaneyulu.	(d) Evaluation Of Toner Modified Bituminous Binder	Proc. National Conference on Innovative Practises for Sustainable Energy & Waste management, Coimbatore,	April, 2007.
15.	Amar Pratap Singh V. K. Govindan M. P. Sebastian	Intelligent Location Strategy for Managing Users' Mobility in UMTS Networks	Journal of Mobile Communication 1 (3): 101-108, 2007	
16.	K.R. C. Pillai M. P. Sebastian	Protocol Architecture for end-to-end security between server and wireless client	<i>AMSE Journal of Advances in Modeling: Computer Science and Statistics</i> , France, Vol.12, No.3, pp. 82-92, 2007.	
17.	A. Shajin Nargunam M. P. Sebastian	Dynamic Security Scheme for MANET	IRMA International Conference on Managing Worldwide Operations and Communications with Information Technology, IDEA group Publishing, Vancouver, Canada, May 2007.	
18.	Sabitha S.	GOS-AODV: A Gossip based sleep ad	Proc. Sixth IASTED International	

	M. P. Sebastian	hoc on demand distance vector routing protocol	Conference on Communication Systems and Networks, Spain, August 2007, pp. 13-18.	
19.	A. Gafur M. P. Sebastian	Enhancing the performance of IEEE 802.11 WLAN using multi rate backoff algorithm	The 3rd ACM International Workshop on Wireless Multimedia Networking and Performance Modelling (ACM WMuNeP 2007), Creta, Greece, October 2007, pp. 82-87.	
20.	A. Shajin Nargunam M. P. Sebastian	Hierarchical Multi-cast Routing for Mobile Ad Hoc Network	14th Annual IEEE International Conference on High Performance Computing (HiPC2007), Goa, Springer-Verlag, pp. 464-475, December 2007.	
21.	P.P.Abdul Haleem M. P. Sebastian	A Method for the Improvi-sation of Messaging in wireless Mobile Devices	Proc IET International Conference on Wireless, Mobile and Multimedia Networks, Mumbai, pp. 109-112, January 2008.	
22.	Madhu Kumar S.D Umesh Bellur	A Distributed Algorithm for Underlay Aware and Available Overlay Formation in Event Broker Networks for Publish/Subscribe Systems	DEPSA 2007, International workshop colocated with ICDCS 07, Toronto, Canada, June 2007	
23.	Shruti P Mahambre Madhu Kumar S.D Umesh Bellur	A Taxonomy and Classification of Adaptive Event Dissemination Middleware with Support for Service Guarantees	IEEE Internet Computing, Special Issue on Data Dissemination, July 2007	
24.	K. Murali Krishnan Priti Shankar	Computing the Stopping Distance of a Tanner Graph Is NP-Hard.	IEEE Transactions on Information Theory 53(6): 2278-2280 (2007)	
25.	Rafeeque P C Abdul Nazeer K A	Text Mining for Acronym-Definition Pairs from Bio-medical Text using Pattern Matching Method with Space Reduction Heuristics	15 <sup>th</sup> International Conference on Advanced Computing and Communications-ADCOM 2007, IEEE Computer Society, 2007	
26.	Dr. K.P. Mohandas Mr.Ramesh Kumar P.	Study of EEG Signals under Photic Simulation	Proceedings of International Conference MS 2007 kolkata 03-05-2007	International Conference
27.	Ms M. Sobha Dr. R.Sreerama Kumar Dr. Saly George	ANFIS based UPFC Supplementary Controller for damping low frequency oscillations in Power Systems	International journal of Electrical Systems, Vol. 3, Issue. 4, December 2007, PP. 227-244	International Journal
28.	Ms M. Sobha Dr. R. Sreerama Kumar Dr. Saly George	ANFIS based FACTS SDC with GA Tuning for damping low frequency oscillations in Power Systems	Proceedings of the IEEE International Conference on Power Systems (ICPS 2007), Bangalore	International Conference
29.	Ms K.G. Jolly Dr.K P Ravindran Mr. R. Vijaya Kumar Dr. R. Sreerama Kumar	Intelligent Decision making in a Robot-soccer System through compounded Artificial Neural Network	International Journal of Robotics & Autonomous Systems, Vol. 55 (2207), 2007, PP. 589-596	International Journal
30.	Mr.Balachandran D. P., Dr. R. Sreerama Kumar Ms Shimmamol V. P.	A New Technique for Mitigation of Transformer Inrush Current	Proceedings of the 19 <sup>th</sup> International Conference on Electricity Distribution (CIRED), Vienna, 21-24 May 2007,pp.1-4.	International Conference

31.	Mr.Balachandran D. P., Dr. R. Sreerama Kumar Ms Shimmamol V. P.	Transformer Inrush Current reduction by Power Frequency Low Voltage Signal Injection to the Tertiary Winding	Proceedings of the IEEE International Conference-POWERTECH2007, Lausanne, Switzerland, 1-5 July 2007.	International Conference
32.	Mr Balaji K Appana Dr. R.Sreerama Kumar	Modelling of Fuzzy PSS for Damping of Small Signal Oscillations	Proceedings of the International Conference on Power System Analysis, Control and Optimization, Vishakhapatnam, India, March 2008, pp. 162-166.	International Conference
33.	Mr Lokesh G Dr. R.Sreerama Kumar	Wavelet Based ANN Approach for Locating SLG Fault in Medium Voltage Power Systems	Proceedings of the International Conference on Power System Analysis, Control and Optimization, Vishakhapatnam, India, March 2008, pp. 605 -609.	International Conference
34.	Mr. C V Vamsidhar Dr. R.Sreerama Kumar	Automatic Generation Control of Multi-area Deregulated Power Systems	Proceedings of the International Conference on Power System Analysis, Control and Optimization, Vishakhapatnam, India, March 2008, pp. 662 -665.	International Conference
35.	Mr.V I Thajudin Ahamed Mr.P Dhanasekaran Dr. Paul Joseph K	Differentiation of Heart Rate Time Series from Electroencephalogram and Noise	International journal of biomedical sciences Vol.2 Number 1 2007 ISSN 1306-1216	International Journal
36.	Dr. Paul Joseph K <b>Mr.Kannathal N</b> <b>Mr.P Sadasivan</b> <b>Puthysserypady,</b> <b>Mr.Rajendra Acharya U,</b> <b>E.Y.K. Ng</b>	<i>Complex dynamics during Meditation</i>	Journal of Chinese Clinical Medicine (JCCM) Vol. 2, No.4, 2007	International Journal
37.	Ms Reeda Sujith <b>Dr. Paul Joseph K</b>	<i>Non linear analysis of EEG signals: A comparative study of normal and epileptic EEG</i>	ITBM-RBM(Elsevier) (In press)	International Journal
38.	Mr.P.T.Ahamed Sayed Mr.V.I.Thajudin Ahamed Dr.Jeevamma Jacob <b>Dr. Paul Joseph K</b>	<i>Time and frequency domain analysis of heart rate variability and their correlation in Diabetes Mellitus</i>	International journal of Biomedical sciences, Vol.1, No:1, 2008 24 –27	International Journal
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165.	Dr.G. Unnikrishnan	A comparative study on mechanical properties of sisal leaf fibre reinforced polyester composites prepared by resin transfer and compression moulding techniques	Composites Science and Technology 67,453(2007).	
166.	Dr.G. Unnikrishnan	Dynamic mechanical properties of styrene butadiene rubber and poly (ethylene-co-vinyl acetate) blends	Journal of Polymer Research, 15, 161 (2008)	
167.	Dr.G. Unnikrishnan	Organic vapour permeation through natural rubber/poly (ethylene-co-vinyl acetate) blend membranes	Polymer Engineering & Science, 48, 198 (2008)	
168.	Dr.G. Unnikrishnan	Diffusion of aromatic hydrocarbons through styrene butadiene rubber/poly (ethylene-co-vinyl	3rd National Conference on Polymers (Polymer blends and Composites) Dept. of Polymer	

		acetate) blends	Science & Technology, Sri. Jayachamarajendra College of Engg., 15&16 March 2006	
169.	Dr.G. Unnikrishnan	Studies on coconut shell charcoal reinforced natural rubber composites	Silver Jubilee Conference of Indian Council of Chemists, Birla College, Kalyan, P-109 27-29 December 2006.	
170.	Dr.G. Unnikrishnan	Molecular sorption of substituted benzenes by chloroprene modified nitrile rubber/ natural rubber blends, 93 <sup>rd</sup> Indian Science Congress, P- 44.	93rd Indian Science Congress, P-44 1-7 January 2007.	
171.	Dr.G. Unnikrishnan	Water sorption properties of polyvinyl alcohol and poly vinyl alcohol starch films	19th Kerala Science Congress, P-116 , 29-31 January 2007.	
172.	Dr.G. Unnikrishnan	Sorption and mechanical properties of poly (ethylene –co-vinyl acetate compatibilized nitrile rubber/ natural rubber blends	Current Scenario in nano-technology: The role of chemistry, MAMO College, Mokkal, Calicut, P-67 22 &23 February 2007.	
173.	Dr. K.Chandrashekharan	Nonlinear optical studies of 1-3-diaryl-propenones containing 4-methyl thiophenyl moieties-	Optics Communications (2007) 269 235-240	
174.	Dr. K.Chandrashekharan	Nonlinear optical studies of a newly synthesized copolymer containing oxadiazole and substituted thiophenes"	Optics Communications (2007) 271 236-240	
175.	Dr. K.Chandrashekharan	Third order nonlinear optical studies of newly synthesized poly oxadiazoles containing 3,4 - dialkoxy thiophenes using Z-Scan Degenerate four wave mixing methods	Chemical Physics. (2006) 331 125-130	
176.	Dr. K.Chandrashekharan	Synthesis nonlinear optical characterization of copolymers containing alternating 3,4-dialkoxy-thiophene and (1,3,4-oxadiazole) benzene units	Journal of Applied Polymer Science (Accepted for publication)	
177.	Dr. K.Chandrashekharan	$\chi$ (3) measurements and optical limiting in dibenzylideneacetone and its derivatives.	Chemical Physics (2006) 324, 699-704	
178.	Dr. K.Chandrashekharan	Studies on nonlinear optical parameters of bis-chalcone derivatives doped polymers	Polymer (2006) 47, Issue 10, 3565-3567	
179.	Dr. K.Chandrashekharan	Z-scan and Degenerate Four Wave Mixing studies on newly synthesized copolymers containing alternating substituted thiophene and 1,3,4-oxadiazole units	Journal of Physics B At.Mol.Opt. Physics (2006) 39 3747-3756	
180.	Dr. K.Chandrashekharan	Third Order Nonlinear Optical Studies of Newly Synthesized Poly-oxadiazoles	Chemical Physics. (2006) 331 125-130	

