



**National Institute of Technology
Tiruchirappalli - 620 015**



Institute Day 2014

22nd April, 2014

Annual Report 2013-14



INSTITUTE DAY 2014



April 22, 2014



National Institute of Technology
Tiruchirappalli - 620 015, Tamilnadu, India.

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Report on Academic Excellence

-Dr. S. Arul Daniel

The Chief Guest of the Institute Day 2014, **Dr. N. Kamakodi**, MD & CEO, City Union Bank Ltd, **Dr. Srinivasan Sundarrajan**, Director, NIT Tiruchirappalli, Deans, Heads of the Department, Faculty, Staff, Mr. Sivas Subramaniam S.K, President, Students' Association, Ms. Rohini Muthuvelan, Vice President, Invited guests, the Press and the other media representatives

GOOD EVENING AND A WARM WELCOME

The celebration of the 50th year for National Institute of Technology, Trichy has begun at the dawn of the academic year 2013-2014 and had made us resolve reach to greater heights. On this day, it brings immense joy to share the laurels our faculty and students have brought to this Institute during this academic year.

We are in a major phase of transformation, setting sights on capturing a winning position among the top few technical Institutions in the country and also to leap forward to provide an enhanced quality technical education in the world.

Inter-disciplinary education and research open up our Institute to work on Industry-Institute Interaction and seek a large number of initiatives for the up-gradation of academic curriculum, delivery and evaluation. For this very purpose Task Teams have been formed with members from various disciplines who are exerting themselves to rope in reputed Institutions and leading Research and Development establishments to partner with us in thrust areas. A total of 412 conference papers and 384 journal papers were published by the faculty members and students of this Institute this year.

The current phase of transformation is on a higher standard of curriculum which is outcome- based. Each course is to have a course objective and course outcome and the faculty at the end of each semester needs to find if all the course objectives are adequately met. This is ascertained by testing the students in the course objectives and finding their performance. Industry personnel are invited to deliver lectures in core courses. Dr. S. Dharmalingam, retired GM, BHEL is one among few experts from Industries who is handling core courses in EEE and ICE. The Institute has initiated steps to provide quality education with 25% input from industry experts in all the core courses.

The main Signature event of this academic year is the inauguration of the STUDENT SENATE by Shri. Kumar Jayanth, IAS, Commissioner of Technical Higher Education, Tamil Nadu, by which the participation of students in the academic decision making is ensured. Further, for the first time in the history of the Institute a **flagship orientation programme** for the freshers was conducted for a month. The first year students were taken through a variety of events such as disaster management, motivation lectures, physical fitness programmes etc. Furthermore, silver medals for all first rank holders were instituted for the first time on this Institute Day.

To make it believe that this Institute stands on par with other premier Institutes, we have entered into the phase of providing paramount quality education by seeking NBA accreditation for all under graduate programmes. Through this, the programmes/courses have been critically appraised to find that the Institute or the programme continues to meet and exceed the norms and standards prescribed by international bodies. The final outcome of this process is awaited for seven B.Tech. programmes.

In this academic year, Projects worth Rupees 4.76 Crores were sanctioned to faculty members by various agencies such as MHRD, DST, DRDO, CWET and SERB

NIT Trichy substantiates itself to be the best in terms placement opportunities for the students, in spite of the global economic meltdown. As of Mar. 2014, 85.4% of undergraduate students registered for placement and 51.5% of the postgraduate students registered for placement have received job offers through the Department of Training and Placement, NIT Trichy.

Prof. V. Ramprasad of Architecture received the “Honourable Teacher Award” from Indian Institutes of Architect.

Dr. K.N. Sheeba of Chemical Engineering received the “Most inspiring engineer award” from Engineering watch, New Delhi. Dr. T. Sivasankar from the same Department received Institution of Engineers Young Engineer Award from IE, India.

Dr. N. Kumaresan, Dr. M.P. Selvan and Dr. S. Moorthi were sanctioned Rs. 74 lakhs by CWET. Ms. Indurani and K. Vijayakumar received the Power Systems Award 2014 for their Ph.D. thesis from Power System Operation Corporation (POSOCO) Limited.

Ms. Sneha Balan of ECE was selected as OPJEMS scholar for possessing entrepreneurial excellence and received a cash prize of Rs.65000.

Dr. A.K. Banerjee received six awards from various agencies. Dr. R. Ponalagusamy received the APCOST Scientist award 2013. Dr. V. Shanthi was granted a project titled “Numerical methods for two parameters singularly perturbed boundary value problem” worth Rs. 12 Lakhs by SERB.

The Department of Mechanical Engineering has signed MoU with Asian Institute of Technology (AIT), Thailand & Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam.

Dr. K. Siva Prasad of Metallurgical and Materials Engineering has received prestigious Sir Dorabji Tata- TR Anantharaman Faculty Fellowship for the year 2013-14.

Mr. Anil Krishnan of M.Tech (NDT), Department of Physics has received Best Poster Award at the Asia Pacific Conference on Non-Destructive Testing during November 2013.

Dr. S. Vinodh of Production Engineering has won the Young Engineer Award from Institution of Engineers, India. Dr. V. Anandkrishnan won the Excellent Oral Presentation Award for his paper presented at the International Conference on Mechatronics, Manufacturing and Automation, Singapore. Safest Car Award in BAJA, WISE was won by Sreenath, O, Fasil, Prahas and Md Razal. Dr. M. Duraiselvam was sanctioned a project worth Rs. 50 lakhs by GTRE and Dr. P. Sathiya was sanctioned a project by CSIR for Rs. 18 lakhs.

The Computer Support Group has enabled a campus agreement with Microsoft for 1 year worth 10.20 lakhs. It has also purchased other equipment and softwares worth 77.29 lakhs. CSG had organised various workshops on Windows & Linux System Administration, Cloud Computing, AJAX.

The Institute has a Modern Central Library with more than 2.5 lakhs of documents consisting of Technical books, Reports, Standards, CD-ROMS, AV Educational Cassettes and back volumes of Journals. The library subscribes to 179 periodicals (print) plus 5000+ e-Journals and 500+ e-books besides a holding of 17690 back volumes of journals. The library also contains 16,000 books in the Book Bank scheme. Digital Knowledge Centre has been established with 60 Computer systems provided with DVD-RW Drive, Wi-Fi facility has been provided for the laptop users. CCTV Web cameras also have been fixed in the Central Library. RFID Technology of Document Identification and Library Security System have been implemented in the Central Library for providing better circulation service to the users. Various workshops, seminars have been conducted and papers have been published in reputed journals.

NITT has proved its mettle not only in academics but also in sports and games. Students have won many laurels in Basket Ball, Shuttle Badminton, Table Tennis, and Volley Ball in IIT Kharagpur, NIT Surat and NIT Suratkal and in various other reputed institutions.

NCC Cadets of NIT Trichy have performed exceedingly well and has started regular parades with a total strength of 50. ***13 second year NCC cadets have attended NCC Inter-Unit Competition (IUC) Camp at NIT Trichy organized by NCC Group Head Quarters.*** In all the camps participated, NIT Trichy cadets performed excellently and won many awards.

NSS of NIT T has been involved in various activities like drug addiction awareness programs, environmental cleaning programs by organising tree plantation camp at NITT campus, planting 86 neem saplings.

NITT students do extremely well in their co-curricular activities. Pragyan in its 10th year of celebrating technology saw a footfall of over 3200 participants, more than 14000 site registrations, 130+ company associations and 54 media converts all made possible by a family 650 member strong and was packed with PSR initiative to spread scientific knowledge among school students in and around Trichy conducted in association with The Third Dimension, the Aeromodelling Club of our Institute. This year Pragyan became a truly international festival with the Pragyan Quiz conducted for school students on Dec 16 in Dubai. This was followed by Srishti, a mobileBOTICS workshop conducted in Hyderabad and a two day Data Acquisition Workshop, Pragathi held at Cochin University of Science and Technology in association with Texas Instruments. Pragyan became the first organization in India and the first student-run organization in the world to receive ISO 20121-2012 certification for Event Sustainability Management Systems. This puts us on par with The Manchester United Football Club and The London Organising Committee of the Olympic and Paralympic Games who are the only other organizations worldwide to have received this certification.

The inter department literary and cultural fest, NITT FEST, had grown leaps and bounds to become a 4 day long theme based festival to celebrate raising levels of ability and capability.

FESTEMBER the cultural tradition of NITT was inaugurated with the usual gusto in this golden jubilee year by Mr. Ranaveer Sinha, CEO & MD, Tata Telcon, who was the first chief organizer of Festember and Mr. SeethaRaman Narayanan, “The Window’s Man” of Adobe. The festival saw the performances of culturally renowned maestros: Guitar Prasanna, Salim- Suleiman, and Benny Dayal.

The Chairman, the Director, the Board, the Senate, the Deans, the Associate Deans, the Heads, the faculty, the students, the support staff are to be thankfully remembered for their sincere cooperation and efforts in taking the Institution to greater heights. I also take this opportunity to congratulate all the award winners.

Institute Day Prize Winners Llist – APRIL 2014**PRIZE WINNERS (UG)****B.Tech. CHEMICAL ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2009	1	102109035	N PAVITHRA	9.86
	2	102109006	AKANKSHA GUPTA	9.58
	3	102109065	VANDANA SWAMINATHAN	9.16
2010	1	102110002	A MONICA ROY	9.4
	2	102110014	SRIRAM C	9.28
	3	102110011	APURTI MARODIA	9.07
2011	1	102111011	DEVESH PATIDAR	9.51
	2	102111008	ANIRUDH RAJARAM	9.49
	3	102111031	NIRUPAMA M RADHAKRISHNAN	9.22

B.Tech. CIVIL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	103109087	SUBRAMANIAN S	10
	2	103109002	ABHIJEET SINGH	9.59
	2	103109034	GILLELLA ABISHEK	9.59
	3	103109082	SHIVANG KUMAR PATHAK	9.29
2010	1	103110004	AKSHAY SINGH RATHORE	9.91
	2	103110092	V SVETHA	9.89
	3	103110089	TUMMALAPALLI NAGA SRINIVAS	9.87
2011	1	103111062	RAHUL JALAN	9.74
	2	103111052	NIKITAA SIVAAKUMAR	9.72
	2	103111057	PIYUSH AGARWAL	9.72
	3	103111015	ANURAG SAURAV	9.65

B.Tech. COMPUTER SCIENCE AND ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	106109068	R V LAYAMRUDHAA	9.72
	2	106109008	AMRITHA RAGHUNATH	9.47
	3	106109016	B VIGNESH	9.37
2010	1	106110019	DEV AGARWAL	9.66
	2	106110006	ANGELYN ARPUTHA B	9.64
	3	106110044	KARTHIK RAJENDRAN	9.5
2011	1	106111007	AKSHAY UTTAMANI	10
	2	106111093	SURYA PRATAP SINGH TANWAR	9.66
	2	106111095	T SRI ARAVINDA KRISHNAN	9.66
	3	106111101	VASUMAN RAVICHANDRAN	9.59

B.Tech. ELECTRICAL AND ELECTRONICS ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	107109063	R.VIGNESH	9.6
	2	107109028	HARINI M	9.4
	3	107109035	K SHANKAR GANESH	9.4
	3	107109070	RAJBARATH K R	9.28
2010	1	107110103	VIVEKANANDAN B	9.7
	2	107110059	P DINESH	9.67
	3	107110069	RAMESH K GOVINDARAJAN	9.63
2011	1	107111029	D SUZITH	9.94
	2	107111076	SAI RAM USHA A	9.9
	3	107111061	PARIKSHIT DEY	9.69

B.Tech. ELECTRONICS AND COMMUNICATION ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	108109084	SABAREESHKUMAR R	9.93
	2	108109041	K DIVYA	9.88
	3	108109030	G. SABAREESH	9.79
2010	1	108110090	SNEHA BALAN	9.89
	2	108110044	LAKSHMI VELAYUDHAN NAIR	9.84
	3	108110061	PADMAPRIYA DURAISAMY	9.7
2011	1	108111102	VIKAS SAKARAY	9.64
	2	108111060	RAKTIM PAL	9.55
	3	108111052	PRASANNA R	9.34

B.Tech. INSTRUMENTATION AND CONTROL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	110109097	UPPALAPATI NAVEN KUMAR	9.64
	2	110109042	MOHIT SINGH RATHOD	9.6
	3	110109069	S BHARANI DHARAN	9.33
2010	1	110110008	ANEESH KULSHRESTHA	9.81
	2	110110036	JADHAV SAROJ SUDAM	9.6
	3	110110012	ARJUN KASHYAP	9.44
2011	1	110111064	RAHUL SRIVASTAVA	9.72
	2	110111093	VISWA TEJA PATNAIK VURITY	9.54
	3	110111050	P SRILAKSHMI	9.5

B.Tech. MECHANICAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	111109032	GAUTHAM KUMAR MANDAL	10
	2	111109105	VIKASH KUMAR	9.48
	3	111109091	SATHEESH S	9.35
2010	1	111110066	R BHARADWAJ	9.8
	2	111110017	AVINASH MISHRA	9.54
	3	111110063	PRASHANTHI R	9.46
2011	1	111111006	ADYASHA DASH	9.79
	2	111111036	DIVYAKANTH JAIN K	9.73
	3	111111013	ANKIT SAHANI	9.56

B.Tech. METALLURGICAL AND MATERIALS ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	112109024	PAVITHRA R	9.49
	2	112109020	N DILIP KRISHNA	9.44
	2	112109032	K RANGASAYEE	9.44
	3	112109029	R VIDHYA	9.41
2010	1	112110021	R TARUNIKA	9.91
	2	112110045	SANDEEP AWASTHI	9.74
	3	112110010	HARSHITA MEHTA	9.57
2011	1	112111008	ANANYA RAJAGOPAL	9.91
	2	112111009	APOORVA SARAF	9.64
	3	112111035	PREETHI S	9.34

B.Tech. PRODUCTION ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2009	1	114109003	A ASIF BASHA	9.21
	2	114109083	SUPRAPANENI BHAVANA	9.12
	3	114109069	S MANIKANDAN	9.05
2010	1	114110098	CHANDRA VINOTH S	9.87
	2	114110089	VIJAY VENKATESH S	9.66
	3	114110073	SINDHURA SIRAVAN S	9.53
2011	1	114111047	NACHIAPPAN V	9.75
	2	114111075	SUBRAMANIAM SM	9.36
	3	114111072	SAURAV GUPTA	9.14

B.Tech. I YEAR Batch: 2012-13

Batch	Rank	Roll Number	Name	CGPA
2012	1	107112031	GURU RAGHAV R	10
	2	107112030	GURU PRAANESH R	9.93
	3	110112071	S DEEPAK	9.8

B.Arch. ARCHITECTURE

Batch	Rank	Roll Number	Name	CGPA
2008-2009	1	101108015	G VARSHA VALLI	9.26
	2	101108012	SAURABH KISHORE OJHA	8.93
	3	101108027	RITESH RANJAN	8.8
2009-2010	1	101109053	MADHUBALA A	9.58
	2	101109014	MAANASA G	8.81
	3	101109025	SIDHARTH SARCAR	8.78

2010-2011	1	101110018	MONICA S	9.48
	2	101110011	VIVEKARASAN M	8.75
	3	101110019	NITHYA S	8.39
2011-2012	1	101111033	LINDA REEBA KOSHY	9.2
	2	101111038	IVANA RAKSHIT	8.82
	3	101111048	TANVI MODI	8.75
2012-2013	1	101112021	LAKSHMI K AJAYAN	9.34
	2	101112030	R VIDHYA	9.23
	3	101112043	SWETHA BHARGAVI A	9.2

Institute day prize winners – APRIL 2014

TOP THREE RANK HOLDERS (PG)

M.Tech. CHEMICAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	202111013	MAHA LAKSHMI P	9.56
	2	202111024	REMYA K	8.97
	3	202111003	PRABISHA M	8.73
2012-2013	1	202112003	RONNIE KIRAN MATHEW	9.66
	2	202112020	J SHANKAR	8.51
	3	202112001	VIVEK VELTURI	8.49
	3	202112011	JAYESH KRISHNAKUMAR	8.49

M.Tech. ENERGY ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	202311009	ELAKKIYA E	9.45
	2	202311012	REESHAB GOENKA	9.18
	3	202311020	FENILA F	9.09
2012-2013	1	202312011	SNEHA E MAHESH	10
	2	202312001	PREM KUMAR T	9.59
	3	202312012	SACHIN S NAIR	9.27
	3	202312020	M VAISHNAVI	9.27

M.Tech. PROCESS CONTROL AND INSTRUMENTATION

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	202211021	GAYATHRI M	9.17
	2	202211001	VANDANA T K	9.06

	3	202211013	NAVIN JOHN MATHEW	8.9
2012-2013	1	202212016	BABISHA BABU V K	8.92
	2	202212011	VEENA MATHEW	8.79
	3	202212002	ABY THOMAS	8.77

M.Tech. ENVIRONMENTAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	203411004	SARANYA R	9.5
	2	203411016	DEVIKA VENU	8.91
	3	203411015	STEPHY JACQUELINE GEORGE	8.81
2012-2013	1	203412020	K BABY SHEENA	9.78
	2	203412003	GUNA SHEELA M	9.73
	3	203412004	SOWMIYA S	9.38

M.Tech. STRUCTURAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	203211011	DHANYA J	9.44
	2	203211007	JEYASHREE T M	9.27
	3	203211006	RESMI G	9.22
2012-2013	1	203212021	NIVETHITHA A P	9.55
	2	203212020	ABINAYA V	9.1
	3	203212011	BHEEMANATHI ABHINAY	9.05

M.Tech. TRANSPORTATION ENGINEERING AND MANAGEMENT

Batch	Rank	Roll Number	Name	CGPA
	1	203111019	REMYA K P	9.25

2011-2012	2	203111009	GANGHA G	9.17
	3	203111004	KAVITHA K	9.06
2012-2013	1	203112016	SONALI SNEHAJAN	9.58
	2	203112027	DIVYA S	9.48
	3	203112029	ISWARYA S	9.48
	3	203112021	VANDANA V	9.43

M.Tech. COMPUTER SCIENCE

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	206111035	AMIT KUMR SINGH	9.97
	2	206111002	TULASIRAM NEELAKANTAM	9.8
	3	206111009	KODURU ANUSHA	9.64
2012-2013	1	206112015	SHANKAR LAL AGARWAL	9.54
	2	206112001	DIVYA PATEL	9.27
	3	206112028	VARADHAN V V	9.22

M.Tech. POWER ELECTRONICS

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	207211014	SWETHA VUCHA	9.48
	2	207211013	SINDHUR KASARANENI	9.39
	3	207211003	THOMAS P RAJAN	9.19
2012-2013	1	207212024	THANNEERU GOWRI SANKAR	9.37
	2	207212017	T ASWINI	9.21
	3	207212013	SRINIVAS REDDY G	9
	3	207212016	NARENDRA SATHVIK R	9

M.Tech. POWER SYSTEMS

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	207111022	KOLA.Y.V.BHARGAV REDDY	9.68
	2	207111003	DEBIDASI MOHANTY	9.42
	3	207111002	SOUMYA N.K	9.18
2012-2013	1	207112003	DHIVYA S	9.63
	2	207112011	ABHILASH R S	9.61
	2	207112018	ASHA RADHAKRISHNAN	9.61
	3	207112007	FEBI C	9.39

M.Tech. COMMUNICATION SYSTEMS

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	208111002	SANAGAPALLI ASWIN KUMAR	9.7
	2	208111004	SANDEEP KUMAR THADKA	9.55
	3	208111013	NAGABOINA MURALI KRISHNA	9.48
2012-2013	1	208112015	SURUCHI KUMARI	9.48
	2	208112011	RENJITH H KUMAR	9.45
	3	208112005	PRAVEEN CHANDRAN C R	9.14

M.Tech. VLSI SYSTEM

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	208211003	VENKATA REDDY KOLAGATLA	9.94
	2	208211024	MIDHUN C K	9.58
	3	208211018	TANIKELLA MANOJ SHARMA	9.27
2012-2013	1	208212011	GANTASALA SRINIVAS	9.79
	2	208212005	MUHAMMED ASWIM C	9.57
	3	208212026	CARPENTOR MD ABBAS	9.21

M.Tech. INDUSTRIAL SAFETY ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	211211006	BIMITH MATHEW	9.79
	2	211211004	VIJESH CHANDRAN	9.16
	3	211211005	SARATH MOHAN V	9.1
2012-2013	1	211212001	MADHUSUDHANAN M	9.38
	2	211212020	VISAKH P S	9.23
	2	211212027	UNDRALA ANUSHA	9.23
	3	211212026	BINEESH P	9.08

M.Tech. THERMAL POWER ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	211311004	NAREN DHASS S	9.2
	1	211311008	AJAY KUMAR SHARMA	9.2
	2	211311019	KULKARNI SHRIKANT CHANDRAKANT	9.15
	3	211311018	MONICA SAI	9
2012-2013	1	211312030	JAGTAP AMOL SHIVAJI	9.92
	2	211312012	SUMIT RAJ	9.32
	3	211312009	ANEESH CHANDRAN R	9.24

M.Tech. MATERIAL SCIENCE AND ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	212211029	GIRESAN G	9.75
	2	212211006	TEJAS R	9.05
	3	212211020	MOHIT VISHNOI	8.84

2012-2013	1	212212024	ARJUN VARMA R	9.85
	2	212212002	MANU HARILAL	9.55
	3	212212004	DIVESH KUMAR C	9.25

M.Tech. WELDING ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	212111029	ATHUL.P	9.32
	2	212111017	JUSTINE JOSE	9.2
	3	212111016	SWAROOP YALAGI	9.15
2012-2013	1	212112007	SIVA PRASAD M	9.78
	2	212112018	JAZEELRAHMAN CHUKKAN	9.54
	3	212112006	DWIVEDI ABHAY YOGENDRA	9.29

M.Tech. INDUSTRIAL METALLURGY

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	212311014	K MANI RAGHU RAM	9.31
	2	212311020	BALAJI K	9.31
	3	212311019	ANIL BABU SANKURU	9.06
2012-2013	1	212312009	HARISH CHANDRAN H	9.4
	2	212312005	AJAY JAYARAM	9.16
	3	212312011	GANDHE HARSHAD UDAY	9.05

M.Tech. INDUSTRIAL ENGINEERING AND MANAGEMENT

Batch	Rank	Roll Number	Name	CGPA
	1	214211032	KAMALA V	9.4

2011-2012	2	214211022	SHAMA M S	9.25
	3	214211015	A SUDHEER	9
	4	214211024	SENTHIL KUMAR D	9
2012-2013	1	214212022	SINKAR SAYALI PRADEEP	9.75
	2	214212015	ADARSH KUMAR SINGH	9.5
	3	214212001	HAJARE SHASHANK VIJAYKUMAR	9.33

M.Tech. MANUFACTURING TECHNOLOGY

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	214111004	WAGH ANIKET RAMCHANDRA	9.43
	2	214111001	VINEETH MURALI	9.31
	3	214111026	TINU P SAJU	9.1
2012-2013	1	214112011	RAHUL V S	9.5
	2	214112004	NIKHIL M	9.08
	3	214112024	ASHISH MISHRA	8.92

M.Tech. NON-DESTRUCTIVE TESTING

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	213111020	INDIMATH SHIVANANDAN SHASHIDHAR	9.46
	2	213111018	SHEETHAL S	9.36
	3	213111019	VIVEK MADHAVAN	9.15
2012-2013	1	213112007	ANIL KRISHNAN A G	9.08
	2	213112022	AASHISH SHARMA	9
	3	213112018	SATWANT SINGH	8.97

M.Sc. PHYSICS

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	213211006	PERLA SREEKOTI SUBHA PUJITHA	9.09
	2	213211011	GOVINDAN KUTTY R	9.06
	3	213211001	AKSHAY SRINIVAS	8.97
2012-2013	1	213212001	ANIRUDH CHANDRA	9.56
	1	213212016	SEENA MATHEW	9.56
	2	213212009	LAKSHMI PRIYA K B	9.5
	3	213212010	SHALINI K	9.47

M.Sc. CHEMISTRY

Batch	Rank	Roll Number	Name	CGPA
2011-2012	1	204111001	SUMANTA BANERJEE	8.81
	2	204111007	NATARAJAN N	7.87
	3	204111002	VINITHRA G	7.68
2012-2013	1	204112003	VINOTHAVARTHINI R	9.21
	2	204112010	KALAIYARASI R	8.94
	3	204112008	RAMPRASAD R R	8.73

M.Sc. OPERATIONS RESEARCH AND COMPUTER APPLICATIONS

Batch	Rank	Roll Number	Name	CGPA
2011-12	1	216111008	BHARATH N	9.18
	2	216111018	GOWTHAMI P	8.94
	3	216111009	SRISAKTHI R	8.92
	1	216112021	V SARADHA	9.29

2012-13	2	216112008	KALLOORI SAIKISHORE	8.82
	3	216112018	V AKSHAYAA	8.76

M.C.A. COMPUTER APPLICATIONS

Batch	Rank	Roll Number	Name	CGPA
2010-11	1	205110008	ALKA	9.59
	2	205110019	DEBOSHRESTHA DE	9.48
	3	205110017	SUMONA GHOSH	9.17
2011-12	1	205111007	RITIKA GUPTA	9.74
	2	205111018	RAKHI BANSAL	9.58
	3	205111008	S SWAPNA	9.55
2012-13	1	205112037	UTSAV CHATTERJEE	9.76
	2	205112018	PRANAY HIWASE	9.39
	3	205112046	SWEEKRITI SMITH	9.29

M.B.A. BUSINESS ADMINISTRATION

Batch	Rank	Roll Number	Name	CGPA
2011-12	1	215111085	BAVYYA SIVASHREE J	9.43
	2	215111071	AKILA S	9.4
	3	215111091	SARANYAN V S	9.3
2012-13	1	215112044	GOTHAMI K M	9.64
	2	215112008	PRIYADARSINI R K	9.57
	3	215112095	ABDUL RAHMAN N	9.07

ENDOWMENT AWARDS

S. No.	Name of the award	Roll No	Name
1.	Smt. G.S. Rajalakshmi memorial award presented to First three Rank holder upto VII Semester in Chemical Engg.,	102110002	A MONICA ROY
		102110014	SRIRAM C
		102110017	DIVYA JAGANATHAN
2.	Dr. M. Shanmugam award for the First Rank holder upto VII Semester in Civil Engg.,	103110092	V SVETHA
3.	Sri. Karchae Endowment award for the best project in the Department of Architecture	101108023	BIMLESH KUMAR GUPTA
4.	Sri. M.S. Balakumaran award for the best outgoing student of M.Tech. NDT	213112007	ANIL KRISHNAN A G
5.	Prof. S. Muthukaruppan Endowment award for the second Rank holder in EEE Branch up to VII Semester.	107110103	VIVEKANANDAN B
6.	Sri. Janardhana Iyengar memorial Award for the best Academic Performance in just concluded academic year.	103109087	SUBRAMANIAN S
7.	Smt. Seethamma memorial award for the First Rank holder upto VII Semester in the ECE Branch.	108110061	PADMAPRIYA DURAISAMY
8.	Dr. Sargurudoss memorial award for the Best performance in Mathematics in I Year B.Tech.	107112030	GURU PRAANESH R
9	Sri. Avinash memorial award for the best outgoing male student of ICE branch	110110008	ANEESH KULSHRESTHA
10	Sri. Avinash memorial award for the best outgoing female student of ICE branch	110110014	ASHMIDHA L R
11.	Prof. Ibrahim / Dr.Sittaraman Award for the best outgoing student of DoMS	215112044	GOWTHAMI KM
12.	Prof.Thirumalaiarasan Award for the Topper in HR & OB Subjects in MBA	215112008	PRIYADARSINI R K
13.	Srimathi Neela Balasubramanian Memorial Award for best out-going student in ECE branch	108110090	SNEHA BALAN
14.	Karthik S Memorial Award	114110098	CHANDRA VINOTH S
15.	Smt.Vijayalakshmi Kannan Memorial Award	108110061	PADMAPRIYA DURAISAMY
16.	Late S.Doraiswamy Memorial Award I rank Hold M.Tech (ISE)	211212027	UNDRALA ANUSHA
17.	Sri. Ramanujam & Smt. Sundari Ramanujam Memorial Award for the first rank holder in English in B.Tech.	112112058	VRINDAA SOMJIT
18	Mr.Subash Chandrabose Enodwment Award for the Best Outgoing in B.Tech. MME	112110021	R TARUNIKA
19	Dr.T.Balasubramaniam Endowment Award for the First Rank Holder in M.Sc Physics in I & II Semester	213212001	ANIRUDH CHANDRA
		213212016	SEENA MATHEW

20	Dr.A.L.Abdus Sattar Memorial Award	108111102	VIKAS SAKARAY
21.	Mr.Oisik Adak Endowment Award for “Best Creative Designer” in the Department of Architecture	101109050	VINOTHRAJA S A

22.	Best NCC Cadet	111110046	KARTHIK VINAYAGAMOORTHY
23.	Dr.P.S.Manisundaram Endowment Award for the Best Non-Teaching Staff	Asst. Engineer, ECE	SMT. K.P. KARPUKARASI

ALUMNI AWARDS: UG

Sl.No.	Department	Roll.No.	Name	CGPA
1	Architecture	101109053	MADHUBALA A	8.84
2	Chemical Engineering	102110002	A MONICA ROY	9.37
3	Civil Engineering	103110092	V SVETHA	9.83
4	Computer Science Engineering	106110006	ANGELYN ARPUTHA B	9.61
5	Electronics & Communications Engineering	108110061	PADMAPRIYA DURASAMY	9.82
6	Electrical & Electronics Engineering	107110069	RAMESH K GOVINDARAJAN	9.66
7	Instrumentation and control Engineering	110110008	ANEESH KULSHRESTHA	9.61
8	Mechanical Engineering	111110066	R BHARADWAJ	9.78
9	Metallurgical and Materials Engineering	112110021	R TARUNIKA	9.69
10	Production Engineering	114110098	CHANDRA VINOTH S	9.66

ALUMNI AWARDS: PG

S.No.	Dept./Specialization	Roll.No.	Name	CGPA
1	Computer Applications			
	MCA	205111007	RITIKA GUPTA	9.8
	OR & CA (M.Sc.)	216112021	V SARADHA	9.26
2	Chemical Engg			
	Chemical Engg	202112003	RONNIE KIRAN MATHEW	9.74
	Process Control & Instrumentation	202212002	ABY THOMAS	9.06
3	Energy and Environmental Engg.			
	Energy Engg	202312011	SNEHA E MAHESH	9.77
4	CSE			
	CS	206112015	SHANKAR LAL AGARWAL	9.65
5	Civil Engg			
	Trans. Engg & Management	203112016	SONALI SNEHAJAN	9.67
	Structural Engg	203212021	NIVETHITHA A P	9.42
	Environmental Engg.	203412020	K BABY SHEENA	9.6
6	E & C Engg			
	Communication Systems	208112015	SURUCHI KUMARI	9.59
	VLSI System	208212011	GANTASALA SRINIVAS	9.83
7	E & E Engg			
	Power Systems	207112011	ABHILASH R S	9.7
		207112018	ASHA RADHAKRISHNAN	9.7
	Power Electronics	207212024	THANNEERU GOWRI SANKAR	9.28
8	Mech. Engg			
	TE	211312030	JAGTAP AMOL SHIVAJI	9.69
	ISE	211212027	UNDRALA ANUSHA	9.41

9	Meta & Mat. Engg.			
	Welding Engineering	212112007	SIVA PRASAD M	9.6
	Material Science and Engg.	212212024	ARJUN VARMA R	9.88
	Industrial Metallurgy	212312009	HARISH CHANDRAN H	9.31
10	Prod. Engg.			
	Manufacturing Technology	214112011	RAHUL V S	9.38
	Industrial Engineering and Management	214212022	SINKAR SAYALI PRADEEP	9.56
11	Physics			
	NDT (M.Tech.)	213112007	ANIL KIRSHNAN A G	9.06
	Physics (M.Sc.)	213212001	ANIRUDH CHANDRA	9.59
12	Chemistry			
	Chemistry	204112003	VINOTHAVARTHINI R	8.84
13	Management Studies			
	Management Studies	215112044	GOWTHAMI K M	9.77

In addition, the following awards are also instituted by RECAL

Overall Outstanding Student of the year	108110061	PADMAPRIYA DURAISAMY
Anand Chidambaram Memorial Award	102110050	R NANDINI
Praveen Kumar memorial award for the best Performance in I year "E" section	108112102	VINAYAK SURESH
Outstanding Sportsman	102110054	RANJAN PRADEEP KUMAR S
Outstanding Sport Woman	202112016	AARSEE DHINHA
Best Batsman of the year	110111069	RISHABH RAJASHEKAR
Best Bowler of the year	111111027	BIJENDRA KUMAR



ARCHITECTURE

ARCHITECTURE

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1	Prof. V. Ramprasad	" Honourable Teacher Award ", in recognition of his contribution to Teaching. Award consisted of a Citation and a Memento. Award given in the 10 th TRIUNE CELEBRATIONS of Indian Institutes of Architects, Tamilnadu Chapter, Chennai, on September 28, 2013	Indian Institutes of Architects, Tamilnadu Chapter, Chennai
2.	Prof.P.Manickavachagam	" Best Teacher in Fine Arts " – for the year 2013	Awarded by Education Today and Kalvi chuddar educational Monthly magazine.

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	Gaurav Kumar, Swathi Smitha Mohapatra and Tarkesh Prasad Mishra	2 nd Prize – BCA-SIA-SGBC International Tropical Architecture Design Competition 2013 for Institute of Higher Learning	Building and Construction) Authority (BCA), Singapore Institute of Architects (SIA) and Singapore Green Building Council (SGBC)
2.	Vivekarasan M. and Monika S.	1 st Prize – GVK Design, CSIR 800 Project	CECRI, Karaikudi
3.	S. E. C. Naresh	2 nd Prize – GVK Design, CSIR 800 Project	CECRI, Karaikudi
4.	S. E. C. Naresh	Shortlisted to All India	NSDC – SPA, Bhopal

		top 20 – Inclusive Design for Cultural Interface	
5.	Prashanthini R., Shweta K. and Shanthosh Kumar S.	3 rd Prize – GVK Design, CSIR 800 Project	CECRI, Karaikudi
6.	Students of Department of Architecture	Special Mention – GSEN Trophy	NASA 2014 – Annual Student Competition

2. Conference / Seminars / Symposium / Special Lectures

2.2. Papers presented by the Faculty / Students

Author(s)	Details
Prof.S.Rajendra Babu, Dr.G.Subbaiyan, Dr.T.Srinivas	Presented a research paper titled “Assessing the State and Needs of Pedestrian Facilities at Tiruchirappalli” at the International Conference on “Challenges of Extended Mega Urban Regions”, 19 – 21 Nov. 2013, Malaysia.
Ms.C. Hannah, Dr.Srinivas Tadepalli and Dr.G. Subbaiyan,	“Computer Aided Modular Geometric Modelling to Study the Perception of Safety”, Proceedings of the 18 th International Conference on Computer-Aided Architectural Design Research in Asia (CAADRIA 2013), 761–770.

2.3. Attended by the Faculty / Students

Faculty / Students	Details
Prof.S.Rajendra Babu	International Conference on "Challenges of Extended Mega Urban Regions - The changing face of South East Asia and the world" conducted by Institute of Environment and Development (LESTARI), University of Kebaangsaan, Malaysia, 19-21 November 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Prof. P. Manickavachagam	One day workshop for women Topic: Women and Art organized by Department of Art and Culture, Tiruchirappalli	April 7 th , 2013
	One day workshop for Tiruchirappalli District Art Teachers organized by Tirchy Art Teachers Association, Tiruchirappalli, Topic: Teaching Art to School Children	June 29 th 2013
	One day Workshop on Basics of Visual Arts and Perspective Drawing in Bharathiyar Pallkalai Koodam, Puducherry	October 04 th 2013
	One day Workshop on Basics of Visual Arts and its Application in Architecture, CIET, Coimbatore	November 18 th 2013
	Invited Exhibition conducted for the Annual Meet of Progressive Writers Association organized by VAYAL – Art and Literature Forum, Tiruchirappalli	February 19 th 2014

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Prof. V. Ramprasad	Issues in Teaching & Learning	Faculty Development Programme (FDP) Studies on "Effective Teaching Techniques" organized by Department of Management Studies, NITT.	NIT, Tiruchirappalli on October 10, 2013
Prof.P.Manickavachagam	Ornithology	1 st Year UG Orientation Programme	August 17, 2013
	Art and Life	1 st Year UG Orientation Programme	August 30, 2014
	ART- Discovery of Fineness	Silver Jubilee Celebrations- Kasturi Srinivasan Culture Trust, Coimbatore	January 04, 2014

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Surrounding Land Uses and People's Fear of Crime at Bus Stops	Dr. G.Subbaiyan and Dr. T. Srinivas	SPACE: The SPA journal of Planning and Architecture	Vol.17, No.1, January – June 2013, pp.1-16
2	"Viewscape Assessment Framework for Protecting the Views of Sacred Monuments: Comparative Study of Srirangam and Thanjavur Religious Towns",	Prof. P.Gopalakrishnan and Dr.T.Srinivas	Creative Space (CS) ISSN: 2321-3892	Vol.1 No.2, Jan 2014 pp.193-211
3	Energy efficient passive design strategies for buildings in Madurai	Dr.K.Thirumaran & Mrs. S. Subhashini	American Journal For Sustainable Cities And Society	Vol.1, Issue3, January 2014. Pp- 184- 202.
4	An Experiential study on the ability of Institutes Entrance Design Elements and Physical Features in Inducing perceived Image among the observers : with reference to entrance Edifice of technical Institutes in Tiruchirappalli and Thanjavur Region.	Dr.K.Thirumaran & Shri.R.Babu.	International Journal of Scientific & Technology Research,	Vol.3, Issue 2, Feb- 2014. pp- 181 – 190.