		Containing 3,4-dialkoxythiophenes using Z-scan and Degenerate Four Wave Mixing Methods		
181.	Dr. K.Chandrashekharan	Nonlinear optical properties p-(N,N-dimethylamino) dibenzylideneacetone doped polymer	Material Research Bulletin (In press)	
182.	Dr. K.Chandrashekharan	Third order nonlinear optical properties and optical limiting in donor/ acceptor substituted 4'-methoxy chalcone derivatives	Applied Physics B Laser and Optics ( In press)	
183.	Dr. K.Chandrashekharan	Third order nonlinear optical properties and two photon absorption in newly synthesized phenyl sydnone doped polymer	Synthetic Metals 157 (2007) 142-146	
184.	Dr. K.Chandrashekharan	Study of third order nonlinearity in 3-(4-chlorophenyl) -1- (4-methoxyphenyl) prop-2-en-1-one	Internatioanl conference on Optoelectronics, Fiber Optics and Photonics (Photonics 2006 – University of Hydreabad) Dec.13-16, 2006	
185.	Dr. K.Chandrashekharan	$\chi$ (3) enhancement in a donor substituted chalcone	<i>Internatioanl conference on Optoelectronics, Fiber Optics and Photonics</i> (Photonics 2006 – University of Hydreabad) Dec.13-16, 2006	
186.	Dr. K.Chandrashekharan	Third order Nonlinear optical Studies of a Novel conjugated copolymer containing 3,4–dialkoxythiophene	<i>Internatioanl conference on Optoelectronics, Fiber Optics and Photonics</i> (Photonics 2006– University of Hydreabad) Dec.13-16 2006	
187.	Dr. Lisa Sreejith	Gelatin – SDS interaction in presence of urea derivatives	Proceedings of the SilverJubilee Conference of Indian Council of Chemists, Birla College, University of Mumbai , Kalyan, December 2006	
188.	Dr. Lisa Sreejith	Self assembly of soft materials and subsequent liquid crystal formation in presence of Octanol and KBr	ProceedInternational Conference on Nanomaterial and its Applications, NIT Trichy , Feb.2007	
189.	Dr. Lisa Sreejith	Liquid Crystal Formation in Aqueous CTAB Solution with higher alcohols	Proceedings of the International Symposium for Research Scholars on Metallurgy, Materials Science & Engg. (ISRS-2006). IITM, Chennai, Feb.2007	
190.	Dr. Lisa Sreejith	Viscometric studies on the interaction of Gelatin with SDS & CTAB – A Comparison	Proceedings of the International conference on Nanomaterial and its Applications, NIT, Trichy, February 2007.	
191.	Dr. Lisa Sreejith	Surfactants interaction with ureas- A viscometric study”	Proceedings of the national Conference at Jaipur University,	

			Jaipur , Feb.2007	
192.	Dr. Sujith A.	Thermal behaviour of styrene butadiene rubber/poly (ethylene-co-vinyl acetate) blends: TG and DSC analysis	Journal of Thermal Analysis and Calorimetry, 90, 1388 (2007)	
193.	Dr. Sujith A.	Investigation on the interaction of silica and carbon black fillers with natural rubber/poly (ethylene-co-vinyl acetate) blend matrix by swelling studies	Polymer Composites, 28, 705 (2007)	
194.	Dr. Sujith A.	Organic vapour permeation through natural rubber/poly (ethylene-co-vinyl acetate) blend membranes	Polymer Engineering & Science, 48, 198 (2008)	
195.	Dr. Sujith A.	Sorption and mechanical properties of nitrile rubber compatibilized natural rubber/ poly (ethylene-co-vinyl acetate) blends	Journal of Elastomers and Plastics, 40, 17 (2008)	
196.	Dr. Sujith A.	Dynamic mechanical properties of styrene butadiene rubber and poly (ethylene-co-vinyl acetate) blends	Journal of Polymer Research, 15, 161 (2008)	
197.	Dr. Sujith A.	Influence of carbon black on the fuel transport and mechanical characteristics of natural rubber /acrylonitrile butadiene rubber blends	Progress in Rubber, Plastics and Recycling Technology, [Accepted]	

**List of publications of NIT Calicut for the year 2008-09**  
**Conferences (National &International) & Journals (National &International)**

Sl. No.	Name of the Authors	Title of paper	Name of Journal/conference	Publications Details
1.	Ameen, M. Prasad B. K.R.Gopalakrishnan	Boundary Element Analysis of Reinforced Concrete Structural Elements	Engineering Analysis with Boundary Elements	33, 2009, pp 263-270
2.	Ipe.S. Ameen M	Uncertainty Modelling in Finite Element Method	Journal of Structural Engineering, SERC, India	Vol. 35, No. 6, February-March 2009 pp. 404-410
3.	Reshma P P Madhavan Pillai T M	Fatigue Reliability Analysis of Steel bridges for Random Moving Load	Proc. International Conference on Innovations in Building materials, Structural designs and Construction Practices (IBMSDCP-08)	Editors: N Arunachalam & J Raja Murugadoss, May, 15-17, 2008
4.	Praveen Nagarajan T M Madhavan Pillai	Development of Strut and Tie Models for Simply supported Deep Beams using Stress Trajectories	The Icfai University Journal of Structural Engg.	Vol. 1, No. 1, 25-37, 2008
5.	Praveen Nagarajan T M Madhavan Pillai	Improved design recommendations for continuous deep beams using strut and tie method	Journal of Structural Engineering	Vol. 35, No. 3, 202-206, 2008



6.	Praveen Nagarajan T M Madhavan Pillai	Analysis and Design of Simply supported Deep Beams using Strut and Tie Method	Journal of Advances in Structural Engg.	Vol. 11, No. 5, 491-499, 2008
7.	Praveen Nagarajan T M Madhavan Pillai N Ganesan	Design of continuous deep beams using IS 456:2000 and Strut and Tie method	Journal of Institution of Engineers (India)	Vol. (89), November, 20-25, 2008
8.	Praveen Nagarajan T M Madhavan Pillai	Development of strut and tie models for simply supported deep beams using topology optimization	Songklanakarin Journal of Science and Technology	30(5), 641-647, Sept.-Oct. 2008
9.	A S Sajith T M Madhavan Pillai Mohammed Ameen M K Kuttichan	An efficient design of a tuned mass damper in controlling structural response of flexible structures	Journal of Structural Engg	Vol. 35, No. 9, Dec. 2008- Jan 2009, 339-343
10.	S Chandrakaran T M Madhavan Pillai Savitha C	Vibration of surface foundation with concentric openings	Proc. Indian Geotechnical Conference	Vol.2, 409-413, 2008.
11.	Anil Kumar P.S N.Sanker S.Chandrakaran	Strength and deformation behavior of Cochin marine clays under cyclic loading	Proc. Indian Geotechnical Conference	Dec 2008, Vol 2, pp1-4
12.	S.Chandrakaran N.Sanker E.S.Subaida	Performance of unpaved section reinforced with geotextiles	Proc. Indian Geotechnical Conference	Vol 2, pp190-194, 2008
13.	S. Chandrakaran N.Sanker P.S.Nagu	Improvement of lime stabilized clayey soil by synthetics of fiber reinforcement	Proc. Indian Geotechnical Conference	Vol 2, pp328-333, 2008
14.	Resmi G. Thampi. S.G. Chandrakaran S	Effectiveness of a Laterite Packed Bed Column in Removing Heavy Metal from Wastewater	Proc. National Conference on "Integrated Water and Wastewater Management"	20 <sup>th</sup> to 22 <sup>nd</sup> Nov 2008, Jadavpur University, Kolkata
15.	Subida.E.S. Chandrakaran.S. Sanker.N	Standardization of Test Procedure for Tension Test on Coir Yarns and Woven Coir Geotextiles	ASTM Testing Journal	Vol 32, No 3, pp10, 2009
16.	Subida.E.S. Chandrakaran.S. Sanker.N	Experimental Investigations on tensile and pullout behaviour of woven coir geotextiles	Journal of Geotextiles and geomembranes	Vol 26, no5, pp384-392,2008
17.	S.Chandrakaran Santosh G.Thampi Resmi.G Reshma.P.P	Studies on transport of dissolved mass in groundwater	Symposium for Young Water Talents, Nanyang Technological University, Singapore.	23 <sup>rd</sup> to 26 <sup>th</sup> June, 2008
18.	Bandi Rambabu M L Joy V Mustafa.	Parametric study of laminated plates by using discrete layer approach	Journal of Structural Engg.	Vol. 35, No. 9, Dec. 2008- Jan 2009, 390-394
19.	A P Shashikala J Ramasubramanian G Janakiraman	Investigation into the statistical properties of ECN from corroding marine system	ASME Journal of Offshore mechanics and Artic Engineering	Volume: 130, No. 3, August 2008, 034501-1 to 034501-5.
20.	Anjaneyulu MVLN Nagaraj BN	Modelling of acceleration & deceleration characteristics of vehicles	Indian Highways	Vol. 36, No. 5, 29-39
21.	N. Ganesan P. V.	Strength &Behaviour of Steel Fibre	Proc. Seventh RILEM International	17-19, September

	Indira P.T. Santhosh Kumar	Reinforced Self Compacting Concrete Columns	Symposium(BEFIB08)	2008, pp. 679-688
22.	Santhosh G Thampi Gopan Mukkulath Basil Cherian	Organics removal in a coir geotextiles biofilter for the treatment of Organic Rich Low Volume Industrial Wastewater	International Conference on Environment, (ICENV2008), Penang, Malaysia	15 <sup>th</sup> to 17 <sup>th</sup> ,Dec. 2008
23.	Vijit V Anjaneyulu M V L R	Evaluation of Highway Geometric Design Consistency using lateral placement of vehicles	Proc. International Conference on transportation planning & methodologies for developing countries (TPMDC),	IIT Bombay, Mumbai, 2008
24.	Madhulika V Anjaneyulu M V L R	Modelling of traffic flow in mixed mode environment using hydrodynamic models	Proc. International Conference on transportation planning & methodologies for developing countries (TPMDC),	IIT Bombay, Mumbai, 2008
25.	Preethi P Anjaneyulu M V L R	Estimation of O-D matrix & link choice proportions from link volume counts using stochastic user equilibrium principle	Proc. International Conference on transportation planning & methodologies for developing countries (TPMDC),	IIT Bombay, Mumbai, 2008
26.	Gopan M Thampi S G	Nitrate removal in a coir geotextiles biofilter for the onsite treatment of Organic Rich Low Volume Industrial Wastewater	1 <sup>st</sup> Asia Pacific Young Water Professional – (APYWP)	Dec. 2008 Gwangju, Republic of Korea
27.	Gopan M Biju M S Thampi S G	Seepage Contamination in Dug wells and Remediation using Coir Geotextile attached Media Biofilters	International Conference on Energy and Environment	19 <sup>th</sup> to 21, Dec. 2008, NIT, Kurukshetra.
28.	S Jaya Kumar N Amarnatha Reddy Santosh G Thampi	Numerical Modelling of Tsunami Induced Currents at select locations on the Indian Coast	International Conference in Ocean Engineering, ICOE.	1 <sup>st</sup> to 5 <sup>th</sup> , Feb., IIT Madras, Chennai, 2009
29.	Arun C Lakshminarayanan	Construction scheduling based on Ant colony optimisation	5 <sup>th</sup> International Conference in Construction in Twenty First Century (CITC-V)	Istanbul, Turkey
30.	Kishore B. Ameen M.	Nonlinear Finite Element Analysis of Space Trusses	Proc. International Conference on Innovations in Building materials, Structural designs and Construction Practices (IBMSDCP-08)	Editors: N Arunachalam and J Raja Murugadoss, May, 15-17, 2008, 200-209
31.	Ipe S. M Ameen	Finite Element Modeling of Uncertainty	Proc. International Conference on Innovations in Building materials, Structural designs and Construction Practices (IBMSDCP-08)	Editors: N Arunachalam and J Raja Murugadoss, May, 15-17, 2008, 255-264
32.	Chandrakaran S Subaida E.A Sankar N	Prediction of Pullout strength of woven coir geotextiles using yarn pullout resistances	12th International Conference of Association of Computer Methods and Advances in Geomechanics	Goa, Oct 2008.Vol.III, pp. 271-276
33.	Subaida E.AChandrakaran S Sankar N	Strengthening of unpaved roads on soft subgrades using coir geotextiles	International Conference on Geotechnical and Highway Engineering	Kuala Lumpur, May 2008, pp. H10-14
34.	Roshina Babu Sajith A.S	Rocking response of rigid bodies under base accelerations	Proc. National Conference on Recent Advances in Civil	December 4 – 6, Cochin University of

			Engineering (RACE-2008)	Science and Technology.
35.	Gopan M Thampi S G	Nitrate removal in a coir geotextile biofilter for the onsite treatment of Organic Rich Low Volume Industrial Wastewater	National Conference on Integrated water and wastewater Management	20 <sup>th</sup> to 22 <sup>nd</sup> ,Nov. 2008, Jadavpur University, Kolkata
36.	Archana VS Anjaneyulu MVLR	GIS based Pavement Management System	Proc. National Conference on Recent Advances in Civil Engineering (RACE-2008)	CUSAT, Dec 4-6., 2008, 203-208
37.	Rijesh NM Deepthi MD Anjaneyulu MVLR	Landuse Transportation Interaction Modelling	Proc. National Conference on Recent Advances in Civil Engineering (RACE-2008)	CUSAT, Dec 4-6., 2008, 290-214
38.	Divya J Nair Anjaneyulu MVLR	A Genetic Algorithm Approach to Optimise Signal Timings along a Corridor	Proc. National Conference on Recent Advances in Civil Engineering (RACE-2008)	CUSAT, Dec 4-6., 2008, 215-222
39.	Shiring MA Anjaneyulu MVLR	Activity based Modelling System for Travel Demand Forecasting	Proc. National Conference on Recent Advances in Civil Engg (RACE-08)	CUSAT, Dec 4-6., 2008, 227-232
40.	Subaida E.A Chandrakaran S Sankar N	Coir geotextiles as Reinforcement in Soil Structures	National Conference on Advances in Civil Engineering	Anjuman College of Engg.Karnataka
41.	S. Chandrakaran N. Sankar E.A Subaida	Performance of unpaved road section reinforced with coir geotextile	Indian Geotechnical Conference, Bangalore,	December, 2008, Vol. IV, pp.255-258
42.	<b>Sathian,K.K., Syamala,P</b>	Application of GIS integrated SWAT model for basin level water management	<b>Proc. Geometrix 09, IIT Bombay</b>	<b>IIT Bombay</b>
43.	Sathian,K.K., Syamala,P	Application of watershed simulation model for watershed development and management	Proc. National seminar on Emerging Trends in Participatory Watershed Management Project,	Gandhigram Rural University, Dindigal
44.	V.Palissery,D.S. McNally	Effect of disc material on the stress distribution in the vertebral cancellous bone	SAS2008, Florida, USA.	
45.	Nair V. V. Thampi, S. G.	Analysis of contaminant transport in a single fracture using triple porosity approach	National Conference on Recent Innovations in Technology, RIT, Kottayam	26 <sup>th</sup> to 28 <sup>th</sup> March 2009
46.	N. Amarnatha Reddy, S. Jaya Kumar, Santosh G Thampi	Numerical Modeling of Tsunamigenic Currents and its Influence on the Submarine Pipe Design at Select Locations on the Indian Coast	International Conf. ANUGA – Present Applications and Future Potential Canberra, Australia	September 2008
47.	A. Shajin Nargunam M. P. Sebastian	QoS Aware Multicast Routing for MANETs	International Journal of Business Data Communications & Networking, IRMA, USA, Vol. 4, Issue 2, pp. 1-21, 2008	
48.	P.P.Abdul Haleem M. P. Sebastian	An Alternative Approach for Slicing Down the Message Size and Enhancing the Security in Wireless Mobile Networks	The Mediterranean Journal of Computers and Networks, UK, Volume 4, No. 4, pp 148-159, October 2008	
49.	Abdul Nazeer K A, Rafeeque P C	An Enhanced Method for Mining Acronym Definition Pairs from	International Journal of Information Processing (IJIP) ISSN	

	Sebastian M P	Bioinformatics Literature	0973 – 8215, Volume 2, Number 2, 2008	
50.	V. S. Anitha M. P. Sebastian	Scenario-based Cluster Formation and Management in Mobile Ad Hoc Networks	Int. J. of Mobile Computing and Multimedia Communications, USA, 1(1), 1-15, January-March 2009	
51.	P.P.Abdul Haleem M. P. Sebastian	An Efficient Approach For Thinning Wireless Mobile Messages	ICIC Express Letters, Japan, Volume 3, Number 1, pp. 87-94, March 2009	
52.	P.P.Abdul Haleem M. P. Sebastian	A Method for optimizing the size of wireless Mobile Messages	Proc International Computer Science and Technology Conference 2008 (ICSTC 2008) , San Diego, USA, pp. 40-47, April 2008	
53.	Manu J. Pillai M. P. Sebastian	An Adaptive Energy Efficient and High Data Rate MAC protocol for Heterogeneous Networks	Proc Second UKSIM European Symposium on Computer Modeling and Simulation (EMS 2008), pp.542-547, Liverpool, UK, 8-10 September 2008 (IEEE Explore)	
54.	V. S. Anitha M. P. Sebastian	SCAM: Scenario-based Clustering Algorithm for Mobile Ad Hoc Networks	The First International Conference on Communication Systems and Networks, Bangalore, January 2009 (IEEE Explore)	
55.	V. S. Anitha M. P. Sebastian	A Dominating Set Based Adaptive Clustering Algorithm for Mobile Ad-Hoc Networks	International conference on Sensor, Security, Software and Intelligent Systems, Coimbatore, January 8 -10, 2009	
56.	Vinodu George M P Sebastian	An Efficient Homomorphic Coercion Resistant Voting Scheme Using Hierarchical Binary Search Tree	World Congress on Computer Science and Information Engineering 2009 (CSIE 2009), Los Angeles, USA, IEEE Computer Society Press, pp. 502- 507, 2009	
57.	Amarunnishad T.M V. K. Govindan Abraham T. Mathew	Improved BTC image compression using a fuzzy complement edge operator	Signal Processing, vol- 88, issue 12, (2008)2989-2997, Elsevier 2008.	
58.	Amarunnishad T.M K. Govindan Abraham T. Mathew	Use of Fuzzy Edge Image in Block Truncation Coding for Image compression	International Journal of signal Processing, Vol 4, NO 3, pp 215-221, 2008.	
59.	<b>Santle Camilus, V K Govindan, P S Sathidevi</b>	<b>An Enhanced Watershed Transformation Approach for MRI Cortical Gray Matter Segmentation Using Iterative Parallel Region Merging</b>	International Journal of Tomography & Statistics, Summer 2008, Vol. 9, No. S08; 73-87 ISSN 0972-9976	
60.	Madhukumar, Umesh Bellur V K Govindan	Underlay Aware Resiliency in P2P Overlays	10 <sup>th</sup> Int. Conf on distributed computing and networking(ICDCN 2009), Jan 3-6, 2009, to be held at IIT, Gachibowli, Hyderabad-32, India	
61.	Saidalavi Kalady, B Dev,	Optimal agendas and procedures for	The 7th Mexican International	

	Arun A N, Govindan V K Abraham T Mathew	N-Issue negotiation: an inductive definition	Conference on Artificial Intelligence, MICAI-2008 www.MICAI.org/2008	
62.	J. Dinesh Peter, V.K. Govindan, Abraham T. Mathew	Acquainted Non-convexity Multiresolution Based Optimization for Affine Parameter Estimation in Image Registration	In Proceedings: ISICA 2008, LNCS 5370, pp. 171 – 180, 2008, China (Wuhan) (LNCS-Springer)	
63.	K. Santle Camilus, V. K. Govindan, P. S. Sathidevi	A Robust Graph Theoretic Approach for Image Segmentation	In proceedings of 4th IEEE international conference on signal image technology and internet based systems, Pages: 382-386, Nov.30- Dec 3, 2008, Bali, Indonesia.	
64.	J. Dinesh Peter, Govindan V.K. Abraham T.Mathew	Robust NL-means Filter using Convex estimator	In Proceedings: ICETiC'09, Jan 2009, Tamilnadu	
65.	J. Dinesh Peter, V.K. Govindan, Abraham T. Mathew	“Robust Estimation Approach for NL- Means Filter	In Proceedings: ISVC'08, Part II, LNCS 5359, pp. 571-580, 2008, USA (Las Vegas). <b>(LNCS-Springer)</b>	
66.	J. Dinesh Peter, Govindan V.K., Abraham T.Mathew	A Fast Nonlocal-Means Denoising based on Structurally Similar Patches	SEIROS'08 - China – 2008.	
67.	S M Prasad, V K Govindan, P S Sathidevi	Feature set minimization in Wavelet based palmprint recognition system	Int. Nat Conf on Sensor Network, Security and software System- Jan 2009, Coimbatore.	
68.	S M Prasad, V K Govindan, P S Sathidevi	Bimodal personal recognition using hand images	Int Nat. Conf. dvances in Computers communication and control (ACM), Mumbai, Feb 2009	
69.	Joe Cheri Ross Priya Chandran	Object Serialization Support for Object Oriented Java Processors	Third IEEE International Symposium on Information Technology, Kula Lumpur, August 2008.	
70.	Ezudheen P, Priya Chandran, Deepak Ravi, Biju Simon Joy Chandra	Parallelizing SystemC Kernel for fast hardware Simulation on SMP machines	The twenty-third ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulations , Lake Placid, New York, USA, June 2009	
71.	Madhu Kumar S. D., Umesh Bellur V. K. Govindan,	Underlay Aware Resiliency in P2P Overlays	The Tenth International Conference on Distributed Computing & Networking, ICDCN 09, pages 99 -113, Hyderabad, January 2009.	
72.	Ravi Ray , Saidalavi Kalady	Efficient Negotiation Strategies in Multi-agent Meeting Scheduling	Accepted in the International Conference on Computational Intelligence and Natural Computing (CINC 2009) Wuhan, China, June 6 - 7, 2009	
73.	Saidalavi Kalady, Dileep P G, Krishanu Sikdar, Sreejith B S,	Implementation of purely Hardware- assisted VMM for x86 architecture	Accepted in the 2009 International Conference of Computer Science and Engineering, London, U.K., 1-3	

	Vinaya Surya, Ezudheen P		July 2009	
74.	K. A. Abdul Nazeer, M. P. Sebastian	Improving the Accuracy and Efficiency of the k-means Clustering algorithm	International Conference on Data Mining & Knowledge Engineering (ICDMKE), World Congress on Engineering (WCE-2009), London. (Accepted)	
75.	Dr. K.P. Mohandas	Study of EEG Signal under photic stimulation	International Conference on Simulation & Modelling, Kolkata University, Dec 2007	International Conference
76.	K.G.Jolly R.Sreerama Kumar R Vijaya Kumar	Artificial Neural Network for Learning & Decision Making in Multi-agent Robot Soccer Systems	Book Chapter on "Robot Learning: New Research", NOVA Publishers, USA, 2009	International
77.	K.G.Jolly R.Sreerama Kumar R Vijaya Kumar	A Bezier Curve Based Path Planning in a Multi-Agent Robot Soccer System without Violating the Acceleration Limits	Int. Journal of Robotics & Autonomous Systems, March 2008	International
78.	M Sobha, R Sreerama Kumar, Saly George	ANFIS based co-ordination of multiple UPFC control functions for damping low frequency oscillations in power systems	International Energy Journal, July 2009	International
79.	Sreerama Kumar R C V Naga Vamsidhar,	Automatic Generation Control of Multi-Area Deregulated Power Systems	Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), March 2008.	International
80.	Sreerama Kumar R Balaji Krishna A	Modelling of Fuzzy PSS for Damping Small Signal Oscillations	Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), March 2008.	International
81.	Sreerama Kumar R Lokesh G, R	Wavelet Based ANN Approach for Locating SLG Fault in Medium Voltage Power Systems	Proceedings of International Conference on Power System Analysis, Control & Optimization (PSACO-2008), March 2008	International
82.	Balachandran D P Sreerama Kumar R	Flux Compensation Method of Mitigation of Inrush Currents in Transformers due to Voltage Swell	North American International Power Symposium Sept.2008	International
83.	Sreerama Kumar R	Soft Computing and Applications	Institution of Engineers (India) All India Seminar on Emerging Trends in Information & Communication Technology 08, Ernakulam August. 2008.	National
84.	Thajudin Ahamed N.G Karthick Paul Joseph	Effect of mobile phone on heart rate variability	Computers in Biology and Medicine 38(2008) 709-712 (Elsevier)	International
85.	Dr. Susy Thomas Mija S.J	A practically implementable discrete time sliding mode controller for flexible manipulator	International Journal of Robotics and Automation, Vol.23, Number 4, 2008, 235-241.	International
86.	Regina P Mija S. J	Comparative study of sliding mode and relay enhanced PI controllers for MIMO systems	Proceedings of the 4th International Conference on Industrial Electronics, Technology and Automation,	International