5	Significance Of The Built Heritage Of Srirangam – An Overview.	Dr.K. Thirumran & Ms. R. Seetha	International Journal Of Multidisciplinary Educational Research ISSN : 2277-7881;	Volume 3, Issue 3(2), March 2014 pp. 185 to 209
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CHEMICAL ENGINEERING

Chemical Engineering

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1	Dr.K.N.Sheeba	Most inspiring women engineer	Engineering watch, New Delhi
2	Dr.T.Sivasankar	IEI Young Engineers Award 2013-2014 under Chemical Engineering Division.	Institute of Engineers (India)

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator(s)	Programme	Date
1	Dr.M.Perumalsamy Dr. P.Kalaichelvi and Dr.T.K.Radhakrishnan	Application of Chemical Engineering Principles in Biotechnology	28-29 June 2013
2	Dr.M.Perumalsamy Dr. P.Kalaichelvi and Dr.T.K.Radhakrishnan	ASPEN PLUS	19-20 th September 2013
3	Dr.M.Perumalsamy Dr. P.Kalaichelvi and Dr.T.K.Radhakrishnan	Piping Technology	27-29 March 2014
4	Dr.T.Sivasankar	TEQIP-II sponsored short term course on “Integrating Energy and Environmental issues towards Cleaner Environment”	2-3 December 2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
1. Dheeraj Kumar, P.Kalaichelvi and K.Muthamizhi	Heat transfer enhancement by additives in Plate heat exchanger	NIT Durgapur, West Bengal, India, 9-11, 2013.
2. P. Augusta and P.Kalaichelvi	Study on Removal of Emulsified oil from coolant waste water using corn husk	Geeta Institute of Management & Technology, Kurukshetra, Haryana. 25 th - 27 th October 2013.
3. N.Samsudeen and T.K.Radhakrishnan	Influence of Operating Parameter on Electricity Generation in Microbial Fuel Cell during Distillery Wastewater Treatment	UTM. August, 27-29, 2013 at Seri Pacific Hotel, Kuala Lumpur, Malaysia
4. G.Nagachaitanya, N.Samsudeen and M.Matheswaran	Effect of anolyte pH on the performance of microbial Fuel Cell during treatment of distillery effluent	SCSVM, Enathur, Kanchipuram, Tamilnadu,
5. Savin,C.P. and Sheeba,K.N.	Analysis and comparison of models for biomass pyrolysis	Ponjesly College of Engineering, Nagercoil
6. V.Kirubakaran. T.K.Radkkrishnan and N.Sivakumaran,	Blood glucose concentration regulation in Type 1 diabetics using multi model multi parametric model predictive control: An empirical approach	12 th IFAC Symposium on Computer Applications in Biotechnology, 16-18, 2013, December. IIT Mumbai, India
7. T.Vinopraba, N.Sivakumaran, S.Narayanan and T.K.Radhakrishnan,	Design of fractional order controller for Biochemical reactor	International Conference on Water Desalination, treatment and Management, 21-22 February 2013, MNIT, Jaipur.

8. N.Samsudeen, M.Matheswaran and T.K.Radhakrishnan,	Electricity Production from Distillery Waste Water using Triple Chambered Microbial Fuel Cell,,	Trends in Industrial Measurements and Automation-2013, 22- 24 December 2013, MIT, Anna University, Chennai, India.
9. V. Kirubakaran, E. Ravi Teja, T.K. Radhakrishnan, and N. Sivakumaran 10. V.Kirubakaran, S. Aditya and T.K. Radhakrishnan 11. Nikhil Avantsa, V.Kirubakaran, and T.K.Radhakrishnan	Real time control of Non self- regulating cylindrical tank process using Multi Parametric Model Adaptive LQG based Control of Blood Glucose Concentration in Type 1 Diabetics' Predictive Control' Design of Sliding Mode Controller for an Ideal Reactive Distillation Column'	Energy Systems Modeling, Optimization and Control (ESMOC 2013), 09-11 December 2013, NIT Durgapur, India
12. Saravanan, S. and Sivasankar, T.	Synthesis of Copper Oxide nanoparticles by Sonochemical method, International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering (RACEEE-14),	February 27-28, 2014, SSN College of Engineering, Chennai, (India).
13. Saravanan, S., Randeep Singh and Sivasankar, T.	Degradation Of Basic Blue 3 Dye by using novel Fenton's reagent in assistance with Ultrasound, International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering (RACEEE-14),	February 27-28, 2014, SSN College of Engineering, Chennai, (India).
14. Trivendra Singh Gangwar, Dinesh, G.K.Sivasankar, T.	Synthesis of nano-Bismuth Oxide ($n\text{Bi}_2\text{O}_3$) and Zero Valent Iron Doped nano-Bismuth Oxide ($n\text{Bi}_2\text{O}_3\text{-Fe}(0)$) for Sonophotocatalytic degradation of Textile Dyes, International Conference on Recent Advancements in Chemical,	February 27-28, 2014, SSN College of Engineering, Chennai, (India).

	Environmental and Energy Engineering (RACEEE-14),	
15. Anjaneyulu, J.V.V.N., Dinesh and G.K.Sivasankar, T.	Sonophotocatalytic Treatment of Acid Yellow 23 using Novel nano-Zinc Oxide Doped Iron (nZnO-Fe(0)), International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering (RACEEE-14),	February 27-28, 2014, SSN College of Engineering, Chennai, (India).

2.3. Attended by the Faculty / Students

Faculty / Students	Details	Place & Date
1. P.Kalaichelvi	International conference on “Energy System Modeling and Optimization” (ESMOC 2013)	NIT Durgapur, West Bengal, India, 9-11, 2013.
2. P. Augusta	International conference on Emerging Trends in Engineering & Technology (IETET-2013)	Geeta Institute of Management & Technology, Kurukshetra, Haryana, 25 th - 27 th Oct. 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr.P.Kalaichelvi, Dr.T.K.Radhakrishnan and Dr.M.Perumalsamy	Piping Technology	27, 28 and 29 th March 2014
Dr.K.N.Sheeba	TEQIP sponsored workshop on Energy and Environment	27-28 July 2013
Dr.K.N.Sheeba	Technical writing for research scholars in Engineering and the Sciences	25-26 th May 2013
Dr.N.Anantharaman, Dr.P. Sivashanmugam and Dr.K.M. Meera S. Begum	Energy conservation : Scope and options (under TEQIP:II)	24.1.2014

Dr. A. Seshagiri Rao and Dr. A. Arunagiri	gPROMS	April 1-2, 2013
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3.2. Attended

Faculty / Students	Details	Period
T.K.Radhakrishnan	NBA Workshop on Improved Accreditation Framework	May 13-14, 2013
Dr. A. Arunagiri	“Perspectives on Curriculum” under TEQIP at NIT, Trichy- 15	May 9-10, 2013
Dr. A. Arunagiri	“Teaching Learning Methodologies” at Teaching Learning Centre, IIT Madras	20/08/2012 to 22/08/2012
Dr. A. Arunagiri	"Engineering Thermodynamics" ISTE workshop conducted under the National Mission on Education through ICT, MHRD, Govt.of India by Mechanical Engineering Department, IIT Bombay	11th December – 21st December, 2012

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.K.N.Sheeba	Biofuels	Faculty Development Programme on Renewable Energy	Pondicherry Engineering College, 23 rd May 2013
Dr.K.N.Sheeba	Experimental studies on biogas production, pyrolysis and gasification	Faculty Development Programme on Biofuels- Prospects and Challenges	NIT, Calicut 1-5 July 2013,
Dr.K.N.Sheeba	Rural applications of bioenergy	Recent trends in renewable energy sources	Anna University, Tiruchirappalli, 22-23 rd October 2013.
Dr.N.Anantharaman	Trends in Energy generation and conservation	FDP programme “Recent trends in Renewable and Non-renewable energy sources –RANRES’ 13,	Anna University, Trichy, 30.08.2013
Dr.N.Anantharaman	Challenges for Engineers in	Engineers’ day	Saranathan College of Engineering,

	Modern era		Trichy 23.09.2013
Dr.N.Anantharaman	Role of a chemical engineer and challenges ahead	IChE workshop – CAPE 2013	SASTRA, Tanjore, 18.10.2013
Dr.N.Anantharaman	Carbon-dioxide sequestration		Erode Sengunthar Engg. College, Thudupathi, Perundurai, 8.01.2014
Dr.N.Anantharaman	Unit operations and Role of a chemical Engineer/ Biotechnologist and challenges		Vel_Tech High Tech Chennai, 10.03.2014
Dr.N.Anantharaman	Scale up methods	At PANACEA -14, National level tech	Dept of Pharmaceutical Tech., at Anna University, Trichy, 25.03.2014
T.K.Radhakrishnan	Linear System Modeling and Control	Research Issues and Emerging Trends in Control Systems Engineering	Thiyagarajar College of Engineering, Feb. 14-15, 2014
Dr. A. Arunagiri	“Cloud Point Extraction – Can be a separation tool”	Workshop on “Recent Developments for Clean and Green Environment”	Department of Chemical Engineering, NIT, Tiruchirappalli – 15, 01/12/2012
Dr.T.Sivasankar	“Sonochemical Engineering: Green Technology for Better Environment”	MoES sponsored National Level Seminar entitled “FRONTIERS IN GREEN CHEMISTRY: MEETING THE GRAND CHALLENGES FOR SUSTAINABLE EARTH (FGCMS-2014)”	12 th February 2014 Department of Food Technology, School of Chemical & Food Sciences, Kongu Engineering College, Perundurai, Erode, 12 th February 2014

5. Research Projects undertaken and status

Co-ordinator(s)	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
P.Kalaichelvi	Analysis of Flow and Heat Transfer Characteristics of Single and Two Phase Flow through Plate Heat Exchanger	Council of Scientific and Industrial Research	12.45667
N.Samsudeen (PI) Dr.T.K.Radhakrishnan and Dr. M.Matheswaran	Sustainable Electricity Production In Industrial Wastewater Using Bioelectrochemical System	MHRD	35.26080
Dr.K.M. Meera S. Begum (PI) and Dr.N.Anantharaman (Co-PI)	A Novel study on Biofuel from Non-Edible Oils using Heterogeneous Catalysts in a Continuous Process	CSIR (completed)	11.87000
Dr. J. Sarat Chandra Babu	Experimental and Numerical Investigations of Exothermic Gas – Solid Reactions in A tubular Reactor	BARC	36.35000
Total			95.93747

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

S.No	Equipment	Amount (Rs. in Lakhs)
1	Fuel Cell Test Station	26.00000
2	TGA,DSC,CHNSO & FTIR	75.00000
3	Heat Exchanger Control Systems	5.86446
4	ICP-OES	43.99740
Total		150.86186

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Investigation and Modelling of Surface Tension of Power-law Fluids	Muthamizhi, K., P. Kalaichelvi, Shubhangi Tukaram Powar and R. Jaishree	Rsc Advances	2014, 4, 9771-9776
2	Measurement and Model Validation of Specific Heat of Xanthan Gum using Joules Calorimeter Method	Muthamizhi, K., P. Kalaichelvi, A. Arunagiri and A. Rudhra	International Journal of Research in Engineering and Technology	2013, 2 (9),232-238
3	Green House Solar Dryer for Grapes.	Manikantan and Sheeba	Akshay Urja, bimonthly newsletter of MNRE, Government of India	Volume 6, Issue 1, 2012.
4	Performance study on an indirect Natural convection solar dryer for drying banana.	Tapas Kumar Patra, KN Sheeba and P Prakash	eNREE quarterly newsletter of TERI, Government of India	Volume 10, Issue 1, 2013.

5	Photocatalytic colour and COD removal in the distillery effluent by solar radiation	M.N.Vineetha, M.Matheswaran and K.N.Sheeba	Solar energy	Volume 91, 368–373. 2013.
6	Anfis approach to the working of a compost-Heat Extractor	Arulgnanaraj rathinam, Ravichandran K S, Anantharaman Narayanan and Meera Sheriffa Begum K M	International Journal of Environment and Waste Management, Inderscience Publications	Vol. 11, No. 1, 2013, 13-26
7	“Utilization of a cost effective solid catalyst derived from natural white bivalve clam shell for transesterification of waste frying oil”	Natarajan Girish, Subramania Pillai Niju, Khadhar Mohamed Meera Sheriffa Begum and Narayanan Anantharaman	Fuel	Vol: 111 (2013), 653-658
8	Studies on removal of phenol using ionic liquid immobilized polymeric micro-capsules	V.Archana, K.M.Meera S.Begum and N.Anantharaman,	Arabian Journal of Chemistry	http://dx.doi.org/10.1016/j.arabjc.2013.03.017 (2013) Accepted
9	“Emission reduction potential of supercritical boilers in India	Dhanuskodi, R., A. Arunagiri, A., and Anantharaman, N.	TERI Information Digest of Energy and Environment"	Volume : 12, Issue : 1 11-16, 2013
10	“Review of the wall temperature prediction capability of available correlations for heat transfer at supercritical conditions of water	Dhanuskodi, R., A. Arunagiri, A., and Anantharaman, N.	Journal of Energy,	Volume 2013, Article ID 159098, 13 pages http://dx.doi.org/10.1155/2013/159098
11	Distributed multiparametric model predictive control design for a quadruple tank process	V. Kirubakaran, T.K.Radhakrishnan and N. Sivakumaran	Measurement	47(1) 841–854 (2014)
12	Real-coded Genetic Algorithm for	K. Asan Mohideen, G. Saravanakumar,	Applied Mathematical	37(6), 3829-

	system identification and tuning of a modified Model Reference Adaptive Controller for a hybrid tank system	K. Valarmathi, D.Devaraj and T.K.Radhakrishnan	Modeling	3847 (2013).
13	Extraction of Reactive Orange 107 dyes from Aqueous Stream Using Triton X-114 Surfactant: Quantum Chemical Calculations & Experiment	K.Priya, D.Saravanan, P.Kalaichelvi, A.Arunagiri and R.Anantharaj	Journal of Industrial and Engineering Chemistry	Available online, October - 2013, ISSN : 1226-086X
14	Review of wall temperature prediction capability of available correlations for heat transfer at super critical conditions of water	N. Anantharaman, R. Dhanushkodi and A. Arunagiri,	Journal of Energy	http://dx.doi.org/10.1155/2013/159098
15	Evaluation of Interaction Energies and Thermodynamic Properties in Binary mixture of Reactive Orange 107 Dye + Triton X-114 Surfactant at 303.15, 313.15 & 323.15K: Ab initio method & Experiment	A.Arunagiri, K.Priya, D.Saravanan, P.Kalaichelvi and R.Anantharaj	International Journal of Research in Engineering & Technology	Vol-3, Issue 8, 442-454, 2013. ISSN (Print): 2321-7308
16	Optimization of process parameters for efficient decolorization of Congo red by novel fungus <i>Curvularia</i> sp. using Box–Behnken design	S. Senthilkumar , M. Perumalsamy , C. Ahmed Basha , G. Swaminathan and H.J. Prabhu	Desalination and Water Treatment	2014 9 (1)
17	Phase Equilibrium of PEG 2000+ Triammonium Citrate+ Water	R Govindarajan and M Perumalsamy	Journal of Chemical & Engineering Data	2013 58 (11)

	System Relating PEG Molecular Weight, Cation, Anion with Effective Excluded Volume, Gibbs Free Energy of Hydration, Size of Cation, and Type of Anion at (298.15, 308.15, and 318.15) K.			2952-2958
18	Liquid–liquid equilibrium of aqueous two-phase system (PEG 2000-Sodium Citrate–Water) using potential difference as a key tool	M. Perumalsamy and T. Murugesan	Physics and Chemistry of Liquids	2013 1(11)
19	Box behnken design based optimization of solar induced photo catalytic decolourization of textile dye effluent	S. Senthilkumar, M.Perumalsamy H J Prabhu, C.AhmedBasha and G. Swaminathan	Central European Journal of Engineering	2013 3(1) 135-144

7.2. Students

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
01	Heat transfer augmentation and friction factor analysis in PHE with carboxy methyl cellulose solution as working fluid	Muthamizhi, K., P. Kalaichelvi, Shubhangi and Tukaram Powar	Heat Transfer Research	Accepted

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide(s) / Supervisor(s)	University / Institute
1	Mrs. S.Sugashini	Dr. K.M.Meera S. Begum	NIT
2	Ms. B.Vanavil	Dr. A.Seshagiri Rao	NIT



CHEMISTRY

CHEMISTRY

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1	Dr. S.Velmathi	Tamil Nadu Young Women Scientist award	Ministry of Higher Education, Tamilnadu - Science City
2	Dr. S.Velmathi	Received International Travel grant to visit South Korea for presenting a paper in the 14th Tetrahedron symposium held at Seoul, South Korea, Oct 21-24, 2013	Department of Science and Technology, India

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1	K. Jeyalakshmi	Best oral presentation	National Conference on Evolutionary Trends in Biological and Pharmaceutical Chemistry held at Holy Cross College, Trichy from January 30 to 31, 2014
2	P. Jerome	Best poster award for Travel grant from Royal Society of Chemistry	16th CRSI National Conference in Chemistry held at IIT, Bombay from Feb 6 to 9, 2014

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1.	Dr. L. Cindrella	Golden Jubilee Special Lecture by Dr. I. Arulraj, CECRI, Karaikudi	10.03.2014
2	Dr. L. Cindrella	Golden Jubilee Special Lecture by Dr. Shailendra Kumar Jha, CECRI, Karaikudi	10.03.2014
3	Dr. L. Cindrella	Golden Jubilee Special Lecture by Dr. G. Sozhan, CECRI, Karaikudi	11.03.2014
4	Dr. L. Cindrella	Golden Jubilee Special Lecture by Dr. S. Mohan, CECRI, Karaikudi	11.03.2014
5	Dr. L. Cindrella	Golden Jubilee Special Lecture by Dr. K.N. Srinivasan, CECRI, Karaikudi	12.03.2014
6	Dr. R. Karvembu	Golden Jubilee Special Lecture by Dr. Gopalan Rajaraman, IIT-Bombay	21.01.2014
7	Dr. R. Karvembu	Golden Jubilee Special Lecture by Dr. Ashoka Samuelson, IISc, Bangalore	18.02.2014
8	Dr. S.Velmathi	National Conference on Chemosensors (NCC-2013)	Sep 19-20, 2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details
M. Gopiraman, R. Karvembu and I. S. Kim	Paper entitled "RuO ₂ Nanorods on graphene nanoplatelets catalyst for transfer hydrogenation of carbonyl compounds" presented in 7th Asian Conference on Electrochemical Power Sources (ACEPS-7) held at Osaka, Japan, during 24 to 27 November 2013

S. Ganesh Babu, R. Karvembu and I. S. Kim	Paper entitlede "CuO/aluminosilicate-catalyzed α -arylation of β -diketones" presented in 7 th Asian Conference on Electrochemical Power Sources (ACEPS-7) held at Osaka, Japan, during 24 to 27 November 2013
K. Jeyalakshmi and R. Karvembu	Paper entitled "Synthesis, DNA binding and cytotoxicity of copper(II) complexes containing guanidine ligands" presented in National Conference on Evolutionary Trends in Biological and Pharmaceutical Chemistry held at Holy Cross College, Trichy from January 30 to 31, 2014
P. Jerome and R. Karvembu	Paper entitled " Ru(III)-NCN pincer complexes as catalyst for the transfer hydrogenation of ketones" presented in 16th CRSI National Conference in Chemistry held at IIT, Bombay
M. Mary Sheeba and R. Karvembu	Paper entitled "Chiral acyl thiourea ligands and their Ru(II) complexes as efficient catalysts for asymmetric transfer hydrogenation of ketones" presented in Symposium on modern trends in inorganic chemistry [MTIC-XV] held at IIT Roorkee from December 13 to 16, 2013
N. S. Sanjini and S. Velmathi	"Photocatalytic activity of titanium doped mesoporous KIT-6 for the degradation of different dyes under UV light and sunlight" oral presentation in International Union of Materials Research Societies - International Conference in Asia (IUMRS – ICA 2013) held on December 16-20 organized by Indian Institute of Science, Bangalore, India
N. S. Sanjini and S.Velmathi	"CuO Impregnated mesoporous silica KIT-6 an efficient catalyst for benzene hydroxylation" poster presented in the National Seminar on 16th CRSI National Symposium in Chemistry (NSC-16) held on February 07-09, 2014 organized by Department of Chemistry, IIT Bombay, Mumbai under the auspices of the Chemical Research Society of India
D. Udhayakumari and S.Velmathi	"Azo Linked Thiourea as a Highly Selective 'Off-On' Fluorescent Chemosensor for Cd ²⁺ " poster presented in the National Seminar on Current Trends in Organic Synthesis held on June 19, 2013 organized by Madurai Kamaraj University, Madurai- 625 021

D. Udhayakumari and S. Velmathi	"Dual Chemosensing properties of Azo Linked Thiourea based receptor in Nanomolar levels with Real sample Applications" poster presented in the National Seminar on 16th CRSI National Symposium in Chemistry (NSC-16) held on February 07-09, 2014 organized by Department of Chemistry, IIT Bombay, Mumbai under the auspices of the Chemical Research Society of India
S. Suganya, S. Velmathi	"Colorimetric Detection Of Co, Ni, Cu Acetates By Bipyridyl Schiff Base" presented in the MTIC IX Conference organised by the , Department of Chemistry, IIT Roorkee Nov 14, 2013
S. Velmathi and S. Suganya	"Simultaneous sensing of anions and cations by single molecule and its real time application in aqueous environment" presented in the 14th Tetrahedron Symposium Asia Edition Challenges in Organic and Bioorganic Chemistry, Seoul, Korea, Oct 21-24, 2013
A. Chithambararaj, N. S. Sanjini, S. Velmathi, and A. Chandra Bose	"Synthesis of flower-like hierarchical h-MoO ₃ and layered α -MoO ₃ nanocrystals: Photo degradation studies of methylene blue under visible light irradiation" in International Symposia on Advancing the Chemical Sciences (ISACS), Cambridge University, United Kingdom. Sep. 3-6, 2013
S. Suganya and S. Velmathi	"Visual Sensing of Aqueous Anions by C ₂ -Symmetric Chemosensor and its Real time Application" poster presented in the National Conference Organised by Department of Chemistry, Madurai kamaraj University, Madurai June 19, 2013
G. Vinithra and S. Velmathi	"Synthesis, characterization and anion binding studies of azo linked thiourea based chromogenic receptor" poster presented in the National Conference Organised by Department of Chemistry, Madurai Kamaraj University, Madurai June 19, 2013
VinuMohan.A.M and V.M. Biju	"Electrochemical detection of hydroxylamine using copper hexacyanoferrate modified graphite wax electrode" in National Seminar on Current Trends in Chemistry (CTriC-2014).Held at Cochin University of Science and Technology (CUSAT).17-18 January 2014

Aswini.K.K and V.M. Biju	"Electrochemical detection of theophylline at molecularly imprinted polymer modified glassy carbon electrode" in National Seminar on Current Trends in Chemistry (CTriC-2014). Held at Cochin University of Science and Technology (CUSAT). 17-18 January 2014
Aswini.K.K	Poster presentation on "Theophylline detection based on molecularly imprinted poly (4-amino-5-hydroxy-2,7-naphthalenedisulphonic acid) modified glassy carbon electrode" in National Conference on Chemosensors (NCC-2013) held at Department of Chemistry, National Institute of Technology, Trichy 19 - 20 September 2013

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr. L. Cindrella	Electroanalytical Methods in Practical Chemistry and Industrial Applications of Electrochemistry	10 th -12 th Mar 2014
Dr. S. Anandan	Workshop on "Recent Trends in Chemistry"	4 th Dec 2013
Dr. S. Anandan	Short Term Course on "Integrating Energy and Environmental issues towards Cleaner Environment" December 2-3, 2013.	2 nd - 3 rd Dec 2013

3.2. Attended

Faculty / Students	Details
Dr. L. Cindrella	Attended the Workshop on Introduction to Gaussian: Theory and Practice at Delhi during 6 th -10 th Jan 2014 and presented a poster on Charge flow dynamics and binding characteristics of dye sensitizers for solar cell applications

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. L. Cindrella		National Conference on new Horizons of Chemistry	Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalur, 20.09.2013

Dr. R. Karvembu	Nanomaterials in catalysis	Invited lecture	Department of Materials and Life Sciences, Sophia University, Tokyo, Japan on 01.07.2013
Dr. R. Karvembu	Nanomaterials in catalysis	Invited lecture	Chemical Resources Laboratory, Tokyo Institute of Technology, Tokyo, Japan on 02.07.2013
Dr. R. Karvembu	Chiral ruthenium(II) complexes containing monodentate acylthiourea ligand for asymmetric transfer hydrogenation of ketones	Invited lecture	National Institute of Advanced Industrial Science and Technology (AIST), Central Campus, Tsukuba, Japan on 26.07.2013
Dr. R. Karvembu	Nanomaterials in catalysis	Invited lecture	Shinshu University, Japan on 02.08.2013
Dr. R. Karvembu	Nanosciences	Golden Jubilee special lecture	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore on 12.09.2013
Dr. R. Karvembu	Novel nano catalytic systems	National Conference on Fundamental and Applied Chemistry	Dhirajlal Gandhi College College of Technology, Salem on 04.07.2013
Dr. R. Karvembu	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	Invited lecture	Holy Cross College, Trichy on 15.06.2013

Dr. R. Karvembu	Nanomaterials in Catalysis	TEQIP sponsored Faculty Development Programme on Recent Advances and Developments in Chemistry	Anna University, Trichy on 02.12.2013
Dr. R. Karvembu	Ruthenium- and enzyme-catalyzed dynamic kinetic resolution of alcohols: A novel approach for chiral synthesis	TEQIP sponsored Faculty Development Programme on Recent Advances and Developments in Chemistry	Anna University, Trichy on 02.12.2013
Dr. R. Karvembu	Nanomaterials in catalysis	UGC sponsored seminar on Emerging Trends in Chemistry	Seethalakshmi Ramaswamy College, Trichy on 13.12.2013
Dr. R. Karvembu	Nanomaterials in catalysis	Invited lecture	Selvamm Arts and Science College, Namakkal on 27.01.2014
Dr. R. Karvembu	Nanomaterials in catalysis	Refresher course in chemistry for university and college teachers	UGC Academic Staff College, Bharathidasan University, Trichy on 03.02.2014
Dr. R. Karvembu	Science day special address	National Science Day Lecture	Sengunthar Engineering College, Tiruchengode on 28.02.2014
Dr. S. Anandan	Sonochemical Synthesis of nanoparticles for Catalytic Applications	1 st Meeting of the Asia-Oceania Sonochemical Society	University of Melbourne, Australia, on July 10-12, 2013
Dr. S. Anandan	Effects put forth to enhance the efficiency in dye-sensitized nanostructured solar cells	Invited lecture	Feng Chia University, Taiwan, on January 14, 2014
Dr. S. Velmathi	Presented two lectures on Chemosensors and Chromatographic techniques	Refresher course for College teachers organized by UGC Academic Staff College	Department of Chemistry, Bharathidasan University, Trichy Feb 13,

			2014
Dr. S.Velmathi	Presented two lectures on Chemosensors and Chromatographic techniques	Refresher course for College teachers organized by UGC Academic Staff College	Department of Chemistry, Madurai Kamaraj University, Madurai on Nov 15, 2013
Dr. S.Velmathi	Presented invited lecture on Microwave chemistry	Short term course on New Avenues in Chemical research	Department of Chemistry, National Institute of Technology, Trichy on May 21-25, 2013
Dr. V.M. Biju	Application of High Pressure Liquid Chromatography- Instrumentation and applications	Workshop on Modern Analytical Techniques	National College (Autonomous), Tiruchirappalli
Dr. V.M. Biju	Flow injection in environmental analysis-Challenge and opportunities	National Seminar on New Frontiers in Chemistry	Govt. College, Kattappana, Kerala

5. Sponsored Projects undertaken.

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr. S. Anandan	Sonochemical preparation of metal nanoparticles and application of Fuel cell catalysts	GITA	22.8
Dr. S. Anandan	Preparation of Solid Polymer Electrolytes for Fabrication of Dye-sensitized Solar Cells	SERI	44.8

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

S.No	Equipment	Amount (Rs. in Lakhs)
1	Fuel cell Test station	3.8
2	Luminescence spectrophotometer	54.00

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Room temperature Ullman type C–O and C–S cross coupling of aryl halides with phenol/thiophenol catalyzed by CuO nanoparticles	S. Ganesh Babu and R. Karvembu	Tetrahedron Lett.	2013, 54(13), 1677-1680
2	Remarkable catalytic activity of [PdCl ₂ (CH ₃ CN) ₂] in Suzuki-Miyaura cross coupling reaction in aqueous media under mild conditions	S. Ganesamoorthy, K. Shanmugasundaram and R. Karvembu	J. Mol. Cat. A: Chem.	2013, 371, 118-124
3	Mesoporous nickel-aluminosilicate nanocomposite: A solid acid catalyst for ether synthesis	N. Neelakandeswari, R. Karvembu and N. Dharmaraj	J. Nanosci. Nanotechnol.	2013, 13, 2853-2863
4	Facile and homogeneous decoration of RuO ₂ nanorods on graphene nanoplates for transfer hydrogenation of carbonyl compounds	M. Gopiraman, S. Ganesh Babu, Z. Khatri, K. Wei, R. Karvembu and I. S. Kim	Catal. Sci. Technol.	2013, 3(6), 1485-1489

5	Copper(II) oxide on aluminosilicate mediated Heck coupling of styrene with aryl halides in water	S. Ganesh Babu, N. Neelakandeswari, N. Dharmaraj, S. David Jackson and R. Karvembu	RSC Advances	2013, 3(21), 7774-7781
6	Synthesis, structural characterization and cytotoxicity of nickel(II) complexes containing 3,3-dialkyl/aryl-1-benzoylthiourea ligands	N.Selvakumaran, A. Pratheepkumar, S.W. Ng, E.R.T. Tiekink and R. Karvembu	Inorg. Chim. Acta	2013,404(1), 82-87
7	An efficient, reusable copper-oxide/carbon-nanotube catalyst for N-arylation of imidazole	M. Gopiraman, S. Ganesh Babu, Z. Khatri, W. Kai, Y. A. Kim, M. Endo, R. Karvembu and I. S. Kim	Carbon	2013, 62, 135-148
8	Dry synthesis of easily tunable nano ruthenium supported on graphene – Novel nanocatalysts for aerial oxidation of alcohols and transfer hydrogenation of ketones	M. Gopiraman, S. Ganesh Babu, Z. Khatri, W. Kai, Y.A. Kim, M. Endo, R. Karvembu and I.S. Kim	J. Phys. Chem. C	2013, 117(45), 23582-23596
9	Immobilization of Ru(III) complex on silica: A heterogeneous catalyst for oxidation of alcohols in water at room temperature	S. Ganesamoorthy, M. Muthu Tamizh, K.Shanmugasundaram and R. Karvembu	Tetrahedron Lett.	2013, 54(51), 7035-7039

10	Chiral (η^6 - <i>p</i> -cymene) ruthenium(II) complexes containing monodentate acylthiourea ligands for efficient asymmetric transfer hydrogenation of ketones	M. Mary Sheeba, M. Muthu Tamizh, L. Farrugia, A. Endo, R. Karvembu	Organometallics	2014, 33(2), 540-550
11	Copper based nanoparticles-catalyzed organic transformations	S. Ganesh Babu and R. Karvembu	Catal. Surv. Asia	2013, 17(3-4), 156-176
12	Photocatalytic degradation of Ceftiofur Sodium using Au loaded Bi ₂ CuO ₄ nanoparticles	Anandan S, Pugazhenthiran N, Lee GJ, Wu JJ	Journal of Molecular Catalysis A: Chemical	2013, 379 112- 116
13	Photovoltaic Studies of Perylene diimide-based copolymers containing electronic Push-Pull Chromophores	Rubyraraj M, Ramkumar S, Anandan S	RSC Advances	2013, 3, 5108- 5120
14	Photocatalytic degradation of ternary dye mixture in aqueous environment using gold nanoparticles loaded amino and mercapto functionalized TiMCM-41 nanocatalysts in the presence of visible light	Sathishkumar P, Mangalaraja R V, Anandan S, Ashokkumar M	Separation and Purification Technology	2013, 102, 67-74
15	Binding of Serum Albumins with Bioactive Substances - Nanoparticles to Drugs	Naveenraj S, Anandan S	Journal of Photochemistry and Photobiology C- Review	2013, 14, 53-71

16	Sonochemical Synthesis of Manganese (II) Hydroxide for Supercapacitor Applications	Anandan S, Gnana Sundara Raj B, Lee GJ, Wu JJ	Materials Research Bulletin	2013, 48, 3357-3361
17	Highly fluorescent probe for copper (ii) ion based on commercially available compounds and live cell imaging	D. Udhayakumari and S. Velmathi	Sensors and actuators B	2014. Inpress
18	Iron impregnated sba-15, mild and efficient catalyst for catalytic hydride transfer reduction of aromatic nitro compounds,	N.S. Sanjini, S.Velmathi	RSC Advances	2014 Inpress
19	Chiral amide from (1S,2R)-(+)-norephedrine and furoic acid: an efficient catalyst for asymmetric Reformatsky reaction	N. Ananthi, S. Velmathi	Journal of Chemical sciences	2014, 126, 151-158.
20	Synthesis and vibrational spectroscopic investigation of methyl l-prolinate hydrochloride – a computational insight	V. Balachandran, M. Boobalan, M. Amaladasan, S. Velmathi	Spectroscopy Letters	2014 In press
21	Magnetite as a heterogeneous electro Fenton catalyst for the removal of Rhodamine B from aqueous solution	P.V. Nideesh, R. Gandhimathi, N.S. Sanjini, S. Velmathi	RSC Advances	2014, 4, 5698-5708
22	Colorimetric chemosensor for Multi-signaling detection of metal ions using pyrrole based Schiff bases	D. Udhayakumari and S. Velmathi	Spectrochimica Acta Part A	2014, 122, 428-435
23	Naked eye sensing of toxic metal ions in aqueous medium using thiophene	D. Udhayakumari, S. Suganya and S. Velmathi	J. Molecular Recognition	2014, 27, 151-159.

	based ligands and its application in living cells			
24	Dihydrazone based colorimetric chemosensor for detecting biologically important anions in complete aqueous medium.	S.Suganya, J.S.Park and S. Velmathi	Sensors and Actuators B	2014, 190, 679–684
25	Naked eye sensing of anions using thiourea based chemosensors with real time application	D. Vinithra, S. Suganya and S. Velmathi	Tetrahedron Letters	2013, 54, 5612-5615.
26	Highly selective nano molar detection of Cu^{2+} ion by fluorescent turn-on response and their application in living cells	S. Suganya, S. Velmathi, D. Mubarak Ali	Dyes and Pigments	2014, 104, 116-122
27	Structural, Optical and Photocatalytic Properties of Wide Band Gap CuO Nanoparticles Synthesized By Microwave- Assisted Quick Precipitation Method	N.S.Sanjini, K. Dhanalakshmi and S. Velmathi	Science of Advanced Materials	Inpress 2014
28	Study of h-MoO ₃ nanocrystals on visible light photo degradation of methylene blue	A. Chithambararaj, N.S. Sanjini, A. Chandra Bose, S. Velmathi	Physical Chemistry Chemical Physics	2013, 15, 14761 - 14769
29	Chiral schiff bases: new and effective inhibitors for corrosion of high carbon steel in acidic media	S. Saravanamurthy and S. Velmathi	Progress in Organic Coatings	2013, 76, 1527-1535
30	Heterocyclic thiosemicarbazones as fluorescent probe for the selective recognition of cations	S. Suganya, D. Udhayakumari, S. Velmathi	Analytical Methods	2013, 5 , 4179 - 4183
31	Highly Selective Response of Bipyridyl-Incorporated Acetylene Dye for Zinc Acetate	Jeong Yeun Song, Hye Jin Zo, S. Velmathi, Jong S. Park	Talanta	2013, 112, 80-84

32	Synthesis and anion binding studies of azo-schiff bases: selective and sensitive colorimetric chemo sensor for fluoride ions	V.Reena, S. Suganya and S.Velmathi	J. Fluorine Chemistry	2013, 153, 89-95
33	Amperometric detection of glucose using Prussian blue – graphene oxide modified platinum electrode	VinuMohan A.M, Aswini K.K, Maria Starvin A, V. M. Biju	Analytical Methods	2013, 5, 1764-1770
34	Quantitative determination of Sialic acid in Indian milk and milk products	D.Karunanithi, A.Radhakrishna, V.M.Biju	International Journal of Applied Biology and pharmaceutical technology	2013, 4, 318-323
35	Catalytic packed bed non-thermal plasma reactor for the extraction of hydrogen from hydrogen sulfide	E. Linga Reddy J. Karuppiah Ch. Subrahmanyam V.M. Biju	International Journal of Energy Research	2013, 37, 1280-1286.
36	Quantitative determination of melatonin in milk by LC-MS/MS,	D.Karunanithi A.RadhakrishnaK.P. Sivaraman & V.M.Biju	Journal of Food Science & Technology	2013, 10.1007/s13197-013-1221-6
37	Molecularly imprinted polymer based electrochemical detection of L-cysteine at carbon paste electrode	Aswini K. K, Vinu Mohan A.M, V. M. Biju	Materials Science & Engineering C	2014, 37, 321-326

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	Jayasree	Dr. L. Cindrella	NITT
2	S. Ganesh Babu	Dr. R. Karvembu	NITT

3	S. Ramkumar	Dr. S. Anandan	NITT
4	M. Rubyraj	Dr. S. Anandan	NITT
5	Manivannan. D	Dr. V.M. Biju	NITT



CIVIL ENGINEERING

CIVIL ENGINEERING

1. Notable Achievements

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	S S Raghu Ram	Global Business Challenge Winners - Southern regional Finals	CIMA
2.	3 Students Raghu Ram Akshay Rathore T.N Srinivas	NEST Scholarship Test- Rank 40, 48, 56 respectively	NEST
3	Akshay Rathore	1st Place - Technical Quiz	Civilization,CEG Chennai Symposium

S.No.	Name	Details of Prizes/Awards	Organization(All India Rank(A.I.R))
1	T N Srinivas	GATE	A.I.R 79
2	Akshay Singh Rathor	GATE	A.I.R 164
3	Palaniappan SN	GATE	A.I.R 261
4	Akshai Sukuveami	GATE	A.I.R 460

S.No.	Name	Details of Prizes/Awards	Organization
1	P. V. Nidheesh and R. Gandhimathi	Top downloaded full-text articles of the first half of 2013 (4 th Position)	Desalination (Elsevier Journal)
2	P. V. Nidheesh and R. Gandhimathi	Top downloaded full-text articles published in Science Direct platform during the period of Jan- Jun 2013	Elsevier

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1	Dr.K.Muthukumaran	Special Lectures delivered by Prof. V.S. Raju, Former Director, IIT Delhi	13 th Feb' 2014
2	Dr.S.T Ramesh	Special Lecture : Civil engineering Education Dr. R. Murugesan, President, Indian Society of Technical Education, New Delhi	12 th September 2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details
Dr.P.Jayabalan, G.Vani, Jikhil Joseph	“Numerical Analysis of Cold Formed Steel Plain Angle Compression Members” International Conference on Modern Trends in science, Engineering and Technology 2013, 25-26 th September 2013 , Dubai.
J. Ronald Aseer, K. Sankaranarayananasamy,P. Jayabalan	“Effect of Chemical Treatment on Mechanical Properties of Municipal Solid Waste and Banana Fiber Reinforced Polymer Composites”, International Conference on Applied Mechanics, Fluid and Solid Mechanics(AMFSM 2013), 15-16 th November 2013 , Singapore
Dr.C. Natarajan	Strengthening of RC piles subjected to lateral loads using GFRP composites”, 18 th Southeast Asian Geotechnical & Inaugural AGSSEA Conference, 29-31 May 2013, Singapore. Pp, 923-928.
Sugali Sreenivasulu and S.Jayalekshmi	Characterisation and Shear Investigations on a Lunar soil Simulant National Conference on New Trends in Civil Engineering and Earth Sciences – NTCE 2013 ,5 to 6 Feb, page No.364

Siddhartha, K. and Baskar. K.	“Analysis of Steel-Concrete Composite Beam in Flexure”, Conference Proceedings, ISTE Sponsored National Conference on Latest Advancement in Civil Engineering, RMK college of Engineering, Chennai, 4 th April 2013
Senthil Kumar, K. and Baskar, K.	“Preliminary study on concrete with mixed electronic plastic waste”, National Conference –Indian Congress on Curbing E-wastes, Department of civil Engineering, Acharya institute of Technology, Bangalore, pp 20, November 9th, 2013
Dr.K.Muthukumar, C. Natarajan and M. Murugan	Strengthening of RC piles subjected to lateral loads using GFRP composites”, 18 th Southeast Asian Geotechnical & Inaugural AGSSEA Conference, 29-31 May 2013, Singapore. Pp, 923-928.
Dr. S. T. Ramesh And P. Saranya,	Treatment of turbid water using algal alginate National Conference on Recent Trends in Civil and Environmental Engineering (RTCEE’13), Bharathidasan Institute of Technology (A constituent College of Anna University Chennai), Tiruchirappalli, 19 th April 2013.
Shweta Gupta, and Dr. S. T. Ramesh	Performance of Marine soil microbial flora for the treatment of Saline Wastewater National Conference on Recent Trends in Civil and Environmental Engineering (RTCEE’13), Bharathidasan Institute of Technology (A constituent College of Anna University Chennai), Tiruchirappalli, 19 th April 2013.
Karthikeyan.J, Arunkumar.C	Influence of Silicafume on the Mechanical properties on SCC, 7 th International conference on Self Compacting Concrete, Les Cordeliers, Paris. 2 nd September to 4 th September 2013.
AllamLingam and J.Karthikeyan	Strength Evaluation of HPC mixes containing Binary and Quaternary blends, Proceedings on the International Conference on Innovation in Concrete (ICI-IWC 2013), October 23-26 2013, Hyderabad, India, pg no.507-515.
Dr.R.Manjula Dr. S.A. Sannaisraj Dr. K. Palanichamy	Presented a paper titled “Experimental investigations of acceleration on slender cylindrical member under breaking waves” National Conference at NIO, Goa during Feb 4-6 2014 and has been selected for the publication in international journal.