			Bridgeport, USA, 2008.	
87.	Deepa V Mija S. J	Comparative study of fast output sampling feedback and relay free sliding mode controllers for power system stabilizer	Proceedings of the IEEE TENCON, Hyderabad, India, 2008.	International
88.	Dr.Elizabeth P C A M Kulkarni Sanjay R Joshi	Output feedback SSR damping controller design based on modular discrete-time dynamic model of TCSC	IET Generation, Transmission & Distribution (Accepted for publication)	International
89.	Jeevanand S Abraham T. Mathew,	Condition Monitoring of Induction Motors Using Wavelet Based Analysis of Vibration Signals	Second International Conference on Future Generation Communication and Networking Symposia, Hainan Island, China, December 13 - 15, 2008	International
90.	Jeevanand S Abraham T. Mathew	Condition Monitoring of Induction Motors Using Combined PSD based Wavelet Decomposition and Selective Weighting Using Spider Web Plots	2008 IEEE Electrical Power & Energy Conference, Vancouver, British Columbia, Canada, 6 – 7 October 2008	International
91.	Amarunnishad T.M Govindan V.K Abraham T. Mathew	“Improving BTC image compression using a fuzzy complement edge operator”	Signal Processing Journal (ELSEVIER) 88(12), pp 2989-2997, Dec. 2008.	International
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93.	Ashok S., P Balamurugan TL Jose	Optimal Scheduling of Hybrid Biomass-wind PV system for Rural areas	International Journal of Energy Technology and Policy, Vol.7. No.1 , Jan 2009, pp 113-126.	International
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217.	C.M. Sushama Revati Rajagopalan	Selection of Optional Traffic Counting Location & Estimation of OD Trip matrix from Fuzzy Traffic counting	The Journal of Fuzzy Mathematics. Vol.16 No.3(2008)	Journal
218.	K. Paramasivam S. Arumugam M	On K-strong edge-magic labeling,	Congressus Numerantium, 2008 (Accepted)	Journal
219.	Sameena K M.S.Sunitha	Characterization of g-self entered fuzzy graphs,	Jour of Fuzzy Maths., Vol.16,No.4,787-791(08)	Journal
220.	Baiju T. Sunil Jacob John	Meta compactness in L-Topological spaces,)	Iranian Journal of Fuzzy Systems,5(3) 71-79 (08)	Journal
221.	K.K.Thampi M.J.Jacob,	Moments of the time of ruin in a renewal risk model with discounted penalty,	The Journal of Risk Finance, Vol.9, issue -2, 2008	Journal
222.	S. Panda, N. Marheineke R. Wegener	Systematic Derivation of an Asymptotic Model for the Dynamics of Curved Viscous Fibers Math.	Meth. Appl. Sci, 31:1153-1173, 2008	Journal
223.	Girish K P, Sunil Jacob John	Relations and Functions in Multiset context	Information Sciences 179 (09) 758 - 768.	Journal
224.	Sunil Mathew , M. S. Sunitha	Types of arcs in a fuzzy graph	Information Sciences 179 (09) 1760 – 1768.	Journal
225.	P Dutt, P Biswas S Ghorai	Preconditioners for spectral element methods for elliptic & parabolic problems,	Jor.Comput. Appl.Math, Vol 215, pp152-166( 08)	Journal
226.	M.C.Lineesh Dr.C.Jessy John	Identification of Threshold Autoregressive Models using Wavelet Basis,AICTE sponsored	National Conference on Recent Developments & applications of probability Theory, Random process & random variables in computer science, 27-29 August 2008, jointly organized by MACFAST &KMA ( Mar Athanasios College, Tiruvalla)	Conference
227.	Suvarna N.T. M.S.Sunitha	Closure Invariants of a Fuzzy graph-I,	International Conference on Graph Theory, December 11-13, 2008, Amrita Viswa Vidyapeetham, Coimbatore	Conference
228.	K.P Girish Sunil Jacob John	Post and Pre classes of Multiset	International Seminar on Recent	Conference

		Relations and the generated Topologies	Trends in Topology & it's Applications, March 19-21, 2009 St. Josephs College, Irinjalakuda, Trichur	
229.	Baiju T Sunil Jacob John	Subparacompactness in L-Topological Spaces,	International Seminar on Recent Trends in Topology & it's Applications, March 19-21, 2009 St. Josephs College, Irinjalakuda, Trichur.	Conference
230.	Lishitha GL Sunil Jacob John	Equivalence Relations and Partitions in the Soft set Context,	International Seminar on Recent Trends in Topology & it's Applications, March 19-21, 2009 St. Josephs College, Irinjalakuda, Trichur	Conference
231.	Suvarna . N.T., M. S. Sunitha	Convexity in fuzzy graphs, Proceedings of the	International Conference on Mathematics & Computer Science, Loyola College, Chennai, Jan 5-6, 317- 319(2009)	Conference
232.	Suvarna . N.T. M. S. Sunitha	Closure invariants of a fuzzy graph	National Seminar on Discrete Mathematics & its Applications, sponsored by UGC & organized by Dept of Mathematics, Govt. Brennen College, Thalasserry, 19 – 21, March (2009)	Conference
233.	Jinu B George. M. S. Sunitha	Strong fuzzy line graph	National Seminar on Discrete Mathematics & its Applications, sponsored by UGC & organized by Dept.of Mathematics, Govt. Brennen College, Thalasserry, 19 – 21, March (2009)	Conference
234.	P.Pradeep	Synthesis Characterization & A.C. Susceptibility of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> / Polyethylene Composites	J Supercond. Nov. Magn. (Publilshed On-Line on 26 Sept. 2008)	
235.	P.Pradeep	Magneetic Magnetic Levitation force measurement on HTSC ceramic /thermoplastic polymer composites	Composites Science & Technology (Publilshed On-Line on Sept. 2008)	
236.	P.Pradeep	Effect of fillers on mechanical properties of dynamically corss linked Styrene Butadine Rubber / HDPE Blends	J. Elastomers & Plastics 40 (2008) 127	
237.	P.Pradeep	PTCRCharacteristics in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> – Linear Low Density Polyethylene (LLDPE) Composite Materials S.	J. Supercond. Nov. Magn. <a href="#">21, ( 5 ) July, 2008</a>	
238.	Dr. K.Chandrashekharan	$\chi^{(3)}$ measurements & optical limiting studies of 2-chloro-5-nitro-NO-[(1E)-phenylmethylidene] benzohydrazide with substituents	Optical Materials (2009)( in press)	
239.	Dr. K.Chandrashekharan	structure & NLO property relationship in a novel chalcone co-crystal	Applied Physics B Laser & Optics 94 (2009), 503-511	
240.	Dr. K.Chandrashekharan	Substituent dependence of third-order optical nonlinearity in chalcone	Jpn. J. Appl. Phys. 47(2008) 6312-6316	

		derivatives		
241.	Dr. K.Chandrashekhara	Nonlinear optical properties p-(N,N-dimethylamino) dibenzylideneacetone doped polymer	Material Research Bulletin (2008) 43, 707-713	
242.	Dr. K.Chandrashekhara	Synthesis, crystal growth & characterization of phase matchable nonlinear optical single crystal; p-chloro dibenzylideneacetone	J of Crystal Growth (2008) DOI:10.1016/j.jcrysgr.2007.12.066	
243.	Vari Sivaji Reddy	Carrier transport mechanism in aluminum nanoparticle embedded AlQ <sub>3</sub> structures for organic bistable memory devices	Organic electronics 10 (2009) 138-144.	
244.	Vari Sivaji Reddy	Multilevel conductance switching in organic memory devices based on AlQ <sub>3</sub> and Al/Al <sub>2</sub> O <sub>3</sub> core-shell nanoparticles	Applied Physics Letters 94 (2009) 173304.	
245.	Vari Sivaji Reddy	Organic photovoltaic devices based on pentacene/ N,N'-Dioctyl-3,4,9,10-perylenedicarboximide heterojunctions	Organic electronics (In Press)	
246.	Vari Sivaji Reddy	Memory effect in a junction-like CdS nanocomposite/ conducting polymer poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylene-vinylene] heterostructure	Nanotechnology 19 (2008) 215306	
247.	Vari Sivaji Reddy	Studies on conduction mechanisms of pentacene based diodes using impedance spectroscopy	J. Phys. D: Appl. Phys. 40 (2007) 7687–7693.	
248.	Vari Sivaji Reddy	Organic Light Emitting Bistable Memory Devices Based on AlQ <sub>3</sub>	Proc. of Photonics 08, December 13-17, 08 Habitat World Convention Center, New Delhi, p. 426.	
249.	Vari Sivaji Reddy	Organic Bistable Memory Devices Based on Donor-Acceptor Systems	International Conference on Hi-Tech Materials (ICHTM-09) February 11-13, 2009, IIT Kharagpur, India, p. 176-177.	
250.	Vari Sivaji Reddy	Effect of Pentacene Crystallinity on Photovoltaic Energy Conversion of PCBM Based Heterojunctions	18 <sup>th</sup> International Photovoltaic Science & Engg Conference & Exhibition (PVSEC18) 2009, Jan 19-23, Indian Association for the Cultivation of Science, India, p. 35.	
251.	Vari Sivaji Reddy	Memory characteristics of CdS nanocomposite / MEH-PPV [2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylene-vinylene] heterostructures	International Conference on NANO Science & Technology (ICONSAT) 2008, 27-29 Feb., 2008, Chennai trade centre, Chennai, India, p. B-084.	
252.	Vari Sivaji Reddy	Growth of Ge/GeO <sub>2</sub> Core-Shell Nanowires for Memory and Heterojunction Devices	International conference on electronic materials (IUMRS-ICEM) 2008, 28 <sup>th</sup> July-1 <sup>st</sup> August, 2008, Hilton Sydney,	

			Sydney, Australia, p. PM E3-S2.6.	
253.	Prajitha Kumari, Shyla George, Radhakrishnan C.K Unnikrishnan, G	Mechanical and sorption properties of polyethylene- co- vinyl acetate (EVA) compatibilized natural rubber/acrylonitrile butadiene rubber blends	<i>Journal of Polymer Research</i> (15) 97–106.	
254.	Radhakrishnan, C.K, Sujith, A Unnikrishnan, G..	Dynamic mechanical properties of styrene butadiene rubber/poly (ethylene-co-vinyl acetate) blends	<i>Journal of Polymer Research</i> (15) 161–171.	
255.	Sreekumar P.A., Pradeesh Albert, Unnikrishnan, G, Kuruville Joseph Thomas S.	Mechanical & water sorption studies of ecofriendly banana fibre reinforced polyester composites fabricated by RTM,	<i>Journal of Applied Polymer Science</i> , 109, 1547-1555	
256.	Prajitha Kumari, Manoj K. C. Unnikrishnan, G.	Influence of carbon black on the fuel transport & mechanical characteristics of natural rubber /acrylonitrile butadiene rubber blends,	<i>Progress in Rubber, Plastics &amp; Recycling Technology</i> (Accepted on 08-02-2008).	
257.	Nair, T.M., Kumaran, M.G. Unnikrishnan, G.	Ageing studies of ethylene propylene diene monomer rubber/styrene butadiene rubber blends: Effects of heat, ozone, gamma radiation and water	<i>Journal of Applied Polymer Science</i> (Published online; http:// www3.interscience.wiley.com / cgi-abstract/ 117351438/ ABSTRACT).	
258.	Priya Dasan, K., Unnikrishnan, G. Purushothaman, E.	Solvent transport through carbon black filled poly(ethylene-co-vinyl acetate) composites	eXPRESS Polymer Letters (accepted on 06/04/2008).	
259.	Rajesh C., Manoj K.C., Unnikrishnan G., Purushothaman E.	Investigation on ageing characteristics of short nylon-6 fibre reinforced NBR composites	<i>Progress in Rubber, Plastics &amp; Recycling Technology</i> , 24 (4), 227-242.	
260.	Rajesh C., Unnikrishnan G., Purushothaman E	Investigation of interfacial adhesion in nylon-6/NBr composites through restricted equilibrium swelling technique	<i>Composite Interfaces</i> , 15 (5), 527-548.	
261.	Shyla George, Prajitha Kumari Unnikrishnan G	Aliphatic liquid transport through heterogeneous ethylene-propylene-diene monomer rubber/ poly(ethylene- co- vinyl acetate blends	<i>Journal of Elastomers and Plastics</i> , 41(1), 65-85.	
262.	Jinu George, S.M.Nair, Lisa Sreejith	Interactions of Sodium Dodecyl Benzene Sulfonate (SDBS) and Sodium Dodecyl Sulfate (SDS) with gelatin – A Comparison	<i>Journal of Surfactants &amp; Detergents</i> , 11, 29-32 (2008) .	
263.	Sudheesh.P, S.M.Nair, Lisa Sreejith, Asian J	Tunable Thermo Reversible Viscoelastic Gels from Self Assembly of Surfactants	<i>Applied Science.</i> , 1(3) 246-252(2008)	
264.	Jinu George, Sudheesh.P,	Circular dichroism and viscosity studies of gelatin with anionic	<i>Composite Interface</i> 15(7-9)	

	S.M.Nair, Lisa Sreejith	surfactant, SDBS	653- 659, 2008).	
265.	Sudheesh.P, S.M.Nair, Lisa Sreejith	A Rheological Approach to Viscoelastic worm-like micelles of tunable properties	Journal of Surfactants & Detergents (In press,2008)	
266.	Jinu George, P.Sudheesh, P.N.Reddy, Lisa Sreejith	Studies on the interaction of SDS with Gelatin in presence of Urea Derivatives	<i>J. Dispersion Sci.&amp; Tech</i> (In press,2008)	
267.	Jinu George, Sudheesh P, Neelakanta Reddy Lisa Sreejith	Influence of Salt on Cationic Surfactant- Biopolymer Interactions in aqueous medium	Journal of Solution Chemistry In Press, Oct.2008)	
268.	Sudheesh P, Jinu George, M.S Sajeew Lisa Sreejith	Viscoelastic Worm like Micelles in Aqueous CPC-Octanol Micellar System Structured by PEG Molecules	J.Polymer Research, (In press, Dec.2008).	
269.	S. Anusree, A. Sujith, C.K. Radhakrishnan G. Unnikrishnan	Organic vapour permeation through natural rubber/poly (ethylene-co-vinyl acetate) blend membranes	<i>Polymer Engineering &amp; Science</i> , 48, 198 (2008)	
270.	A. Sujith, G. Unnikrishnan C.K. Radhakrishnan	Sorption & mechanical properties of nitrile rubber compatibilized natural rubber/ poly (ethylene-co-vinylacetate) blends	<i>Journal of Elastomers and Plastics</i> , 40, 17 (2008)	
271.	A. Sujith,T. Itoh, H. Abe, A. Anas, K. Yoshida, V. Biju M. Ishikawa	Surface enhanced Raman scattering analyses of individual silver nanoaggregates on living single yeast cell wall	<i>Applied Physics Letters</i> , 92,103901 (2008)	
272.	C. K. Radhakrishnan, Prajitha Kumari, A. Sujith G. Unnikrishnan	Dynamic mechanical properties of styrene butadiene rubber & poly (ethylene-co-vinyl acetate) blends	<i>Journal of Polymer Research</i> , 15, 161 (2008)	
273.	V. Biju, T.Itoh, A. Anas, A. Sujith, M. Ishikawa	Semiconductor Quantum Dots and Metal Nanoparticles: Syntheses, Optical Properties, and Biological Applications	<i>Analytical &amp; Bioanalytical Chemistry</i> , 391, 2469 (2008)	
274.	A. Sujith, T. Itoh, M. Kiran, V. Biju, M. Ishikawa	Mapping of Cell Wall of Single Living Yeast by Surface Enhanced Raman Scattering Spectroscopy	<i>Analytical &amp; Bioanalytical Chemistry</i> [Under Review]	
275.	Lisa Sreejith	Rheological analysis of Worm-like Micelles in Cationic Surfactant	Proceedings of 20th Kerala Science Congress,Tvm, Jan.08	
276.	Lisa Sreejith	Molecular Interactions in Gelatin – CTAB systems with Additive, NaCl.	Proceedings of 20th Kerala Science Congress,Tvm, Jan.08	
277.	Lisa Sreejith	Effect of Added Brine on the Physico Chemical Studies of Sodium dodecyl Sulfate & Aqueous gelatin	2 <sup>nd</sup> International Conference on Polymer blends, Composites, IPNS, Membranes, Polyelectrolyte & gels: Macro to Nano scales [September 2008]	

278.	Lisa Sreejith	Gelatin induced structural transitions in Cetyl trimethyl ammonium bromide	National Seminar on Current Advances in Chemical Science, S.H.College, Thevara, Kochi, November 08 .	
279.	N. Sandhyarani, S. Sureshkumar	An investigation on the suitability of chitosan protected gold nanoparticle as drug delivery system	<i>USINSEI</i> , Chennai, India , January, 2008	
280.	A. SUJITH	Polymers-Prospects & Challenges, Science Conclave: A	National Symposium, 4 <sup>th</sup> , 5 <sup>th</sup> April 2008, NIT Calicut, Kerala	
281.	A. SUJITH	Congregation of Nobel Prize Winners	IIT December 15-21, 2008, Allahabad, UP	

### 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).

**ANNEXURE – D**

**LIST OF R & D PROJECTS  
FOR  
THE LAST THREE YEARS**

## List of R & D projects at NIT Calicut for the year 2006-07

	<b>Title of the Project</b>	<b>Investigators</b>	<b>Sponsoring agency</b>	<b>Year of starting</b>	<b>Amount (Rs)</b>
1.	Standardization of engineering properties of coir geotextiles and providing data for techno marketing	Dr. S Chandrakan & Dr. N Sankar	Sponsored by DOCT Govt of kerala	2006	12 Lakhs-
2.	Zonation of Land Slide prone areas of Calicut and Wayanad District	Dr.S.Chandrakaran, Dr.N.Sankar and Sri.K.Saseendran	MHRD	2003	4,00,000
3.	Development of Computer Codes for the Finite Element Analysis of Piezoelectric Transducers	Dr. V Mustafa, Dr. Mohammed Ameen Dr. T M Madhavan Pillai	Naval Physical and Oceanographic Laboratory (under DRDO) Kochi	2002	4,84,000
4.	Compressive Constitutive Behaviour of Polymer Modified-Steel Fibre Reinforced-High Performance Concrete	Dr. P V Indira Dr. N Ganesan	MHRD	2003	15,00,000
5.	High Performance Steel Fibre Reinforced Concrete	Dr. P V Indira Dr. N Ganesan	MHRD	2003	17,00,000
6.	Strength and Ductility of High Performance Concrete Flexural members for Seismic Resisting Structures	Dr. P V Indira Mrs. Ruby Abraham	Kerala State Council for Science, Technology & Environment	2003	4,95,000
7.	Laboratory Development under National Programme on Earthquake Engineering and Education (NPEEE)	Dr. A P Shashikala Dr. P V Indira Dr. T M Madhavan Pillai	NPEEE, Govt. of India	2003	15,00,000
8.	Isotope Investigation of Kozhikode Urban Area with special reference to surface & Ground water Hydrology	Sri. K Saseendran Dr. G Unnikrishnan	DST, IRHPA & CWRDM	2005	5,70,000
9.	Experimental And Analytical Investigations On Two Phase Flow in Pipelines	Dr. Santosh G Thampi	Kerala State Council for Science, Technology & Environment	2005	4,95,000
10.	Development of Attached Media Based System for the Treatment of Domestic and Low Volume Organic Rich Wastewaters	Dr. Santosh G Thampi	KSCSTE	2007	10,45,000
11.	Modification of Artificial Appliances using LTTP in Rehabilitation Medicine	Dr. G Unnikrishnan Dr. Mohammed Ameen Dr. T M Madhavan Pillai	DST, Govt. of India	2005	9,50,000
12.	Experimental Investigations on use of scrap tyre shreds in place of mineral particles in cement concrete	Dr. A.P.Shashikala Dr. M.VL.R.Anjaneyulu	KSCSTE	2007	9,95,000
13.	Seismic Performance of Buildings Designed to Indian Codes	Dr.A.P.Shashikala Dr.T.P.Somasundaran	MHRD GOI	2005	8,00,000
14.	Design of Power Efficient Caches for Superscalar Processors	Dr. Priya Chandran Mr. S D Madhu Kumar	MHRD	2003	7 Lakhs
15.	Developing a Hierarchical Data Backup Protocol	Mr. Vinod P	FRP, NITC	2005	30,000
16.	Applications of neural networks and fuzzy logic in modern control systems	Dr. Jeevamma jacob	MHRD	2003	Rs. 10 lakhs
17.	Development of a DSP based Integrated Control System	Dr. Abraham T Mathew	MHRD, R&D.	2003	Rs. 7 Lakhs



	Environment for advanced research				
18.	DSP based implementation of modern control algorithms for nonlinear multivariable systems:	Dr.Abraham T Mathew and Dr. Jeevamma Jacob	MHRD	2000	Rs. 6 lakhs
19.	Facts Controllers for Economic and Secure operation of Electric power systems	Dr.R Sreeramakumar	TATPEC sponsored by MHRD	2000	Rs. 5 lakhs
20.	"Unified Expert Controller Strategy Design for Hybrid Energy System"	Dr. S Ashok	MHRD	2005	Rs. 14 lakhs
21.	Modernisation of Electrical Measurements laboratory	Dr. S Ashok	MHRD	2005	Rs. 20 lakhs
22.	Decision support system for Peak Demand Planning & Management	Dr. S Ashok	MHRD	2003-06	Rs. 8 lakhs
23.	Effects of Power electronic devices on protective relays	Subha D P & Dr. S Ashok	FRP	2006	Rs 50000/-
24.	Investigation of Power Quality issues on Motors under different starting conditions	R Sunitha & Dr. S Ashok	FRP	2006	Rs 50,000/-
25.	Performance of Photovoltaic cell under concentrated illumination	Sunitha K & Ashok S	FRP	2005	Rs 30000/-
26.	Development of Optimal Pico Hydel Generator for Rural areas	Sunitha K & Ashok S	FRP	2006	Rs 50000/-
27.	Investigation on performance of Electronic Energy Meter under non linear loads	Ashok S & Preetha P	FRP	2005	Rs37000
28.	PIC Microcontroller application to Power Electronics	Hema Rani P & Dr. M V Vaidayan	FRP	2005	Rs50000
29.	R & D Project on Implementation of digital filter banks	Dr. Elizabeth Elias, & Ms. Lyla B Das	R & D (MHRD)	2003-2006	Rs.6.0 Lacs
30.	Wavelet based Speech Enhancement Techniques for listeners with Hearing Loss	Dr. P.S. Sathidevi Ms. Deepthi.P.P & Ms. Sreelekha.G	R & D (MHRD)	2004-2007	Rs.8.0 Lacs
31.	Design and Development of low bit rate real time applications of Multi rate systems	Dr. Elizabeth Elias	R & D (MHRD)	2005-2008	Rs.12.0 Lacs
32.	Design and Implementation of Algorithms for Quality of service provisioning over IEEE 802.11 Wireless LAN	Dr. Lillykutty Jacob & Mr. A.V. Babu	R & D (MHRD)	2005-2008	Rs.7.5 Lacs
33.	Development of an Embedded Systems Laboratory	Ms. Lyla B Das	TAT (MHRD)	2005-2008	Rs.6.0 Lacs
34.	Special Man Power Development Programme for VLSI Design & Related Software (SMDP II)	Dr. Elizabeth Elias & Jaikumar M.G.	Government of India, Ministry of Information Technology, New Delhi	2005-2010	1 cores
35.	Echo Cancellation using Adapted Filter Bank	Dr. Elizabeth Elias	NIT CALICUT (FRP Project)	2006	0.5 Lacs
36.	FPGA Implementation of Elliptic Curve Cryptosystems	Smt. Deepthi P.P.	NIT CALICUT (FRP Project)	2006	0.5 Lacs
37.	Perpetual Image Coding	Smt. Sreelekha G.	NIT CALICUT (FRP Project)	2006	0.5 Lacs
38.	Prorosity studies on sand cast aluminium alloys using vibration during solidification	Dr M A Joseph	UGC	April 2006 – March 2010	