Mr.Deen Dayal Deendayal, Sivapullaiah(2012)	Electro- kinetic remediation of Sulphate under different conditions”,ICGI-2012, Wollongong, Australia.
Deendayal ,Sivapullaiah(2011)	Migration of Sulphate in Soil under different Conditions”.Third Indian Young Geotechnical Engineer Conference(3IYGEC), Indian Geotechnical Society, New Delhi((2011)

2.3. Attended by the Faculty / Students

Faculty / Students	Details
Dr. Samson Mathew	Seminar on “Highway Development and Intelligent Transport Systems (ITS)”, organised by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan, and Ministry of Urban Development (MoUD), Government of India on 19th March 2014 at Chennai
Dr. S.Jayalekshmi Sugali Sreenivasulu	Characterisation and Shear Investigations on a Lunar soil Simulant National Conference on New Trends in Civil Engineering and Earth Sciences – NTCE 2013 5 to 6 February 2013 / page No.364-
Dr.K.Muthukumar	DFI-2013 India, Deep Foundation Technologies for Infrastructure Development of India, November 15-16, 2013 at IIT Bombay

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr.C.Natarajan	International workshop on Structural Life assessment and Failure Diagnosis under TEQIP II	6-7, Dec 2013
Dr.S.Jayalekshmi	Two Days workshop on Advances in Geotechnical Earthquake Engineering AIGEE 2014	08.01.2014 to 09.01.2014
Dr. Samson Mathew, Dr. S. Moses Santhakumar and Dr. V. Sunitha	Training Programme on Coir Geo-textiles for the Rural Development AEEs and AEs	07.10.2013

Dr.K.Muthukkumaran	Two day workshop on Roll of Geotechnical Engineering on Infrastructure Development	29 -30 April 2013
	Short term course on Reliability Analysis and Design of Sub-structures	3-4, October 2013
	Two day workshop on challenges in geotechnical investigation and foundation design	14 & 15 th February 2014
Dr. V. Sunitha and Dr. Nisha Radhakrishnan	Two day Short term course “Transportation Infrastructure Planning – Latest Technologies”, sponsored by TEQIP II	November 21 – 22, 2013
Dr. S. T. Ramesh Dr. R. Gandhimathi	Cleaner Technologies for water and wastewater	12-13, November 2013.
Dr. C. Natarajan Dr. S. T. Ramesh	Structural Life Assessment and Failure Diagnosis	6-7, December, 2013.
Dr. S. T. Ramesh Dr. P. Jayabalan	Workshop on “Ferro Cement concrete Structures”	28 th February 2014
Dr. S. T. Ramesh Dr. P. Jayabalan	Workshop on “AutoCAD and STAAD PRO”	28 th February 2014
Dr. S. T. Ramesh Dr. P. Jayabalan	Workshop on “Advance Surveying equipments”	1 st March 2014
Dr. S. T. Ramesh Dr. P. Jayabalan	Workshop on “GIS, GPS and remote sensing”	2 nd March 2014
R. Gandhimathi	Groundwater Contamination and Transport Modeling	25 – 26, October 2013
S.T.Ramesh and R.Gandhimathi	Cleaner Technologies for Water and Wastewater	12-13 November 2013
Dr. R. Manjula and Dr. S. Saravanan	Workshop on “ Recent trends in water resources, hydraulics and coastal modelling” under TEQIP	Nov6-7, 2013
Dr. G. Swaminathan	Workshop on “ Innovation, Sustainability, solutions, Adoption, Implementation in Energy, Environment Ecosystem and Human	Jan23-24, 2014

Dr.R. Manjula and Dr. S. Saravanan	Life	
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3.2. Attended

Faculty / Students	Details
Dr.S. Jayalekshmi	Attended Q.LP. Short term Course on Numerical and Experimental Modeling in Geotechnical Engineering, 4 th to 9 th February 2013, conducted by the Department of Civil Engineering, I.I.T., Kanpur.
	Attended one week Short term Course on Seismic Design of Reinforced Concrete Buildings, 8 th to 12 th July 2013, organized by Dr.B.R.Ambedkar National Institute of Technology, Jalandhar -144011, Punjab under the aegis of TEQIP-II
	Attended Two day Workshop course on “ Innovation, Sustainability, Solutions, Adoption, Implementation in Energy Environment Ecosystem and Human Life” organized by National Institute of Technology, Tiruchirappalli during 23 rd to 24 th January, 2014.
M.Tech., M.S. and Ph.D. scholars of Transportation Engg.	Workshop on “Warm Mix Asphalt”, organised by the Department of Civil Engineering, IIT Madras on 5th August 2013
Dr. S. Moses Santhakumar and Dr. Samson Mathew	Workshop on “Construction of Concrete Roads and Overlays”, organised by the Department of Civil Engineering, IIT Madras on 23rd September 2013
Dr. S. Moses Santhakumar	Workshop on “Intelligent Transportation Systems”, organised by the Department of Civil Engineering, IIT Madras on 9th and 10th of December 2013
Dr.K.Muthukkumaran	Deep Foundation Technology (DFI) – Workshop of large diameter rock socket piles & Conference of Deep Foundation Technologies for Infrastructures Development in India was held at Indian Institute of Technology, Bombay, 14 th -16 th November 2013
	A One Day Workshop on “Project Management Education at National Institutes of Technology (NITs)” is organized by L&T Institute of Project Management, Chennai, along with the support of NIT Warangal on 21 st March, 2014 at Chennai.

Dr. K. Baskar	Advanced Course on Seismic Response Control and Damage Mitigation Methodologies for Buildings and Structures from 19-21 st February 2014 at SERC Taramani, Chennai - 600113
	Advance Developments in Beams & Plate Theories and Structural Dynamics from 4.1.2014 to 6.1.2014 at MNIT Jaipur
Dr. S. T. Ramesh	Perspectives on curriculum, National Institute of technology, Tiruchirappalli 09-10, May, 2013
	Environment Research Programme on Sustainable Development, Centre for Environmental Management, National Institute of Technical Teachers Training and Research, Chennai, 27 th July 2013
	QIP Short term course on Disasters, Environment and Risk Reduction, Department of Civil Engineering, Indian Institute of technology Madras, Chennai and United Nations Environment Programme (UNEP), January 27-31, 2014.
Dr. R. Manjula	Attended a workshop on “ Aquifere Information System and Aquifer management Plan” during 6-10 January 2014, at Bharathidasan University organized by Central Ground Water Board, Chennai

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. C. Natarajan	Forensic Investigation Structural Health Monitoring	AICTE sponsored National seminar on Earthquake & Structural Health Monitoring	Easa College of Engg. & Tech., Coimbatore Oct. 21,22- 2013
	Pre-cast construction practice	Ultrtech Cement Ltd., sponsored “Technical meet”	Tanjore, May. 8 th 2013.
	Indian construction a Paradigm Shift	Builders Association of India day	Tanjore, Oct. 23 rd 2013
	Forensic Investigation	TEQIP sponsored workshop on	Thigaraja College of Engineering,

		Utilization of Solid wastes in Concrete	Madurai Dec. 16 th 2013
	Introduction of Light weight concrete Blocks	Introductive meet of Renacon AAC Block	Trichy, Dec. 17 th 2013
	Forensic Investigation Structural Health Monitoring	Workshop on “Recent Developments in Concrete Technology”	Vickram College of Engineering, Madurai, Jan. 4 th 2014
	Software Application in Civil Engineering	TEQIP sponsored Faculty Development Program	Anna University BIT Campus, Trichy, Dec. 12-18, 2013
	Repair Techniques & Case Studies	Workshop on Repair & Rehabilitation of Structure	CARE College of Engineering, Trichy, March 3 rd 2014
	Inaugural Address	TEQIP sponsored Faculty Development Program	Anna University BIT Campus, Trichy, Marchy. 21 st , 2014
	Inaugural Address	ISTE Sponsored National Level conference on “Recent development in Civil Engineering”	Mohamad Sathak Engineering College, Kilakarai, March 29 th 2014
Dr. S. Moses Santhakumar	Inaugural Address	National Conference on Latest Advances in Civil Engineering for Sustainable Development – LACE 2013 organised by the SNS College of Technology, Coimbatore	Coimbatore 10.04.2013
	Intelligent Transportation Infrastructure	TEQIP Workshop on Transportation Infrastructure Planning – Latest Technologies organised by the	NITT 21.11.2013

		Department of Civil Engineering, NITT	
	Intelligent Transportation Infrastructure	TEQIP sponsored Faculty Development Program on Innovative Practices in Highway Design, Construction, Maintenance and Safety organised by the Thiagarajar College of Engineering	Madurai 20.02.2014
	Intelligent Transportation Systems	TEQIP sponsored National Workshop on Recent Developments in Transportation Engg. organised by the Coimbatore Institute of Technology	Coimbatore 07.03.2014
Dr.K.Baskar	IS Code Provisions and Seismic Analysis of Precast Concrete construction”,	AICTE Sponsored One Day Workshop on Innovative Construction using Prefabricated Elements”, CARE School of Engineering, Trichy	School of Engineering, Trichy 9 th October 2013
	“ANALYSIS AND DESIGN OF PLATE GIRDER According to is800:2007”	Faculty Development Programme at Coimbatore Institute of Technology, 09.11.2013	Coimbatore Institute of Technology, 09.11.2013
	DESIGN OF BEAMS According to is800:2007	Faculty Development Programme Coimbatore Institute of Technology	Coimbatore Institute of Technology, 09.11.2013
Dr.K.Muthukkumaran	Foundation Engineering – an overview	Faculty & Student Development Programme	RVS School of Engineering and Technology, Dindigul (12 th October

			2013)
	Measurement of Aquifer Parameters	2 days Workshop on contaminant transport modeling	NIT Trichy (25 th & 26 th October, 2013)
	Assessment of Pile Failures due to Excessive Settlement during Pile Load Test	International workshop on Structural Life assessment and failure diagnosis	NIT Trichy (6 th and 7 th December, 2013)
	Ground Improvement Techniques For Highways	One day National level workshop on Highway Engineering	Karur College of Engineering Karur (5 th February 2014)
	Soil Stabilization for Highway Project	Faculty development program on innovative Practices in Highway Design, construction, maintenance and safety	Thiagarajar College of Engineering, Madurai (20 th February 2014)
	Assessment of pile failures and strengthening of RC pile using FRP	One day workshop on Repair and Rehabilitation of Structures	CARE School of Engineering, Trichy (3 rd March 2014)
	Soil Sampling for Engineering Analysis	National Workshop on Water, Air & soil sampling and Analysis	NIT Calicut (12 th March 2014)
Dr. S. T. Ramesh	Air Quality Management System	TNPCB Newly Recruited Engineers Training Programme	Centre for Environmental Management, National Institute of Technical Teachers Training and Research, Chennai, 23 rd

Dr. S. T. Ramesh			February 2013.
	Industrial wastewater treatment	TNPCB Newly Recruited Engineers Training Programme	Centre for Environmental Management, National Institute of Technical Teachers Training and Research, Chennai, 23 rd February 2013.
	Civil Engineering	Orientation programme for I year B.Tech. & B.Arch. 2013-2014 batch	National Institute of Technology, Tiruchirappalli, 3 rd August 2013.
	Careers in Civil Engineering	Orientation programme for I year B.Tech. & B.Arch. 2013-2014 batch	National Institute of Technology, Tiruchirappalli, 22 nd August 2013.
	Waste Management Practices	AICTE sponsored Faculty Development Programme on Environmental engineering and management	Department of Civil Engineering Arulmigu Palaniandavar polytechnic College, Palani. 21 st September 2013.
	Emerging Contaminants and the Implications for Drinking Water	CSIR Sponsored National Seminar on Fate of Emerging contaminants – Analysis and treatment	Kongu Engineering College, Erode, 5 th October, 2013
	Effective use of industrial wastes in construction	National Seminar on innovative Practices in Construction and Waste Management	Sri Ramakrishna Institute of technology Coimbatore 10 th October 2013.

Dr. S. T. Ramesh	Groundwater Contamination	Short-term course on Groundwater Contamination and Transport Modelling	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, 24 th November 2013
	Improving ground water potentials using artificial recharge methods	Short-term course on Groundwater Contamination and Transport Modelling	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, 25 th November 2013
	Emerging Contaminants and the Implications for Drinking Water	Workshop on cleaner technologies for water and wastewater	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, 13 th November, 2013
	A Taxonomy for Learning, Teaching and Assessing	Faculty development programme on art of teaching : Pedagogical tools and techniques	National Institute of Technology, Tiruchirappalli, 20 th November, 2013.
	NBA Preparation	Invited Lecture	Kongu Engineering College, Erode, 13 th December, 2013
	NBA Preparation - For Business Schools	Invited Lecture	KPR Institute of Engineering and Technology , Coimbatore, 11 th January, 2014
	Challenges in Civil Engineering	National level Technical Symposium	Department of Civil Engineering

		(REICONS' 14) Inaugural Address	Nandha Engineering College, Erode, 14 th February 2014.
Dr. S. T. Ramesh	“Emerging” areas in the Environmental Engineering	CEA Lecture	Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, 18 th February 2014.
	The Biological Basis of Wastewater Treatment	Faculty development programme on Biological wastewater treatment innovations, Perceptions and challenges	Department of Civil Engineering Government College of Technology, Coimbatore, 26 th February 2014.
	Emerging Contaminants and the Implications	Faculty development programme on Biological wastewater treatment innovations, Perceptions and challenges	Department of Civil Engineering Government College of Technology, Coimbatore, 26 th February 2014.
	Climate change: impacts, vulnerabilities and adaptation	National level technical workshop on Impact and adaptability of climate change and green technologies to protect the atmosphere.	Department of Civil Engineering, Erode Sengunthar Engineering College, Erode 28 th February 2014.
	A Taxonomy for Learning, Teaching	Faculty development programme on Art of teaching :	National Institute of Technology, Tiruchirappalli, 5 th

	and Assessing	Pedagogical tools and techniques	March, 2014.
	Opportunities in Civil Engineering	National level Students Technical Symposium (REIN4Z'14) Inaugural Address	Department of Civil Engineering Dhanalakshmi Srinivasan Institute of Technology Samayapuram, Trichy.
Dr. Nisha Radhakrishnan	Urban Planning – Application of Geospatial Techniques	Two day Short term course “Transportation Infrastructure Planning – Latest Technologies”, sponsored by TEQIP II	NITT, November 21, 2013
Dr.J.Karthikeyan	Pre-Engineered Structures – A Case Study	One day workshop on Advanced Prefabrication construction & New Trends in Construction Techniques	Dhanalakshmi Srinivasan college of Engineering, Perambalur, October 4, 2013

5. Research Projects undertaken.

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr.C.Natarajan	A novel hybrid energy system for supplying isolated loads with FPGA based energy management scheme Phase - I: Simulation, Prototype development and Laboratory	Centre for Wind Energy Technology (C-WET)	37.40

	Demonstration		Lakhs
	Phase - II: Field Implementation of 10 kW Hybrid system		35.86 Lakhs
Dr. S. Moses Santhakumar, Dr. Samson Mathew and Dr. V. Sunitha	Performance Monitoring and Evaluation of Pilot Projects of PMGSY Roads Sanctioned by NRRDA with New Technology/Material - RBI Grade 81	Alchemist Touchnology Ltd, New Delhi	7.222
Dr.K.Muthukkumaran	Investigation of industrial and domestic waste treated weak soils under dynamic loading	MHRD-NITT	78.54
Dr. Nisha Radhakrishnan	“Land use and Land cover Assessment along Tiruchirappalli City using High Resolution Remote Sensing Images”	SERB	15.94 Lakhs

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

S.No	Equipment	Amount (Rs. in Lakhs)
Dr.K.Muthukkumaran	Computerized Triaxial Shear Test Equipment	6.21
	Computerized Direct Shear Test Equipment	6.34
	Computerized Consolidation Equipment	7.77
	Soil Resistivity	5.42
	Inclinometer	5.99

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Morphological, physical and thermal	J.Ronald Aseer, K. Sankaranarayana	Journal of Natural Fibers	2013. [In press]

	properties of chemically treated banana fiber	samy, P. Jayabalan, R.Natarajan, Priya K. Dasan		
2	Morphological, Physico-Mechanical and Thermal properties of banana plant fibers (Musa sapientum)	J. Ronald Aseer, K.Sankaranarayanan, P. Jayabalan, R.Natarajan, Priya K. Dasan	Applied Polymer Composites	Vol. 1(3), 125-134, 2013
3	Numerical Analysis of Cold Formed Steel Plain Angle Compression Members	G.Vani, P.Jayabalan, Jikhil Joseph	Numerical Analysis of Cold Formed Steel Plain Angle Compression Members	Vol.3 , Special Issue 4, pp 22-29, 2013
4	Role of Fly Ash Concrete Composites in Resisting Seismic Damage	Saravananarajamohan. K., Rajaraman.A., Jayabalan.P., Lakshmiprabha. T.,	The IUP Journal of Structural Engineering	
5	Ultimate Strength of Uniaxially Compressed Mild Steel Plate at Elevated Temperatures	V.Innasi Raja,M.Suneel Kumar and P.Jayabalan	Journal of Structural Fire Engineering	Volume4.No.4 December-2013 page -245-257
6	Flexural Behaviour of Concrete Prisms Confined With FRP Composites”	Murugan, M.,Natarajan, C and Muthukkumaran K.,	Int. Journal of Construction Materials and Structures	2014,2(1),9-18
7	Experimental Investigation on GFRP strengthened RC Piles under lateral loads	Murugan, M., Natarajan, C .and Muthukkumaran K	Int.Journal of Forensic Engineering	2014, 2 (1), 15-28

8	Behaviour of Interfaces Between Glass Fibre Reinforced Polymers And Sandy Soils	Murugan, M., Natarajan, C .and Muthukkumaran K	International Journal of Earth Sciences and Engineering ISSN 0974-5904	2014
9	Compressive Behavior Of Concrete Cylinders Confined With Glass And Carbon Fibre Reinforced Polymers	M.Murugan, C.Natarajan and K.Muthukkumar an	International Journal of Structural and Civil Engineering Research (IJSCER) ISSN 2319-6009	2014
10	Behaviour of Reinforced Concrete slab subjected to Fire	Sangluaia. C , Hariharan, C.Natarajan and Rajaraman	International journal of Computational Engineering Research, ISSN. No. 2250-3005	2013, 3(1),195-206
11	Strength, Economic and Sustainability Characteristics of Coal Ash–GGBS Based Geopolymer Concrete.	Bennet Jose Mathew, M. Sudhakar, and C. Natarajan	International Journal of Computational Engineering Research (IJCER)	2013, 3(1), 207-212
12	A comparative study on Geopolymer bricks manufactured using Non-ionic water and sea water	M. Sudhakar and C.Natarajan	Int.Journal of Construction Materials and Structures	2013, , 2(2), 1-7
13	Object-oriented program and webpage developed for the design of bridges	S.Shifana Fatima and C.Natarajan	Journal of Information, Intelligence and Knowledge, Nova Science Publishers	2013, 5(4)

14	Role of Central and Non- Central Nodal damage in skewed grid bridges	Madhavi, N, Baskar, K, C.Natarajan and Rajaraman. A	International Journal Earth Sciences and Engineering	2013, 6(4) 612-616
15	Flood vulnerability of soft storied residential buildings	Remya C.Natarajan, and A.Rajaraman	International Journal of Civil Engineering and Applications	2013, 3(4), 51-54
16	First Indian –US Forensic engineering workshop	S.E.Chen, R.Schmidt, R. Janardhanam and Natarajan, C	Int.Journal of Forensic Engineering	2013, 1 (3/4), 183-197
17	Influence of skew angle in the design of grids	Madhavi., N,Baskar. K, C.Natarajan and Rajaraman.A	Indian Highways	2013, 41(05), 57-65
18	Progressive Collapse Analysis of RC Beams	Sukanya. G., Natarajan, C. and Rajaraman, A	Journal of Mechanical and Civil Engineering	2013, 5(4), 55-67
19	Characterization and shear investigations on a lunar soil simulant,	Sugali Sreenivasulu and S.Jayalekshmi	International journal of earth Sciences and Engineering,	ISSN 0974-5904, volume 06, no.01 (01) February 2013.
20	Numerical Analysis of RC Shear Critical Beams	S.Jayalekshmi	International Journal of Structural and Civil Engineering	February 2014 69-75
21	Electrokinetic Remediation of Heavy Metal Contaminated Soil	Sruthy O.A. S.Jayalekshmi	International Journal of Structural and Civil Engineering	February 2014 103-111
22	Terramechanics On Lunar Soil Simulants - A Review	Sugali Sreenivasulu and S.Jayalekshmi	International Journal of Structural and Civil Engineering	May 2014

23	Numerical Study on Variation in Support Reaction of Skewed Bridges	Madhavi, N and Baskar. K	Journal of Structural Engineering, SERC	Vol.37, No.6, pp397-402, February-March, 2011
24	Influence of Flange Stiffness on Ductility Behaviour of Plate Girder	Baskar, K	International Journal of Civil, Structural, environmental and Infrastructural Engineering Research and Development, IJCSEIERD. Transstellar Journal Publications,	Vol.1, Issue1, pp1-15, Aug.2011.
24	Non-linear Behaviour of Thin-walled Hollow Circular Steel Tubes	Chithira, K. and Baskar, K	International Journal of Civil, Structural, environmental and Infrastructural Engineering Research and Development, IJCSEIERD Transstellar Journal Publications	Vol.1, Issue 1, pp86-116, Aug.2011
25	Experimental and Numerical Investigation on Circular CFT Columns under Eccentric Load Condition with and without Shear Connectors	Chithira, K. and Baskar, K	International Journal of Earth Science and Engineering	ISSN0974-5904, Vol.5, No.1, pp169-179, Feb.2012
26	Tensile Capacity of Corroded	K. Baskar ¹ , R. Anandapadmana	Journal of Construction	Vol.2, Issue1, pp14-25, April 2012.

	Steel Section Strengthened using Fiber Composite Wrap	bhan ² , M. Anand ³ and V. Dwarakesh ⁴	Engineering, Technology and Management	
27	Numerical study on thin plates under the combined action of shear and tensile stresses	Sathiyaseelan, S. and Baskar, K	International of Journal Structural Engineering and Mechanics, Techno-press Korea	Vol.42, No.6, pp867-882, June25, 2012
28	Cross sectional Analysis of Circular Concrete Filled Steel Tube	Chithira, K. and Baskar, K	International Journal of Earth Science and Engineering	ISSN0974-5904, Vol.5, No.4, pp792-801, Aug.2012
29	Influence of Mineral admixture on Compressive Strength of Concrete	Radhika, K.S. and Baskar, K	Journal of Construction Engineering, Technology and Management	Vol.2., Issue3, ISSN 2249-4723, Nov. 2012
30	Bond stress characteristics on circular concrete filled steel tubular columns using mineral admixture metakaoline	Radhika, K.S. and Baskar, K	International Journal of Civil and Structural Engineering	Vol.3., No.1, pp1-8, ISSN 0976-4399, 2012
31	Bond stress characteristics on circular concrete filled steel tubular columns using mineral admixture Silica fume	Radhika, K.S. and Baskar, K	International Journal of Earth Science and Engineering	ISSN0974-5904, Vol.6., No.1, pp170-177, Feb.2013.
32	Influence of Skew Angle in the Design of Grids	Madhavi, N., Baskar, K., Natarajan, C. and Rajaraman	Journal of Indian Highways	pp57-65, May 2013

33	Damage Assessment of Laterally Restrained Steel Beams using Dynamic Response	Resmi, G. and Baskar, K	Journal of Applied Research	1. Vol.1, Issue.1, pp.30-36, ISSN:231-4090. May 2013
34	Behavioural Analysis of Steel Girders in Skew Bridges	Dhanya, J. and Baskar, K	The Bridge & Structural Engineer, Journal of the Ing-IABSE	Vol.43, No.2, pp51-74, June 2013
34	Experimental Investigation on Circular CFT columns with and without shear connectors	Chithira, K. and Baskar, K	International Journal of Steel and Composite Structures, Techno-press Publications, Korea, 2013	In Press
35	Long-term Deformation of a Simply Supported HPPC Single-cell Box Girder Bridge	J. Karthikeyan, Upadhyay. A and N. M. Bhandari	The Bridge and Structural Engineer	Vol. 43 No.2, June 2013. (pg.7-29)
36	Effect of various Curing Conditions on Compressive strength on HPC	J.Karthikeyan and K.V.Pratap	Elixir Cement and Concrete Composites	Vol. 61, August 2013. (pg.16705-16708)
37.	Flow Behavior of Freshly Mixed Quaternary Blended High Performance Concrete using Modified Slump Cone test	Allam Lingam and J.Karthikeyan	Elixir Cement and Concrete Composites	Vol.61, August 2013. (pg.16709-16717)
38	Effect of Silicafume and flyash on fresh and hardned state of Self	J.Karthikeyan and C. Arunkumar	Elixir Cement and Concrete Composites	Vol. 61, August 2013. (pg.16718-16722)

	Compacting Concrete			
39	Creep and Shrinkage behavior of HPC	Karthikeyan Jayakumar, Akhil Upadhyay and Navrathan M. Bhandari	The Indian Concrete Journal	Vol. 87 No 10, October 2013. (pg.39-45)
40	Rheological Behavior of Binary and Quaternary Blended High Performance Concrete using Modified Slump Cone test	Allam Lingam and J.Karthikeyan	International Journal of Advanced Engineering Applications	Vol. 2, Issue 5, October 2013. (pg.116-131)
41	Compressive behavior of concrete cubes confined with glass and carbon fibre reinforced polymers	Murugan, M. Muthukkumaran, K. and Natarajan, C.	International Journal of Engineering and Science	2013, 03, 2618-2626
42	Compressive behavior of concrete cylinders confined with glass and carbon fibre reinforced polymers	Murugan, M., Natarajan, C. and Muthukkumaran, K.	International Journal of Structural and Civil Engineering Research	2013, 02, 69-76
43	Experimental investigation on GFRP strengthened RC piles under lateral loads	Murugan, M., Natarajan, C. and Muthukkumaran, K.	Int. J. Forensic Engineering	2014, 2 (1), 15-28
44	Effect of slope and loading direction on laterally loaded piles in cohesionless soil	Muthukkumaran, K.	International Journal of Geomechanics, ASCE	2014, 14(1), 1-7

45	Free Vibration Analysis of Prestressed Circular Cylindrical Shells using ABAQUS	N.S. Padmavathy, P.A.Krishnan and Bharath Reddy	National Conference on Advancements in Materials, Construction and Sustainable Environment	(AMCSE- 2014) at Kalasalingam University on 29 th March 2014
46	Free vibration analysis of stiffened shells	B Shushoban/Dr. P.A Krishnan	presented at Advances in Civil Engineering and Chemistry of Innovative Materials ACECIM '14	March 13 and 14 th 2014 at SRM University Chennai
47	Free Vibration Analysis of Composite Skew Plates	P.A.Krishnan and Fareed Kumar	presented at National Conference on Sustainable Development NCSDCE' 14 on	Hindustan University of Technology and Science, Chennai
48	Combination of coagulation and adsorption processes for treatment of landfill leachate	R. Gandhimathi, N. Jegan Durai, P. V. Nidheesh, S. T. Ramesh, S. Kanmani	<i>Iranian Journal of Environmental Health Science Engineering</i>	2013, 10:24
49	Equilibrium and kinetic study of basic dyes adsorption from aqueous solution by bottom ash in binary system	R. Gandhimathi, S. T. Ramesh, V. Sindhu, P. V. Nidheesh	Songklanakarin Journal of Science and Technology	2013, 35 (3): 339-347
50	Chemical oxygen demand (COD) removal from domestic wastewater using fortified soil-clay	S. T. Ramesh, R. Gandhimathi, P. V. Nidheesh, G. Praveen kumar	Pollution research	2013, 32(2):239-244
51.	Fluoride sorption by treated fly ash: kinetic and isotherm studies	C. K. Geethamani, S. T. Ramesh, R. Gandhimathi, P. V. Nidheesh	Journal of Material Cycles and Waste Management.	2013, 15:381–392.

52.	Utilization of textile effluent wastewater treatment plant sludge as brick material.	B. Shathika Sulthana Begum, R. Gandhimathi, S. T. Ramesh, P.V. Nidheesh	Journal of Material Cycles and Waste Management	2013, 15(4): 564-570
53.	Oxidation of Salicylic Acid from Aqueous Solution with Continuous Stirred Tank Reactor by Electro-Fenton Method	Stephy Jacqueline George, R. Gandhimathi, P. V. Nidheesh, S. T. Ramesh	Environmental Engineering Science	2013, 30(12): 757-764
54.	Comparison of methylene blue adsorption from aqueous solution using spent tea dust and raw coir pith	S. T. Ramesh, R. Gandhimathi, T. E. Elavarasi, R. Isai Thamizh, K. Sowmya, P. V. Nidheesh	<i>Global Nest</i>	2014, 16(1): 146-159.
55.	Biosorption of Crystal violet onto Cyperus rotundus in batch system: Kinetic and equilibrium modeling	K. S. Bharathi S. T. Ramesh	Desalination and Water Treatment	doi: 10.1080/19443994.2013.803315
56.	Fixed bed column studies on biosorption of Crystal Violet from aqueous solution by Citrullus lanatus rind and Cyperus rotundus	K. S. Bharathi S. T. Ramesh	Applied Water Science	DOI 10.1007/s13201-013-0103-4
57.	Removal of dyes from wastewater using agricultural waste as low cost adsorbent – A review.	K. S. Bharathi, S. T. Ramesh	Applied Water Science	DOI 10.1007/s13201-013-0117-y
58.	An experimental study of CI Reactive Blue 25 removal from	Anantha Singh T. S., S. T. Ramesh	Desalination and water treatment	doi: 10.1080/19443994.2013.794714

	aqueous solution by electrocoagulation using Aluminum sacrificial electrode: Kinetics and influence of parameters on electrocoagulation performance			
59.	New trends in electrocoagulation for the removal of dyes from wastewater – A Review,	Anantha Singh T. S., S. T. Ramesh	Environmental Engineering Science	30 (7), 333-349.
60.	Effectiveness of natural coagulants from non plant based sources for water and wastewater treatment – A review	Saranya Packiam, S. T. Ramesh, R. Gandhimathi	Desalination and Water Treatment	doi: 10.1080/19443994.2 013.812993
61.	Fixed Bed Column Study for Cu (II) Removal from Aqueous Solution Using Water Hyacinth (Eichornia crassipes) Biomass	R. Gandhimathi, <i>S. T. Ramesh,</i> Anubhav Yadu, K. S. Bharathi	Journal of Environmental Science and Engineering	55 (3), p. 283-289
62.	Alkali- treated fly ash for the removal of fluoride from aqueous solutions.	C. K. Geethamani, S. T. Ramesh, R. Gandhimathi, P.V. Nidheesh	Desalination and Water Treatment	In Press
63.	Electro Fenton oxidation of salicylic acid from aqueous solution: Batch studies and degradation pathway	Stephy Jacqueline George, R. Gandhimathi, P. V. Nidheesh, S.T. Ramesh	Clean- Soil, Air, Water	In Press
64.	Removal characteristics of basic dyes from aqueous solution	R. Gandhimathi, S. T. Ramesh, V. Sindhu, P. V. Nidheesh	Journal of Scientific and Industrial Research	In Press

	by fly ash in single and tertiary system			
65.	Comparison of homogeneous and heterogeneous Fenton processes for the removal of reactive dye magenta MB from aqueous solution	Shilpa Xavier, R. Gandhimathi, P. V. Nidheesh, S.T. Ramesh	Desalination and water treatment	In Press
66.	Pineapple leaf (ananas comosus) powder as a biosorbent for the removal of crystal violet from aqueous solution	Shuvee Neupane, S. T. Ramesh, R. Gandhimathi, P. V. Nidheesh	Desalination and water treatment	In Press
67.	Treatment of stabilized landfill leachate using peroxicoagulation process	Devika Venu, R. Gandhimathi, P. V. Nidheesh, S. T. Ramesh	Separation and Purification Technology	In Press
68.	Magnetite as a heterogeneous electro Fenton catalyst for the removal of Rhodamine B from aqueous solution	P. V. Nidheesh, R. Gandhimathi, S. Velmathi, N. S. Sanjini	RSC Advances	2014, 4: 5698-5708
69.	Removal of rhodamine B from aqueous solution using graphite-graphite electro Fenton system	P. V. Nidheesh, R. Gandhimathi	Desalination and water treatment	2014, 52:1872–1877.
70.	Combination of coagulation and adsorption processes for treatment of landfill leachate	R. Gandhimathi, N. Jegan Durai, P. V. Nidheesh, S. T. Ramesh, S. Kanmani	<i>Iranian Journal of Environmental Health Science Engineering</i>	2013, 10:24
71.	Equilibrium and kinetic study of basic dyes adsorption from aqueous solution	R. Gandhimathi, S. T. Ramesh, V. Sindhu, P. V. Nidheesh	Songklanakarin Journal of Science and Technology	2013, 35 (3): 339-347

	by bottom ash in binary system			
72.	Utilization of textile effluent wastewater treatment plant sludge as brick material.	B. Shathika Sulthana Begum, R.Gandhimathi, S. T. Ramesh, P.V. Nidheesh	Journal of Material Cycles and Waste Management	2013, 15(4): 564-570
73.	Oxidation of Salicylic Acid from Aqueous Solution with Continuous Stirred Tank Reactor by Electro-Fenton Method	Stephy Jacqueline George, R.Gandhimathi, P. V. Nidheesh, S. T. Ramesh	Environmental Engineering Science	2013, 30(12): 757-764
74.	Fixed Bed Column Study for Cu (II) Removal from Aqueous Solution Using Water Hyacinth (Eichornia crassipes) Biomass	R. Gandhimathi, S. T. Ramesh, Anubhav yadu and K. S. Bharathi	J Environ. Science & Engg	Vol. 55, No. 3, p. 283-289, July 2013
75.	Comparative removal of rhodamine B from aqueous solution by electro Fenton and electro Fenton like processes	P. V. Nidheesh, R. Gandhimathi	Clean- Soil, Air, Water	In Press
76.	Electrolytic removal of Rhodamine B from aqueous solution by peroxicoagulation process.	P. V. Nidheesh, R. Gandhimathi	Environmental Science and Pollution Research	In Press
77.	Electro Fenton oxidation of salicylic acid from aqueous solution: Batch studies and degradation pathway	Stephy Jacqueline George, R.Gandhimathi, P. V. Nidheesh, S.T. Ramesh	Clean- Soil, Air, Water	In Press
78.	Removal characteristics of basic dyes from	R. Gandhimathi, S. T. Ramesh, V. Sindhu, P. V.	Journal of Scientific and Industrial	In Press

	aqueous solution by fly ash in single and tertiary system	Nidheesh	Research	
79.	Comparison of homogeneous and heterogeneous Fenton processes for the removal of reactive dye magenta MB from aqueous solution	Shilpa Xavier, R. Gandhimathi, P. V. Nidheesh, S.T. Ramesh	Desalination and water treatment	In Press
80.	Pineapple leaf (ananas comosus) powder as a biosorbent for the removal of crystal violet from aqueous solution	Shuvee Neupane, S. T. Ramesh, R.Gandhimathi, P. V. Nidheesh	Desalination and water treatment	In Press
81.	Treatment of stabilized landfill leachate using peroxicoagulation process	Devika Venu, R. Gandhimathi, P. V. Nidheesh, S. T. Ramesh	Separation and Purification Technology	In Press
82	“Laboratory measurements of Breaking wave impact pressure on a slender cylindrical member”,	Manjula R., Sannasiraj, S.A., and Palanichamy, K	International Journal of Ocean and Climate systems	Vol. 4, No.3, pp 151-169.
83	Migration of Sulphate in Soil under different Conditions	Deendayal Sivapullaiah	International Journal of Earth Sciences and Engineering(2011)	ISSN 0974-5904, Volume 06, No. 02, P.P.381-385

7.2. Students

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	P. V. Nidheesh and R. Gandhimathi	Top downloaded full-text articles of the first half of 2013 (4 th Position)	Desalination (Elsevier Journal)	

2	P. V. Nidheesh and R. Gandhimathi	Top downloaded full-text articles published in Science Direct platform during the period of Jan- Jun 2013	Elsevier	
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8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	M. Murugan	Dr.C.Natarajan	NITT
2	Mrs.N.Almas Begum	Dr.Muthukumaran	NITT
3	Mrs.P.V.Premalatha	Dr.Muthukumaran	NITT
4	M. Murugan	Dr.K.Muthukkumaran Dr.C. Natarajan	NIT Trichy
5	K. S. Bharathi	Dr. S. T. Ramesh	National Institute of Technology, Tiruchirappalli

9. Details of Book any authored by faculty.

<ol style="list-style-type: none"> 1. Matrix methods of analysis of Structures' - Theory and problems - published by Prentice Hall of India, New Delhi. February 2014 2. 'Natural Disasters-Causes, Effects and Mitigation' a chapter in "Vulnerability of Reinforced Concrete Structures subjected to Flood" Published by InTech Journal, China
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11. Other Important Points

Dr.C.Natarajan

1. Chairman, Smart Campus from 2013 onwards
2. Member, Building Committee, NITP, Karikal
3. High Level Committee member, Indian Institute of Crop Processing and Technology, Tanjore

Dr.Jaya Lekshmi

Reviewer – Canadian Journal of Geotechnical Engineering

Dr.K.Muthukumaran

Indian Geotechnical Society-Trichy Chapter was inaugurated on 14th February 2014.