39.	An Experimental and Analytical Investigation of Condensing Radiators for Application to Reduced Gravity	Dr. C.B. Sobhan Prof. G.P.Peterson (RPI, Troy, NY)		2003-2006	
40.	Holographic Studies on Mini Channels for Optimal Thermal Design of Microelectronic Systems	Dr. C.B. Sobhan Mr. V. Sajith	DST, Government of India	2006-2009	
41.	Visualization Studies on The Combustion of Diesel Oil in the Presence of Cerium Oxide Nanoparticles	Mr. Sajith.V	FRP, NIT Calicut	1 Year, 2006-07	
42.	Development of Microprocessor Controlled Electronic Fuel Injection System for Two Stroke Single Cylinder Spark Ignition Engine,	Mr. Sajith.V	FRP, NIT Calicut	1 Year, 2006-07	
43.	Fabrication of Mini and Micro Components Using Micromachining	Mr. Sajith.V	FRP, NIT Calicut	1 Year, 2006-07	
44.	Study of Energy Transport Phenomena using Sintered Metallic Porous Wick in Circular Heat Pipe	Dr. Jose K. Kakkassery	DRDO	3 years, 2004-2007	
45.	Numerical and Experimental Bifurcation Study of Nonlinear Systems Using Parametric Continuation Technique	Mr. M.D. Narayanan Dr. P.K. Rajendrakumar	FRP, NIT Calicut	1 Year, 2006-07	
46.	Investigations into Micro-Machining operations	Dr. Jose Mathew Mr. P. B. Dhanish Dr. M. A. Joseph	FRP, NIT Calicut	1 Year, 2006-07	
47.	Fabrication of Mini and Micro components using Micro-Machining Centre	Dr. N. Ramachandran Dr. Jose Mathew Mr. Sajith V.	FRP, NIT Calicut	1 Year, 2006-07	
48.	Determination of Surface Roughness using Machine Vision	Mr. P. B. Dhanish Dr. Jose Mathew	FRP, NIT Calicut	1 Year, 2006-07	
49.	Chalcogenide Nano rods using polyisoprene templates	Dr. P. Predeep	Inter-university Accelerator Center, New Delhi		5 lacs
50.	Hole injection layer's for OLEDs	Dr. P. Predeep	Director, NITC		5 lacs
51.	Development of transparent polymer electrodes for organic electronic devices	Dr. P. Predeep	DST – Organic Electronics special initiative programme:		40.1 lacs
52.	Polymer electrodes by laser ablation	Dr. P. Predeep	Consortium for Scientific Research		1.5 lacs
53.	Establishment of technical interface center for KVIC ( Chemical)	Dr. G. Unnikrishnan	KVIC		14.5 lacs
54.	Linear and nonlinear properties of nano size metal colloids in polymers	Dr. Chandrasekharan.K	DST		18.75 lacs
55.	Computer Aided Time series Analysis and forecasting	Dr.Jessy John C Principal investigator  Lineesh M.C Co-investigator	FRP	2006	32,000/-

## List of R & D projects at NIT Calicut for the year 2007-08

	Title of the Project	Investigators	Sponsoring agency	Year of starting	Amount (Rs)
1.	Optimization of Fuzzy Reliability of Hydropower Systems	Dr. K Sasikumar Asst Prof: CED	FRP	2007	2,20,000/-
2.	Cryo Cooler for Producing 80K	Dr. Biju T Kuzhiveli	FRP	2007	5,00,000/-
3.	Effluent treatment using Inverse fluidized Bed Reactor	V. Sivasubramonian	FRP	2007	5,00,000/-
4.	Micro and Nanopatterining of Alignment Layers for Liquid Crystal Display Technology	Dr. Soney Varghese	FRP	2007	5,00,000/-
5.	Organic Electronics	Dr. P Predeep	FRP	2007	5,00,000/-
6.	Electronic structure of semiconductors and conjugated organic molecules	Dr. Raghu Chatanathodi	FRP	2007	5,00,000/-
7.	Convective heat transfer measurement in small channels by Hetrodyne method	Sajith V Lecturer, MED	FRP	2007	5,00,000/-
8.	Development of Chemical Vapour Deposition apparatus for fabrication of carbon nano tubes	Shijo Thomas Lecturer, MED	FRP	2007	5,00,000/-
9.	Thermal Science Solar energy	M. Srinivas Lecturer, MED	FRP	2007	5,00,000/-
10.	Humanoid Robotics	A.P. Sudheer Lecturer, MED	FRP	2007	5,00,000/-
11.	Marketing Management Marketing of Online services	G. Varaprasad Lecturer, MED	FRP	2007	5,00,000/-
12.	Power System Security	Sunitha R Lecturer, EED	FRP	2007	5,00,000/-
13.	Electrocardiography Heart Rate Turbulence	Subha D Puthankattil Senior lecturer, EED	FRP	2007	5,00,000/-
14.	Study of Energy Transport Phenomena using Sintered Metallic Porous Wick in a Circular heat Pipe	Dr. N.M.Nagarahan (Dr.Jose Kakkassery) MED	DRDO		14,40,000/-
15.	Modification of Artificial Appliances using LTTP in Rehabilitation medicine	Dr. Unnikrishnan, DSH	DST		6,37,770/-
16.	Khadi and Village industries commission technical interface centre,	Dr. G.Unnikrishnan & Dr.Sudarshan MED			15,40,000/-
17.	Special Manpower Development for VLSI Design and related software (	HOD, Electronics & Communication			59,00,000/-
18.	Development of new composite material based on aluminium matrix composite and study of its mechanical behaviour	Dr. K.Prabakaran Nair Professor (Dr. M.A.Joseph)	MHRD		15,00,000/-
19.	Unified Expert Controller Strategy Design for Hybrid Energy System	Dr. Ashok S. Asst. Professor	MHRD		14,00,000/-
20.	Design and Development of low bit rate real time applications of Multi	Dr. Elizabeth Elias Professor	MHRD		12,00,000/-

	rate systems-	ECED			
21.	Implementation of Algorithms for quality of Service provisioning over IEEE802.11 Wireless Lan	Dr. Lillykutty Jacob Professor	MHRD		7,50,000/-
22.	Standardization of engineering properties and providing technical data for the Techno-marketing of Coir Geo-textiles	Chandrakaran, Professor CED	DOCT		12,00,000/-
23.	Hydrographic studies on mini channels for optional thermal design of microelectronic system	C.B.Sobhan, Professor MED	DST		14,00,000/-
24.	Development of attached media based system for the treatment of domestic and low volume organic rich waste waters using coir geotextiles.	Dr. Santhosh G Thampi Assistant Professor CED	KSCSTE		10,45,000/-
25.	Experimental Investigations on use of scrap tyre shreds in place of mineral particles in cement concrete	Dr. A.P.Shashikala Professor CED	KSCSTE		9,94,400/-
26.	UGC Project "Porosity studies on sand cast alloys using vibration during solidification	Dr. M.A.Joseph MED	UGC		8,55,600/-
27.	DST Project "Linear and nonlinear optical properties of nano size metal colloids in polymers"	Chandrasekharan DSH	DST		18,75,000/-
28.	Isotopic Investigation of Kozhikode urban areas with special reference to surface and groundwater Hydrology	K Saseendran CED	DST		8,00,000/-
29.	Surface Cooling using Nano tubes –	C.B.Sobhan, Professor MED			20,00,000/-
30.	Thermo responsive ion track membrane from elastomers for drug release applications	Dr. P.Pradeep, DSH	IUAC		5,00,000/-
31.	Investigation of performance characteristic of modified bituminous mixtures	Dr. MVLR Anjenyulu CED	KSCSTE		10,20,800/-
32.	Fund for improvement of S&T infrastructure in universities and higher educational institution	Dr. Lillykutty Jacob HOD, ECED			45,00,000/-
33.	Investigation on Power Quality Issues of Drives (T)251/ETP/2007/KSCSTE	Dr. Ashok.S EED	KSCSTE		9,90,000/-
34.	Fund for improvement of S&T infrastructure in universities and higher educational institution	Dr. M P Sebastian, HOD, CSCE			33,60,000/-

35.	UK INDIA E&R Initiative-Leeds University	Dr. Unnikrishnan.G, DSH			70,142,60
36.	Chalcogenide Nano rods using polyisoprene templates	Dr. P. Predeep	Inter - university Accelerator Center, New Delhi	2007	5 lakhs
37.	Hole injection layer's for OLEDs	-do-	Director, NITC	2007	5 lakhs
38.	Development of transparent polymer electrodes for organic electronic devices	-do-	DST-Organic Electronics special initiative programme:	2007	49 lakhs
39.	Polymer electrodes by laser ablation	-do-	Consortium for Scientific Research	2007	1.5 lakhs
40.	Establishment of technical interface center for KVIC (Chemical)	Dr.G.Unnikrishnan	KVIC		15.4 lakhs
41.	Linear and nonlinear properties of nano size metal colloids in polymers	Dr.Chandrasekharan.K	DST		18.75 lakhs
42.	Computer Aided Time series Analysis and forecasting	Dr.Jessy John C Principal Investigator  Lineesh M.C Co-Investigator	FRP	2006	32,000
43.	Study of Energy Transport Phenomena Using Sintered Metallic Porous Wick in a Circular Heat Pipe	Dr. Jose Kakkassery Dr. P.V Rama Chandran	DRDO	2004-07	14.5 Lakhs
44.	Visualization studies on the Combustion of diesel oil in the presence of Cerium oxide nanoparticles	Sajith.V	FRP, NITC	2006-07	48,000
45.	Development of Micro-processor Controlled electronic fuel injection system for two stroke single cylinder Spark Ignition Engine	Shijo Thomas Sajith.V	FRP, NITC	2006-07	35,000
46.	Fabrication of mini and micro Components using micro-machining	Dr.Jose Mathew Dr.N.Ramachandran V.Sajith	FRP, NITC	2006-07	50,000
47.	Holographic studies on the minichannels for the optimum design of micro electronic components	Dr.C.B.Sobhan V.Sajith	DST	2005-06	20 lakhs
48.	An experimental Investigation of Convective Heat Transfer in Water based Nano fluids	Dr. C. B. Sobhan Sri. Shijo Thomas Sri. Hanas T	BRNS	2007-09	20 Lakhs
49.	Development of new Composite Material based on Alumium Matrix composites and study of its mechanical behaviour	Dr. M.A. Joseph	MHRD	2005	15 lakhs

50.	Studies on Alumium Castings Usings Vibrations during Solidification	Dr. M.A. Joseph	UGC	2007	10.461 lakhs
51.	Wavelet based Speech Enhance-ment Techniques for listeners with Hearing Loss	Dr. P.S. Sathidevi Ms. Deepthi.P.P Ms. Sreelekha.G	R & D (MHRD)	2004-2007	8 lakhs
52.	Design and Development of low bit rate real time applications of Multi rate systems	Dr. Elizabeth Elias	R & D (MHRD)	2005-2008	12 lakhs
53.	Design and Imple-mentation of Algori-thms for Quality of service provisioning over IEEE 802.11 Wireless LAN	Dr. Lillykutty Jacob Mr. A.V. Babu	R & D (MHRD)	2005-2008	7.5 lakhs
54.	Development of an Embedded Systems Laboratory	Ms. Lyla B Das	TAT (MHRD)	2005-2008	6 lakhs
55.	Special Man Power Development Programme forVLSI Design and Related Software (SMDP II)	Dr. Elizabeth Elias Jaikumar M.G.	Govt. of India, Ministry of Information Technology, New Delhi	2005-2010	1crore
56.	Standardization of engineering properties of coir geotextiles and providing data for techno marketing	Dr. S Chandrakan Dr. N Sankar	Sponsored by DOCT Govt. of Kerala	2006	12,000,00
57.	Isotope Investigation of Kozhikode Urban Area with special reference to surface & Ground water Hydrology	Sri. K Saseendran Dr. G Unnikrishnan	DST, IRHPA & CWRDM	2005	5,70,000
58.	Experimental And Analytical Investigations On Two Phase Flow in Pipelines	Dr. Santosh G Thampi	Kerala State Council for Science, Technology & Environment	2005	4,95,000
59.	Development of Attached Media Based System for the Treatment of Domestic and Low Volume Organic Rich Wastewaters	Dr. Santosh G Thampi	KSCSTE	2007	10,45,000
60.	Modification of Artificial Appliances using LTTP in Rehabilitation Medicine	Dr. G Unnikrishnan Dr. Mohammed Ameen Dr. T M Madhavan Pillai	DST, Govt. of India	2005	9,50, 000
61.	Experimental Investigations on use of scrap tyre shreds in place of mineral particles in cement concrete	Dr. A.P.Shashikala Dr. MVLR. Anjaneyulu	KSCSTE	2007	9,95,000

## List of R & D projects at NIT Calicut for the year 2008-09

	Title of the Project	Investigators	Sponsoring agency	Amount (Rs)
1.	Optimization of Fuzzy Reliability of Hydropower Systems	Dr. K Sasikumar Asst Prof: CED	FRP	2,20,000/-
2.	Cryo Cooler for Producing 80K	Dr. Biju T. Kuzhiveli Asst. Professor, MED	FRP	5,00,000/-
3.	Effluent treatment using Inverse fluidized Bed Reactor	V. Sivasubramonian Lecturer, Chemical Engg.	FRP	5,00,000/-
4.	Micro and Nanopatterining of Alignment Layers for Liquid Crystal Display Technology	Dr. Soney Varghese Lecturer	FRP	5,00,000/-
5.	Organic Electronics	Dr. P Predeep	FRP	5,00,000/-
6.	Electronic structure of semiconductors and conjugated organic molecules	Dr. Raghu Chatanathodi	FRP	5,00,000/-
7.	Convective heat transfer measurement in small channels by Hetrodyne method	Sajith V Lecturer, MED	FRP	5,00,000/-
8.	Development of Chemical Vapour Deposition apparatus for fabrication of carbon nano tubes	Shijo Thomas Lecturer, MED	FRP	5,00,000/-
9.	Thermal Science Solar energy	M. Srinivas Lecturer, MED	FRP	5,00,000/-
10.	Humanoid Robotics	A.P. Sudheer Lecturer, MED	FRP	5,00,000/-
11.	Marketing Management Marketing of Online services	G. Varaprasad Lecturer, MED	FRP	5,00,000/-
12.	Power System Security	Sunitha R Lecturer, EED	FRP	5,00,000/-
13.	Electrocardiography Heart Rate Turbulence	Subha D Puthankattil Senior lecturer, EED	FRP	5,00,000/-
14.	Design and Development of Miniature-Linearly Driven-Opposed Piston-Compressor for Cryocooler Applications	Dr. Biju T. Kuzhiveli Asst. Professor, MED	FRP	5,00,000/-
15.	Research on Fiber Dynamics, Porous Media Asymptotic Analysis, Magnetic-Hydrodynamic Fluid	Dr. Satyananda Panda Lecturer, Maths	FRP	5,00,000/-
16.	Poly (ethylene –co-vinyl acetate)/Biomaterials Blend Membranes: Investigation on Transport Characteristics and Biochemical sensing properties	Dr. A. Sujith Lecturer in Chemistry	FRP	5,00,000/-
17.	Size and Shape Controlled Synthesis of Nano particles Using Marine Microorganisms and their	Dr. N. Sandhyarani Asst.Professor	FRP	5,00,000/-

	Applications in Sensors			
18.	Green Supply Chain Management	Ratnakumar K. Lecturer, MED	FRP	5,00,000/-
19.	Flow Shop Scheduling	Dr. T. Radharamanan Lecturer, MED	FRP	4,50,000/-
20.	Construction Risk Optimization Model Based on Ant Colony System (ACS)	Dr. Arun C. Asst. Professor, CED	FRP	1,40,000/-
21.	Research on Integrated Solid Waste Management of NIT Calicut campus	Pramada S.K. Lecturer, CED	FRP	5,00,000/-
22.	Special Manpower Development for VLSI Design and related software (SMDPII)	HOD, Electronics & Communication		59,00,000/-
23.	Development of new composite material based on aluminium matrix composite and study of its mechanical behaviour	Dr. K.Prabakaran Nair Professor (Dr. M.A.Joseph)		15,00,000/-
24.	Unified Expert Controller Strategy Design for Hybrid Energy System	Dr. Ashok S. Asst. Professor		14,00,000/-
25.	Design and Development of low bit rate real time applications of Multi rate systems	Dr. Elizabeth Elias Professor, ECE		12,00,000/-
26.	Implementation of Algorithms for quality of Service provisioning overIEEE802.11 Wireless Lan	Dr. Lillykutty Jacob Professor,ECE		7,50,000/-
27.	Standardization of engineering properties and providing technical data for the Techno-marketing of Coir Geo-textiles DOCT	Dr. S. Chandrakaran, Professor CED		12,00,000/-
28.	Holographic studies on mini channels for optimal thermal design of microelectronic system	Dr. C.B.Sobhan, Professor MED		14,00,000/-
29.	Development of attached media based system for the treatment of domestic and low volume organic rich waste waters using coir geo-textiles.	Dr. Santhosh G Thampi Asst. Professor CED		10,45,000/-
30.	Experimental Investigations on use of scrap tyre shreds in place of mineral particles in cement concrete	Dr. A.P.Shashikala Professor CED		9,94,400/-
31.	UGC Project "Porosity studies on sand cast alloys using vibration during solidification"	Dr. M.A. Joseph MED		8,55,600/-
32.	DST Project "Linear and nonlinear optical properties of nano size metal colloids in polymers"	Dr. K. Chandrasekharan DSH		18,75,000/-
33.	Isotopic Investigation of Kozhikode urban areas with special reference to surface and groundwater Hydrology	Mr. K Saseendran CED		8,00,000/-
34.	Surface Cooling using Nano tubes	Dr. C.B. Sobhan, Professor, MED		20,00,000/-
35.	Development of Transparent polymer electrodes	Dr. P. Predeep		49,00,000/-



	for organic electronics	DSH		
36.	IUAC Project "Thermo responsive ion track membrane from elastomers for drug release applications"	Dr. P. Predeep, DSH		5,00,000/-
37.	Investigation of performance characteristic of modified bituminous mixtures	Dr. MVLR Anjenyulu CED		10,20,800/-
38.	Fund for improvement of S&T infrastructure in universities and higher educational institution	Dr. Lillykutty Jacob HOD,ECED		45,00,000/-
39.	Investigation on Power Quality Issues of Drives	Dr. Ashok S. EED		9,90,000/-
40.	Fund for improvement of S&T infrastructure in universities and higher educational institution	Dr. M. P. Sebastian, HOD,CSED		33,60,000/-
41.	UK INDIA E&R Initiative-Leeds University	Dr. Unnikrishnan G., DSH		70,142,60/-
42.	Studies on ground water pollution by heavy metal discharge to soil and its Remedication Technologies.	Dr. S. Chandrakaran. CED		8,59,100/-
43.	UGC-DAE Project titled "highly conducting transparent polymer film for optoelectronic and photonic application by laser ablation technique".	Dr. P. Pradeep, DSH		35,000/-
44.	DST Project enhancement of the sensitivity of peptide nanotube based biosensors using gold nanoparticle .	Dr. N .Sandyarani, DSH.		19,14,000/-
45.	Grant-In-Aid for the project titled "Information Security Eduaction and Awarness project (ISEA Project)".	Dr. Vineeth Paleri, CSED.		3,22,000/-
46.	DST Project "Development of an Interoperable Spatial Database of Road Network for Calicut District.	Dr. MVLR Anjenyulu CED		16,81,000/-
47.	AICTE National co-ordinated project "Development of Tools and Techniques for Modifying and Analysis of world class manufacturing system".	Dr.R.Sreedharan.prof. MED		25,50,000/-
48.	DBT Project entitled "Multifunctional plasmonic nanoparticles and nanocomposites for targeted drug delivery: synthesis, evaluation and toxicological studies".	Dr. N .Sandyarani, DSH.		45,18,000/-
49.	"Consultancy Work for the construction of Multipurpose Building for University of Calicut". F	Dr. Anil kumar, ARC.		1,00,000/-
50.	DST-FIST Programme "To Strengthen the Research & Post graduate in area of power quality and II Energy Research in EED"	Dr. S. Ashok, EED		1,00,00,000/-
51.	Consultancy Project "Renovation of Miskal Mosque & Tali Temple at Kozhikode".	Dr. A.K. Kasthurba, ARC		

**ANNEXURE – E**

**LIST OF Ph. D THESIS  
SUBMITTED  
IN  
LAST THREE YEARS**

### List of Ph. D Thesis submitted in the last three years

Sl. No.	Name	Guide	Area of specialization	Scheme (QIP/Part time/Full time)
1.	Santhosh Kumar P.T	Dr. N Ganesan Dr. P V Indira	Structural Engg	Full time
2.	Sreekumar	Dr. P Syamala	Water Resources Engg.	QIP
3.	C. K Ali	Dr. E. Gopinathan	Blind Adaptive Multiuser Detection with Integrated Channel estimation for Multipath CDMA Channels	Part Time
4.	Ms. Seethalakshmi	Dr.R.Sreerama Kumar, Dr.F.Gajendran	Investigations on the Control & Performance of Vehicle Active Suspension Systems	Part time
5.	Sri. N Rajendran	Dr. R. SreeramaKumar	Development of New Techniques for the design of Power System stabilizer	Part time
6.	E. Chandrasekharan	Dr. R. SreeramaKumar & Dr. K.P. Mohandas	Computer Applications in Power Systems- Load Flow Problems	Part Time
7.	N.H. Jayadas	Dr. K. Prabhakaran Nair	Analysis , Modification and Evaluation of the Properties of Coconut Oil as Base Oil for Industrial Lubricants	Part Time
8.	Sujith. A.	Dr. G. Unnikrishnan	Polymer Chemistry	FT
9.	Haseena A P	Dr. G. Unnikrishnan	Polymer Chemistry	FT
10.	C.K. Radhakrishnan	Dr. G. Unnikrishnan	Polymer Chemistry	FT
11.	P. Jafar Ali	Dr. Mohammed Ameen	Structural Engg.	External Registration
12.	Ruby Abraham	Dr. N Ganesan Dr.P.V.Indira	Structural Engg.	QIP
13.	Sumam. K.S	Dr. Santosh G Thampi	Water Resources Engg.	QIP
14.	Mr. Gylson Thomas	Dr. V K Govindan	Image Processing	Part Time
15.	Abdul Hameed	Dr. Elizabeth Elias	Linear Phase Cosine Modulated Filter Banks	QIP
16.	B. Seetha Ramanjaneyulu	Dr. E. Gopinathan	Dealing with interference in short range wireless networks	Part Time
17.	Sheeba V.S	Dr. Elizabeth Elias	Optimality and Design of Signal Adapted Filter Banks	QIP
18.	A.V Babu	Dr. Lillykkutty Jacob	Performance Analysis of IEEE 802.11 Wireless LAN: Fairness and Service Differentiation	Part Time
19.	Asha Vijayakumar	Dr. G. Abhilash	Filter Bank Design using Nilpotent Matrices	Regular