Dr. K. Muthukkumaran, Associate Professor is the Founder Chairman of the Society

Dr.S.T.Ramesh

Reviewer

1. Clean Technologies and Environmental Policy
2. Institution of Engineers
3. International Journal of Green Energy
4. International Journal of Environment and Waste Management (IJEWM).
5. Journal of Water Sustainability.
6. Basic Research Journal of Soil and Environmental Science (BRJSES)
7. Int. J. of Environment and Waste Management
8. Sky Journal of Journal of Soil Sciences and Environmental Management (SJSSEM)
9. British Journal of Applied Science & Technology
10. Desalination and Water Treatment
11. Physical Review & Research International
12. Int. J. of Environmental Technology and Management
13. Chemical Engineering Research and Design
14. Cellulose Chemistry and Technology
15. Separation Science and Technology
16. Physical Review & Research International
17. Applied Water Science

Dr.Gandhimathi

Reviewer

1. Journal of Hazardous Materials
2. Chemical Engineering Journal

3. Separation and Purification Technology

4. Desalination and Water Treatment

5. Environmental Technology

1. Some students have got admits into good universities for pursuing higher studies.
2. First time ever, Civil department students have been selected for Summer Internships by companies like P&G and Schlumberger , L&T etc. (Totally - 10 Interns)
3. One student has got an opportunity to go for DAAD wise Scholarship while another student from 3rd year has got an opportunity to go to Canada for Summer Internship under MITACS - Globalink Scholarship.
4. One of the final year student has been selected for the prestigious Young India Fellowship Programme. (Across India only 100 - 150 students are selected)



International Workshop on Structural Life Assessment and Failure Diagnosis



Lecture by Shen-en Chen

Professor, Department of Civil and Environmental Engg, Univ of North Carolina at Charlotte



International Workshop on Structural Life Assessment and Failure Diagnosis



Inauguration of Civil Engineering Association



View of Audience in the Inaugural Function



Inauguration of Moments-14

**Workshop “Recent trends in water resources, Hydraulics and Coastal Modelling”
during 7th and 8th November 2013 under TEQIP II organized by**

Dr. R. Manjula and Dr. S. Saravanan





Workshop “ Innovation, Sustainability, Solutions, Adoption, Implementation in Energy Environment Ecosystem and Human Life during 23rd and 24th January 2014 under TEQIP II organized by

Dr. G. Swaminathan, Dr. R. Manjula and Dr. S. Saravanan

Inaugurated by Dr. Peter Pang, Assistant President, University and Global Relations, National University singapore





Indian Geotechnical Society Trichy Chapter Inaugural Ceremony: Inaugurated by Prof. V.S. Raju, former Director, IIT Delhi, Prof. G. N. Gandhi, President IGSDelhi & Dr.SrinivasanSundarrajan, Director NIT Trichy



COMPUTER SCIENCE AND ENGINEERING

COMPUTER SCIENCE AND ENGINEERING

1. Notable Achievements

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	Pradeep and Ayush	Southern Regional Finals	Chartered Institute of Management Accountants (CIMA) Global Business Challenge conducted on March 14,15 at Bangalore
2.	Nirvik Ghosh, Dishant Shah, Vasuman R and Rohan Sinha	Qualified for National finals of Hackcon '14	Microsoft, Hyderabad
3.	Parameswaran	Gold	Roller Skating in Sports Fete'13,NIT Trichy
		Silver	48 th National Roller Skating Championships
		Bronze	47 th National Roller Skating Championships
		Bronze	46 th National Roller Skating Championships
4.	Amey Telwane & Abdul Hadi	II Place	ACM-ICPC & Bytecode
5.	Prachi Prakash Desai	I Place & Best player award	Badminton Tournament Kanpur 2013
		II	Shot put, Athletics Kanpur 2013
6.	Nitin Kukeraja	Runner Up	Inter NIT Handball Tournament 2014
7.	Mathur Sathya	Bronze medal	Chess Tournament at IIT Kanpur
8.	Angelyn Arputha	Gold Medal	Table Tennis, Sastra University
9.	Sudarshan Mohana and Madhavan Kidambi	Honourable Mention	ACM ICPC, Amritapuri 2013
10.	S. Shravan Kumar	Finished in Top 10	ACM - ICPC Kharagpur regional

S.No.	Name	Details of Prizes/Awards	Organization
11.	Shrey Chauhan	Winner	Saarang, IIT Madras 2013
12.	Hari Narayanan, S.	Runner up	MIT symposium Prayatna 14 in Markup Mania (Web development)
13.	Shanu Kumar Suman	Winner	Infotrek (Under ACM) quiz
14.	Vijay Meena	Silver Medal	Kabaddi, Inter NIT tournament

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

Sl. No.	Coordinator	Programme	Period
1.	Dr. S. Selvakumar	Guest Lecture on Web Intelligence Resource Person: Prof. Deepak Garg, Thapar University, Punjab	18, July'13
2.	Dr. S. Selvakumar	Guest Lecture on Virtualization in Data Center Resource Person: Mr. Katni Venkatasubramanian, Sr. Director, IT at Brocade, San Francisco Bay Area, USA	24, Aug.'13
3.	Dr. S. Selvakumar	Inauguration of Mozilla Firefox Club - NIT Trichy Chapter Resource Person: Sujith Reddy, Mozilla Representative	01, Oct.'13
4.	Dr. S. Selvakumar	Guest Lecture on Artificial Neural Networks in Materials Modeling Resource Person: Dr. N. S. Reddy, Division of Materials Science and Engineering Gyeongsang National University, Jinju, Korea	24, Dec.'13

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
1. Harsha Rao and S. Selvakumar	"A Kernel Space Solution for the Detection of Android Bootkit", 48 th Annual Convention on ICT and Critical Infrastructure (CSI-2013).	13-15, December 2013, Visakhapatnam

Author(s)	Details	Place & Date
2. P. V. Subba Reddy and K. V. Iyer	Conditional and unique colorability of graphs, Third Int'l. Conf. of Gwalior Academy of Math. Sciences.	Sept. 2013
3. Enrich Braz, R. Malmathanraj, and R. Mohan	Visualization of hyperspectral images using maximum Intensity pixel selection and fusion by weighted average; international conference on electrical, electronics & computer science engineering.	31 st March-2013
4. Kunwar Singh, C. Pandu Rangan and A. K. Banerjee	Lattice based efficient threshold public key encryption scheme, Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (jowua), volume: 4, number: 4, pp. 93-107, November 2013. (presented in international conference MIST 2013 and won Best Paper Award)	November 2013.
5. Kunwar Singh, C. Pandu Rangan and A. K. Banerjee	Lattice Based Identity Based Proxy Re-Encryption Scheme, Journal of Information Science and Information security (JISIS), volume 3, no. 3/4, pp. 38-51, February, 2014. (Journal of Information Science and Information security (JISIS), volume 4, no. 1, pp. 1-12, February, 2014.)	February, 2014
6. Kunwar Singh, C. Pandu Rangan and A. K. Banerjee	Efficient Lattice HIBE in the Standard Model with Shorter Public Parameters, AsiaARES 2014, LNCS, Springer-Verlag, 2014.	Bali, Indonesia, April 2014
7. Kunwar Singh, C. Pandu Rangan and A. K. Banerjee	Cryptanalysis of Unidirectional Proxy Re-Encryption Scheme, AsiaARES 2014, LNCS, Springer-Verlag, 2014.	Bali, Indonesia, April 2014
8. Ipsita Mohanthy and R. Leela Velusamy	"Extraction of HTTP messages for Retrieval of live Evidence" The third international conference on	Anna University, Chennai, 25-27 July, 2013.

Author(s)	Details	Place & Date
	recent trends in Information technology(ICRTIT-2013),	
9. U Venkanna and R Leela Velusamy	“Mitigating the attacks on recommendation trust model for mobile Ad hoc Networks” International conference on emerging research in computing, Information, communication and applications (ERCICA-2013),. pp.243-249	Bangalore, 2-3 August 2013
10. U Venkanna and R Leela Velusamy	“Reward based cooperative routing in mobile ad hoc networks using markov decision process” International conference on Recent Advances in Engineering and Computational Sciences (RAECS-2014)	Punjab University, Chandigarh, 6-8 March 2014.
11. E. Sivasankar and V. Srikrishnan	“Building a Repository for the Developer Community With Internet Modeling and Web Analytics” International Conference On Business Analytics and Intelligence	IIM Bangalore.
12. S. Jaya Nirmala, Shah Maulik, and S. Mary Saira Bhanu	“SLA Achievement by Negotiation in the Cloud” at ACM Computing Convention.	August 22-24, 2013 Vellore Institute of Technology, Tamil Nadu
13. S. Stephen Vaithiya and S. Mary Saira Bhanu	“Ontology based Resource Discovery Mechanism for Mobile Grid Environment” in the Second International Conference on Advanced Computing, Networking & Security pp. 154-159.	15 th to 17 th December, 2013 at National Institute of Technology Surathkal Karnataka, India,
14. Satyanarayana Vollala, Praveen Kumar Yadav, K. Geetha and N. Ramasubramanian	"A Comparative Study on Enhancements made for RSA Implementation from Hardware Perspective", Fourth International Joint Conference on Advances in Engineering and Technology, AET 2013, pp. 169-174.	NCR, India, 13-14 Dec 2013
15. Satyanarayana	"Efficient Modular multiplication	ITM University Gurgaon,

Author(s)	Details	Place & Date
Vollala, V. V. Varadhan, K. Geetha and N. Ramasubramanian	algorithms for Public Key Cryptography", IEEE International Advance Computing Conference (IACC'14), pp. 74-78.	21-22 Feb 2014
16. Praveen Kumar Yadav and N. Ramasubramanian	"Power Consumption of Android Device Using Different Video Codecs- An Analysis", IEEE International Advance Computing Conference (IACC'14), pp. 1019-1023.	ITM University Gurgaon, 21-22 Feb 2014

2.3. Attended by the Faculty / Students

Faculty / Students	Details	Place & Date
1. Sachin Kumar	"2nd Security and Privacy Symposium 2014"	IIT Kanpur, 19-22 Feb 2014
2. Varadhan	"An Intelligent Adaptive Round Robin (IARR) Scheduling Algorithm for Performance Improvement in Real Time Systems" in Fourth International Joint Conference on Advances in Engineering and Technology, AET 2013	NCR (National Capital Region), India, Dec 13-14, 2013
3. Rajaram	"Estimation of Optimum Parameters For Obtaining Enhanced QoS In Virtualized Server Consolidated Cloud Environment" in Third International Conference On Advances In Information Technology And Mobile Communication, AIM 2013, pp 813-819	Bangalore, India, April 26, 2013

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
S. Selvakumar	Skill Development Program on Application Development in Android Resource Person: EQuadriga ITeS, Tiruchirappalli	5 days from 27, July'13 to 21, Sept.'13
S. Selvakumar	Software Engineering: The Industry Paradigm Resource Person: George Mathew, Managing Director, Exeter Group (India office)	26, Oct.'13
E. Sivasankar	Workshop Coordinator, ISTE Workshop on Database Management Systems	21, May 2013 to 31, May 2013

3.2. Attended

Faculty / Students	Details	Place & Date
R. Mohan	Workshop on Algorithms, organized by the Department of IT.	NIT Durgapur, 22 nd to 26 th January 2014
R Leela Velusamy	Workshop on “The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013”	Hyderabad, 18-19 November 2013
U Venkanna, A Srinivas	Continuing Education Programme (CEP) on “Advanced Wireless and Mobile Network Technologies”,	National Institute of Technology, Warangal, 03-07 October 2013.
A Srinivas	Workshop on “Modern Trends in Soft Computing & Security Issues” Jointly Organized by Center for Soft Computing Research (CSCR).	Indian Statistical Institute Kolkata, National Institute of Science & Technology, Berhampur, Odisha, 23-28 September 2013
Koppala Guravaiah	Workshop on “Research methods & LaTeX ”	National Institute of Technology, Trichy, 20-21 September 2013
A. Srinivas	Workshop on “Access to E-Resources: Copyright Issues, Licensing Policy & Best Practices for Effective Usage”	National Institute of Technology, Trichy, 13-14 September 2013
U Venkanna, Koppala Guravaiah	Workshop on “Recent trends in Wireless Networks ”	National Institute of Technology, Tiruchirappalli, 26 – 27 August 2013
Sachin Kumar	Skill Development Program On “Application Development in Android” (35 Hrs Program)	National Institute of Technology, Trichy, 27 July-21 Sept 2013
A Srinivas	QIP Short Term Course on “Intelligent Informatics”,	Indian Institute of Technology, Kanpur, Uttar Pradesh, 15-19 July 2013
U Venkanna	Workshop on “Fuzzy Systems and Applications”	National Institute of Technology, Tiruchirappalli, 13 July 2013
S. Jaya Nirmala	QIP Short term course on Intelligent Informatics	IIT Kanpur, July 15th – July 19th, 2013

Faculty / Students	Details	Place & Date
S. Jaya Nirmala	FDP on Effective Teaching Techniques	National Institute of Technology, Tiruchirappalli, October 10-11th, 2013

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. S. Selvakumar	Futuristic Challenges in Network Security	AICTE Sponsored Faculty Development Programme on Advanced Networking and Practical Aspects of Network Security	SCMS, Kerala, 15, June'13
Dr. S. Selvakumar	Futuristic Challenges in Network Security	Seminar Talk	Dr. G. R. Damodaran College of Science, Coimbatore, 28, Sept'13
Dr. S. Selvakumar	Research Issues in WSN	Seminar Talk	PEC, Pondicherry, 15, Nov.'13
Dr. S. Selvakumar	Futuristic Challenges in Network Security	AICTE Sponsored Seminar on Cryptography & Network Security	Saranathan College of Engineering, Tiruchirappalli, 24-25, Jan.'14
Dr. S. Selvakumar	How to Select Journal?	One day Seminar Talk on An Effective way of writing Research Articles for Journals	Sri Eshwar College of Engineering, Coimbatore, 01, Feb.'14
Dr. K. Viswanathan Iyer	Design and analysis of Algorithms	Invited lecture as part of CSE association for II year CSE students of Saranathan College of Engg., Panjapur, Trichy.	Trichy, 4 August 2013.
Dr. K. Viswanathan Iyer	Some Trends in Cloud Computing	Invited session talk at the UGC sponsored state level workshop on "Cloud Computing and the Future of Print Media" at the School of Media Studies, Lyola College, Chennai 600034.	Chennai, 10 Jan. 2014.

Faculty	Topic	Programme	Place & Date
Dr. K. Viswanathan Iyer	Algorithmic design paradigms	Invited lecture lecture for UG students of Computer Sci. & Engg. at CARE School of Engineering, Dindugal Highway, Trichy.	Trichy, 3 Feb. 2014.
S. Mary Saira Bhanu	High Speed Networks – Congestion Control	Faculty Development Training Programme	University College of Engineering, Pattukkottai, 10/12/2013
N. Ramasubramanian	Multicore systems	Seminar Talk	K.Ramakrishnan College of Engineering, Tiruchirappalli, 18th October 2013
Dr. S. R. Balasundaram	Internet of Things	5 th National Conference on System Design and Information Processing	PSNA College of Engineering and Technology, Dindigul, 20 th March, 2014

5. Research Projects Undertaken and Status

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr. S. Selvakumar. Dr. S. Mary Saira Bhanu and Dr. R. Leela Velusamy	Integrated Framework for Cyber Space Security (IFCSS) – Multi Institutional Project	DST	787/-

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

Sl. No.	Equipment (INITIATED)	Amount (Rs. in Lakhs)
1.	High end server	10,00,000/-
2.	Personal Computers	30,00,000/-
3.	Hardware boards	9,00,000/-
4.	Medium end FPGA boards	5,00,000/-

5.	Medium End Server	5,00,000/-
6.	Hardware Traffic Generator	5,00,000/-

7. Research Papers Published in National / International Journals

7.1. Faculty

Sl. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Data rate based adaptive thread assignment solution for combating the SlowPOST denial of service attack	Amritha Raghunath, Sadhana Ramachandran, Selvakumar Subramanian and Sreevatsan Vaidyanathan	ACM SIGSOFT Software Engineering Notes	Vol. 38, Issue 5, September 2013, pp. 1-5
2.	SHS-HTTPS Enforcer: Enforcing HTTPS and Preventing MITM	Sugavanesh, B., Hari Prasath, R and S. Selvakumar	ACM SIGSOFT Software Engineering Notes	Vol. 38, Issue 6, Nov 2013, pp. 1-4
3.	Blind Image Steganalysis of JPEG images using feature extraction through the process of dilation	Pritesh Pathak, S. Selvakumar	Digital Investigation, Elsevier Publications, U.K.	Vol. 11, Issue 1, 2014
4.	Mammogram tumour classification using modified segmentation techniques	D. Sriramkumar, R. Malmathanraj, R. Mohan and S. Umamaheswari	Int. J. of Biomedical Engineering and Technology	Vol.13, No.3, 2013, pp.218 - 239
5.	A Modified Parallel Heuristic Graph Matching Approach for Solving Task Assignment Problem in Distributed Processor System	R. Mohan and N. P. Gopalan	International Journal of Information Technology and Computer Science	Vol. 5, No 10, 2013, pp 78-84
6.	Two level verification for detection of DNS rebinding attacks.	Siva Brahmasani and E. Sivasankar	Int. J. Systems Assurance Engineering and Management	2013 pp. 138-145
7.	Dynamic Energy	T.Veni and	International	2013,

Sl. No.	Title	Author(s)	Journal	Year Vol. (No) Page
	Management in Cloud Data Centers: A Survey	S. Mary Saira Bhanu	Journal on Cloud Computing: Services and Architecture	Vol. (3), 13-26.
8.	Evaluation of Cache Memory Parameters with Different Instruction Set Architectures	N. Ramasubramanian, Hathiram Banoth and P. S. Tamizharshan	International Journal of Computational Engineering & Management	May 2013 Vol. 16 Issue 3, pp. 29-36.
9.	Improving Performance of Real Time Scheduling Policies for Multi-core Architecture	N. Ramasubramanian, Ashutosh, Akhilesh Kumar Verma, Manvendra Singh and Praveen Kumar Yadav	International Journal of Computational Engineering & Management	May 2013 Vol. 16 Issue 3, pp.64-68.

8. Ph.D Awarded

Sl. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	P. Arun Raj Kumar	Dr. S. Selvakumar	NIT, Tiruchirappalli
2.	P. Venkata Subba Reddy	Dr. K. Viswanathan Iyer	NIT, Tiruhirappalli
3.	R. Alageswaran	Dr. S. Selvakumar	SASTRA University
4.	Narendran Rajagopalan	Dr. C. Mala	NIT, Tiruchirappalli

11. Other Important Points

PG Internships

Sl. No.	Student Name	Duration	Organization
1	V. Varadhan	June 2013 – July 2013	Cisco, Chennai
2	Sandeep	July 2013 – June 2014	UTC, Hyderabad
	Aravind		
	Sankarlal Agarwal		

3	Anu James	September 2013 – June 2014	Intel, Bangalore
	Divya Patel		
	Jaya Sankar		
	Prabin		
	Vidisha		

UG Internships

Sl. No.	Student Name	Duration	Organization
1.	Ananya Chakraborty	May – June 2014	Indian Statistical Institute, Kolkata
2.	Akash Shukla	May – June 2014	IIT Delhi
3.	Arjith Retna S	May – June 2014	Microsoft, India
4.	Ritam Shukla	May – June 2014	Microsoft, India
5.	Surya Pratap Singh	May – June 2013	Adobe
6.	Sivaranjani S	May – June 2013	JP Morgan
7.	Amey Telwane and Abdul Hadi	May – June 2013	Samsung, JP Morgan
8.	Nirvik Ghosh	May – June 2013	Samsung
9.	Dishant Shah	May – June 2013	Samsung
10.	Vasuman R	May – June 2013	Amazon
11.	Prachi Prakash Desai	May – June 2013	Samsung
12.	Chakshu	May – June 2013	Samsung
13.	Jyoti Kumari	May – June 2013	Samsung
14.	Nitin Kukeraja	May – June 2013	Ittiam
15.	D M Raj Karthick	May – June 2013	Yahoo!
16.	Pankaj Kumar	May – June 2013	Amazon

Sl. No.	Student Name	Duration	Organization
17.	Madhu Verma	June – July 2013	IISc, Bangalore
18.	Niroshni S	May – June 2013	Credit Suisse
19.	Abhishek Patil	May – June 2013	Samsung
20.	Mahalakshmi	May – June 2013	Samsung
21.	Manishdeo	May – June 2013	Samsung
22.	Aniruddhan	May – June 2013	JP Morgan
23.	Rahul Radhakrishnan	May – June 2013	JP Morgan
24.	Ayush Tiberawala	May – June 2013	Samsung
25.	Akshay Uttamani	May – June 2013	Adobe
26.	Parameswaran	May – June 2013	JP Morgan
27.	Madhavan Kidambi	May – June 2013	Credit Suisse, India
28.	Sudarshan Mohana	May – June 2013	S&P Capital IQ
29.	Angelyn Arputha	May – June 2013	IIT Madras
30.	Akshay Khandelwal	May – June 2013	Microsoft India
31.	Dev Agarwal	May – June 2013	Adobe
32.	N. Gautham Eshwar	May – June 2013	Amazon
33.	Jude Naveen Raj	May – June 2013	Zynga
34.	Karthik Rajendran	May – June 2013	Goldman Sachs
35.	M. Mythreya Raj	May – June 2013	Goldman Sachs
36.	Pradeep Varma	May – June 2013	Amazon
37.	S. Shravan Kumar	May – June 2013	Amazon
38.	V. Shriram	May – June 2013	Amazon
39.	K. Shreyansh Jain	May – June 2013	Credit Suisse

Sl. No.	Student Name	Duration	Organization
40.	C. Siddhartha Karthik	May – June 2013	CISCO
41.	C. Siddharth	May – June 2013	Goldman Sachs
42.	Siddharth Shekhar	May – June 2013	Amazon
43.	A.C. Sreenivasan	May – June 2013	DARE, Bangalore DRDO
44.	Soham Sardar	May – June 2013	Texas Instruments Pvt. Ltd.
45.	Utkarsh Saxena	May – June 2013	Qualcomm
46.	Arjun Bala	May – June 2013	Reliance Animation Studios
47.	Ashutosh N. Agarwal	May – June 2013	IIT Bombay
48.	Deept Tripathi	May – June 2013	Microsoft
49.	S. S. Shreyas	May – June 2013	CS,CMI
50.	Shanu Kumar Suman	May – June 2013	BSNL
51.	V. Vinith	May – June 2013	HCL

Projects

- Purnank Prakash is doing a project on “E-Learning Softwares for Better Teaching Facilities” under Prof. S. Balasundaram, Computer Support Group Head, NIT Trichy
- Purnank Prakash is working On Alumni Site of NIT-Trichy
- Purnank Prakash built a website for “E-GasSewa and Corruption Handling” for IBM Young Mind India Contest under Prof. Dr. E. Sivasankar, CSE Dept., NIT Trichy in May’13
- Purnank Prakash is working on a project to “Improve Scheduling Algorithm of IaaS Cloud Computing for Haizea 1.0” under the guidance of Prof. Ms. S. Jayanirmala, CSE Dept., NIT Trichy
- Vicky Bansal implemented Smart Remote Data Collection System for IBM Young Mind’s Project
- Vicky Bansal and R. Vasudev implemented Real time Construction of 3D point clouds using Microsoft Kinect at CVIT Lab

- A. C. Sreenivasan completed a Project on Network and Web Security Analysis in DARE, Bangalore (DRDO)
- Siddharth Shekhar worked on EINK project ‘WhisperPlay’

Teaching Assistantship

- Purnank Prakash worked as a Teaching Assistant to Prof. Dr. S. Sudarshan, IIT Bombay on Database Management Systems.



COMPUTER APPLICATIONS

COMPUTER APPLICATIONS

Conferences / Seminars / Symposiums / Special Lectures

Papers presented by the Faculty / Students

Author(s)	Details
K.Nandhini, S.R. Balasundaram	“Extracting And Evaluating Assistive Summary For Reading Difficulties”, in the Proceedings of International Conference on Advances in Computing, Communications and Informatics, ICACCI 2013, pp.1082-1087.
P.Prema, B.Ramadoss, S.R.Balasundaram	“An Approach For Reduced Test Path Set Selection”, in the Proceedings of International Conference on Advances in Computing, Communications and Informatics, ICACCI 2013, pp. 191 – 196
S.Akhilan, S.R.Balasundaram	‘Personalizing News Documents Using Modified Page Rank Algorithms’, in the Proceedings of the International Conference on Advanced Computing, Networking, and Informatics, India, June 2013 Published by Springer - Intelligent Computing, Networking, and Informatics Volume 243, 2014, pp 1055-1061

2.3. Attended by the Faculty / Students

Faculty / Students	Details
S.R.Balasundaram	Enhancing Research Collaborations through NKN, Bangalore, Karnataka, October 17-19,2013

3.0. Summer School / Winter School / Workshops

3.2. Attended

Faculty / Students	Details
S.R.Balasundaram	DST sponsored National Training Programme on EDMT (9-13 December, 2013) at EDI, Ahmedabad.
R.Eswari	2-day workshop on “Perspectives on Curriculum”, organized by National Institute of Technology, Tiruchirappalli, May 9th and 10th, 2013

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
S.R.Balasundaram	E-Health	TEQIP Workshop on Telemedicine	NIT Trichy 12/07/2013
S.Domnic	Feature Extraction for Image Analysis	Image Analysis and Its Applications	03/01/2014, Madras University, Chennai

6. Major Equipment Purchased (more than Rs. 5.00 lakh.)

S.No	Faculty	Equipment	Amount (Rs. in Lakhs)
1	Dr.S.Sangeetha	XEON (8core) PROCESSOR, 4U RACK SERVER 3 Nos	28
2	R.Eswari	Twenty numbers of High End PCs	9.08

3	S.Domnic	High End Workstation (Dell 7600)	12.476
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7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Improving readability through extractive summarization for learners with reading difficulties	K.Nandhini, S.R.Balasundaram	Egyptian Informatics Journal	Vol.14, Issue 3,pp.195- 204
2	Re-Ordered FEGC and Block Based FEGC for Inverted File Compression	V. Glory, S.Domnic	IJIRR	3(1): 71- 88, 2013
3	Medical video summarization using central tendency based shot boundary detection”.. (IGI Global)	G.G.Lakshmi Priya and S.Domnic	International Journal of Computer Vision and Image Processing	3(1), pp. 55-65, 2013

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	A.Saravanan	S.R.Balasundaram	NIT Trichy
2	Mr.Moses Dian	B.Ramadoss	NIT Trichy



ELECTRICAL AND ELECTRONICS ENGINEERING

ELECTRONICS AND ELECTRICAL ENGINEERING

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1.	N. Ammasaigounden	Texas Instruments Analog Design contest (Team Advisor) Consolation prize	Texas Instruments
2.	N. Ammasaigounden	Mentored the UG students who won the first prize which carry cash award of 1.25 LAKHS "Low cost portable health monitor with Spiro meter and pulse oximeter"	Analog Devices India

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	SambhavR.Jain (2012 pass out)	Got admission to M.S. program	Stanford University, U.S.A.
2.	K. Vijayakumar, Ph.D. Scholar Research Guide : Dr. N. Kumaresan	Power Systems Award (PPSA 2014)	IIT, Delhi and Power System Operation Corporation (POSOCO) Limited
3.	B. Indu Rani, Ph. D. Scholar Research Guide : Dr. G. Sarvanallango	Power Systems Award (PPSA 2014)	IIT, Delhi and Power System Operation Corporation (POSOCO) Limited
4.	P. Kishore, ManikandanAnanth, SethuChidambaaram and Vivekanandhan B.	Texas Instruments Analog Design contest Consolation prize	Texas Instruments India
5.	P. Dinesh, Kowshick B., Pankaj Raghav, Ramesh and K. Govindarajan	First prize in Texas Instruments Analog Design Contest	Texas Instruments India
6.	Guru Raghav R. and Guru Praanesh R.	Scholarships of about Rs. 65000 per year	OPJEMS
7.	AravindGovindan and Naresh Balaji	First prize in Texas Instruments Analog Design Contest 2014	Texas Instruments India
8.		2 nd Prize in cross-word 3 rd in creative	Festember 13 NIT, Trichy.

		writing(Hindi)	
	Nikhil Dwivedi	2 nd prize in Kabaddi	Juter NIT sports meet
9.	Anmol Singh	3 rd in BANKJOB 2 nd in BYTECODE	Pragyan 14 NIT Trichy.
10.	Punit Pichholia	3 rd in Bank Job	Pragyan 14 NIT, Trichy
11.	Mrs. S. Aditiya MS Scholar Research Guide : Dr. S. Moorthi	Best paper award- International conference on intelligent and efficient electrical systems, Dec-2003	PSG. Tech. Coimbatore

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised :

S.No	Coordinator	Programme	Period
1.	Dr.S.Sudha	Latex , Support vector machines	2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
1. C.Nagamani, M. A. Asha Rani, Nikhilesh Prasannakumar and Karthikeyan. A	“Reference Current Generation Schemes for DFIG with unbalanced grid voltage”, IEEE International Conference on Electrical Energy (ICEES)	8 th Jan 2014
2. C. Nagamani, Nikhilesh Prasannakumar and Venkata Rama Raju	“A simplified Sensorless Speed Computation Algorithm for Squirrel Cage-Induction Motor”, IEEE International Conference on Electrical Energy (ICCPCT)	2014
3. Dinesh .P , Srinivasa Rao. P, G.Saravana Ilango and C. Nagamani	Laboratory course on solar photovoltaic system based on low cost equipment	
4. Pankaj Raghav.P , Ramesh K. Govindarajan and G.Saravana Ilango	A Dynamic Voltage Restorer with an improved for voltage sensitive loads	

5. M.Venkata Kirthiga and Pramodkumar Muppiddi	“Controlled Islanding based on Line Contingency Ranking in Autonomous Micro-grids”, IEEE AFRICON 2013, pp.1-5.	Mauritius, 9 th – 12 th September 2013
6. M.Venkata Kirthiga and M.Rajasekaran	“A Modern Self-Defined Extinction Advance Angle Controller for CCC based Hybrid HVDC Systems”, IEEE AFRICON 2013, pp. 1-5.	Mauritius, 9 th – 12 th September 2013,
7. Sundareswaran, K., Kiran, K., Padhee, V., Sankar, P., Nayak, P.S.R. and Mahadevan .A	“Buck-Boost converter controller design using bacterial foraging”, IEEE International Conference on Control Applications (CCA), Page(s): 995 – 999	2013
8. Sundareswaran, K., Hariprasad, B., Kuruvinashetti, K.S., Sankar, P. and Nayak, P.S.	“Output voltage control of dual input buck-boost converter”IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia),Page(s): 1 - 5	2013
9. Sreeram, M and Raja, P	Implementation of DSP based Numerical Three-step Distance Protection scheme for Transmission lines, INDICON, pages: 1- 6	2013
10. Hemavathi.N and Sudha.S	“An Hybrid Clustering Algorithm for Optimal Clusters in Wireless Sensor Networks”, IEEE Student’s Conference(SCEECS) on Electrical, Electronics and Computer Science	Feb, 2014
11. S. Senthil Kumar, N. Kumaresan and M. Subbiah	“Modelling, analysis and control of stand-alone self-excited induction generator-PWM rectifier systems feeding constant dc voltage applications	
12. P. Raja, N. Kumaresan and M. Subbiah	An Improved Delta-Star Switching Scheme for Reactive Power Saving in Three-Phase Induction motor	
13. K. Vijayakumar, N. Kumaresan, N. Ammasaigounden and Sarath B Tennakoon	Real and Reactive power control of hybrid excited wind-driven grid-connected DFIGs	
14. P. Raja, M. P. Selvan and N. Kumaresan	Enhancement of Voltage Stability Margin in Radial Distribution System with Squirrel Cage Induction Generator based DG’s	

15. K. Vijayakumar, N. Kumaresan and N. Ammasaigounden	Operation of inverter assisted wind-driven slip-ring induction generator for stand-alone power supplies	
16. G Deepak, M. Jaya Bharata Reddy and D. K. Mohanta,	Hardware Implementation of Grid Connected PV System With Energy Management Scheme”, IEEE International conference on Environment and Electrical Engineering, (EEEIC-2013)	Poland, 1-3rd Nov 2013.
17. P. Gopakumar , M. Jaya Bharata Reddy and Dusmanta Mohanta,	“Novel Multi-Stage Simulated Annealing for Optimal Placement of PMUs in Conjunction with Conventional Measurements”, IEEE International conference on Environment and Electrical Engineering, (EEEIC-2013	Poland,), 5-8th May 2013
18.. Sundareswaran, K., Kiran, K., Padhee, V., Sankar, P., Nayak, P.S.R. and Mahadevan, A.	Buck-Boost converter controller design using bacterial foraging”, IEEE International Conference on Control Applications (CCA), Page(s): 995 – 999	2013
19. Sundareswaran, K., Hariprasad, B., Kuruvinashetti, K.S., Sankar, P. and Nayak, P.S.	“Output voltage control of dual input buck-boost converter”IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia), Page(s): 1 - 5	2013
20. C. Nagamani, Venkata Rama Raju R, Nikhilesh Prasannakumar and A. Karthikeyan	"A Simplified Sensorless Speed Computation Algorithm for Squirrel Cage Induction Motor"Conference Name: IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT)	2014
21. Kishore, P., Ananth, M., Chidambaram, S., Vivekanandan, B. and Gounden, N.A.	“Solar Based Hybrid Electric Powered Wheel Chair”India Educators' Conference (TIIEC), 2013 Texas Instruments, Pg. No. 18 – 24	April 2013
22. Dinesh, P., Kowshick, B., Raghav, P.P., Govindarajan, R.K. and Ilango, G.S.	“Solar Power Based Intelligent Battery Charging System Compatible with Existing Home Inverters”India Educators' Conference (TIIEC), 2013 Texas	April 2013

	Instruments, Pg. No. 157 - 164	
23. Anish NK and S. Moorthi	“Intelligent Location identification and passenger – alert system in Indian Railways using GPS receiver”, AFRICON 2013	September 9-12, 2013
24. Anish NK, Murali T., Dastagiri Reddy B., S. Moorthi and Selvan M. P.	“FPGA Based Control Scheme for a Single-Stage Grid-Connected Solar Photovoltaic System”, AFRICON 2013	September 9-12, 2013
25. S. Aditya and S. Moorthi	"Wide Tuning Low Noise OTA based Current Controlled Ring Oscillator to suit PLL Applications", International Conference on Intelligent and Efficient Electrical Systems (ICIEES), (Awarded as Best Paper).	December 2013
26. S. Aditya and S. Moorthi	“A Low Jitter Wide Tuning range Phase Locked Loop with Low Power Consumption in 180nm CMOS Technology”, IEEE-Asia Pacific Conference on Postgraduate Research in Microelectronics & Electronics (PRIMEASIA).	December 2013
27. Anish NK, Kowshick B. and S. Moorthi	“Ethernet based Industry automation using FPGA”, AFRICON 2013	September 9-12, 2013
28. Kiran K Gautam and V. Sankaranarayanan	“Sliding mode control of surface mounted permanent magnet synchronous generator” proceedings of third international conference on advances in control and optimization of dynamical systems (ACODS).	March 15 th 2014
29. K. Rajbabu and S.Sudha	"DAG Based Feature Additive XML Schema Generation for Unstructured Text", IEEE International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery, pp 117-124.	2013

2.3. Attended by the Faculty / Students

Faculty / Students	Details	Place & Date
1. Dr. N. Ammasai Gounden	Attended and delivered Key note speech in International Conference at SSN College of Engineering.	08-01-2014
2. Dr. K. Sundareswaran	Attended and gave Key note speech in International Conference at SSN College of Engineering.	10-01-2014
3. Dr. N. Ammasai Gounden	Attended and gave Key note speech in International conference at PSG Tech. Coimbatore.	13-12-2013
4. Dr. S. Sudha and N. Hemavathi	Recent trends in wireless sensor networks, Avinashilingam, Coimbatore.	6 th – 7 th December 2013
4. Research Scholars/EEE	Lecture Series – Dr. SarathTennakoon “Power Electronic Application in Power Systems”	NITT, 7 th - 8 th Jan, 2013

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr. N. Kumaresan, Dr. S. Senthil Kumar and Dr.P. Raja	Workshop on Wind – Driven Generators (WGs) under Technical Education Quality Improvement Programme (TEQIP), Phase-II	13 -14, December 2013.
Dr.B.SenthilArasu, Dr. N. Thamarai, Dr. M. P. Selvan and Dr. N. Kumaresan.	Faculty development programme on “Art of teaching: pedagogical tools and techniques season-II”, Under the Self-Financed Category.	3rd – 7th March 2014.
Dr.B. SenthilArasu, Dr. N. Thamarai, Dr. M. P. Selvan and Dr. N. Kumaresan	Faculty development programme on “Art of teaching: pedagogical tools and techniques”, Under the Self-Financed Category.	18 th -22 nd November 2013
Dr. N. Kumaresan and Dr. P. Raja	Preparatory Workshop on Board of Studies	9 th & 10 th October 2013
Dr. N. Kumaresan and Dr. P. Raja	Laboratory Experiments Preparatory Workshop	5 th March 2014
Dr. N. Ammasai	Short-term training program on “Power	2 nd -3 rd May

Gounden, Dr. N. Kumaresan and Dr. G. Saravana Ilango	Electronics and Measurements”	2013.
Dr. V. Sankaranarayanan and Dr. A. Ramakalyan (ICE)	Short-term training program on Advance Control Theory sponsored by TEQIP-II	30 th & 31 st August 2013
Dr.S.Moorthi and Dr.P. Raja	ISTE sponsored workshop on Analog Electronics	4 th – 14 th June,2013
Dr.K.Sundareswaran, Dr.S.P.Simon and Mr.P.S.Nayak	One day workshop on “Particle Swarm Optimization, Applications and Implementation on a Microcontroller .Under the Self-Financed Category.	8th March, 2014.
Dr.K.Sundareswaran, Dr.S.P.Simon and Mr.P.S.Nayak	Three day TEQIP Conclave on “Academic Enhancements in Electrical Engineering”	Dates: 8/11/2013 to 10/11/2013.
Dr.K.Sundareswaran, Dr.S.P.Simon and Mr.P.S.Nayak	One day workshop on Fuzzy Systems and Applications .Under the Self-Financed Category.	13 th july 2013
Dr. M. P. Selvan , Dr. S. Moorthi and Ms.M.VenkataKrithiga	Industry under SFC on workshop on “understanding IGBT : from device to inverter” Under TEQIP II sponsored.	8 th April 2014
Dr. V. Sankaranarayanan and Dr.G. SaravanaIlango	Short Term course on effective writing of technical papers	2012

3.2. Attended

Faculty / Students	Details	Place & Date
Dr. N. Kumaresan and Dr. G. Saravana Ilango	National Workshop on Power Electronics – NWPE 2013, on the theme of Energy scenario and Role of Power Electronics organised by NaMPET (National Mission on Power Electronics Technology) – Phase II, an initiative of Department of Electronics and Information Technology, Ministry of Communication and Information Technology, Govt. of India & CDAC, Thiruvananthapuram	Hotel FORTUNE Park JP Celestial, Bangalore – 560009 on 19.09.2013

Dr. N. Kumaresan	Twenty Ninth National Convention on Mechanical Engineers – National Seminar on “An Insight into Supercritical Technology – Concept to Commissioning” organized by Institution of Engineers (India).	Tiruchirapalli Local Centre, India, September 6-7, 2013
Dr. N. Kumaresan and Dr. P.Raja	2-day workshop on “Perspectives on Curriculum”, organized by NIT, Tiruchirappalli under TEQIP.	9-10 May 2013
N. Hemavathi and Shobhit Kumar Nagpal	Workshop on Mathematical modeling in computer science and information technology	VIT, Vellore, 20th to 22nd February 2014
N. Hemavathi	Recent trends in wireless networks, NIT.	Trichy 26th - 27th August 2013
N. Hemavathi	Workshop on data analysis and data mining, NIT.	Trichy 10th to 14th March 2014
Dr.S.Sudha	National two days seminar on “Wireless Sensor networks”.	6 th -7 th Jan 2013
Dr.P.Raja M.Venkata kirthiga S.Mageshwari	Two day workshop on Hybrid Power generation systems CPRI.	Bangalore 11 th – 12 th October, 2013
Dr.P.Raja	2nd World submit on Accreditation	Hotel Ashok, New Delhi, 8th – 10th March 2014
P.Muthuvel, C.K.Aravind, N.S.Suresh,K.Navinsam	Smart grid technologies and applications, CPRI.	Bangalore.25 th -29 th November, 2013
Sundareswaran, K. ; Kiran, K. ; Padhee, V. ; Sankar, P. ; Nayak, P.S.R. ; Mahadevan, “A.	Buck-Boost converter controller design using bacterial foraging”, IEEE International Conference on Control Applications (CCA), Page(s): 995 – 999.	2013
Sundareswaran, K. ; Hariprasad, B. ; Kuruvinashetti, K.S. ;Sankar, P. ; Nayak, P.S.	“Output voltage control of dual input buck-boost converter”IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia), Page(s): 1 - 5	2013

Dr. V. Sankaranarayanan	Internal Workshop on Perspectives in Dynamical Systems & Control sponsored by TEQIP-II.	IIT Bombay, 17 th - 21 st march 2014
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4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. N. Ammasai Gounden	Power electronic controllers in Renewable Energy Application	AICT sponsored Faculty Development Programme on “Recent Advancement in Power Electronics and its application” from 17-02-2014 to 01-03-2014.	Dr Ambedkar Institute of Technology, Bangalore, 28th Feb 2014
Dr. N. Ammasai Gounden	Overview of all power electronics in renewable systems	Faculty Development Programme	Vivekananda college of engineering for women, Thiruchengode, 9th Jan 2014
Prof. C. Nagamani	Hybrid Excited Induction Generator	National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Power Electronics in Distributed Generation	Department of Electrical and Electronics, NITK, Surathkal, during 7-9, February 2014 (09.02.2014).
Dr. S. Arul Daniel	Research Avenues in Power Electronics	Faculty Development Programme on Smart Grid	Anna University, Trichy, 9 th Dec 2013.
Dr.S.Sudha	Routing Protocols	Anna University, Chennai sponsored Faculty Development Programme on “Computer Networks ”	Kongunadu college of engineering and Technology. 17th Jan 2014.
Dr. M. P. Selvan	Operation and Control of UPQC for mitigating power quality problems	TEQIP Sponsored Faculty Development Programme on “Power Quality Issues in Contemporary and Future Power Networks” organized	27th November 2013 to 3rd December 2013.
Dr. M. P. Selvan	Application of Power Electronics in SCIG based	An invited lecture at Anna University Chennai, Tiruchirappalli Regional Office-BIT Campus on 12th December 2013 in	9th – 15th, December 2013.