20.	John Kiran A	Dr. K. Chandrasekharan	Non-linear Optics	Full time at NITK Surathkal
21.	P.Vijayan	Dr. S Chandrakaran	Geotechnical Engg	QIP
22.	Mr. A. Shajin Nargunam	Dr. M P Sebastian	Mobile Networks	Part Time
23.	Sri. Jolly KG	Dr.R.Sreeram Kumar (EED) Dr.Vijaya Kumar (MED)	Intelligent Task Planning and Action Selection of a Mobile Robot in a Multi-agent Robot-Soccer System	Part Time
24.	Sri. Babu C.A.	Dr. Ashok S	Peak Demand management for Industries	QIP
25.	Smt. Sobha M	Dr. SreeramKumar R. Dr. Saly George	Damping of Small Signal Oscillations in Power Systems with FACTS Based Supplementary Controllers	Part Time
26.	Ms. Reji P	Dr. Ashok S Dr. K M Moideenkutty	Optimum Pricing in Deregulated Electric Power System	Part Time
27.	Ms. Deepthi P.P.	Dr. P.S. Sathi Devi	Secure Communication	Part Time
28.	Mr. Sumesh E.P	Dr. Elizabeth Elias	Multi-wavelet applications in Electromagnetics	Part Time
29.	Mr. Indiradevi	Dr. P.S. Sathidevi Dr. Elizabeth Elias	EEG Analysis using Filter Banks	Regular
30.	Mr. K Ramanarayana	Dr. Lillykkutty Jacob	Secure routing protocols for MANETS with internet connectivity	QIP (Poly)
31.	Suresh Babu J S	Dr. K. Prabhakaran Nair & Dr. G. Unnikrishnan	Nano Micro Hybrid Metal Matrix composites; Processing and characterization	Part Time
32.	Sameena. K	Dr.M.S.Sunitha	Fuzzy Graphs	Full time
33.	Mr. Anil Kumar	Dr. G. Unnikrishnan	Interaction of fungicides with soil	External
34.	Mr. Jinu George	Dr. Lisa Sreejith	Interaction of Sodium Dodecyl Benzene Sulfonate (SDBS) and of Sodium Dodecyl Sulfate (SDS) with gelatin	Part time
35.	Mr. Sudheesh P	Dr. Lisa Sreejith	Viscoelastic Thermo Reversible Viscoelastic Gels from Self Assembly of Surfactants.	Part time

**ANNEXURE – F**

**LIST OF CONFERENCES/WORKSHOPS/SEMINARS  
CONDUCTED  
IN  
LAST THREE YEARS**

### Conferences/ Workshops / Seminars conducted during 2006-07

Sl No	Course	Faculty Coordinator	Duration	Course Coordinator
1.	Concrete Mix Design for Field Engineers	Dr N Ganesan	13 <sup>th</sup> March 2007	Mr. C.P.Hariharan
2.	Entrepreneurship Awareness Camp		3 <sup>rd</sup> & 10 <sup>th</sup> Feb2007	Ms. Preethi.M
3.	Work shop on Linux		25 <sup>th</sup> May 2005 & 4 <sup>th</sup> June 2006	Ms. Preethi.M
4.	Workshop on Capability Maturity Model	Sri. A.V. Francis	28th April 2006	Ms. Preethi.M
5.	Workshop on Software Export Marketing	Sri. A.V. Francis	20th September 2006	Ms. Preethi.M
6.	Workshop on IPR, Quality Assurance and Project Management	Sri. A.V. Francis	2nd December 2006.	Ms. Preethi.M
7.	Diploma in Small Business Management		May 2006 – January 2007	Sri. A.V.Francis
8.	Modelling and Analysis of World Class manufacturing Systems (AICTE – ISTE Winter School)	Dr. R. Sridharan Dr. V. Madhusudanan Pillai	One Week March 12-16, 2007	
9.	Design and Analysis of Lean Production Systems (Staff Development Programme – AICTE)	Dr. R. Sridharan Dr. V. Madhusudanan Pillai	Two weeks March 26 – April 6, 2007	
10.	Training program on CMM and CAI	Dr. Jose Mathew Mr. P.B. Dhanish	22 -26 May, 2006	
11.	All India workshop on Coordinate Measuring Machines and Computer aided Inspection (CMM)	Dr. Jose Mathew Mr. P.B. Dhanish	14 -16 June, 2006	
12.	Technical Workshop on 'Energy: Advances in Energy, Economy and Environment', NIT Calicut	Dr. C Muraleedharan, Dr. S Jayaraj	31 March 2007	
13.	Patents and Intellectual Property Rights	Suidheer.A.P G.Varaprasad	One-day Workshop, March, 2007	
14.	Nanoelectronics- Physics and Technology	Dr. P.C. Subramaniam	8-13 May, 2006	
15.	SCADA Systems & Applications	Dr. S Ashok	4-9 Dec 2006 5 days	
16.	Electrical Grounding Practices	Dr. S Ashok	April 4-6,2006, 3 days	
17.	SCADA Systems & Utility Automation	Dr. S Ashok	23-24 Feb 2007, 2 days	
18.	TEQIP Short Term Training Programme on "Computer Programming and Scientific Computing"	Mrs. Saleena N and Dr. A P Sasikala	2 Weeks 26-06-2006 to 07-07-2006	

### Conferences/ Workshops / Seminars conducted during 2007-08

SI No	Course	Faculty Coordinator	Duration
1.	5-day workshop on "Career Guidance and Preparation for Interview" for 80 students from colleges all over Kerala	Sri. Harikrishna M	November 29 - December 3, 2007
2.	Workshop on Science Communication through Digital Media (Jointly organized with Swadeshi Science Movement)	Ms. A. Lijiya	11-17 Feb. 2008
3.	National conference on Electrical Systems and Control Technologies.	Dr. Susy Thomas	03-05 May 2007 3 days
4.	3 day course for working professionals from industries on "Power Quality Impact on Industries".	Dr. Ashok S	12-14 March 2008
5.	AICTE-Staff Development Programme (2 weeks) on "Power Quality –Issues & Solutions".	Dr. Ashok S	11-23 June 2007
6.	AICTE Staff Development Programme on "Cryptography and Embedded Systems"	Dr. P.S. Sathidevi Ms. Deepthi P.P	11-23 June, 2007

### Conferences/ Workshops / Seminars conducted during 2008-09

SI No	Course	Faculty Coordinator	Duration
1.	Short Term Course on Conservation of Architecture heritage	Dr A K Kasthurba	26-30 May 2008
2.	Workshop on Conservation of Architectural Heritage organized by INTACH & NIT Calicut jointly with Centre for Heritage Studies	Dr A K Kasthurba	6 <sup>th</sup> November 2008
3.	Work shop on Architecture, Media and Cultural Continuity	Dr Abraham George	9 <sup>th</sup> April 2008
4.	Embracing Innovative e-learning Techniques	Dr S. Ashok Dr Priya Chandran	December 2008
5.	Workshop on Bioinformatics (Sponsored by TEQIP)	K. A. Abdul Nazeer	One Day, April 1, 2009
6.	Faculty Development Programme on Algorithms and Complexity	Ms. Lijiya A	06-07-2008 to 19-07 2008
7.	Workshop on 'Recent Trends in Computer Architecture'	Ms. Subashini R	One Day, 8 <sup>th</sup> July 2008
8.	One week advanced training programme on Industrial Automation	Dr. Ashok S	27-31 Jan 2009

9.	3 day CEP course on "Power Quality Issues	Dr. Ashok S	3-5 December 2008
10.	ISTE-NSTEBD Training Programme (3 days) on "Entrepreneurship Development	Dr. Ashok S	13-16 June 2008
11.	AICTE-ISTE Short term training Programme (1 week) on "Distributed Generation & Power Quality "	Dr. Ashok S	9-13 June 2008
12.	3 day course for working professionals from industries on "Power Quality Impact on Industries".	Dr. Ashok S	12-14 April 2008
13.	AICTE Faculty Development Programme on "VLSI and Embedded Systems"	Dr. Ramkumar S. Mr. Raghu C.V.	15-27, June 2008
14.	Micro/ Nanoscale Phenomena	Sri. V. Sajith & Dr. C. B. Sobhan	06-07-08 to 19-07-08
15.	Training program on CMM and CAI	Dr. Jose Mathew & Sri. P.B.Dhanish	12-05-08 to 16-05-08



**ANNEXURE – G**

**AWARDS AND RECOGNITION RECEIVED BY THE FACULTY  
IN  
LAST THREE YEARS**

### AWARDS FOR THE YEAR 2006-07

Sl. No.	Name	Award
1	Dr. S Ashok	Best Paper award- National Conference on PCTCON-06, organized at PSNA College of Engg, Dindigul, TN, India , 26 April 06, pp 206-211
2	Dr. G. Unnikrishnan	Best paper award, NIT Calicut, 2006
3	Dr. Jose Mathew	The best all-round performance award among NITC faculty during 2005-06 (Instituted by NIT Calicut)

### AWARDS FOR THE YEAR 2007-08

Sl. No.	Name	Award
1	Dr. S. Ashok	“Outstanding Achievement Award” for the contributions in energy area from National Energy Society – 2007
2	Dr. Ghulam Jilani,	Award for the Best Publication during the year July 2006 – June 2007
3	Dr. Madhusudanan Pillai	Award for the Best Young Teacher in 2007 Best Paper award in the National Conference in Advances in Mechanical Engineering Hrlid at Viswajyothi College of Engineering & Technology, Muvattupuzha, Kerala during March 28 and 29, 2008 Royalty from Academic Press for publication in “Advances in Heat Transfer” Listed in Marquiz who’s who since 1997
4	Dr. Lillykutty Jacob	Award for the Best Performer among the Faculty in 2007
5	Sajith. V	Reviewer of ASME-JSME Thermal Engg. and Summer Heat Transfer Conference, July 8-12, 2007, Vancouver, BC, Canada. Listed in 2007 Marquis Who's Who in Science and Engg., 10 <sup>th</sup> Anniversary Edition
6	S. Jayaraj	Recognised as a reviewer for the International Journal of Numerical Methods for Heat & Fluid Flow. Recognised as reviewer for the Journal of Heat and Mass Transfer (Warme-und Stofubertragung).
7	C.B. Sobhan	Royalty from Academic Press for publication in “Advances in Heat Transfer”. Listed in Marquiz who’s who since 1997

### AWARDS FOR THE YEAR 2008-09

Sl. No.	Name	Award
1	Dr. A V Babu	Award for The Best Research Paper during the academic year 2007 – 2008

2	Mr. Sajith V	Award for the " <b>Best Young Teacher Award</b> " for the academic year 2007 -2008
3	Dr. S. Chandrakaran & Dr. N.Ganesan	Received Railway Board Prize for the paper published in the Journal Institution of Engineers, titled "A Simplified Procedure for Design of Machine Foundations Subjected to Vertical Vibrations " and published in Journal of The Institution of Engineers.
4	Ms. Pramada S K	Shree Gayathree Devi Award from IIT Madras for Highest CGPA among female research scholars
5	Dr. N.Ganesan, Dr.P.V.Indira & Mrs Ruby Abraham ( <b>QIP Research Scholar</b> )	<b>The research paper entitled "Behaviour of Steel Fibre Reinforced High Performance Concrete Members under Flexure " published in the Civil Engineering Journal of The Institution of Engineers,Vol.88,May 2007</b>
6	Dr. K. Murali Krishnan	' <b>Alumni Medal for the Best Ph.D. Thesis in CSA</b> ' From IISc Bangalore.
7	Dr. R Sreeram Kumar	ISTE National Award for the Best Engineering College Teacher of Kerala State-2008
8	Dr. Jose Mathew -	Best M.Tech Thesis awarded by ISTE