	Windfarms	the TEQIP II sponsored faculty development programme on Research Avenues in Power Electronics	
Dr. N. Kumaresan	“Operation and control of standalone DFIGs for supplying isolated loads”	National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Power Electronics in Distributed Generation	Department of Electrical and Electronics, NITK, Surathkal, during 7-9, February 2014 (09.02.2014).
Dr. N. Kumaresan	Hybrid AC/DC Grid – A Future Trend in Power System	TEQIP sponsored Faculty development programme on "Recent trends in power electronics and power systems (RTPEPS)	Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry, during 12th – 18th June 2013 (14.6.2013).
Dr. N. Kumaresan	Controllers in Power Electronics and case study	TEQIP sponsored Faculty development programme on "Recent trends in power electronics and power systems (RTPEPS)	Department of Electrical and Electronics Engineering, Pondicherry Engineering College, Pondicherry, during 12th – 18th June 2013 (14.6.2013).
Dr. N. Kumaresan	Controllers for Energy Efficient Operation of Grid-connected Induction Generators	AICTE sponsored Faculty development programme on "Renewable Energy "	Department of Mechanical Engineering, Pondicherry Engineering College, Pondicherry, during 13th – 25th May 2013 (17.5.2013).
Dr. N. Kumaresan	Solar PV systems	AICTE sponsored Faculty development programme on "Renewable Energy "	Department of Mechanical Engineering, Pondicherry Engineering College, Pondicherry, during 13th – 25th May 2013 (17.5.2013).
Dr. N. Kumaresan	Improved control schemes for performance enhancement of grid-connected	AICTE sponsored Faculty development programme on "Efficient control of Renewable energy and its	Department of Electrical and Electronics Engineering, Government College of Technology, Coimbatore, during 25th April to 8th May

	induction generators	conservation",	2013 (7.5.2013).
Dr. N. Kumaresan	Self-excited induction generator and its control	AICTE sponsored Faculty development programme on "Efficient control of Renewable energy and its conservation"	Department of Electrical and Electronics Engineering, Government College of Technology, Coimbatore, during 25th April to 8th May 2013 (7.5.2013)
Dr. Sishaj P Simon	Artificial Intelligence and intelligent systems	National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Power Electronics in Distributed Generation	Department of Electrical and Electronics, NITK, Surathkal, during 7-9, February 2014 (09.02.2014).
Dr. P. Raja	Hybrid SFCL for Distributed Generation	AICTE sponsored staff development programme on " Smart Grid – Challenges and Opportunities"	Government college of Technology, Coimbatore, 03.06.2013
Dr. P. Raja	High voltage engineering	Inauguration of EEE Association	MAR college of Engineering and Technology, Viralimalai 28.09.2013
Dr. P. Raja	Advanced Power System Protection	Invited Lecture	M. Kumarasamy College of Engineering, Karur 12.02.2014
Dr. V. Sankaranarayanan	Adaptive sliding mode controller and its application	Invited Lecture	NTU , Singapore.26 th August 2013.
Dr. C. Nagamani	Hybrid Excited Induction Generators	National Mission on Power Electronics Technology (NaMPET-II) sponsored short term Course on Power Electronics in Distributed Generation	Department of Electrical and Electronics, NITK, Surathkal, during 7-9, February 2014 (09.02.2014).
Dr. C. Nagamani	Controllers for Doubly fed Induction	Invited Lecture	Department of Electrical and Electronics, NIT Warangal, 20.12.2013.

	Machines		
Dr.K.Sundreswaran	fundamentals of Electronic Devices and circuits.	Invited Lecture	Coimbatore, P.A. College of Engineering and Technology . 31.1.2014
Dr. S. Arul Daniel	“Role of Power Electronics in Future Power Systems” (ROPE – FPS - 2013),	AICTE – FDP	MAMCE , Trichy , 08.05.2013
Dr S. Moorthi	Research & Reconfigurable Embedded System for Medical Science”	AICTE – FDP	06.05.2013
Dr. G. SaravanaIlango		Invited Lecuter	Puducherry, 14.06.2013 Pondicherry Engg. College,
Dr. G. SaravanaIlango		Guest Lecture	KLN College Of Informance Technology, Sivagangai 30.01.2014
Dr. S. Senthil Kumar	Solid State Drives	Invited Lecture	Sri Ramakrishna Engineering College, Coimbatore, 24/11/13
Dr. S. Senthil Kumar	Solid State Drives	Invited Lecture	P. S. R Engineering College , Sivagasi 12/12/2013
Dr. S. Senthil Kumar	Simulation using MATLAB	Invited Lecture	Anna University, Ariyalur 13/03/2014
Dr. S. Senthil Kumar	Fuzzy Systems in Power Electronics	Invited Lecture	CARE college of Engineering, trichy

5. Research Projects undertaken & Status

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. In Lakhs)
Dr. N. Kumaresan, Dr. M. P. Selvan Dr. S. Moorthi and Dr. N. Ammasaigounden	Development of Micro-Grid Controller Integrated with Multiple Types of Renewable Sources and Loads,	Sponsoring Agency – Powergrid Corporation of India Ltd, Govt. of India. Duration : July 2013 – February 2014 (Completed)	Value: INR 14.95 Lakhs.
Dr. N. Kumaresan, Dr. M. P. Selvan and Dr. S. Moorthi	A Novel Hybrid Energy System for Supplying Isolated Loads with FPGA Based Energy Management Scheme	Centre for Wind Energy Technology, Chennai, Govt. of India. Duration : 2013 – 2017 (Ongoing)	Value: INR 73.26 Lakhs.
Dr. P. Raja	Maximum Power Extraction from Off – shore Wind-driven Generators through HVDC Transmission system	MHRD	38.55
Ms. S. Mageshwari	Power Optimization Controller in Switched mode power supplies connected with renewable energy sources	MHRD	Value: INR 35 Lakhs
Dr. M. Jaya Bharata Reddy	Development of Micro grid Test- Bed for Renewable Energy Management System	Department of Science and Technology, Gov. of India	Value: INR 21 Lakhs
Mr. P. Srinivasa Rao Nayak, Dr.K.Sundareswaran, Dr.Sishaj P Simon	Design, Development and Analysis of Bio-inspired Control strategies for stand-alone solar powered LED lighting systems	MHRD	Value: 44.74 INR Lakhs
Dr. V. Sankaranarayanan	Implementation of different power saving techniques for efficient utilization of household appliances by using renewable power sources	MHRD	Value: 68 Lakhs

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

S.No	Equipment	Amount (Rs. In Lakhs)
1.	Solar Array Simulator	7.49
2.	Permanent magnet synchronous coupled with DC motor	8.82
3.	Dspace	5.5

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Computational Techniques for Autonomous Micro-grid Load Flow Analysis.	M.Venkata Krithiga and S.Arul Daniel	International Scholarly Research Network, Power Engineering Journal	Accepted for publication
2.	Deliverables of Re-configuration in Autonomous Micro-grids”	M.Venkata Kirthiga and S.Arul Daniel	CPRI journal	Vol.10, No. 1, March 2014
3.	Enhancement of Voltage Stability Margin in Radial Distribution System with Squirrel Cage Induction Generator based DGs	P. Raja, M. P. Selvan, N. Kumaresan	IET Generation, Transmission & Distribution,	Vol.7, Issue.8, 2013, pp.898-906
4.	Design of Feed Back Controller for Soft-starting Induction Motor Drive System Using Genetic Algorithm	K. Sundareswaran, NayakP.S.R.	Int. J. Industrial Electronics and Drives, Inder Science Publisher,	Vol. 1, No. 2, 2014, pp.111–120.

7.2. Students & Faculty

Sl. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Control Strategy for power flow management in a PV system supplying DC loads	B.Indu Rani, G.SaravanaIlango, C.Nagamani	IEEE Transactions on Industrial Electronics,	vol. 60, no. 8, pp. 3185-3194 , Aug 2013.
2.	Simple power electronic controller for photovoltaic fed grid-tied systems using line commutated inverter with fixed firing angle	D.R. Binu Ben Jose N. AmmasaiGounden JayashriRavishankar	IET Power Electronics,	DOI:10.1049/ietpel.2013.0440 , 12 February 2014
3.	Maximum Power from PV Arrays Using a Fixed Configuration Under Different Shading Conditions	Srinivasa Rao. P, G.SaravanaIlango and C. Nagamani	IEEE journal of photovoltaics	Volume:4 Issue: 2, Pg. No. 679 – 686 MARCH 2014
4.	A Novel rule- centric object oriented approach for document generation	K. Raj babu , S Sudha	Computers in Industry (Elsevier)	Vol. 65 issue 2 , 2014
5.	Stability Concerns in Smart Grid with Emerging Renewable Energy Technologies	P. Gopakumar, M. Jaya Bharata Reddy and D. K. Mohanta,	International Journal on Electric Power Components & Systems (Taylor & Francis Publications)	Vol.42, Issue 3-4, pp.418-425, Feb.2014.
6.	Optimal Redundant Placement of PMUs in Indian Power Grid – Northern, Eastern and North-Eastern Regions	P. Gopakumar, G. Surya Chandra, M. Jaya Bharata Reddy and D. K. Mohanta	Frontiers in Energy (Springer publication)	Vol.7, Issue 4, pp. 413-428, Dec. 2013.
7.	Optimal Placement of PMUs for the Smart Grid Implementation in Indian Power Grid - A Case Study	P. Gopakumar, G. Surya Chandra, M. Jaya Bharata Reddy and D. K. Mohanta	Frontiers in Energy (Springer publication)	Vol.7, Issue 3, pp. 358-372, Sep. 2013.

8.	Condition Monitoring of 11 kV Distribution System Insulators Incorporating Complex Imagery Using Combined DOST-SVM Approach	Karthik Chandra B, D. K. Mohanta, M. Jaya Bharata Reddy	IEEE Transactions on Dielectrics and Electrical Insulation	Vol.20, Issue 2 pp. 664-674, April 2013
9.	An active islanding detection technique for current controlled inverter	B.Indu Rani, M.Srikanth, G.SaravanaIlango, C.Nagamani	Elsevier Renewable Energy,	vol 51, pp. 189-196.
10.	Nodal-Based Ant Colony Optimization For Profit Maximization Of Gencos In A Distributed Cluster Model	C. Christopher Columbus, Sishaj P Simon	Applied Artificial Intelligence, Taylor and Francis Publisher,	Vol.27, Issue 2, 2013, pp.86-103.
11.	Development of Sustainable Energy on Generation System Leads to Eco-Friendly Society	K.Chandrasekaran, Sishaj P Simon	Sustainable Cities and Society, Elsevier publications,	Vol 8, Oct 2013, pp1-15. (Available online)
12.	Optimal Location of IPFC using ABC Algorithm	S.Sreejith, Sishaj P Simon, M. P. Selvan	Achieves in Electrical Engineering,	Vol 62, 2013, pp.91-110.
13.	Robust Transmission Line Fault Classification Using Wavelet Multiresolution Analysis	D.Venkata Rajesh, D.K.Mohanta, M.JayaBharata Reddy	Computers and Electrical Engineering (Elsevier publication),	Vol.39, Issue 4, pp. 1219-1247, May 2013.
14.	Spiking Neural Network Forecast Engine for Short Term Electrical Load Forecasting	Santosh Kulkarni , Sishaj P Simon, K Sunderewaran	Applied Soft Computing, Elsevier Publications,	Vol.13, Issue 8, August 2013, Pages 3628-3635
15.	Binary Real Coded Firefly Algorithm for Unit Commitment problem	K. Chandrasekaran Sishaj P Simon	International Journal of Information Science (Elsevier Publication)	8 june 2013.
16.	Real and Reactive power control of hybrid excited wind-driven grid-connected DFIGs	K. Vijayakumar, N. Kumaresan, N. Ammasaigounden,	IET Power Electronics,	Vol.6, Issue. 6, 2013, pp.1197-1208

		Sarath B. Tennakoon		
17.	Enhanced Power Generation from PV Array under Partial Shading Conditions by Shade Dispersion Using Su Do Ku Configuration	B.Indu Rani, G.SaravanaIlango, C.Nagamani	IEEE Transactions on Sustainable Energy	july 2013 vol.4no.3,pp.59 4-601.
18.	Development of two novel power electronic circuits for dynamic braking of motors	K.Sundareswaran, P.Shankar	Electric power Components and Systems,	29 july 2013.
19.	Power Electronic Configuration of the operation of PV system in combined grid-connected and stand-alone modes	Subramanian krithiga and NanjappaGounder AmmasaiGounden	IET power Electronics	DOI 10.1049/iet- pel.2013.0107
20.	Investigation of an improved PV system topology using multilevel boost converter and line commutated inverter with solutions to grid issues	Krithiga .S, AmmasaiGounden .N	Simulation modelling practice and theory (Elsevier)	March 2014, Vol. 42.

8. Ph.D. Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	Mr.N.Ramasubramanian	Dr.N.AmmasaiGounden	National Institute of Technology, Trichy, 2013.
2.	Mrs. M.Alarmel Mangai	Dr.N.AmmasaiGounden	National Institute of Technology, Trichy, 2013.
3.	Mr. S.Senthil Kumar	Dr. N. Kumaresan	National Institute of Technology, Trichy, 2013.
4.	Mr. P.Raja	Dr. N. Kumaresan	National Institute of Technology, Trichy, 2013.

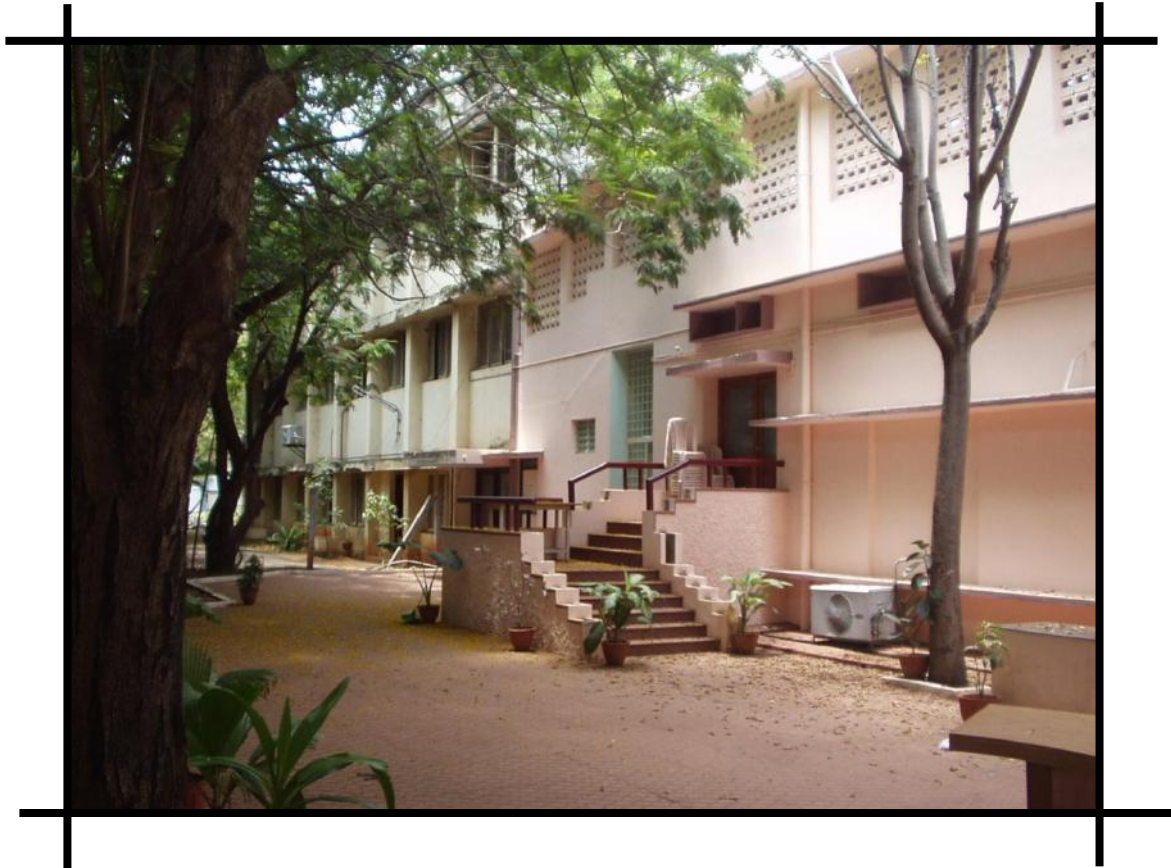
5.	Mr. S.Sreejith	Dr. Sishaj P. Simon	National Institute of Technology, Trichy, 2013.
6.	Mr. Christopher Columbus	Dr. Sishaj P. Simon	National Institute of Technology, Trichy, 2013.

10. Patent if any obtained by faculty.

Dhiwakar NA, Irin Jose, Anusha. R , Kowshick B, K. Niranjan Kumar and S. Moorthi

Title : “VEHICLE ACCIDENT RESPONSE SYSTEM”

Application No.4434/CHE/2013 A



ELECTRONICS AND COMMUNICATION ENGINEERING

Electronics and Communication Engineering

1. Notable Achievements

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	M. Ramaraj	Best Paper Award - 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)	Vickram College of Engineering, Madurai, Tamilnadu,India
2.	S. Imaculate Rosaline	Best Paper Award - 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)	Vickram College of Engineering, Madurai, Tamilnadu,India
3.	Sneha Balan	OPJEMS AWARD 2013-14- (OP Jindal Engineering and Management Scholarship by the OP Jindal Group of Companies India). Selected as the OPJEMS SCHOLAR for possessing the quality of Entrepreneurial Excellence and Innovation. Awarded Scholarship Amount of Rs. 65000, O.P.Jindal Silver Medal and Certificate of Appreciation.	
4.	Sanjana	Championship in Chess in Inter NIT Sports Meet 2013 and Inter-NIT Sports Meet 2014 Runners in Colloseum 2013	NIT, Trichy
5.	Vignesh K Srivignesh PSS T Vignesh	2nd Place in Pragyan-Sangam Circuital Projects	NIT, Trichy
6.	Priyanka Garg	Won the Reach for the Stars Challenge organised by the University of Strathclyde in Scotland, an all India competition for students in Indian Engineering Colleges.	The University of Strathclyde, Glasgow, Scotland
7.	Sanjana Arun	Basket Ball Runners in Inter	

		NIT sports meet 2014	
8.	Sruthi Mandalap	Badminton Runners at Inter NIT sports meet 2013	NIT, Surat
		Badminton Winners at Colloseum'13	Sastra University, Tanjore
		Badminton Winners at Udghosh'13	IIT Kanpur
		Badminton winners at Inter NIT sports meet 2014	NIT, Trichy

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1.	Dr. S. Raghavan	Cancer Perspectives -Then and Now By Dr.V.Shanta, Chairman-Cancer Institute, Adyar, Chennai	28-12-13
2.	Dr. S. Raghavan	Special Lecture on CAD of Microwaves By Dr.S.S.Pattnaik, NITTTR, Chandigarh	23-07-13
3.	Dr. S. Raghavan	Special Lecture on CAD of Microwaves By Dr.N.P.Pathak, IIT-Roorkee	23-07-13
4.	Dr. D. Sriramkumar	Optical integrated circuit, Lecture delivered by Dr. T. Srinivas, IISc, Bangalore.	25/02/2013
5.	G. Lakshminarayanan	National Conference on Corrosion, Surface Engineering & Tribology (CST 2013) under CECASE, NIT, Trichy.	2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details
A. Nutan Reddy, V. Rajeshkumar, Dr. S. Raghavan	“Dual band CPW filter using Koch fractal structure”, Tenth International Conference on Wireless and Optical Communications Networks WOCN2013 - technically co-sponsored by IEEE, 26 -28 July 2013
M.Ramaraj, Dr. S. Raghavan	“Homomorphic Filtering Techniques for WCE Image Enhancement”, 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), 26 -28 Dec 2013- BEST PAPER AWARD
S. Imaculate Rosaline, Dr. S. Raghavan	“Survey on Metamaterials in Bio-Medicine”, 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), 26 -28 Dec 2013, BEST PAPER AWARD
V. Rajeshkumar, Dr. S. Raghavan	“A compact CSRR loaded dual band microstrip patch antenna for wireless applications”, 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), 26 -28 Dec 2013.
Suruchi Singh, Dr. S. Raghavan	“Biological Effects of Microwave”, IEEE Sponsored International Conference On Information Communication & Embedded Systems” ICIES, S.A. Engineering College, 27th Feb 2014.
N.Gunavathi, D.Sriram Kumar	“A Compact Coplanar Waveguide-fed Slot Antenna for UWB Applications” IEEE – ICECS 2014 Tamilnadu, India 13 th February -14 th February 2014. “A Simple CPW- Fed Slot Antenna with Octagon Shaped Tuning Stub for HiperLAN/2 and WLAN Applications” IEEE – ICECS 2014 Tamilnadu,India 13 th February -14 th February 2014.
V.Sudha, Snehabalan, Dr.D.Sriram Kumar	Performance analysis of PAPR Reduction in OFDM system with Distortion and Distortion less Methods” Presented in IEEE International Conference on Computer Communication and Informatics (ICCCI-2014) at Coimabatore,Tamilnadu,3-5,January-2014.
V.Sudha, Dr.D.Sriram Kumar	“PAPR Reduction of OFDM System using PTS method with different Modulation Techniques” Presented in IEEE International Conference on Electronics and Communication System (ICECS -2014) at Coimbatore, Tamilnadu. 13-14, February-2014.
Rebekka. B, B.Malarkodi	“Performance Evaluation of Resource Allocation Schemes in LTE Downlink”, IEEE International conference on Electronics and Communication System (ICECS’ 14), 13 th

	and 14 th February 2014, Coimbatore, Tamilnadu, India.
Sudheep. S. Rebekka. B	“Proportional Equal Throughput Scheduler- A Very Fair Scheduling approach in LTE Downlink”, IEEE International Conference on Information Communication and Embedded Systems (ICICES’ 14), 27 th and 28 th February 2014, Chennai, Tamilnadu, India.
R. Pandeewari, Dr.S.Raghavan, Pravin A Bagde, Ananda Kumar chittipothul.	"A Compact Multi -Split Ring Resonator Loaded Antenna",International Conference on Communication and Signal Processing, April 3-5,2013.
K.Swaminathan, RajkumarJangre, Sandeep GopiNambiar,G. Lakshminarayanan, Seok-Bum Ko.	“A Novel Hybrid Topology for Network on Chip” accepted in 2014 IEEE 27th Canadian Conference on Electrical and Computer Engineering (CCECE 2014, 4-7 May 2014) Toronto, Canada
Sandeep GopiNambiar, K.Swaminathan, G. Lakshminarayanan, Seok-Bum Ko	“QaMC - QoS Aware Multicast Router for NoC fabric” accepted in 2014 IEEE 27th Canadian Conference on Electrical and Computer Engineering (CCECE 2014, 4-7 May 2014), Toronto, Canada
Sandeep GopiNambiar, K.Swaminathan, G. Lakshminarayanan, Seok-Bum Ko	Central Switch Noded Mesh Architecture (CSNM)” Accepted in 2014 International Conference on Electronics and Communication System (ICECS -2014), Coimbatore India.13-14 Feb,2014
K.Swaminathan, Deewakar Thakyal, SandeepGopiNambiar, G. Lakshminarayanan, Seok-Bum Ko	“Enhanced Noxim Simulator for Performance Evaluation of NoC Topologies” Accepted in International Conference on Recent Advances in Engineering and Computational Sciences (March 6-8,2014).
Nithish Kumar V, Venkata Reddy K, Geethu S, Lakshminarayanan G, and MathiniSellathurai	“Reconfigurable Hybrid Spectrum Sensing Technique for Cognitive Radio” IEEE 8th International Conference on Industrial and Information Systems, ICIIS 2013, Aug. 18-20, Sri Lanka.
Nithish Kumar V, HarshaBhalavi, Lakshminarayanan G, and MathiniSellathurai.	“FPGA based decision making engine for Cognitive Radio using Genetic algorithm” IEEE 8th International Conference on Industrial and Information Systems, ICIIS 2013, Aug. 18-20, Sri Lanka.

<p>Hariharan, S. Venkata Siva Prasad, S. Muthuchidambaranathan, P</p>	<p>"Average detection probability analysis for cooperative - MIMO spectrum sensing in cognitive radio networks," Advances in Computing, Communications and Informatics (ICACCI), 2013 International Conference on vol., no., pp.133,136, 22-25 Aug. 2013- doi: 10.1109/ICACCI.2013.6637159.</p>
<p>Sandeep Singh Virk and P. Muthuchidambaranathan</p>	<p>"Use of SC-FDMA on downlink of LTE technology", 7thInternational Conference on Advanced Computing and Communication Technologies (ICACCT)vol., no., pp. Nov. 16th, 2013.</p>
<p>Sandeep Singh Virk and P. Muthuchidambaranathan</p>	<p>"Comparitive performance of Zero Forcing, Minimum Mean Square Error and Decision Feedback Equalizers", International conference on Green Computing, Communication and Conservation of Energy (ICGCE)vol., no., pp. Dec. 12th-14th, 2013.</p>
<p>Kalaiselvan and P. Muthuchidambaranathan</p>	<p>"Performance Analysis of Multiuser MIMO Broadcast channel based on LQ Decomposition", IEEE International Conference on Green Computing, Communication and Conservation of Energy (ICGCE)vol., no., pp.807-810 Dec. 12th-14th, 2013.</p>
<p>Surendar, M. Muthuchidambaranathan, P</p>	<p>"Channel Coded STBC-OFDM Based Transmit Diversity Systems in Multipath Rayleigh-Fading Channels," Advanced Computing, Networking and Security (ADCONS), 2013 2nd International Conference on, vol., no., pp.160,163, 15-17 Dec.2013 doi: 10.1109/ADCONS.2013.28</p>
<p>Surendar, M. Muthuchidambaranathan, P</p>	<p>"A novel joint ML detector for transmit diversity systems in frequency selective fading channels," Computational Intelligence and Computing Research (ICCIC), 2013 IEEE International Conference on, vol., no., pp.1,4, 26-28 Dec. 2013 doi: 10.1109/ICCIC.2013.6724270.</p>
<p>BishwajeetSah, M. Surendar and P. Muthuchidambaranathan</p>	<p>"A Frequency Domain Joint MMSE-SIC Equalizer for MIMO SC-FDMA LTE-A Uplink", IEEE International Conference International Conference on Electronics and Communication Systems 2014 (ICECS'14)vol., no., pp. Feb. 13th-14th, 2014.</p>
<p>ArpitaChoudhary, Jagadeesh V K P Muthuchidambaranathan</p>	<p>"Pathloss analysis of NLOS Underwater Wireless Optical Communication channel" IEEE International Conference International Conference on Electronics and Communication Systems 2014 (ICECS'14)vol., no., pp. Feb. 13th-14th, 2014</p>

S. Deivalakshmi, P Palanisamy and GayatriViswanathan	"A Novel Method for Text and Non-text Segmentation in Document Images" IEEE international Conference on Communication and signal processing (ICCSP-2013)held at Chennai, India during Apr 03-05, 2013, pp 255-259.
.S. Deivalakshmi, P Palanisamy, Rajasekharreddyporeddy, SouvikMalakar	"Information Extraction and Unfilled- form structure retrieval from Filled-Up Forms", IEEE international Conference on Recent trends in information technology(ICRTIT-2013) held at Madras Institute of technology, India during July 25-27, 2013.
Suraj Kumar Singh	Image Security using DES and RNS with Reversible Watermarking, IEEE, International Conference On "Electronics And Communication Engineering" (ICECS) 2014
Fayiz T K	Regularization Based CT Image Reconstruction Using Algebraic Techniques, IEEE,International Conference On "Electronics And Communication Engineering" (ICECS) 2014
Padmapriya Duraisamy, Feng Zheng, Thomas Kaiser	Presented a paper titled "Joint Diagonalization in ACMA and its application to multiple-tag RFID systems" at IEEE TechSym 2014 held in IIT Kharagpur Feb 29 to March 2 2014.

2.3. Attended by the Faculty / Students

Faculty / Students	Details
G.Lakshminarayanan	A week training programme on EDMT scheduled during 9 th to 13 th December, 2013 at Entrepreneurship Development Institute of India, Ahmadabad

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr. S. Raghavan & Mrs. R. Pandeewari	TEQIP Sponsored Workshop on "CAD OF MICROWAVES"	27th July to 28th July 2013
Dr. S. Raghavan& Dr. N. Sivakumaran	TEQIP Sponsored Workshop on "TELEMEDICINE"	12th July to 14th July 2013
Dr.P.Palanisamy	Coordinated Two weeks workshop on "SIGNALS and SYSTEMS" during 02.01.2014 to 12.01.2014 under NMEICT.	02.01.2014 to 12.01.2014 10 days

3.2. Attended

Faculty / Students	Details
R.Thilagavathy	<p>Participated in a two week ISTE workshop on Analog Electronics conducted by IIT Kharagpur from 4th to 14th June, 2013. This workshop was held under the National mission on Education through ICT (MHRD).</p> <p>Participated in the TEQIP – II sponsored workshop on “Recent Trends in Wireless Networks” organized by the Dept. of Electronics & Communication Engineering ,NITT during 26 & 27 , August 2013.</p> <p>Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).</p>
R.Pandeeswari	<p>Participated in a two week ISTE workshop on Analog Electronics conducted by IIT Kharagpur from 4th to 14th June, 2013. This workshop was held under the National mission on Education through ICT (MHRD).</p> <p>Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).</p>
N.Gunavathi	<p>Participated in a two week ISTE workshop on Analog Electronics conducted by IIT Kharagpur from 4th to 14th June, 2013. This workshop was held under the National mission on Education through ICT (MHRD).</p> <p>Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).</p>
V.Sudha	<p>Participated in a two week ISTE workshop on Analog Electronics conducted by IIT Kharagpur from 4th to 14th June, 2013. This workshop was held under the National mission on Education through ICT (MHRD).</p> <p>Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).</p>

B.Rebekka	<p>Participated in a two week ISTE workshop on Analog Electronics conducted by IIT Kharagpur from 4th to 14th June, 2013. This workshop was held under the National mission on Education through ICT (MHRD).</p> <p>Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).</p>
Dr.B.Malarkodi	Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).
Dr.R.Malmathanraj	Participated in a two week ISTE workshop on Signals & Systems conducted by IIT Kharagpur from 2nd to 12th January, 2014. This workshop was held under the National mission on Education through ICT (MHRD).
S. Pradeep Narayanan, V.Rajeshkumar, S. Imaculate Rosaline	Recent trends in antennas for Multi-field applications, Dept. of ECE, Periyar Maniammai University, Tanjore, 21-22 AUG 2013
V.Rajeshkumar, S. Imaculate Rosaline	Workshop on “Electromagnetics” at SSN College of Engineering during 11-13 November 2013
S. Imaculate Rosaline	Research methods and Latex, NITT, 20 th Sep 2013
S. Imaculate Rosaline	Access to e-Resources: Copyright issues, Licensing Policy and best practices for effective usage, Sep 13-14
V.Rajeshkumar	<p>Research and publishing, SAMEER, Chennai, 20 July 2013</p> <p>Workshop on “Electromagnetic Compatibility”, 18th & 19th July 2013.</p> <p>Workshop on Computational electromagnetics and antennas, 5th March 2013.</p>
Sanjana (Student)	Workshops on Signals and Control conducted the Southern Railways Training in mobile communication by Bharat Sanchar Nigam Ltd.
ReishiKumaar T (student)	Attended an internship at NITT in developing embedded system application with the Aakash tablet.

Ashwin Narayan (Student)	Worked on a Project on “Coordination and Formation Control of Multiple Mobile Robots over a Wireless Network” at Universiti Teknologi Petronas, Malaysia under Professor Dr. Nagarajan Thirumalaiswamy
Priyanka Garg (Student)	Interned at Steepest Ascent, Glasgow. The intern was on the future of CubeSats (miniature satellites).
S Subhash (Student)	<p>Summer Internship Indian Institute of Science , Bangalore (May-July 2013) Worked under Dr. T V Prabhakar (Senior Scientific Officer) in DESE (Department of Electronic System engineering) on Intel Atom n270 processor to build a home gateway</p> <ul style="list-style-type: none"> <input type="checkbox"/> Constructed a local telephone exchange <input type="checkbox"/> Routed VoIP calls to PSTN line and vice-versa. <input type="checkbox"/> Added features such as voice mail and IVRS (interactive voice response system) <input type="checkbox"/> Constructed sms gateway, converted SIP messages to GSM and vice-versa. <input type="checkbox"/> Controlled electrical appliances wirelessly using MSP430f1612 microprocessor and CC2520 radio chip. <input type="checkbox"/> Integrated the Android Application with the gateway, to control the devices

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.P.MuthuChidambara Nathan	Electromagnetic Concepts and applications	ECE Association Inauguration	MIET College of Engineering, 13.02.2014
	Concepts and applications of Wireless Technology	National level workshop on Practical Issues in Wireless Technologies	Kings College of Engineering, 18 .10.2013
	Wireless Networks	Workshop on Recent Challenges in MVIEW-2013	Shri Angalamman College of Eng. & Tech. 04,05 OCT 2013
	Wireless Communication	TEQIP Sponsored FDP	Anna University, Trichy. 5-11 Aug 2013

Dr.D. Sriram Kumar	A Compendium in High Speed and Mobile Networks	Faculty Development Programme	Bharathidasan Institute of Technology, Trichy. 6 th August, 2013.
	Microwave and Optical Communication Networks	National workshop	Mount Zion College of Engineering & Technology, 23 rd August, 2013
	Chief guest	Dindigul Technical symposium ELECTITZ'13	R. V. S Educational Trust's Group of Institutions, 28 th September, 2013.
	Practical Issues in Wireless Technologies	Workshop	Kings College of Engineering, Punalkulam, 18 th October, 2013.
	Resource Person	International Conference on New Horizons in Green Energy with smart Communication Systems	Arunai College of Engineering, Thiruvannamalai, 1 st February, 2013
	Recent Trends in Optical and Wireless Networks	AICTE sponsored National Seminar	Sudarsan Engineering College, Pudukottai, Tamilnadu, 22 nd March, 2013.
	Chief Guest	National level technical symposium	V.P. Muthaiahpillai Menakshi Ammal Engineering College for Women. Virudhunagar, 14 th February, 2013.

5. Research Projects undertaken & Status

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)

G.Lakshminarayanan	Low complexity Energy efficient Transceivers for Cognitive Radio System	Funded by UKIERI - Department of S&T, New Delhi	with outlay of £40000
	One of the Directors for the Project on Technology Incubation & Development of Entrepreneurs (TIDE) in the areas of Electronics and ICT during the period 2012-2014	Funded by Ministry of Communications and Information Technology, Department of Information Technology, New Delhi	with outlay of Rs.155 lakhs
	Partner for the project on Rural and Remote Ubiquitous Broadband Wireless Access (shared by IIT, Kharagpur and QUB, Canada) during the period 2012-2014.	Funded by UKIERI - Department of S&T, New Delhi	with outlay of £40000
	Setting up “Wireless System Design lab.” under FIST Program, during the period 2012-2017.	Department of S&T, New-Delhi	with outlay of Rs.60 lakhs

6. Major Equipment / Software Purchased (more than Rs. 5.00 Lakhs)

S.No	Equipment	Amount (Rs. in Lakhs)
1.	High Frequency System simulation software (ADS)	14.63 Lakhs
2.	Software – Optiwave	5.4 lakhs(Approx.)
3.	RF signal generator 9KHz – 3GHz	
4.	Mixed Signal Oscilloscope 350 MHz – 2 GHz, Channels: 4 analog & 16 digital	
5.	Xilinx Kintex-7 FPGA DSP Development Kit	
6.	NET FPGA	
7.	Xilinx Zync FPGA Board	

8.	WARP V3 kit	
9.	FPGA DSP Kit with High-Speed Analog	
10.	Xilinx System Edition 14.1	
11.	Xilinx Partial reconfiguration	
12.	1GHz Mixed Signal 4+16channel Oscilloscope	49,438 US \$
13.	Logic Analyzer	36,257 US \$
14.	Spectrum analyser	62,058 US \$
15.	Vector Signal Analyzer software 15 Lic	2,200 US \$
16.	6 GHz vector signal generator	97,508 US \$
17.	Simulation software for RF design environment :	16,100 US \$
18.	Electronic system level design software	16,100 US \$
19.	2 Channel Waveform Generator	4,340 US \$
20.	Digital communication training kit	4,000 US \$
21.	Software defined radio training kit	7,500 US \$

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Novel Compact CPW-Fed Printed Slot Antenna for 5.8-GHz RFID Application	S. Raghavan and P. ThiruvalarSelvan,	Microwave and Optical Technology Letters , Wiley Publications	Vol. 55, No. 12, December 2013, DOI 10.1002/mop.
2.	Compact CPW-fed UWB Slot Antenna with Triple Band notched Characteristics	Subbarao A. and S. Raghavan	Microwave and Optical Technology Letters ,Wiley Publications,	Vol. 55, No.9, pp. 2113- 2117, September 2013

3.	Real-time Measurement of Meteorological Parameters for Estimating Low Altitude Atmospheric Turbulence Strength (Cn2)	ArockiaBazil Raj, ArputhaVijayaSelvi and Singaravelu Raghavan,	Scientific World Journal, Hindawi Publishing Corporation.	Accepted
4.	An Overview of Batteries for Photovoltaic (PV) power Systems	P.Manimekalai, R.Harikumar, S.Raghavan	International Journal of Computer Applications (IJCA)	Accepted
5.	Performance Enhancement of a Novel ANN Optimized Mushroom Shaped Microstrip Antenna for Wireless Applications	Shobana, K., ThulasiGeethanjali, P., Ilammathi, I., Hemalatha, K., Suganthi, S. and Raghavan, S.	International Journal of Microwaves Applications	Vol.2, No.2, pp. 69-76, March-April 2013
6.	Coplanar Waveguide-fed Ultra-wideband Planar Antenna with WLAN-band Rejection	Akkala. Subbarao and S. Raghavan,	Journal of Microwaves, Optoelectronics and Electromagnetic applications, (JMoe)	Vol. 12, No.1, pp. 50-59, June 2013
7.	Multiple Regularization based on MRI Reconstruction	Varun P. Gopi, P. Palanisamy, Paul Babyn and Khan A. Wahid	Elsevier-Signal processing	November 2013In Press
8.	Micro-CT Image Reconstruction Based on Alternating Direction Augmented Lagrangian method and Total Variation	Varun P. Gopi, P. Palanisamy, Paul Babyn and Khan A. Wahid	Elsevier Journal of Computerized Medical Imaging and Graphics	Vol.37, Issues 7-8, pp.419-429, December 2013
9.	Reconstruction Based on Framelets and nonlocal total variation using Split Bregman method	Varun P. Gopi, P. Palanisamy, Paul Babyn and Khan A. Wahid	Springer Journal of Computer assisted radiology and surgery	August 2013
10.	Reconstruction Based on Iterative Split Bregman	Varun P. Gopi,	Journal of Computational	Vol.2013, pp/1-16,

	algorithm and nonlocal total variation	P. Palanisamy, Paul Babyn and Khan A. Wahid	and Mathematical Methods in Medicine	July 2013.
11.	Complex Wavelets based automated analysis of subcellular pattern in Immunohistochemistry images of the tissue microarrays from the Human Protein Atlas	S.Issac Niwas, P.Palanisamy and K.Sujathan	International Journal of Imaging Science and Engineering	Vol.7, pp.1-5, 2013.
12.	Capsule Endoscopic Image Denoising Based on Double density dual tree complex wavelet Transform	Varun P. Gopi, P Palanisamy	International Journal of Imaging and Robotics	Vol.9(1), pp.37-47, 2012.
13.	Tunable and reconfigurable spectrum-sliced microwave photonic filter using parallel Fabry-Perot filters with external delay and windowing	Jeyachitra, R. K. and Martin Leo Manickam, J.	European Journal of Scientific Research	Vol. 103, No.2, pp.313- 325, June 2013.
14.	Reconfigurable millimeter-wave photonic filter based on spectrum-slicing by cascaded Fabry-Perot filters	Jeyachitra, R. K. and Martin Leo Manickam, J.	Asian Journal of Information Technology	Vol.12, No.6, pp.170- 175, June 2013.
15.	Design of a Novel Differential on-chip Wave-pipelined Serial interconnect with surfing.	Bhaskar. M, Jaswanth. A and Venkataramani. B.	Elsevier, Microprocessor and Microsystems,	Vol.37, June 2013, pp 649- 660.
16.	Transceiver for Differential Wave Pipe-Lined Serial Interconnect with Surfing.	Bhaskar. M and Venkataramani. B	International Journal of Electrical, Electronic Science and Engineering	Vol.8 No.1, Feb .2014, pp 155- 162.
17.	By using various modulation techniques – Free space optical	Prabu K., Sasidhar, Sriram	Optics Communications	March 2014

	communications,	Kumar D.,	, Elsevier	(Accepted).
18.	Analysis and design of optically transparent antenna on photonic band gap structures	S. Anand, D. Sriram Kumar, Ren Jang Wu and Murthy Chavali	Optik – International Journal for Light and Electron Optics	2014 (In Press)
19.	Analysis of nonlinear fractal optical antenna arrays	Levy, Mounissamy, Sriram Kumar Dhamodharan and Anh Van Dinh	Progress In Electromagnetics Research B	2013
20.	Mammogram tumor classification using modified Segmentation techniques	Sriram Kumar D., Malmathanraj Ramanathan, Mohan R and Umamaheswari S	International Journal of Biomedical Engineering and Technology	2013.
21.	High Speed Low Power Ping Pong Buffering Based Network Interface for Network on Chip	K. Swaminathan, G. Lakshminarayanan, and Seok-Bum Ko	J. Low Power Electronics.	Vol. 9, p.322-331 (2013)
22.	A Novel Nonlinear Constellation Precoding for OFDM Systems with Subcarrier Grouping	M. Raja and P. Muthuchidambaranathan	Wireless Personal Communications	December 2013, Volume 73(3), pp 867-884
23.	SVD-Assisted Joint Precoder and Decoder Design for the Uplink of MU-MIMO Systems with Improper Modulation	M. Raja and P. Muthuchidambaranathan	Wireless Personal Communications	December 2013, Volume 73(3), pp 1129-1142
24.	Multiuser MIMO Transceiver design for Uplink and Downlink with Imperfect CSI	M. Raja and P. Muthuchidambaranathan	Wireless Personal Communications	March 2014, Volume 75(2), pp 1-20
25.	Signal processing approach for Music synthesis using Bird's sounds	Hemant Sharma, E.S. Gopi	Elsevier journal on procedia technology	Vol.10, pp.287-294.

26.	Neural Network Modeling of color array filter for digital forgery detection using Kernel-LDA	S.Vinod, E.S.Gopi	Elsevier journal on procedia technology	Vol.10, pp.498-504.
27.	Formulating particle swarm optimization based membership linear discriminant analysis	E.S.Gopi, P.Palanisamy	Elsevier journal on Swarm and Evolutionary computation	Vol.12, pp.65-73

7.2. Students

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	High-speed Dynamic Asynchronous Pipeline: Self precharging style	Jephy Joy	IEEE Transactions on VLSI systems	2013

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	P. Thiruvallarselvan	Dr. S. Raghavan	National Institute of Technology, Tiruchirappalli.
2.	AkkalaSubbarao	Dr. S. Raghavan	National Institute of Technology, Tiruchirappalli.
3.	S. IssacNiwas	Dr.P.Palanisamy	National Institute of Technology, Tiruchirappalli.
4.	M. Santhi	Dr.G.Lakshminarayanan	National Institute of Technology, Tiruchirappalli.
5.	C. Vennila	Dr.G.Lakshminarayanan	National Institute

			of Technology, Tiruchirappalli.
6.	M.Raja	Dr.P.Muthuchidhambaranathan	National Institute of Technology, Tiruchirappalli.

9. Details of Book any authored by faculty.

[1] **E.S.Gopi**, “Digital Signal Processing for Medical Imaging Using Matlab”, 978-1-4614-3139-8, springer.

[2] **E.S.Gopi**, “Digital Speech Processing Using Matlab”, ISBN: 978-81-322-1676-6, Springer.



HUMANITIES

HUMANITIES

2.1. Workshops Organised by Faculty Members

S.No	Coordinator	Programme	Period
1.	Dr. R. Murugesan & Dr. S. Mekala	Techniques in Teaching Soft Skills	September 20 -21, 2013
2.	Dr. R. Murugesan ,Dr.A.Vadivel & Dr. S. Mekala	Employability Skills Development	September 30 - October 4, 2013
	Dr. Vinod VB Dr. R. Joseph Ponniah Dr. Sathyaraj V.	Glocal Trends and Issues in English Language Teaching: Challenges and Opportunities	January 24 - 26, 2014

2.2. Papers presented by the Faculty / Students

Student	Topic	Programme	Place & Date
M. P. Shabitha	The Role of Written Corrective feedback in Second Language Writing	8 th International and 44 th Annual ELTAI conference	SRM University, Chennai. 18 – 20 July, 2013
M. P. Shabitha	The Role of Metacognition in Second Language Writing	10th International Congress on English Grammar (ICEG 2014)	Sri Ramakrishna Engineering College, Coimbatore, January, 23-25, 2014
M.Ponmani	Sociolinguistic Factors Affecting the Writing Proficiency of a set of English Major Students	8 th International and 44 th Annual ELTAI conference	SRM University, Chennai. 18 – 20 July, 2013
J. Priya	Acquisition of Academic Language by Reading	8 th International and 44 th Annual ELTAI conference	SRM University, Chennai. 18 – 20 July, 2013
J. Priya	Acquisition of English for Specific Purposes through Comprehensible Input	National Conference on English for Specific Purposes	Anna University, Chennai. 7th & 8th March, 2014

J. Priya & J. Mary Jennifer	Acquisition of Grammar through Reading - An alternate way to Inefficacy of Grammar Teaching	National Conference on Reading Skills and Strategies.	Seshasayee Institute of Technology, Trichy. 5th October, 2013
M.K. Senthil Babu & J. Priya	Advantages of Reading and its types	National Conference on Reading Skills and Strategies.	Seshasayee Institute of Technology, Trichy. 5th October, 2013
M.K. Senthil Babu	Language Acquisition through Subtitled Movies	8 th International and 44 th Annual ELTAI conference	SRM University, Chennai. 18 – 20 July, 2013
M.K. Senthil Babu	Technology in Teaching English for Specific Purposes	National Conference on English for Specific Purposes	Anna University, Chennai. 7th & 8th March, 2014

4. Details of the invited / Guest Lectures delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. S. Mekala	Tools of Communication	Special Lecture in Literary Association	Thanjavur 28th February 2014

7. Details of the Research papers published in National / International Journals

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
1.	The Role of Mind Mapping in the English Literature Syllabus	M. Ponmani & Dr.S. Mekala	8 th International and 44 th Annual ELTAI conference, SRM University, Chennai.	July, 2013
2.	The Role of Written Corrective Feedback in Second Language Writing	M.P.Shabitha & Dr.S.Mekala	International Journal of English: Literature Language and Skills (IJELLS)	October, 2013, Vol.2 (3) p.97-101
3.	Telling Your Story Git You over that River": AIDS and Scenes of Reading and Writing in Sapphire's <i>Push</i> .	Dr. Sathyaraj V	Journal of Language, Literature and Culture. [SCI/ISSN: 2051-2856]	August (2013): 109-117.

4.	Toni Morrison's "Home"	Dr. Sathyaraj V	Journal of the Australasian Universities Language and Literature Association (AUMLA). [SCI/ISSN: 0001-2793]	118 (November 2012): 108 - 110.
5	Free Reading: A Powerful Tool for acquiring the Second Language	J. Priya & Dr. R. Joseph Ponniah	i-manager's Journal on English Language Teaching	May 2013
6	Pleasure Reading and the Acquisition of Second Language by Adult ESL Learners	Dr. R. Joseph Ponniah & J. Priya	The International Journal of Foreign Language Teaching	January 2014



INSTRUMENTATION AND CONTROL ENGINEERING

INSTRUMENTATION AND CONTROL ENGINEERING

1. Notable Achievements

1.1.Faculty

S. No	Name	Details of the Prize / Awards	Organization
1	Dr.M.Umapathy	Eminent Engineer award 2013	IEI, Madurai

2. Conference / Seminars / Symposium / Special Lectures:

2.1. Organised

S. No	Co-ordinator	Programme	Date
1	Dr.K.Radhakrishnan	“Brain and Epileptogenesis	November 8, 2013
2	Dr.V.Shantha	“Cancer Diagnostics and treatment planning system”	December 28, 2013
3	Dr.N.Prabhakar	“Systems Engineering & Guided Missile Design”	January 31, 2014
4	Dr.A.Senthil Kumar	titled “Design and Development of Unmanned Air Vehicle”	Feb. 6, 2014
5	Dr.Raji Sundarrajan	“Electroporation for cancer and regenerative medicine”	Feb.24, 2014
6	Dr.Rominus Valsalam	“Product Development and Design”	March 14, 2014
7	Mr.P.Srikrishna	“Health Care Instrumentation - Prototype Development”	March 26, 2014
8	Dr.K.V.N.Sharma	“Taking Engineering Education Seriously”	April 1, 2014

2.2. Papers presented by the students / Faculty

Author(s)	Details
Gaurav Kumar Singh	Diagnosis of Parkinson's Disease: A Limit Cycle Approach, IEEE international conference on Multi-Systems and Control, August 28-30, 2013 at Hyderabad, India.

Sathiya P, Suresh K, G.Uma, M. Umapathy	A New Piezoelectric Laminated Cantilever Resonance based Hydraulic Pump, IEEE Sensors Applications Symposium,2013.
M. Jerome Moses and A. Ramakalyan	A Computationally Faster Randomized Algorithm for NP-Hard Controller Design Problem, In Proc. of IEEE International Symposium on Intelligent Informatics
M. J. Moses, and R. Ayyagari	The Benefits of Noise in Systems and Control, In Proc. of 3 rd IEEE Conference on Power, Control, Signals & Computation, Thrissur,2014.
M. J. Moses, and R. Ayyagari	A Brief Survey of Stochastic Resonance and Its Applications to Control, In Proc. Third International Conference on Advances in Control & Optimization of Dynamical Systems, Kanpur, India, 2014
A. Pashilkar, S. Ismail, R. Ayyagari, & N. Sundarrajan	Design of a Nonlinear Dynamic Inversion Controller for Trajectory Following and Maneuvering for Fixed Wing Aircraft, IEEE Symposium on Computational Intelligence for Security and Defense Applications (2013 CISDA), Nanyung Technological Univ., April 16 – 19, 2013
A. Pashilkar, S. Ismail, R. Ayyagari, & N. Sundarrajan	Improved Autolanding Controller for Aircraft Encountering Unknown Actuator Failures, IEEE Symposium on Computational Intelligence for Security and Defense Applications (2013 CISDA), Nanyung Technological Univ., April 16 – 19, 2013
T.Vinopraba, N.Sivakumaran, T.K.Radhakrishnan	Design of fractional order controller for Biochemical Reactor, Int. Conf. on IFAC-CAB 2013, IIT Bombay, pp.211-214.
Navin John Mathew, K.R.Kandula, N.Sivakumaran	Swing up and Stabilization control of a Rotary Inverted Pendulum, Int. Conf. on IFAC-DYCOPS 2013,IIT Bombay,pp.654-659.
V.Kirubhakaran, T.K.Radhakrishnan, N.Sivakumaran	Blood Glucose Concentration Regulation in Type1 Diabetics using Multi Parametric model Predictive Control: An Empirical approach, Int. Conf. on IFAC-CAB 2013,IIT Bombay,pp.302-207.
V.Kirubhakaran, E.Ravi Teja,T.K.Radhakrishnan, N.Sivakumaran	Real Time control of non self-regulating Cylindrical tank process using Multiparametric Model Predictive Control, Int. Conf. on TIMA, MIT, Chennai, pp.30-35, 2013.
S. Harihara Krishnan, D.	Experimental Investigation Of A Novel Hybrid Energy

Ezhilarasi, G.Uma and M. Umamathy	Harvesting System Using Ferroelectric Material, <i>Texas Instruments India Educators' international Conference 2013</i> , April 4-6, 2013, Bangalore, India.
S. Krishna Chaitanya and K. Dhanalakshmi	Design and control of shape memory alloy actuated grippers', Proceedings of the 3rd International Conference on <u>Advances in Control and Optimization of Dynamical Systems</u> ACODS 2014, IIT Kanpur, 13-15 March 2014, 400 – 407.
S. Krishna Chaitanya and K. Dhanalakshmi	Control of Shape Memory Alloy Actuated Gripper using Pulse Width Modulation', Proceedings of the 3rd International Conference on <u>Advances in Control and Optimization of Dynamical Systems</u> ACODS 2014, IIT Kanpur, 13-15 March 2014, 408 – 413
S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth and K. Dhanalakshmi	Design and experimental evaluation of higher order sliding mode control for vibration suppression of shape memory alloy actuated structure', Proceedings of the 3rd International Conference on <u>Advances in Control and Optimization of Dynamical Systems</u> ACODS 2014, IIT Kanpur, 13-15 March 2014, 1054 -1059
D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and K. Dhanalakshmi	Prospective self-sensing actuator for stabilised control: beam balancing ball driven by shape memory alloy', Proceedings of the 3rd International Conference on <u>Advances in Control and Optimization of Dynamical Systems</u> ACODS 2014, IIT Kanpur, 13-15 March 2014, 577 – 584.
S. Krishna Chaitanya and K. Dhanalakshmi,	Design of a precise tracking shape memory alloy wire actuated gripper', Proceedings of the 9th International Conference on Intelligent Unmanned Systems (ICIUS) , Jaipur, 25-27 September 2013
M. Banu Sundareswari, K. Dhanalakshmi, S. Sunjai Nakshatharan and D. Josephine Selvarani Ruth	'Optimal design of PID controller for SMA actuated ball on beam system', Proceedings of the 9th International Conference on Intelligent Unmanned Systems (ICIUS) , Jaipur, 25-27 September 2013
S. Krishna Chaitanya and K. Dhanalakshmi	Demonstration of Self-Sensing Shape Memory Alloy Actuated Gripper', Proceedings of the 7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Symposium on Intelligent Control (ISIC) , Hyderabad, 28-30 August 2013
S. Krishna Chaitanya and K. Dhanalakshmi	'Control of Shape Memory Alloy Actuated Gripper using Sliding Mode Control', Proceedings of the 7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Conference on Control

	Applications (CCA), Hyderabad, 28-30 August 2013
D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and K. Dhanalakshmi	Auto-sensing Antagonistic Shape Memory Alloy Wire Actuated Manipulator', Proceedings of the 7th IEEE Multi-Conference on Systems and Control (MSC 2013) - International Conference on Control Applications (CCA) , Hyderabad, 28-30 August 2013
A.Jenesh and K.Anbarasan, Dr.K.Srinivasan	Development of Fault Detection and Identification Algorithm for FOPDT and SOPDT Processes using Fast Fourier Transform Technique, March 22-23,2013, MIT, Chennai,
R.Dinesh Kumar, V.Sridevi, and K.Srinivasan	A Multisensor Data Fusion using Different State Estimators, March 22-23, 2013, MIT, Chennai.

2.3. Attended by the Faculty / Students

Faculty / Students	Details
Dr.N.Sivakumaran Ms.V.Sridevi	International conference on "Emergency Medical services systems – Innovation Entrepreneurship in healthcare, AIIMS - New Delhi
Ms.V.Sridevi	ECON 2014, CMRI Calcutta
Dr.Goldin R.Bennet	Design of Sub-systems for Concentrated Solar Power (CSP) Technologies' at IIT-Jodhpur, from 19-12-2013 to 22-12-2013

3.0. Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr.N.Sivakumaran Dr.K.Srinivasan Dr.S.Narayanan	Advanced Process Control - APC 2013	June 24 -26,2013
Dr.S.Raghavan Dr.N.Sivakumaran	Telemedicine 2014	July 12-14,2013
Dr.N.Sivakumaran	Biomedical Equipment Testing and	Nov 16,2013

Ms.V.Sridevi	Calibration	
Dr.N.Sivakumaran Ms.V.Sridevi	Trends in Biomedical Engineering	Feb.22&23,2014
Dr.Ramakalyan Ayyagari	Perspectives on Curriculum	May 9-10, 2013
Dr.Ramakalyan Ayyagari	Data Based Analysis & Synthesis of Linear Systems	Dec 31, 2013

3.2. Attended

Students	Details
Final Year Student	
Ashwin Yadav	<p>Multiple feature based detection and Prediction of Seizures in Pilocarpine epilepsy model of Rats with Dr. David Reutens, University of Queensland, Australia from Dec 2013 - Feb 2014. Received Research Fellowship Stipend of \$4100</p> <p>Summer Research on viability and implementation of Sodium MRI imaging for early clinical diagnosis of Neurodegenerative Disorders under Dr. Pravat Mandal (National Brain Research Center,Gurgaon). Studied Quantum Physics and Instrumentation required for the upgradation of Conventional Proton MRI devices to perform Sodium MRI. Summer Research Fellowship of Rs 16000 from National Academy of Science and Indian Academy of Sciences from May 2013 to July 2013.</p>

Faculty / Students	Details
Dr.Ramakalyan Ayyagari	Workshop on Control & Optimization in Energy Systems, EE Dept, IIT Madras, October 28-29, 2013.
Dr.K.Dhanalakshmi	Perspectives on Curriculum, NIT, Tiruchirappalli on 9 and 10 May 2013 sponsored by TEQIP
Dr.K.Dhanalakshmi	the Out Bound Experiential Learning on “Team Building and Effective Group Dynamics” at Adventure Zone, Madhurantakam on 11 and 12 February 2013 under TEQIP

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.Ramakalyan Ayyagari	Probabilistic Control System Design	TEQIP funded Faculty Development Programme	Dept. of ICE, PSG Institute of Technology, Coimbatore, November 2013
Dr.Ramakalyan Ayyagari	Robust Control, Computer Control of Systems	TEQIP funded Faculty Development Programme	Dept. of EEE, NIT Calicut, Dec 2013

5. Sponsored Projects undertaken.

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr.N.Sivakumaran	Design and Development of Instrument for Measuring Bullet Velocity	Indian Ordnance Factories, Ordnance Factory, Ministry of defence, Trichy	3.5
Dr.Ramakalyan Ayyagari	De-congesting India's transportation networks using mobile devices	Information Technology Research Academy (ITRA)	Rs. 43.59
Dr.Ramakalyan Ayyagari	Feasibility and Design studies for Station Keeping Rotorcraft	DRDL Hyderabad	In process
Dr.Ramakalyan Ayyagari	Integrated Modeling and Simulation of an Air-breathing Combustion System, Flow Controller for RAMJET engines	DRDL Hyderabad	In Process
Dr.G.Uma	Design, fabrication and testing of meso and micro scale resonant sensors with electronics	SERB, DST, GoI	Rs.49.03

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

S.No	Equipment	Amount (Rs. in Lakhs)
1.	Distributed Control System, DST-FIST	23

7. Research Papers Published in International Journals

7.1. Faculty

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Distributed Multiparametric Model Predictive Control Design for a Quadruple tank process	V.Kirubhakaran, T.K.Radhakrishnan, N.Sivakumaran	Measurement, Elsevier	2014,47, pp.841-85,2014
2.	Multi-parametric model predictive control-based regulation of blood glucose in type 1 diabetics under unmeasured meal disturbances: a simulation study	V.Kirubhakaran, T.K.Radhakrishnan, N.Sivakumaran	Int. J. Biomedical Engineering and Technology	2014,Vol. 14, No. 2
3.	Modeling and prediction of machining quality in CNC turning process using intelligent hybrid decision making tools	C.Ahilan, S.Kumanan, N.Sivakumaran, J.Edwin Raja Dhas	Journal on Applied Soft computing, Elsevier	2013 13,1543-1551
4.	A computationally faster algorithm to test the stability of characteristic polynomials	P. Kavitha, and R. Ayyagari	Int. J. Systems, Control and Communications,	2013 Vol. 5, No. 2, pp. 166-176
5.	Simple and Straight Proofs of Stability Criteria for LTIL Systems	P. Kavitha, and R. Ayyagari	Transactions of the Institute of Measurement & Control	http://tim.sagepub.com/content/early/2013/11/18/0142331213510548
6.	Improved Neural-aided Sliding Mode Controller	S. Ismail, A.A. Pashilkar, R.	Elsevier J. Aerospace	

	for Autolanding under Actuator Failures and Severe Winds	Ayyagari & N. Sundararajan	Science & Technology	Vol. 33, pp. 55-64, 2014
7.	Pyroelectric based solar and wind energy harvesting system	S. Harihara Krishnan, D. Ezhilarasi , G. Uma, M. Umamathy	IEEE Transactions on Sustainable Energy	Vol.5 , <u>Issue.1</u> ,pp 73 – 81, Jan 2014
8.	Monitoring and Control of Agriculture Parameters in a Greenhouse through Internet	Abhfeeth K. A. and D. Ezhilarasi	Sensors & Transducers	Vol.150, Issue 3, March 2013, pp 106-112
9.	Dynamic stabilization and rapid motion control system driven by antagonistic shape memory alloy actuators	S. Sunjai Nakshatharan, D. Josephine Selvarani Ruth and K. Dhanalakshmi	Journal of Vibration and Control	DoI:10.1177/1077546313520177
10.	Differential resistance feedback control of a self-sensing shape memory alloy actuated sy	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and K. Dhanalakshmi	ISA Transactions	53(2), 2014, 289 – 297
11.	Modulated Adaptive Fuzzy controller for position control of SMA wire actuator	P Senthilkumar, M Umamathy and K Dhanalakshmi	Journal of Intelligent and Fuzzy Systems	10.3233/IFS-130974
12.	<i>Auto-adaptive control of a one-joint arm direct driven by antagonistic shape memory alloy actuated wires</i>	D. Josephine Selvarani Ruth, S. Sunjai Nakshatharan and K Dhanalakshmi	International Journal of Smart Sensing and Intelligent Systems	6(3), June 2013, 833-849

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	P. Senthil Kumar	Dr.M.Umamathy	NIT-T
2.	T.Vinoprabha	Dr.N.Sivakumaran	NIT-T
3.	P.Kavitha	Dr.Ramakalyan Ayyagari	NIT-T

11. Other Important Points

Industrial Visits:

Final Year students have visited NLC, Neyveli on 19.02.2014.

Third Year students have visited TNPL, Karur on 12.04.2014.

MoUs Signed:

Sree Chitra Thirunal Institute of Medical Science and Technology (SCTIMST), Trivandrum

Sports:

III Year

Krithika Baxla has won Inter NIT 2013 and has won a Silver in Inter NIT 2014 for Basketball.

Darwin has won Gold in Manipal 2014 and Silver in IIT Kanpur 2013 and Inter NIT 2014 for Chess.

V.S Bharath has won Gold in inter NIT 2013 and inter NIT 2014

II Year

Praveen Prabhakar has won the bronze in the 4×100m relay in Inter-NIT 2013 and 2 golds in IIT Kanpur in triple jump and 4×100m relay and a silver in long jump and bronze in 4×100m relay in Inter-NIT.

M.Prajval Kumar has reached semi finals at IIT Kanpur 2013 and Inter NIT 2014 for cricket.

K.R.Lakshmi has won gold in Inter-NIT chess in 2013 and 2014. Silver in Colloseum, sports fest of SASTRA, Tanjore, regional level chess player.

Renuka has won Bronze in inter NIT 2013, Bronze for long jump and Gold in 4×100 & 4×400 relay & in IIT Kanpur 2013, Bronze for 4×400 relay & Silver for 4×100 relay & in inter NIT 2014, Silver in 4×400 relay & Gold in 4×100 relay.

Jia Chakma has won 1 silver in 800m race, 1 gold in relay 4×100m n 1 gold in 4×400m in inter NIT 2013 and 1 silver in inter NIT 2014 relay.

Anisha Mohan won Gold in 100m, 200m, 4×100m relay, 4×400m relay in Inter NIT - Surathkal 2013 won Silver in 4×100m relay and Bronze in 4×400m relay in IIT KANPUR 2013 won Gold in 4×100m relay, Silver in 200m, 4×400m relay and Bronze in 100m in Inter NIT - Trichy 2014 for athletics.



MANAGEMENT STUDIES

MANAGEMENT STUDIES

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1	Dr.N.Thamaraiselvan, DR.B.Senthil Arasu, Mrs.P.Sridevi.	1. Faculty development programme on “Data Mining and Data Analysis” organized by National Institute of Technology, Tiruchirapalli, India	10 th -14 th March 2014
2	Dr.N.Thamaraiselvan, DR.B.Senthil Arasu,	2. Faculty development programme on “Art of Teaching: Pedagogical Tools and Techniques Series II”, organized by National Institute of Technology, Tiruchirapalli, India.	03 rd -07 th March 2014
3	Dr.N.Thamaraiselvan, DR.B.Senthil Arasu,	3. Faculty development programme on “Art of Teaching: Pedagogical Tools and Techniques”, organized by National Institute of Technology, Tiruchirapalli, India.	on 18 th -22 nd November 2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
1. Mrs.P.Sridevi	FCM based FSVM classifier on credit risk evaluation in the business analytics and intelligence conference	IIM –B, 11-13, December, 2013
2. Dr.V.J.Sivakumar, Isaac Johny	Role of after sales service in measuring brand equity with reference to laptop users	<i>Great Lakes Institute of Management, Chennai.</i> - 28 th December 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr.V.J.Sivakumar	UKERI project – ‘Train the trainer’ program.	29 th and 30 th march 2014

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.V.J.Sivakumar	1. E- Business – ‘National paper presentation’ 2. ‘Case study presentation and analysis’		St.Joseph college Trichy – 13 th march, 2014. PSNA -college of Engg. & Tech., Dindigul.

5. Research Projects Undertaken.

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
	UKERI	Sponsored by Indo UK	25 lakhs.

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Examining Beliefs Towards Social Media Advertisements Among Students and Working Professionals: An Application of Discriminant	Thamaraiselvan Natarajan, Senthilarasu Balasubramaniam, Janarthanan	Australian Journal of Basic and Applied	7(8), 2013, pp. 697-705

2	<p>Analysis.</p> <p>An Experimental Analysis Of Forecasting The High Frequency Data Of Matured And Emerging Economies Stock Index Using Data Mining Techniques.</p>	<p>Balakrishnan</p> <p>Senthilarasu B, Jeevananthan M, Thamaraiselvan N, Janarthanan B</p>	<p>Sciences</p> <p>International Journal of Operational Research.</p>	
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MATHEMATICS

MATHEMATICS

1. Notable Achievements

1.1 Faculty

S. No.	Name	Details of Prizes/Awards	Organization
I	Dr. A. K. Banerjee	<ol style="list-style-type: none"> 1. Best paper award 2. Rashtriya Gaurav Award 3. Glory of India Gold Medal 4. Best Citizens of India Award 2014 5. Indira Gandhi Shiromani Award 2014 6. Vikas Rataan Award 	
II	Dr. R. Ponalagusamy	<p>(i) Regional Editor, Journal of Applied Sciences - International Journal (SCOPUS).</p> <p>(ii) Honored Referee: APCOST Scientist Award - 2013, TWAS Prize - 2014 in the field of Mathematics, India.</p>	Govt. of Andhra Pradesh, India
III	Dr. V. Shanthi	Young Scientist-Fast Track Scheme	DST

2. Conferences / Seminars / Symposiums / Special Lectures

2.1 . Organised

S.No	Coordinator	Programme	Period
1	Dr. R. Ponalagusamy	Organized National Conference on Frontiers in applied sciences and computer technology (FACT'13), Department of Mathematics and Department of Computer Applications, National Institute of Technology, Tiruchirappalli-620 015,	23-24, May, 2013.
2	Dr. V. Shanthi	NCRTAAM CSIR sponsored	May 09-10/ 2013

2.2. Papers Presented by the Faculty / Students

Author(s)	Details
A.K. Banerjee, R. Ponalagusamy and R. Tamil Selvi	“Flow of a Micropolar Fluid through a Stenosed Artery with Radially Variable Viscosity” Proceedings of 10 th International Conference on Scientific Computing, held at Las Vegas, USA during 22-25 July 2013
Dr. T. N. Janakiraman	Application Graphics in number theory Application graphics in Industrial Problems
Dr. V. L. Gomathi Nayagam	Presented paper on the title “Multi-Criteria Interval Valued Intuitionistic Fuzzy Decision Making Using A New Score Function” in the International Conference on “KIM2013 KNOWLEDGE AND INFORMATION MANAGEMENT” held at Meriden, UK on 4-5 th June 2013
	Presented paper on the title “Ranking of Intuitionistic Fuzzy Number by Fuzzy Score Functions” in the National conference on Applications of Discrete and Fuzzy Mathematics held at FISAT, Kerala on 15-17 th July 2013.
	Presented paper on the title “Ranking of Trapezoidal Intuitionistic Fuzzy Number” in the National Conference on Fuzzy Logic and its Applications to Computer Science held at BPC College Piravom, Kerala during 20-22 nd February 2014.
M. Chandru, V. Shanthi	A boundary Value Technique for singularly Perturbed Boundary value Problem of Reaction-Diffusion with discontinuous source Term,(ICMTEA-2013)Graphic Era University
M. Chandru, V. Shanthi	“A Numerical Technique for Singularly Perturbed Reaction–Diffusion Problem with Discontinuous Source Terms” National Conference on Advances in Partial Differential Equations-2013(NCAPDE’13) Dec13-14, Sastra University, Kumbakonam
Pathan Mahabub Basha, V. Shanthi	“A fitted mesh method for singularly Perturbed Two Coupled system for Reaction diffusion Problem of Discontinuous source Terms of mixed type boundary” National Conference on Advances in Partial Differential Equations-2013(NCAPDE’13) Dec13-14 Sastra University, Kumbakonam

3.2 Attended

Faculty/Students	Details
Dr. R. Ponalagusamy	“ The 2013 International Conference on Scientific Computing (CSC 2013)” WORLDCOMP’13 held in Las Vegas Nevada, USA , July 22-25, 2013.
M. Chandru & Pathan Mahabub Basha	“Stabilization methods for singularly perturbed differential equations(SPDE2013)

T. Prabha	In SERC IISc Bangalore during 3-5 October- 2013
Pathan Mahabub Basha & T. Prabha	Workshop on “Differential Equations and its Applications”(WDEAP2013) held at the Department of Mathematics, Indian Institute Space Science and Technology, Trivandrum during December 18-21, 2013

4. Invited/Guest Lectures delivered by the Faculty.

Faculty	Topic	Programme	Place & Date
Dr. T. N. Janakiraman	Ramanujan day		Sastra university Kumbakonam
Dr.P. Saikrishnan	on Advances in Partial differential Equations	An invited talk given at National Conference	organized by Srinivasa Ramanujan Centre, SASTRA University, Kumbakonam, during December 13-14, 2013
Dr. V. L. Gomathi Nayagam	“Recent Emerging Trends In Applied Mathematics”	One Day National Seminar	Sudharsan Engineering College, Sathiyamangalam, Pudukkottai on 21 st March 2013.
	“Advances and Applications in Mathematical Modelling”	DST & CSIR Sponsored National Conference	The Madura College, Madurai on 15 th & 16 th – April 2013.
	“Applications of Discrete and Fuzzy Mathematics”	Annual Conference of KMA and National Conference on	FISAT, Kerala on 15-17 July 2013.
	“New Research Tools for Evolutionary Robotics “	Two week Staff Development Programme	E.G.S.Pillay Engineering College , Nagapattinam on 13 th – 26 th May 2013.
Dr. V. L. Gomathi Nayagam	“Decision Support System”	Delivered Guest Lecture	Vellalar College For Women, Erode on 5 th August 2013.
	on Fuzzy Mathematics and Its Utilities	State Level Workshop	Nirmala College For Women on 14 th August 2013.

	'MEGA – 2013' at Sri	Two-Day National Level Conference	Sarada Niketan College For Women, Amaravathipuram, Sivagangai on 20 & 21 st August 2013.
	on "Fuzzy Number Theory" in the Refresher Course in Mathematics.	Delivered Lecture	conducted by Department of Mathematics, Madurai Kamaraj University, Madurai on 8 th September 2013
	on "Emerging Trends In Advanced Mathematics"	National Conference	Jyoti Nivas College, Bangalore on 6 & 7 th February 2014.
	On " Fuzzy Logic and Its Applications to Computer Science" & Annual Conference of KMA.	U.G.C. Sponsored National Conference	BPC College, Piravom, Kerala on 20-22 nd February 2014
	on "Fuzzy Logic and Its Applications	One Day Workshop	Valivalam Desikar Polytechnic College, Nagapattinam on 22 nd February 2014.
	on "Graph Theory and Operations Research".	U.G.C. and RMS Sponsored National Conference	Holy Cross College, Trichy on 3 & 4 th March 2014
Dr. V. Shanthi	Functions of several variables	National Symposium	Oxford Engineering College, Trichy-9 22-11-2013
	Differential Calculus Calculus	Guest Lecture-1 Guest Lecture-2	M. Kumarasamy College of Engineering, Karur 29-10-13 12-11-13
	Differential Equations and Applications	Seminar	Anna University, Trichy 5-6 of Dec 2013
	Application of differential equations	National conference on applications of Mathematics and Physics	Dhanalakshmi Srinivasan College of Arts and Science for women, Perambalur, 13-03-14.

5. Research Projects Undertaken & Status

Co-ordinator	Name of the Project	Sponsor	Amount In Rs.
Dr. R. Ponalagusamy	“On Decision Making from Incomplete Information for Young Women” Scientist Scheme-A (Awadee: Dr.Geetha Sivaraman) for three years (3 rd August, 2011- 2 nd August, 2014)	Department of Science and Technology, New Delhi, India	
Dr. V. L.Gomathi Nayagam Co-investigator for the project	“Municipal Solid Waste (MSW) to Energy: Decision Support System (DSS) for Supply Chain Design and Planning” jointly with Professor Dr. Prasanta Kumar Dey, Aston University, Birmingham, UK and Professor Sadhan Kumar Ghosh, Jadavpur University, Kolkata, India.		
Dr. V. L. Gomathi Nayagam Principal Investigator	Project entitled “Decision Support System for Incomplete Interval Information” jointly with Prof. Dr. M. Punniyamoorthy,.	DoMs, NITT, Trichy, India	
Dr. V. Shanthi	A Numerical methods for singularly Perturbed Boundary Value Problem with Non smooth Data	National Burea of Higher Mathematics	11.39 lakhs
Dr. V. Shanthi	A numerical Method for two Parameter Singularly Perturbed Boundary Value Problem	Department of Science and Technollogy	12.28 lakhs

6 .Major Equipment Purchased (more than Rs.5.00 Lakhs)

S. No	Equipment	Amount(Rs. in Lakhs)
1	APC UPS 1100 VA 15 nos	83, 325/-

7. Research Papers Published in National / International Journals

S.No	Title	Author(s)	Journal	Year Vol. (No) Page
1	“Lattice Forward – Secure identity Based Encryption Scheme”	Kunwar singh, C. Pandurangan and A. K. Banerjee	Journal of Internet Services and Information Security	Vol.3, PP 5-9, 2013
2	“Lattice based identity Based Proxy Re-Encryption Scheme”	Kunwar singh, C. Pandurangan and A. K. Banerjee	Journal of Internet Services and Information Security	Vol.3, PP-38-51, 2013
3	“Lattice Based Universal Re-Encryption for Mixnet”	Kunwar singh, C. Pandurangan and A. K. Banerjee	Journal of Internet Services and Information Security	Vol.4, pp.1-11 2013
4	“Lattice Based Efficient Threshold Public Key Encryption Scheme”	Kunwar singh, C. Pandurangan and A. K. Banerjee	Journal of Wireless Mobile Networks, Ubiquitous Computing and Dependable Applications	Vol.4, pp.93-107, 2013
5	“Blood Flow in Stenosed Arteries with Radially Variable Viscosity, Peripheral Layer Thickness and Magnetic Field”	R.Ponalagusamy and R.Tamil Selvi	Meccanica,.	48(2013), pp.2427-2438

6	“Pulsatile Flow of Hershel-Bulkley Fluid in Tapered Blood Vessels”	R.Ponalagusamy	Proc. of The 2013 International Conference on Scientific Computing (CSC 2013), WORLDCOMP’13 , held in Las Vegas Nevada, USA,	July 22-25, 2013, pp.67-73. (ISBN #: 1-60132-238-0).
7	“Flow of a Micro polar Fluid Through a Stenosed Artery with Radially Variable Viscosity”	A.K. Banerjee R. Ponalagusamy and R. Tamil Selvi	Proc. of The 2013 International Conference on Scientific Computing (CSC 2013), WORLDCOMP’13 , held in Las Vegas Nevada, USA	July 22-25, 2013, pp.79-84. (ISBN #: 1-60132-238-0).
8	“ A Data Mining Study of Pedagogical Skills in a Mathematics Class Room”	K.R.Subramanian, R. Ponalagusamy and R.Narayanasamy	Proc. of 2nd National Conference on Frontiers in Applied Sciences and Computer Technology (FACT’13)	May 23-24, 2013, pp. 229-236
9	“Multi-Criteria Interval Valued Intuitionistic Fuzzy Decision Making Using A New Score Function”	Geetha Sivaraman, V. Lakshmana Gomathi Nayagam and R. Ponalagusamy	Proc. of Knowledge and Information Management Conference (KIM2013), Meriden, CV7 7HR, UK, 4-5	June, 2013 pp. 122-131
10	“Statistical Evaluation of Forming Limit Diagram for Annealed Al 1350 Alloy Sheets Using First Order Reliability	K. Velmanirajan, K. Anuradha, A. Syed Abu Thaheer, R. Ponalagusamy and R.Narayanasamy	Applied Mathematical Modelling, 38 (No.1	(2014), pp.145-167.

	Method”			
11	“A Complete Ranking Of Incomplete Interval Information”,	Geetha Sivaraman, V. Lakshmana Gomathi Nayagam and R. Ponalagusamy	Expert Systems with Applications, 41(No.4) (2014), pp.1947-1954.	(2014), pp.1947- 1954.
12	Graceful Labeling based active appearance model for biometric identification	G. Sathiamoorthy T.N. Janakiraman, N. Sairam and N.R. Raajan	International Journal of Engg. Technology	Vol.5 no.2, Apr- May-2013 Pp1343-1346 Scopus (Snip)0.290
13	Generalized Tree of Hanging Stars	G. Sathiamoorthy T.N. Janakiraman, S. Rajabalachandar and S.K. Ayyaswamy	International Journal of pure and Applied Mathematics	Vol.87, issue1(2013)pp,145 -149 (Scopus (Snip)0.372
14	Graceful Labeling of Different Classes of Lobsters Connected in a Path	T. N. Janakiraman G. Sathiamoorthy	Applied Mathematical Mathematical Sciences	Vol.7,(2013) No.80 3989-3994 Scopus (Sni-0.681)
15	Graceful Labeling of Assignable information Hiding in image,	G. Sathiamoorthy T.N. Janakiraman, N. Sairam and N.R. Raajan etal	Research journal of information technology	Vol.5(2013) Issue-2, pp181-190 Scopus (Snip-1.428)
16	Graceful Labeling of some special classes of Hanging K-level rooted trees	T. N. Janakiraman G. Sathiamoorthy	International Journal of Pure & Applied Mathematics	Vol-89(2013) Issue 1, pp 19-27 Scopus(Snip)- 0.372
17	A Complete ranking of incomplete interval information,	Geetha Sivaraman, V.Lakshmana Gomathi Nayagam, R.Ponalagusamy	Expert Systems with Applications	2014, vol- 41, pp.1947-1954.

18	A boundary value Technique for singularly perturbed boundary value problem of reaction-diffusion with discontinuous source term, pui	Dr. V. Shanthi	Journal of Engineering Science and Technology	2013 Accepted for publication
19	A boundary value Technique for singularly perturbed boundary value problem of reaction-diffusion with discontinuous source term, pui	M. Chandru	Journal of Engineering Science and Technology	2013 Accepted for publication

8. PhD Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	R. Tamil Selvi	Dr. R. Ponalagusamy	NIT, Trichy-15
2	S. Senthil Thilak	Dr. T. N. Janakiraman	NIT, Trichy-15

9. Other Important Points

- (1) Annual International Conference on Computational Mathematics, Computational Geometry and Statistics(CMCGS 2013), 2013, Singapore./ Dr. R. Ponalagusamy
- (2) The 2nd Science One International Conference on Information Technology (ICIT 2014), Dubai, UAE, January 14-16, 2014. / Dr. R. Ponalagusamy
- (3) Life member in Indian Mathematical Society (IMS), Indian Society fo Technical Education(ISTE) / Dr. V. Shanthi



MECHANICAL ENGINEERING

MECHANICAL ENGINEERING DEPARTMENT

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

Sl.No	Coordinator	Programme	Period
1.	K. Sankaranarayananasamy, S. P. Sivapirakasam and K.R. Balasubramanian	IGCAR Sponsored Safety Training Programme	2.07.2013 to 05.07.2013
2.	K. Sankaranarayananasamy, S. P. Sivapirakasam and K.R. Balasubramanian	IGCAR Sponsored Safety Training Programme	21.08.2013 to 23.08.2013

2.2. Papers presented by the Faculty / Students

Sl.No	Author(s)	Details	Place & Date
1.	A.Zahir Hussain R.Anand	Experimental Investigation on a Dual Fuel Engine Using LPG and Processed Waste Engine Oil, 4 th International Conference on Advances in Energy Research	Indian Institute of Technology Bombay, Mumbai , Dec.10-12,2013
2.	A.Zahir Hussain R.Anand	Processed Waste Engine Oil as Fuel in Diesel Engine, International Mechanical Engineering conference (ICARMAEC 2013).	Pattaya, Thailand, Sep.7-8, 2013
3.	J. Ronald Aseer, K. Sankaranarayananasamy, P. Jayabalan	"Effect of chemical treatment on mechanical properties of municipal solid waste and banana fiber reinforced polymer composites" International Conference on Applied Mechanics, Fluid and Solid Mechanics (AMFSM).	15-16th November, Singapore, 2013
4.	K. R. Balasubramanian, S. Suresh S. P. Sivapirakasam	Heat Transfer Enhancement Using Nanofluid In A Serpentine Passage, International Conference on Advance Research in Mechanical, Aeronautical And Civil,. pp. 65-69.	Pattaya, Thailand, Sep 7, 2013

5.	S. P. Sivapirakasam, Sreejith Mohan, K. R. Balasubramanian, M. Surianarayanan	Respirable fume analysis during the flux cored arc welding of 316L(N) Austenitic stainless steel, International Conference on Advance Research in Mechanical, Aeronautical And Civil, pp.70-74.	Pattaya, Thailand, Sep 7, 2013
6.	S. P. Sivapirakasam, Sreejith Mohan, K. R. Balasubramanian, M. Surianarayanan	Respirable fume analysis during the flux cored arc welding of 316L(N) Austenitic stainless steel, International Conference on Advance Research in Mechanical, Aeronautical And Civil,. pp.70-74.	Pattaya, Thailand, Sep 7, 2013
7.	K. R. Balasubramanian, S. Suresh and S. P. Sivapirakasam	Heat Transfer Enhancement Using Nanofluid In A Serpentine Passage, International Conference on Advance Research in Mechanical, Aeronautical And Civil,. pp. 65-69.	Pattaya, Thailand, Sep 7, 2013
8.	A. Buckshumiyan, AR. Veerappan, S. Shanmugam	Finite Element Limit Analysis in Pipe Bends Subjected to In-Plane Opening Moment and Internal Pressure, International Conference on Computer Aided Engineering, pp. 133 – 136.	Indian Institute of Technology Madras, Chennai, India, December 19 - 21, 2013,
9.	G. Muthu, S. Shanmugam, AR. Veerappan	Solar Parabolic Dish Thermoelectric Generator with Acrylic Cover, IV th International Conference on Advances in Energy Research, pp. 17 – 24.	Indian Institute of Technology Bombay, Mumbai, India, December 10 – 12, 2013
10.	S.Venkatachalapathy, R. Kamatchi, Y. S. Kannan	“Effect of Surface Modifications on the Enhancement of Critical Heat Flux in Saturated Pool Boiling” International Conference on Advance Research in Mechanical, Aeronautical and Civil (ICARMAEC 2013)	Pattaya, Thailand, Sept. 7-8, 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Sl.No	Co-ordinator	Title	Period
1.	R.Anand,V.Arulmozhiselvan	Automotive Fuels & Emission	12.06.2013 to 14.06.2013
2.	K. Sankaranarayananasamy	Applications of CFD in Heat Transfer and Fluid Flow	09 th to 10 th January 2014
3.	K. Sankaranarayananasamy	Applications of Finite Element Method in Academic and Industrial Research	6 th to 8 th June 2013
4.	K. R. Balasubramanian	Organizing an "International Mechanical Engineering Congress" sponsored by TEQIP	June 13-15, 2014
5.	K. R. Balasubramanian	Five days training programme on "OSHAS 18001:2007"	04.02.2014 to 08.02.2014
6.	K. R. Balasubramanian	In house Occupational Health and Safety Training programme for M.Tech students	05.12.2013 to 17.12.2013
7.	K. R. Balasubramanian	Short term course on "Quantitative Research Techniques for Engineers and Researchers" under Self Financing Category.	10.06.2013 to - 14.06.2013
8.	K. R. Balasubramanian	TEQIP -II Sponsored short term course on "Recent Advances in Modeling and Simulation of Joining of Materials"	23.05.2013 to 25.05.2013
9.	Dr. K.R. Balasubramanian, Dr. S.P.Sivapirakasam, Dr. R. Anand	Organizing an "International Mechanical Engineering Congress" sponsored by TEQIP	13.06.2014 to 15.06.2014
10.	Dr. S.P.Sivapirakasam, Dr. K.R. Balasubramanian	Short term course on "Quantitative Research Techniques for Engineers and Researchers" under Self Financing Category.	10.06.2013 to 14.06.2013
11.	Dr. K.R. Balasubramanian, Dr. S.P.Sivapirakasam	TEQIP -II Sponsored short term course on "Recent Advances in Modeling and Simulation of Joining of Materials"	23.05.2013 to 25.05.2013
12.	Dr. S. Shanmugam Dr. AR. Veerappan	Workshop on Solar Power	14 & 15 June 2013
13.	Dr. S. Shanmugam Dr. AR. Veerappan	Workshop on Engineering Pipe Bends	20 & 21 December 2013
14.	S. Suresh, S. Venkatachalapathy V. Mariappan	Workshop on "Applications of Nanotechnology in Mechanical Engineering"	18.12.2013 - 21.12.2013

15.	S. Venkatachalapathy, K. Sankaranarayananamy S. Suresh	International Workshop on “Applications of CFD in heat transfer and fluid flow”	09.01.2014 to 10.01.2014
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3.2. Attended

Sl.No	Faculty / Students	Details	Period
1.	R.Anand	Renewable Energy, Climate Change & Energy Management organised by Anna University, Chennai	
2.	R.Anand	Automotive combustion control systems organised by IIT Madras.	
3.	K. Sankaranarayananamy	Three days short term course on "Finite Element method", National Institute of Technology, Tiruchirappalli,	21 th to 23 th March 2013.
4.	K. R. Balasubramanian	One week coordinator's workshop on Fluid Mechanics conducted by IIT Kharagpur	11 th March to 15 th March, 2014.
5.	K. R. Balasubramanian	Attended International Conference on Advance Research in Mechanical, Aeronautical And Civil,.	Sep 7, 2013 Pattaya, Thailand
6.	K. R. Balasubramanian	Attended International Conference on Advance Research in Mechanical, Aeronautical And Civil,.	Sep 7, 2013 Pattaya, Thailand
7.	Nanda Naik Korra	Two weeks ISTE workshop on Engineering Mechanics conducted by Indian Institute of Technology Bombay.	26 th November to 06 th December, 2013
8.	S. Venkatachalapathy R. Anand	“Study and Networking of Institutes under TEQIP”, POLITECNICO DI BARI, Bari, Italy.	July 29, – August 4, 2013

4. Invited / Guest Lectures Delivered by the Faculty

Sl.No	Faculty	Topic	Programme	Place & Date
1.	K. Sankaranarayanan	CAD	Faculty development programme	Thiagarajar College of Engineering, 18-12-2013.
2.	K. R. Balasubramanian	Engineering Mechanics	Faculty development programme	MIET Engineering College Trichy, 11-10-2013.
3.	K. R. Balasubramanian	Renewable Energy Sources	Faculty development programme	Syed Ammal Engineering College, Rmanathapuram, 07-10-2013
4.	Dr. S.P.Sivapirakasam	Industrial Safety, Health and Environment	Faculty development programme	Dr. Navalar Nedunchezhiyan College of Engineering, Tholudur. 15.03.2013 to 16.03.2013
5.	Dr. S.P.Sivapirakasam	Fascinating Advancement in Research Methodology	Faculty development programme	Mar Ephraem College of Engineering and Technology, Marthandam 08.03.2013 to 09.03.2013
6.	Dr. S.P.Sivapirakasam	Need for Environment, health and safety	Faculty development programme	Knowledge Insitute of Technology, Salem, 14.03.2013

5. Research Projects undertaken and Status

Sl.No	Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
1.	R.Anand	Experimental Studies on a Direct Injection Diesel Engine Using Waste Cooking Oil Based Biodiesel and Its Blends	MHRD	Rs. 36.81

2.	K. Sankaranarayananasamy	Comparative study and analysis of FBHE coils support arrangement between BORL and Koniambo CFBC boiler – Milestone I Predicting metal tube temperature for FBHE coils of Koniambo & BORL	Bharat Heavy Electricals Limited, Tiruchirappalli	Rs. 20.34	Rs. 20,34,000
3.	K. R. Balasubramanian	Modeling of A-TIG welding of austenitic stainless steels and prediction of residual stresses	UGC-DAE-CSR - Research	Rs. 11.07	
4.	Dr. S.P.Sivapirakasam – Principal Investigator	Analysis of Welding Fumes for the Consumables Used in the Manufacture of Nuclear Components	Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam	Rs. 17.21	

6. Major Equipment / Software Purchased (more than Rs. 5.00 Lakhs)

S.No.	Equipment	Amount (Rs. in Lakhs)
1.	SYSWELD	Rs. 8.28
2.	Fume Hood Chamber for Welding as per AWS F1.2. Standard	Rs. 4.30

7. Research Papers Published in National / International Journals

7.1. Faculty

Sl.No.	TITLE	Author(s)	Journal	Year Vol. (No) Page
1.	Artificial neural network approach to study the effect of injection pressure and timing on diesel engine performance fueled with biodiesel	G.R. Kannan and R.Anand	International Journal of Automotive Technology	2013, 14 (4),507-519
2.	Morphological, Physico-mechanical and Thermal properties of Banana Plant Fibers (Musa sapientum)	J. Ronald Aseer, K. Sankaranarayananasamy and P. Jayabalan	Applied Polymer Composites	2013 Vol. 1(3), 125-134

3.	Effect of chemical treatment on mechanical properties of municipal solid waste and banana fiber reinforced polymer composites	J. Ronald Aseer, K. Sankaranarayananamy and P. Jayabalan	Journal of Advanced Materials Research	2014 Vol. 871, 253-258
4.	Morphological, Physical and Thermal properties of Chemically Treated Banana Fiber", Journal of Natural Fibers, Vol. 10:4, 365.	J. Ronald Aseer, K. Sankaranarayananamy, P. Jayabalan, R.Natarajan and Priya K. Dasan	Journal of Natural Fibers	2013 Vol. 10:4, 365
5.	Morphological and Mechanical Properties of Chemically Treated Municipal Solid Waste (MSW)/ Banana Fiber and their Reinforcement in Polymer Composites	J. Ronald Aseer, K. Sankaranarayananamy, P. Jayabalan R.Natarajan and Priya K. Dasan	Journal of Science and Engineering Composite Materials	2014 DOI 10.1515/se cm-2013- 0203
6.	Mechanical and Water Absorption Properties of Municipal Solid Waste and Banana Fiber Reinforced Urea Formaldehyde Composites	J. Ronald Aseer, K. Sankaranarayananamy, P. Jayabalan R.Natarajan and Priya K. Dasan	Journal of Environmental Progress and Sustainable Energy	DOI 10.1002/ep .11966
7.	Workability studies on 99.04% pure aluminium processed by ECAP	S. Surendarnath K. Sankaranarayananamy and B. Ravisankar	Materials and manufacturing process	Accepted
8.	Thermo - Mechanical Analysis of TIG Welding of AISI 316LN Stainless Steel, Materials and Manufacturing Processes,	K. C. Ganesh , M. Vasudevan , K. R. Balasubramanian, N. Chandrasekhar P. Vasantharaja	Journal of Materials: Design and Applications	Accepted
9.	Numerical analysis and experimental validation of hardness and microstructural changes during laser transformation hardening of low alloy steel plates	P. Dinesh Babu, G. Buvanashakaran K. R. Balasubramanian	Journal of Materials: Design and Applications	Accepted
10	Artificial Neural Network Approach To Study The Effect Of Injection Pressure and Timing On Diesel Engine Performance Fueled With Biodiesel	G. R. Kannan, K. R. Balasubramanian R. Anand,	International Journal of Automotive Technology	Vol. 14, No. 4, pp. 507–519 (2013).
11	Dry sliding wear of laser hardened low alloy steel at room and elevated temperatures Proceedings of the Institution of Mechanical Engineers	P. Dinesh Babu, G. Buvanashakaran K.R. Balasubramanian	Part J: Journal of Engineering Tribology,	227 (10) pp. 1138– 1149, 2013.
12	Experimental investigation of laser transformation hardening of low alloy steel using response surface methodology	P. Dinesh Babu G. Buvanashakaran K. R. Balasubramanian	International Journal of Advanced Manufacturing	Vol.67: pp. 1883– 1897, 2013.

			Technology,	
13	Investigation on the Friction Sensitivity of a match head composition influenced by the surface roughness of contact materials	Nalla Mohamed. M, Sivapirakasam. S.P, Surianarayanan. M,	Propellants, Explosives, Pyrotechnics	2013, Vol 38 (2) 266-272
14	Evaluation of thermal hazards and thermo-kinetic parameters of a match head composition by DSC and ARC	Sivapirakasam. S.P, Nalla Mohamed. M, Surianarayanan. M, Sridhar.V.P	Thermochemica Acta.	2013 Vol. 557, 13-19.
15	Numerical Simulation of impact initiation of a match head composition for different in process contact materials	Sivapirakasam. S.P, Nalla Mohamed. M, Surianarayanan. M	Combustion and Flame.	2013 Vol.160, 2573-2584
16	Experimental Diagnosis on Frictional Initiation of a Match Head Composition at Different Contact Materials	Sivapirakasam. S.P, Nalla Mohamed. M, Surianarayanan. M	Propellants, Explosives, Pyrotechnics	Volume 39, Issue 1, pages 125–132, February 2014
17	Influence of work piece materials on aerosol emission from die sinking electrical discharge machining process	Thiyagarajan S, Sivapirakasam. S.P, Jose Mathew, Surianarayanan. M	Process Safety and Environmental Protection	Accepted in Press
18	Plastic collapse loads in shape-imperfect pipe bends under in-plane opening bending moment	A. Buckshumiyam, AR. Veerappan, S. Shanmugam	International Journal of Pressure Vessels and Piping	Vol. 111 - 112, 2013, pp. 12 – 26. (ISSN: 0308-0161) (Elsevier)
19	Effect of internal pressure and shape imperfections on plastic loads of pipe bends under in-plane closing moment	T. Christo Michael, AR. Veerappan, S. Shanmugam	Engineering Fracture Mechanics	105, 2013, pp. 1 – 15. (ISSN: 0013-7944) (Elsevier)
20	Experimental investigation on enhancement in thermal characteristics of sintered wick heat pipe using CuO nanofluids	G. Kumaresan S.Venkatachalapathy Lazarus Godson Asirvatham	International Journal of Heat and Mass Transfer	72 (2014) 507–516

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	P. Velmurugan	K. Sankaranarayananasamy	National Institute of Technology, Tiruchirappalli
2.	T. Suthakar	K. Sankaranarayananasamy	National Institute of Technology, Tiruchirappalli
3.	P. Dinesh Babu	K.R. Balasubramanian	National Institute of Technology, Tiruchirappalli
4.	M. Nalla Mohamed	Dr. S.P.Sivapirakasam	National Institute of Technology, Tiruchirappalli
5.	T. Christo Michael	Dr. AR. Veerappan	National Institute of Technology, Tiruchirappalli

9. Details of Book any authored by faculty.

K.R. Balasubramanian Authored a chapter “Modeling and Simulation of Laser Welding” in the book ‘Lasers in manufacturing’ published by ISTE-Wiley, U.K edited by Prof. J. Paulo Davim, University of Aveiro, Portugal. ISBN: 9781848213692. pp. 203-246.

Prof. S.S Arulappan has authorized a book named “Machine Design”.

11. Other Important Points

1.	<p>K. Sankaranarayananasamy visited the National University of Singapore, Singapore during 23 September to 01 October 2013 for study and networking tour under TeQIP Phase II.</p> <p>The main purpose of the visit is to study the best procedures followed at the National University of Singapore in academic administration and management. Prof. M. Rahman, world renowned researcher in the area of fine machining acted as the host for the visit. As part of the visit, I visited the laboratories and research facilities available at NUS and had detailed discussion with the Mechanical Engineering faculty of NUS.</p>
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2.	Dr. S.P.Sivapirakasam, Dr. K.R. Balasubramanian, Dr. S.Suresh, Dr. S. Venkatachalapathy and Prof. V. Maraiappan were instrumental in signing a Memorandum of Understanding (MoU) between National Institute of Technology (NIT), Trichy and Asian Institute of Technology (AIT), Thailand.
3.	Dr. S.P.Sivapirakasam was instrumental in signing a Memorandum of Understanding (MoU) between National Institute of Technology (NIT), Trichy and Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam for carrying out the sponsored project entitled, “Analysis of Welding Fumes for the Consumables Used in the Manufacture of Nuclear Components”.



METALLURGICAL & MATERIALS ENGINEERING

METALLURGICAL AND MATERIALS DEPARTMENT

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1.	Dr.K Siva Prasad	Sir Dorabji Tata – TR Anantharaman Faculty Fellowship 2013-14	TR Anantharaman Foundation and Tata Trust

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1	J.Yoganandh, Dr.S.Natarajan, S.P.Kumaresh Babu	Best paper award	CST-2013, NIT, Trichy
2	M Yaswanth, Mathan Kumaran V, L Vairavan Gowtham, Dr.S Natarajan, Edward Anand.E, M.Adam Khan	Best paper award	CST-2013, NIT, Trichy
3	Mr. Vimal Kumar	Summer Internship Award(2014)	Prof. TRA ERF Summer Internship Award, for students of BTech MME III year
4	Ms. Ananya Rajagopal	Summer Internship Award(2014)	From two overseas agencies
5	Multiple number of students	Summer Internship Award	From National and International organizations as well as from core industry

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1	Dr.S.Muthukumaran	Advancements In Welding	04.07.2013-

	& Dr. S. Jerome	Technology (AWT 2013)	05.07 2013
2	Dr.N.Ramesh Babu & Dr.K.Siva Prasad	Self-supported short term course on Engineering Materials and Manufacturing Processes (EMMP-2013)	16.12.2013- 21.12. 2013, NIT Trichy
3	Dr.V. Muthupandi & Dr.K. Siva Prasad	National Workshop on Surface Modification of Structural Materials (SMSM)", sponsored by Naval Research Board (NRB)	27.05. 2013- 28.05. 2013, in NIT Trichy
4	Dr.S.Raman Sankaranarayanan & Dr. S.P.Kumaresh Babu	Seminar on 100 years of Stainless Steels, along with Indian Institute of Metals, Trichy Chapter	August. 2013

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
J.Yoganandh,S.Natarajan, S.P.Kumaresh Babu	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23.08.2013-24.08.2013
M.Adam Khan, S.Sundarrajan, Dr.S.Natarajan, P.Pameswaran, E.Mohan Das	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23.08.2013-24.08.2013

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr.N. RameshBabu	Short Term Course on Engineering Materials and Manufacturing Processes (EMMP-2013)	16.12.2013- 21.12.2013
Dr.S.Raman Sankaranarayanan &	Training programmes for executives from steel plants; one on slags; and the other on	April-May 2013

Dr. S.P.Kumaresh Babu	iron making and steel making;	
Dr.S.Raman Sankaranarayanan & Dr.S.Muthukumaran	One day workshop on Friction Stir Welding	22.02.2014

3.2. Attended-

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Date&Place
Dr. S. Jerome	Micro and nano Welding	Department Association Event	28.08.2013, M. Kumarasamy College of Engineering, Karur
Dr. S. Jerome	Gas Welding	Oneday Colloquium on Weleding	05.03.2014, Care School of Engineering, Trichy
Dr.B.Ravisankar	ECAP	TEQIP sponsored one week workshop on “Navigating New Frontiers in Materials “	02-07-2013-06.07 .2013 at National Institute of Technology, Warangal.
Dr.B.Ravisankar	ECAP Selection of Materials	TEQIP sponsored one week workshop on “Modern Materials and Manufacturing Processes	25.10.2013-31.10. 2013, at Govt. College of Engineering, Salem.
Dr.B.Ravisankar	Selection of Materials and Processes	AICTE sponsored two week Faculty Development Program (FDP) on “Recent Research and Development in Manufacturing Process - II	11.11.2013- 22.11.2013, at MAM College of Engineering, Tiruchirappalli.
Dr.B.Ravisankar	ECAP of steels for high performance	National workshop on Metallurgy of high performance steels	04.04.2014 at PSG College of Technology, Coimbatore.

Dr.B.Ravisankar	Mechanism of Plastic Deformation	National workshop on Advances Metal Forming	09.04. 2014 at Anna University – Regional Centre, Coimbatore.
Dr.K Siva Prasad	Electron Microscopy	Engineering Materials and Manufacturing Processes-2013	16.12.2014-21.12. 2014, NIT Trichy
Dr.K Siva Prasad	Mechanical Testing of Materials	Engineering Materials and Manufacturing Processes-2013	16.12.2014-21.12. 2014, NIT Trichy
Dr.K Siva Prasad	Advanced Materials Processing	Engineering Materials and Manufacturing Processes-2013	16.12.2014-21.12. 2014, NIT Trichy
Dr.S. Kumaran	Nanomaterials : Synthesis and Applications	National Conference Mechanical Science	26 .02.2014, Kongu College of Engineering. Perundurai
Dr.N. Ramesh Babu	Fabrication of corrosion resistant and bioactive coatings on metallic implant materials by plasma electrolytic oxidation	National workshop on Advances In Materials And Processing Technology University college of engineering, Vijayanagaram JNTU Kankinada	07.03.2014-08 03.2014 University college of engineering, Vijayanagaram JNTU Kankinada
Dr.N. Ramesh Babu	Trends in Biomaterials; (under TEQIP-II) Organized by Dept. of ICE, NITT	Workshop on trends in bio medical engineering,	22.02.2014 & 23.02. 2014
Dr.N. Ramesh Babu	Fabrication of corrosion resistant and bioactive coatings on metallic implant materials by plasma electrolytic oxidation;	National Conference on Challenges in Biomaterials Research, Jointly organized by VIT Vellore and CSIR-CECRI	23.12.2013 & 24 .12.2013, VIT Vellore
Dr.N.	Nanostructured coatings by	workshop on Applications of	18-21 Dec 2013,

RameshBabu	Plasma Electrolytic Oxidation Processing,	Nanotechnology in Mechanical Engineering, NIT Trichy,	NIT Trichy
Dr.N. Ramesh Babu	Nanostructured ceramic coatings by Plasma Electrolytic Oxidation,	National Workshop on Optoelectronics and Advanced Materials (OPAM-2013),	12 & 13th Dec 2013, Anna University Trichy
Dr.N. Ramesh Babu	Plasma electrolytic oxidation coatings;	DST sponsored seminar on Advanced manufacturing Processes, organized by PVP Siddhartha Institute of Technology, Kanuru, Vijayawada Andhra Pradesh	23.11.2013, Vijayawada Andhra Pradesh
Dr.N. Ramesh Babu	Plasma electrolytic oxidation for surface modification of metallic implant materials;	International conference on Surface Engineering For Research and Industrial Applications - INTERFINISH-SERIA 2013 organized by Rajalakshmi Engineering College (REC) in association with International Union for Surface Finishing (IUSF) at Chennai, India	07.08.2013-09.08.2013 Chennai, India
Dr. S.Raman Sankaranarayanan	Developments in Steels	Two day workshop, organized by the dept. of Mechanical Engineering	June 2013, MKCE, Karur

5. Research Projects undertaken and Status

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr.S. Kumaran	Development of Nano-structured / Amorphous SiGe Thermo-electric Materials by High Energy Ball Milling and Spark Plasma Sintering	ISRO-RESPOND	18.00

6. Major Equipment / Software Purchased (more than Rs. 5.00 Lakhs)

S.No	Equipment	Amount (Rs. in Lakhs)
1	Micro-Tensile Tester	18.00
2	Planetary Ball Mill	21.00
3	Microwave Sintering Furnace, 1600°C	7.30
4	Vacuum Induction Melting Furnace, one Kg capacity	50.00 (approximately)
5	Vacuum Sintering Furnace	9.50
6	Friction stir welding machine	75.00 (approximately)
7	X-ray diffraction unit	100.00 (approximately)
8	Scratch testing unit	60.00 (approximately)
9	Optical Profilometer	50.00 (approximately)
10	FTIR Unit	50.00 (approximately)
11	UV visible spectrometer	10.00 (approximately)
12	Contact angle goniometer	12.00 (approximately)

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Comparison in the Oxidation and Corrosion Behavior of Aluminum and Alumina-Reinforced Ni/Ni-Co Alloy Coatings	Meenu Srivastava, J.N. Balaraju, B. Ravisankar, and V.K. William Grips,	Metallurgical and Materials Transactions A	“VOLUME 44A, 2013,pp 696- 707
2	Mechanical, Metallurgical Characteristics and Corrosion Properties of Equal Channel Angular Pressing of Duplex Stainless Steel	P.M.Ajith, P.Sathiya , Kondaiah Gudimetla and B.Ravisankar	Advanced Materials Research	Vol. 717 (2013) pp 9-14

3	Equal Channel Angular Pressing of an Aluminium Magnesium Alloy at Room Temperature	Ramesh Kumar S, Ravisankar B , Sathya P, Thomas Paul V, and Vijayalakshmi M	Trans IIM	Accepted
4	Workability study on 99.04 % pure aluminum processed by ECAP	S. Surendarnath, K. Sankaranarayanan and B. Ravisankar	Materials and Manufacturing processes	Accepted
5	The influence of aluminium intermediate layer in dissimilar friction welds	Muralimohan Cheepu, V.Muthupandi and K.Sivaprasad	International Journal of Materials Research	In Press
6	Fabrication and consolidation behavior of Al 6061 nanocomposite powders reinforced by multi-walled carbon nanotubes	D. Jeyasimman, K. Sivaprasad, S. Sivasankaran, R. and Narayanasamy	Powder Technology	258, 2014, 189-197
7	An investigation of the synthesis, consolidation and mechanical behaviour of Al 6061 nanocomposites reinforced by TiC via mechanical alloying	D. Jeyasimman, S. Sivasankaran, K. Sivaprasad, R. Narayanasamy and R.S. Kambali	Materials and Design	57, 2014, 394-404
8	Strengthening Contributions in Ultra High Strength Cryorolled Al-4wt%Cu-3wt%TiB2 in situ Composite	N. Naga Krishna, K. Sivaprasad and P. Susila	Transaction of Nonferrous Metal Society of China	24 (3), 2014, 641-647
9	Mechanical properties and corrosion behavior of carbon nanotube reinforced AA4032 nanocomposites	M.S.Senthil Saravanan, K.Sivaprasad and S.P.Kumaresh Babu	Experimental Techniques	38, 2014, 48-52
10	Effect of milling on Sintering behaviour of γ -TiAl by spark plasma sintering	S. Kennedy, S. Kumaran and T. Srinivasa Rao	Materials and Manufacturing Processes	<u>Vol 28, Issue 8, 2013</u>
11	Some studies on extruded ZM21-x Scandium magnesium alloy	A.X.Amal Rebin and S.Kumaran	International Journal of Innovation and Research	Vol 3, No1 Pg 40-43 2014

12	Impact of Amorphous Structure on Mg ₆₇ Ni _(33-x) Nb ₁ Al _x alloy synthesized by mechanical alloying for hydrogen storage application	A.Venkateswari and S.Kumaran	International Journal of Innovation and Research	Vol-03, 44-48, 2014
13	Microstructural Evolution and mechanical properties of α -Mg-Li alloys	P. Bhagat Singh and S. Kumaran	International Journal of Innovation and Research	Vol.-03, No.-01, 49-51 2014
14	Densification mechanism in spark plasma sintering of pure vanadium powder	K Vinoadh Kumar, S Kumaran and Arun Rafel	International Journal of Innovation and Research	Vol.02, pp:75-79 2014
15	Fabrication, characterization and in-vitro evaluation of nanostructured zirconia/hydroxyapatite composite film on zirconium	M Sandhyarani, Rameshbabu N, K Venkateswarlu and L Rama Krishna	Surface Coatings and Technology	2014, 238, 58-67
16	Role of electrolyte chemistry on electronic and in vitro electrochemical properties of micro-arc oxidized titania films on Cp Ti	K. Venkateswarlu, N. Rameshbabu, D. Sreekanth, M. Sandhyarani, A.C. Bose, V. Muthupandi and S. Subramanian	Electrochimica Acta	2013, 105, 468- 480
17	Photocatalytic and antibacterial activity of titanium, fluorine and silver co-substituted hydroxyapatite	M. Sandhyarani, N. Rameshbabu, K. Venkateswarlu K.V.Ravisankar M. Ashok and S. Anandan	International Journal of Modern Physics: Conference Series	2013, 22, 268-277
18	Erosive Wear Behavior of Nickel-Based High Alloy White Cast Iron Under Mining Conditions Using Orthogonal Array.	Yoganandh, J., S. Natarajan, and S.P. Kumaresh Babu	ASM International - Journal of Materials Engineering and Performance,	2013, 22(9), 2534-2541.

19	Erosion Behaviour of WC–Co–Cr Thermal Spray Coated Grey Cast Iron under Mining Environment.	Yoganandh, J., S. Natarajan, and S.P. Kumaresh Babu	Transactions of the Indian Institute of Metals	2013, 66(4), 437-443.
20	Slurry Jet Erosive Wear Behaviour of NiCrBSi Coated Grey Cast Iron under Mining Environment.	Yoganandh, J., S. Natarajan, and S.P. Kumaresh Babu	Surface Engineering	2013, 30(1), 71-77.
21	Oxidation And Hot Corrosion Behaviour Of Nickel Based Superalloy For Gas Turbine Applications	M.Adam Khan, S.Sundarrajan, S.Natarajan, P.Parameswaran and E.Mohan Das	Journal of Materials and Manufacturing Processes	2014 Article in press
22	Rare Earth Metals by Calciothermic Reduction Diffusion Process	M. Ilayaraja (NITT), L. John Berchmans (CECRI) and S. Raman Sankaranarayanan	Journal of Metallurgical and Materials Engineering	2014, vol. 20, n 1, pp. 35 - 40

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	S. Kennedy	Dr. T. Srinivasa Rao Dr.S. Kumaran	NIT Trichy
2	D. Sreekanth	Dr.N.Rameshbabu	NIT Trichy
3	N.Nagakrishna	Dr.K.Siva Prasad	NIT Trichy
4	S.Manimozhi	Dr.V.Muthupandi	NIT Trichy

10. Patent if any obtained by faculty.

Work initiated for patenting (jointly with NLC) of product developed by Dr.S.Natarajan and Dr. S.P.Kumaresh Babu, on project sponsored by Neyveli Lignite Corporation (NLC).
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11. Other Important Points

1. Dr. S. Suresh (GM (retd.), WRI BHEL) and Dr. Rajasingh Thangadurai (DRDL, Hyderabad) have joined the dept. as INAE Distinguished Visiting Professors.
2. Prof. S. Seetharaman, KTH Sweden, visited the dept. during February 2014, to deliver a series of invited lectures for students.
3. Dr. Rajasingh Thangadurai (INAE DVP) and Prof. Velmurugan (IIT M) delivered a series of lectures on polymers and advanced composites.
4. Dr. S. Suresh (INAE DVP) delivered special lectures in welding metallurgy.



PHYSICS

PHYSICS

1. Notable Achievements

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1	Anil Krishnan A G	Best Poster Award	Asia Pacific conference on Non-destructive Testing, Nov. 18 th -22 nd 2013, Mumbai
2	D. Bhagya Mathi	Best Oral Presentation award	Investigation on structural and thermal properties of Ammonium Heptomolybdate (AHM), D. Bhagya Mathi, A. Chithambararaj, and A Chandra Bose, National Seminar on Technologically Important Crystalline and Amorphous Solids (TICAS 2014), Kalasalingam University, KrishnanKovil, February 28- March 1, 2014.
3	A. Chithambararaj	CSIR Travel Grant	Synthesis of pure and Ag loaded flower like hierarchical h-MoO ₃ : Studies on structural, thermal, optical and electrical properties, A. Chithambararaj and A. Chandra Bose, Singapore, ICMAT-2013, June 30-July 05, 2013.
4	A. Chithambararaj	TEQIP Travel Grant	Synthesis of flower-like hierarchical h-MoO ₃ and layered α -MoO ₃ nanocrystals: Photo degradation studies of methylene blue under visible light irradiation, A. Chithambararaj, N. S. Sanjini, S. Velmathi, and A. Chandra Bose, ISACS12, Cambridge University, United Kingdom. Sep. 3-6, 2013.
5	A.	RSC Travel Grant	Synthesis of flower-like hierarchical h-MoO ₃ and layered α -MoO ₃

	Chithambararaj		nanocrystals: Photo degradation studies of methylene blue under visible light irradiation, A. Chithambararaj, N. S. Sanjini, S. Velmathi, and A. Chandra Bose, ISACS12, Cambridge University, United Kingdom. Sep. 3-6, 2013.
6	Nallamuthu S	National Scholarship Programme of Slovak Republic University of Presov Duration: 01/11/2013 to 31/01/2014	Slovak Academy Information Agency(SAIA) Sasinkova 10 812 20 Bratislava 1 Slovak Republic

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1	Dr. R. Sankaranarayanan	INPHYNITT-14, National Symposium in Physics	14 March 2014
2	Dr. M.C. Santhosh Kumar	Golden Jubilee lecture by Prof. G. K. Shivakumar, NITK Surathkal	04.04.2014
3	Dr. B. Karthikeyan	Special Lecture by Dr. Reji Philip, Associate Professor, Raman Research Institute, Bangalore.	07/03/2014

2.2. Papers presented by the Faculty / Students

Faculty	Author(s)	Details
T. Balasubramanian	T.Balsasubramanian and G.Jeyalakshmi	Realization of Room Temperature Ferromagnetism in ZnO Thin Films on Surface Functionalization, 2013 MRS Fall Meeting & Exhibit, Boston, MA, USA, 1-6, December, 2013.
	T.Balasubramanian, Krishnan Balasubramaniam	Quality Control of Laser welds using Ultrasonic Guided Waves, Satwant Singh, Asia Pacific Conference for NDT (APCNDT 2013), Mumbai, India,

		November 18-22, 2013.
D. Sastikumar	Anil Krishnan A G, D Sastikumar, Ramesh Kumar M and Karuppanan D	Lap Joint Studies on Composite Laminates by Using Ultrasonic Methods Asia Pacific conference on Non-destructive Testing, Nov. 18 th -22 nd 2013, Mumbai
	P.Balaji, D.Sastikumar, S.Muthukumaran and S.Venukumar	Non Destructive Evaluation Of Dissimilar Aluminum Alloys (AA2014 & AA1100) Welded Using Friction Stir Welding Asia Pacific conference on Non-destructive Testing, Nov. 18 th -22 nd 2013, Mumbai
	Y.V.V.M. Mohana Rao, V.Kalyanavalli, D.Sastikumar S.Muthukumaran and S.Venukumar	Non Destructive Evaluation Of Aluminum A6061-T6 Spot Welds Produced By Friction Stir Welding Asia Pacific conference on Non-destructive Testing, Nov. 18 th -22 nd 2013, Mumbai
A. Chandra Bose	A. Chithambararaj and A. Chandra Bose	h-MoO ₃ : Invention of visible light driven nano-photocatalyst for methylene blue dye degradation, 6 th International Conference On Nano Science And Technology (ICONSAT-2014), The Institute of Nano Science and Technology (INST), Mohali, Punjab, India, March 3-5, 2014.
	D. Bhagya Mathi, A. Chithambararaj, and A Chandra Bose	Investigation on structural and thermal properties of Ammonium Heptomolybdate (AHM), National Seminar on Technologically Important Crystalline and Amorphous Solids (TICAS 2014), Kalasalingam University, KrishnanKovil, February 28- March 1, 2014.
	T Selvalakshmi and A Chandra Bose	Effect of Dy ³⁺ concentration on the photoluminescence property of Gd ₂ O ₃ :Dy ³⁺ , International Conference on Advanced Functional Materials

		(ICAFM -2014), <i>National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala</i> , February 19-21, 2014.
S. Tamilarasi, T Selvalakshmi, and A Chandra Bose		Structural, absorption and emission study on Yttrium Oxide doped with Europium ions, National Seminar on Technologically Important Crystalline and Amorphous Solids (TICAS 2014), Kalasalingam University, KrishnanKovil, February 28- March 1, 2014
R. Dhanabal, A. Chithambararaj and A. Chandra Bose		Investigation of structural, optical and gas sensing properties of Molybdenum trioxide thin film, International Conference in Asia - 2013 (IUMRS-ICA 2013), International Union of Materials Research Society, Materials Research Society of India at Indian Institute of Science Bangalore-560 012, Dec (16-20) - 2013.
A. Chithambararaj and A. Chandra Bose		Molybdenum oxide – A new findings of efficient visible light driven nano-photo-catalyst for dye degradation, Young Scientists' Colloquium-2013, Materials Research Society of India (MRSI), Kolkata, India, Aug. 28, 2013.
T. Selvalakshmi, S. Anbumani and A. Chandra Bose		Photoluminescence and Energy Transfer Study on $Gd_2O_3:Eu^{3+}$, Al^{3+} , 58 th DAE Solid State Physics Symposium, Thapar University, Patiala, during December 17-21, 2013
T. Selvalakshmi and A. Chandra Bose		Structural and luminescent study on $Gd_2O_3:Eu^{3+}$ codoped with Tb^{3+} synthesized by sol-gel Method, National Conference on Luminescence and its Applications (NCLA – 2013), January 8-10, 2013, PES Institute of Technology, Bengalure
T. Selvalakshmi and A. Chandra Bose		Structural, optical and morphological study on $Gd_2O_3:Eu^{3+}$ prepared by sol-gel method, National Conference on Chemosensor (NCC – 2013), National

		Institute of Technology, Trichy, September 19-20, 2013,
	A. Chithambararaj, N. S. Sanjini, S. Velmathi, and A. Chandra Bose	Synthesis of flower-like hierarchical h-MoO ₃ and layered α -MoO ₃ nanocrystals: Photo degradation studies of methylene blue under visible light irradiation, ISACS12-UK, Sep. 3-6, 2013.
	T. Selvalakshmi and A. Chandra Bose	Structural, optical and morphological study on Gd ₂ O ₃ :Eu ³⁺ , International Conference on Advanced Nanomaterials and Emerging Engineering Technologies (ICANMEET – 2013), Sathayabama University, Chennai, July 24-26, 2013.
N. Baskaran	S. Sathya Sheela, C. Kanagaraj and B Natesan	Theoretical investigations of structural and magnetic ground state stability of BiMnO ₃ - 58th DAE Solid State Physics Symposium, December 17-21, Patiala, Punjab, India.
	S. Sathya Sheela, C. Kanagaraj and B Natesan	Electric Polarization in Ferromagnetic Bi _{1/2} As _{1/2} MnO ₃ : A First Principle Study - International Conference on Magnetic Materials and Applications, December 5-7, 2013, IIT Guwahati, India.
N. Gopalakrishnan	R.N. Lokesh, L. Balakrishnan, Jaganathan Kulainthavel N. Gopalakrishnan.	Synthesis and characterization of ZnO Hierarchical nanoflowers, Multi-linked and high aspect nanorods, ICMAT 2013, Singapore, 02 July 2013
	Gopalakrishnan.N, Bhuvaneshwari.S, Balakrishnan.L	Synthesis and gas sensing properties of CuO Nanorods. ICMAT 2013, Singapore, 05 July 2013
J. Hemalatha	M. Nabeel Rashin and J. Hemalatha	Investigation on Thermo Physical Properties of Coconut Oil Based Zinc Oxide Nanofluids, Nano Today 2013 , Biopolis Way, Singapore December 08 to December 11, 2013
	M. Nabeel Rashin and J. Hemalatha	Experimental Investigation On Viscometric Parameters Of Coconut Oil Based Copper Oxide Nanofluid, ICMAT 2013, Suntec, Singapore, June

		30 to July 5, 2013
	M. Nabeel Rashin and J. Hemalatha	Preparation and characterization of spin coated PVDF/PMMA Blend Films, ICAFM 2014, Trivandrum, February 19-February 22, 2014
M.Ashok	Pradeep Reddy and M.Ashok	Solvothermal Synthesis and Characterization of $\text{Bi}_{1-x}\text{Ag}_x\text{FeO}_3$ Nanoparticles, International Conference on Advanced Functional Materials (ICAFM -2014) February 19-21, 2014, <i>National Institute for Interdisciplinary Science and Technology, Trivandrum, Kerala.</i>
	Nivetha.C, Pradeep Reddy Vanga and Ashok.M	Synthesis and Characterization of $\text{Bi}_{1-x}\text{Gd}_x\text{FeO}_3$ by Solvothermal Method, National Seminar on Recent Advances in Materials Science (RAMS-2014) Feb 3-4, 2014, Bharathidasan University, Trichy.
	Pradeep Reddy Vanga and Ashok. M	Magnetic and Optical Studies of Fe and Co co-doped ZnO. International Conference on Advanced Nanomaterials and Emerging Engineering Technologies (ICANMEET – 2013), July 24-26, 2013, Sathayabama University, Chennai
	Pradeep Reddy Vanga, S. Leela Shree and M. Ashok	Effect of Cobalt Concentration on $\text{Bi}_{0.95}\text{Ba}_{0.05}\text{Fe}_{1-x}\text{Co}_x\text{O}_3$ International conference on Nano Materials: Science, Technology and Applications (ICNM' 13) December 05-07, 2013, B S Abdur Rahman University, Chennai
	Pradeep Reddy and M.Ashok	Effect of fluxing temperature on the synthesis and properties of BiFeO_3 International Conference in Asia (IURMS-ICA 2013) December 16-20, December 2013, Indian Institute of Science (IISc), Bangalore.
M.C. Santhosh Kumar	Saheer Cheemadan, K. Keerthana and M.C. Santhosh Kumar	Analysis of Structural and Electrical Properties of Aluminium doped lead sulphide, “National Conference on Advanced Materials for Emerging Technologies, July 11 to 12, 2013, Sri

		Ramakrishna Mission Vidyalaya College of Arts and Sciences, Coimbatore, Tamil Nadu, India.
	R. Amiruddin, Akshay Srinivas, M. C. Santhosh Kumar,	Fabrication of Hydrophobic ZnO Surfaces on SS304 Substrates, "National Conference on Advanced Materials for Emerging Technologies, July 11 to 12, 2013, Sri Ramakrishna Mission Vidyalaya College of Arts and Sciences, Coimbatore, Tamil Nadu, India.
	R. Amiruddin, R. Swapna and M.C. Santhosh Kumar	Growth of vertically aligned ZnO nanowires for Light Emitting Diodes (LEDs) applications, International conference on thin films and applications (ICTFA), Sastra Univeristy, Thanjavur, Tamil Nadu, September, 2013.
N.V. Giridharan	S. Bhuvaneswari. M. Muneeswaran, G. Sengutuvan and N.V. Giridharan.	Multiferroic properties of A-site and B-site doped BiFeO ₃ nanostructures, National Conference on Advance and materials applications, 4-5 Apr 2013. National Institute of Technology, Tiruchirappalli
	C.AnthonyRaj, M.Muneeswaran, N.V.Giridharan, V.Sivakumar and G. Senguttuvan	Synthesis and Charecterisation of Nd modified BiFeO ₃ Thin Film spin coated on glass substrate By sol-gel method at varied dwell time, International Conference on Thin Films & Applications (ICTFA-2013), 11 – 13,September 2013, SASTRA University, Thanjavur
	M. Muneeswaran and N.V. Giridharan,	Synthesis and Characterization of pure and rare earth modified BiFeO ₃ and YMnO ₃ "young scientist colloquium 2013" 28 th August 2013, Jadavpur University in Calcutta
	M.Muneeswaran and N.V.Giridharan,	Structural, Magnetic and Electrical properties of pure and rare earth modified BiFeO ₃ and YMnO ₃ , Thematic Workshop on Physics of Phase Transitions, 24-25 October, 2013, UGC-DAE Consortium for Scientific

		Research, Indore
	M.Muneeswaran, S.Bhuvaneswari, G.Senguttuvan and N.V. Giridharan	Structural, Electrical and magnetic properties of $\text{Bi}_{0.90}\text{La}_{0.10}\text{Fe}_{0.90}\text{Co}_{0.10}\text{O}_3$ ceramics, 58th DAE Solid State Physics Symposium, 17-21 Dec, 2013 Thapar University, Patiala, Punjab.
	Radhalayam Dhanalakshmia, R.Rathnaprabha, M.Muneeswaran, N.V. Giridharan	Hydrothermal Synthesis of Tb doped Bismuth ferrite, 2 nd International Conference on Advance Functional Materials (ICAFM 2014) February 19-21, 2014. Trivandrum
R.Justin Joseyphus	Sindhuja. M, Abithasri.S, Arun.T, Prakash.K and R.Justin Joseyphus	Magnetic properties of Barium Hexaferrite and evaluation of its biomedical applications Presented in 2013 JSAP-MRS Joint Symposia during September 16-20, 2013 held in Kyoto, Japan.
	Arun.T, Prakash.K and R. Justin Joseyphus	Size controlled Fe nanoparticles modified with prussian blue presented in ICMAT2013 held in Singapore during July 2013.
	Irshadali	Bond Characterization of Materials using Acousto-Ultrasonic Technique presented during APCNDT2013, held in Mumbai during Nov 18-22, 2013.
R.Nagalakshmi	N.Sudharsana, V.Krishnakumar R.Nagalakshmi	Structural and Optical Studies of Novel Hydroxyethylammonium maleate (HEAM) Single Crystal –Poster, DAE-BRNS National Laser Symposium (NLS) held in Department of Atomic and Molecular Physics, MIT, Manipal University, Manipal- 576104, Karnataka, INDIA during January 8-11, 2014.
	N.Sudharsana, K.Asokan , V.Krishnakumar R.Nagalakshmi	Oxygen and gold ion irradiation effects on hydroxyethylammonium (L) tartrate monohydrate single crystals –Oral RECENT ADVANCES IN MATERIALS SCIENCE (RAMS-2014) held in Department of Physics, Bharathidasan University,

		Tiruchirappalli-24, during February 3-4,2014.
	N.Sudharsana, V.Krishnakumar R.Nagalakshmi	Growth and Characterization of optically active 8-hydroxyquinolinium 3,5-dinitrobenzoate single crystal-Poster, International Union of Materials Research Societies – International Conference in Asia – 2013(IUMRS-ICA 2013) held in IISC, Bangalore-12 during December 16-20 2013.
	N.Sudharsana, V.Krishnakumar R.Nagalakshmi	Experimental and theoretical studies of 2,5-DCAP crystal for nonlinear optical applications-Oral XVII National seminar on crystal growth held in Anna University, Chennai during January 09-11, 2013.
	S. Nallamuthu, T.P.Rashid V.Krishnakumar, Celine Besnard, Hans Hagemann, Marian Reiffers, R. Nagalakshmi	Anisotropic magnetic, transport and thermodynamic properties of novel tetragonal Ce_2RhGa_{12} compound-Poster, International Union of Materials Research Societies – International Conference in Asia – 2013 (IUMRS-ICA 2013) held in IISC, Bangalore-12 during December 16-20 2013
	S.Nallamuthu, T.P.Rashid, K.Asokan, V.Krishnakumar R. Nagalakshmi	Effect of swift heavy ions irradiation on Single crystals of $RCuGa_3$ (R = Ce, Pr, Nd and Gd)- Poster, International Conference on Nanostructuring by Ion Beams (ICNIB 2013) held in Jaipur during Oct.23-25, 2013
S. Manivannan	L.R.Shobin, Kyu Chang Park, S. Manivannan,	“Fabrication of Single-Walled Carbon Nanotube Transparent Conducting Electrodes by Spray Coating for Optoelectronics”, “National Conference on Frontier Topics In Advanced Materials” (NCFTAM-2013), March 11, 2013, Bishop Heber College, Tiruchirappalli India. (awarded as best oral)

L.R.Shobin, T. Kavinkumar, Kyu Chang Park and S. Manivannan	“Fabrication of Single Walled Carbon Nanotubes Transparent Conducting Films by Spray Coating”, “National Seminar on New Materials Research and Nanotechnology” (MSNMRN2013), September 25-27, 2013, Govt. Arts College, Ooty, India. (awarded as best oral)
T.Kavinkumar, L.R.Shobin, S.Manivannan	“Synthesis and Characterization of Expanded Graphene Oxide Thin Films”, “National Seminar on New Materials Research and Nanotechnology” (MSNMRN2013), September 25-27, 2013, Govt. Arts College, Ooty, India. (awarded as best oral)
L.R. Shobin, D. Sastikumar and S. Manivannan	“Synthesis, Purification, Dispersion and Room Temperature Ammonia Vapor Sensing Properties of Silver Nanowires”, “3 rd International Science Congress (ISC-2013)”, December 8-9, 2013, Karunya University, Coimbatore, Tamil Nadu, India.
L.R.Shobin, T. Kavinkumar, Kyu Chang Park, S.Manivannan	“Effect of Post Treatment on Spray Coated Transparent Conducting Single Walled Carbon Nanotube Films”, “International Union of Materials Research Societies – International Conference in Asia – 2013 (IUMRS-ICA-2013)”, December 16-20, 2013, Indian Institute Of Science, in Bangalore, India.
L.R.Shobin, Kyu Chang Park, S.Manivannan	“Fabrication of Transparent Single Walled Carbon Nanotube sensor for Room Temperature Ammonia Vapor Sensing”, “National Conference on Nanophotonics (NCNP – 2014)”, March 6-7, 2014, , Bharathidasan University Tiruchirappalli, India.
U. Nithyanantham, T. Boopalan, L.R. Shobin, S. Manivannan	“Synthesis and Characterization of Copper Nanostructures for Optoelectronics”, “National Conference on Nanophotonics (NCNP – 2014)”, March 6-7, 2014, Bharathidasan University Tiruchirappalli, India.
J. Bharathidason, L.R. Shobin, S. Manivannan	“Fabrication of Semi-Transparent Silver Nanoparticles/PVA Composite Free Standing Films”, “National Conference on Nanophotonics (NCNP – 2014)”, March 6-7, 2014, Bharathidasan University Tiruchirappalli, India.

2.3. Attended by the Faculty / Students

Faculty	Faculty / Students	Details
D.Sastikumar	D.Sastikumar	Asia Pacific conference on Non-destructive Testing, Nov. 18 th -22 nd 2013, Mumbai
N. Baskaran	C. Kanagaraj	58th DAE Solid State Physics Symposium, December 17-21, Patiala, Punjab, India.
	C. Kanagaraj	International Conference on Magnetic Materials and Applications, December 5-7, 2013, IIT Guwahati, India.
N.Gopalakrishnan	N.Gopalakrishnan	7th International Conference on Materials for Advance Technologies (ICMAT-2013), Singapore 30 June – 05 July 2013
R. Sankaranarayanan	Muthuganesan R	13 th Asian Quantum Information Science Conference, Organized by the Institute of Mathematical Sciences, Chennai, 25-30 th August 2013
	Muthuganesan R	Meeting on Quantum Information Processing and Applications, Organized by Harish-Chandra Research Institute, Allahabad. 02-08 th December 2013
R. Justin Joseyphus	R. Justin Joseyphus, T. Arun	ICMAT2013 organized by MRS Singapore and held in Singapore during 30 June- 5 July 2013.
	T. Arun	2013 JSAP-MRS Joint Symposia during September 16-20, 2013 held in Kyoto, Japan
	Irshadali	APCNDT2013, held in Mumbai during Nov 18-22, 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator(s)	Title	Period
Dr.B.Karthikeyan Dr.M.Ashok, Dr.N.V.Giridharan Dr.D.Sastikumar.	A short course on Optical and Ultrasonic methods in NDE under TEQIP II	16 th -20 th Oct.2014.
Dr.M.Ashok, Dr.A.Chandra Bose Dr.D.Sastikumar.	Industrial Workshop on Advances in Non-Destructive Testing under TEQIP II	3-4 th Oct. 2014
Dr.M.C Santhosh Kumar Dr. J. Hemalatha	Faculty development program on Physics for emerging technologies	15-19 July 2013
Dr. S. Manivannan & Dr.N.V. Giridharan	Quality 2014- National Level Technical Symposium	20.03.2014

3.2. Attended

Faculty / Students	Details
M.Nabeel Rashin T.Prabhakaran	Faculty Development Program on Physics for emerging technologies
Muthuganesan R	National Colloquium on Theoretical Physics organized by Srinivasa Ramanujan Institute for Basic Sciences, Thiruvananthapuram. 09-11 th August 2013
Muthuganesan R	Refresher Course in Statistical Physics Organized by Science Academies at Homi Bhabha Centre Science Education, Mumbai. 6-19 th November 2013
Muthuganesan R	International Meet on Quantum Correlations and Logic, Language and Set Theory-2013 at IIT Jodhpur 09-14 th December 2013

Muthuganesan R	1 st IMSC School on Quantum Information Organized by the Institute of Mathematical Sciences, Chennai, 19-31 st January 2014
K. Prakash	Attended DST-SERC School on “Advanced Functional Magnetic Materials” held in University of Goa during Feb 3-21, 2014.

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
A. Chandra Bose	Nanomaterials for engineering applications	Invited Lecture	INSPIRE school Programme, DST sponsored, PSR Engineering college, 11 th October, 2013
	Synthesis and characterization of Nanomaterials	Invited Lecture	UGC – Refreshser Course, Madurai Kamaraj University, Madurai, November-15, 2013
	Short Term Course on " Applications of Nano Technology in Mechanical Engineering”	Invited Lecture	Department of Mechanical Engineering, , NIT, Trichy, 19 December, 2013
	Synthesis, characterization and applications of nanomaterials	Invited Lecture	UGC Sponsored National Conference on "Physics for Interdisciplinary Advancements, J.A College for Women, Periyakulam, February 7, 2014
	N. Baskaran	Modelling of low dimensional materials	UGC lecture series on computational physics
N.Gopalakrishnan	ZnO Thin films for Optoelectronic Devices	International seminar on Crystalline materials and optoelectronic devices	Jamal Mohamad College, Trichy. 03-02-2014
J. Hemalatha	Acoustics and ultrasonics	Invited Lecture	Dr.N.G.P Institute of Technology Coimbatore, Tamilnadu 23/08/2013

R. Sankaranarayanan	Free and Forced Oscillations	Lecture Workshop on Dynamical Systems	26-28 December 2013
M.C. Santhosh Kumar	Transparent conducting oxides: advances & applications	One day work shop on condensed mater physics	Sri Sankara College, Kaladi Kerala, 25.03. 2013
	Transparent conducting oxides: advances & applications	National conference on Supramolecules and nanomaterials	MSM College Kayamkulam, Kerala, October 2013
	Recent trend in oxide nanopstructures	One day seminar	KL University, Vijayawada, AP, January 25 th 2014
	Oxide nanostructures and applications	International conference on Advanced materials and applications	Alphonsa College Pala, Kerala 27-28- March 2014
R. Justin Joseyphus	Magnetic Nanoparticles	UGC State level seminar on Nanoscience	Periyar EVR College, Trichy on 11 Oct 2013
R.Nagalakshmi	Pnictide superconductors	Super Conductive Materials and their Fabrication.	Department of Production Engineering, NIT Trichy, on 17 th March 2014
	Strongly Correlated Electron System	XVII National Seminar on Crystal Growth	Anna University,9-11 January 2013
	Strongly Correlated Electron System	Physics Department Colloquium	Central University of Tiruvarur, 29 January 2014
S. Manivannan	Materials for Future Technology	National Seminar on Advanced Materials	Govt. Arts College, Karur & 10.02.2014
	Materials for Flexible Transparent Conduction Coatings	National Conference on Nanophotonics	School of Physics, Bharathidasan University, Trichy & 06.03.2014
	Carbon Nanomaterials	Seminar on Materials Science	Selvam College of Arts & Science,Namakkal

5. Sponsored Projects undertaken.

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
Dr. N. Gopalakrishnan	Doping and Capping in ZnO thin films for spintronics	CSIR	

	applications	(2013-16)	19.92
Dr. B. Karthikeyan	“Optical limiting studies on Ag and Cu nanowire composite glasses”	DRDO (2009-13)	48.00
Dr. B. Karthikeyan	“Synthesis, Exciton and Phonon properties of NiO nanotube composite polymers”	CSIR (2012-2015)	15.00
R.Nagalakshmi	Growth and irradiation of Rare earth intermetallic crystals for magnetic applications	DAE Young scientist Research Award by Basic science Committee, Board of Research in Nuclear Sciences (BRNS). No: 2010/20/37P/13/BRNS dt 18/2/2011	16.40

6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)

Faculty	S.No	Equipment	Amount (Rs. in Lakhs)
D.Sastikumar	1	Nd:YAG Laser	60.00
A Chandra Bose	1	Di-electric Interface Analyzer and Z-view Software	20.00
J. Hemalatha	1	Probe Sonicator	7.99
M.C. Santhosh Kumar	1	UV-Vis NIR spectrophotometer	21.00
	2	Spectrofluorometer	19.00
	3	Rf-Magnetron sputtering unit	21.00
	4	Thermal evaporation unit	8.00
N. V. Giridharan	1	Multiferroic Test System	70.00

Ashok	1	Immersion C- Scan Setup	36.6
R. Justin Joseyphus	1	Liquid Nitrogen Plant	65 .00

7. Research Papers Published in National / International Journals

7.1. Faculty/Students

Faculty	S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
T. Balasubramanian	1	Influence of oxygen pressure on structural, optical and magnetic properties of pure ZnO films.	G. Jayalakshmi K. Saravanan and T. Balasubramanian	J.Mater Sci: Mater. Electron.	(2014) DOI: 10.1007/s10854-014-1814-5
D.Sastikumar	1	Improved ethanol sensing characteristics of sol-gel derived nanocrystalline manganese doped lithium tetraborate	R. Mohandoss, S. Dhanuskodi, B. Renganathan and. <u>D.Sastikumar</u>	Sensors and Actuators A	2013, Vol. 203 Pages 310– 315
	2	Pure and Iso-Butyl Methyl Ketone Treated Multi-Walled Carbon Nanotubes for Ethanol and Methanol Vapor Sensing	L.R. Shobin, B. Renganathan, D. Sastikumar, Kyu Chang Park and S. Manivannan	IEEE SENSORS JOURNAL ,	2014 <u>Vol. 14,</u> Pages 1238-1243
	3.	Fiber optic gas sensors with vanadium oxide and tungsten oxide nanoparticle coated claddings	B. Renganathan D.Sastikumar, S.GokulRaj and A.R.Ganesan	Optics Communications	2014 Vol. 315 Pages 74-78
	4.	Nanocrystalline cerium oxide coated fiber optic	B. Renganathan , D. Sastikumar, A. Chandra	Current Applied Physics	2014, Volume 14, Pages 467-471

		gas sensor	Bose, R. Srinivasan and A.R. Ganesan		
	5.	Gas sensing property of lithium tetraborate clad modified fiber optic sensor	R. Mohandoss, S. Dhanuskodi, B. Renganathan and D. Sastikumar	Current Applied Physics	2013 Vol.13 Pages 957-963
	6.	Development of high sensitivity ethanol gas sensor based on Co-doped SnO ₂ nanoparticles by microwave irradiation technique	M. Parthibavarman, B. Renganathan and D. Sastikumar	Current Applied Physics	2013 Vol.13 Pages 1537-1544
A. Chandra Bose	1	Role of synthesis variables on controlled nucleation and growth of hexagonal molybdenum oxide nanocrystals: Investigation on thermal and optical properties	A. Chithambararaj and A. Chandra Bose	CrystEngComm	2014 (Accepted) DOI: 10.1039/C4CE00418C
	2	Complex impedance spectroscopy studies of PLZT(5/52/48) ceramics synthesized by sol-gel route	M. Prabhu and A Chandra Bose	J. Mater Sci.: Mater Electron	24 (2013) 4560-4565.
	3	Strain induced X-ray line broadening and	T. Selvalakshmi and A. Chandra	Nanoscience and Nanotechn	6 (3), 261-267 2014

		morphological investigation on silver nanoparticles	Bose	ology Letters	
4		<u>Structural, optical and electrical characterization of nebulizer-sprayed ZnO nano-rods</u>	R Mariappan, V Ponnuswamy, A Chandra Bose, A Chithambararaj, R Suresh and M. Ragavendar	Superlattices and Microstructures	65, 184-194, 2013
5		Effect of hydrolysis time on grain size and properties of cerium oxide nanoparticle synthesized by hydrolysis assisted co-precipitation method	R. Srinivasan and A. Chandra Bose	Nanoscience and Nanotechnology Letters	6 (1), 94-98, 2014
6		Role of substrate temperature on the properties of Na-doped ZnO thin film nanorods and performance of ammonia gas sensors using nebulizer spray pyrolysis technique	<u>R. Mariappan</u> , <u>V. Ponnuswamy</u> , <u>R. Suresh</u> , <u>P. Suresh</u> , <u>A. Chandra Bose</u> and M. Ragavendar	Journal of Alloys and Compounds	582, 2014, 387-391
7		Study of microwave assisted growth of meta-stable 1-D h-MoO ₃ , A. Chithambararaj,	N. Rameshbabu and A. Chandra Bose	Science of Advanced Materials	2013, Accepted
8		Role of electrolyte chemistry on electronic and in vitro electrochemical properties of	K. Venkateswarlu, N. Rameshbabu, D. Sreekanth, M.	Electrochimica Acta	105, 2013, 468-480

		micro-arc oxidized titania films on Cp Ti,	Sandhyarani, A.Chandra Bose, V. Muthupandi and S. Subramanian		
	9	Preparation of h-MoO ₃ and a-MoO ₃ nanocrystals: comparative study on photocatalytic degradation of methylene blue under visible light irradiation	A. Chithambararaj, N. S. Sanjini, S. Velmathi and A. Chandra Bose	Phys.Chem. Chem. Phys.	2013, 15, 14761-12769.
	10	Fabrication and characterization of micro arc oxidized fluoride containing titania films on CpTi,	K. Venkateswarlu, N. Rameshbabu, D. Sreekanth, A.Chandra Bose, V. Muthupandi and S. Subramanian	Ceramics International	39 (2013) 801–812
N. Baskaran	1	Influence of lone pair doping on the multiferroic property of orthorhombic HoMnO ₃ : ab initio prediction	S. Sathya Sheela, K. Yamauchi, T. Ozaki, T. Oguchi and B. Natesan	J. Phys.: Condens. Matter	2013, 23, 385901
	2	Magnetic Ground State and Electronic Structure Calculations of PbMnO ₃ using DFT	S. Sathya Sheela and B. Natesan	Advanced Materials Research	2014, 895, 420

	3	Theoretical investigations of structural and magnetic ground state stability of BiMnO_3	S. Sathya Sheela, C. Kanagaraj and B. Natesan	American Institute of Physics Conference Series	2014
	4	Electric Polarization in Ferromagnetic $\text{Bi}_{1/2}\text{As}_{1/2}\text{MnO}_3$: A First Principle	S. Sathya Sheela, C. Kanagaraj and B. Natesan	Physics Procedia	2014
	5	Structural distortion driven by A-site ordering in lone pair substituted orthorhombic LuMnO_3 : an <i>ab initio</i> study	S. Sathya Sheela and B. Natesan	Journal of Physical Chemistry C	2014
N. Gopalakrishnan	1	A Comparative Study on <i>p</i> - $\text{ZnO:AlAs}/n$ - ZnO:Al and <i>p</i> - $\text{ZnO:AlAsN}/n$ - ZnO:Al Bilayer Homojunction Diodes Performance	L. Balakrishnan, S. Gowrishankar, and N. Gopalakrishnan	ECS Solid State Letters	2014 3 Q20-Q23
	2	Role of surface functionalization in ZnO:Fe nanostructures	R.N. Lokesh, L. Balakrishnan, K. Jeganathan, Samar Layek, H.C. Verma, N. and Gopalakrishnan	Materials Science and Engineering B	2014 183 39– 46.
	3	Bandgap engineering in $\text{Zn}_{(1-x)}\text{Cd}_x\text{O}$ and $\text{Zn}_{(1-x)}\text{Mg}_x\text{O}$ thin films by RF Sputtering.	S. Gowrishankar, L. Balakrishnan and N. Gopalakrishnan	Ceramics International	2014 40 2135-2142.

	4	Hydrothermal Synthesis and Gas Sensing Properties of CuO Nanorods	N.Gopalakrishnan, S.Bhuvaneshwari, L.Balakrishnan and S.Gowrishankar	Sensor letters	2013 11 1-8.
J. Hemalatha	1	Magnetic and ultrasonic studies on stable cobalt ferrite magnetic nanofluid, Ultrasonics	M. Nabeel Rashin and J. Hemalatha	Ultrasonics	(2014),54(834-840)
	2	Viscosity studies on novel copper oxide-coconut oil nanofluid	M. Nabeel Rashin and J. Hemalatha	Experimental Thermal and Fluid Science	(2013),48(67-72)
	3	Synthesis and viscosity studies of novel ecofriendly ZnO-coconut oil nanofluid	M. Nabeel Rashin and J. Hemalatha	Experimental Thermal and Fluid Science	(2013),51(312-318)
R. Sankaranarayanan	1	Classical rules and quantum strategies in penny flip game	S. Balakrishnan and R. Sankaranarayanan	Quantum Info. Process	2013, 12, 1261
M. C. Santhosh Kumar	1	Microstructural, electrical and optical properties of ZnO:Mo thin films with various thickness by spray pyrolysis	R. Swapna, M. Ashok, G. Muralidharan, M. C. Santhosh Kumar,	Journal of Analytical and Applied Pyrolysis	2013, 102, 68-75
	2	Aging and annealing effects on properties of Ag-N dual-acceptor doped ZnO thin films,	R. Swapna, R. Amiruddin, and M. C. Santhosh Kumar,	AIP Conf. Proc.	2013 1512 682-683
	3	Deposition of Na-N dual acceptor	R. Swapna, M. and C.	Materials Science	2013 178

		doped p-type ZnO thin films and fabrication of p-ZnO:(Na, N)/n-ZnO:Eu homojunction,	Santhosh Kumar	and Engineering B,	1032– 1039
	4	Fabrication and Characterization of n-ZnO:Eu/p-ZnO:(Ag, N) homojunction by spray pyrolysis,	R. Swapna and M.C. Santhosh Kumar	Materials Research Bulletin	2014 49 44–49
	5	Dual Acceptor Doping and Aging Effect of p-ZnO:(Na, N) Nanorod Thin Films by Spray Pyrolysis	R. Swapna, R. Amiruddin and M. C. Santhosh Kumar,	AIP Conference Proceedings	1576 (2014) 167-170
	6	Analysis of Structural and Electrical Properties of Aluminium Doped Lead Sulphide (PbS) Thin Films Prepared by CBD Method.	S. Cheemadan, K. Keerthana and M. C. Santhosh Kumar	J. Environ. Nanotechnol	2014 2 28-33
	7	Fabrication of Hydrophobic ZnO Surfaces on SS304 Substrates	R. Amiruddin, Akshay Srinivas, C. S. Sujith Kumar and M. C. Santhosh Kumar	J. Environ. Nanotechnol.	2014 2 51-56
	8	Epitaxial Growth of Vertically Aligned Highly	R. Amiruddin, M. C. Santhosh Kumar,	Ceramics International	2014 In Press

		Conducting ZnO Nanowires by Modified Aqueous Chemical Growth Process			
B. Karthikeyan	1	Optical and phonon properties of ZnO:CuO mixed nanocomposite	R. Udayabhaskar and B. Karthikeyan	Journal of Applied Physics	2014 (Accepted)
	2	Optical and saturation behaviour of thermally surface Plasmon tuned Cu nanorod composite glasses	R. Udayabhaskar, B. Karthikeyan and Muhamed Shafi Ollakkan	Plasmonics	2014 DOI:10.1007/s11468-013-9663-2
	3	Enhanced fluorescence and optical power limiting in Ag-nanocomposite glasses	R. Udayabhaskar, B. Karthikeyan, Muhamed Shafi Ollakkan, R.V. Mangalaraja and M. L. Baesso	Chemical Physics Letters	(2014) 593 1-6
	4	Preparation, optical and non-linear optical power limiting properties of Cu, CuNi nanowires	R. Udayabhaskar, Muhamed Shafi Ollakkan, B. Karthikeyan	Applied Physics Letters	(2014) 104, 013107
	5	Optical, structural, enhanced local vibrational and fluorescence properties in K doped ZnO nanostructures	V. Bharathi, M. Sivakumar, R. Udayabhaskar, Hiromichi Takebe, B. Karthikeyan	Applied Physics A	2014 DOI: 10.1007/s00339-013-8139-8
	6	Enhanced ultraviolet-blue emission and Raman modes in	T. Pandiyarajan, M. L. Baesso and B.	European Physical Journal D	((2014) 68: 28)

		ZnO:Cr ₂ O ₃ composite nanoparticles	Karthikeyan		
7		Birth of room temperature Magnons and Raman line enhancement in ZnO nanostructures containing Cobalt oxide	T. Pandiyarajan and B. Karthikeyan	Journal of Raman Spectroscopy	(2013) 44 1534-1539
8		Thermal annealing induced structural and optical properties of Ca doped ZnO nanoparticles	R. Udayabhaskar, R.V. Mangalaraja and B. Karthikeyan	Journal of Materials Science: Materials in Electronics	(2013) 24 3183-3188
9		Synthesis and concentration dependent antibacterial activities of CuO nanoflakes	T. Pandiyarajan, R. Udayabhaskar, S. Vignesh, R. Arthur James and B. Karthikeyan	Materials Science and Engineering: C	(2013) 33 2020-2024
10		Optical properties of annealing induced post growth ZnO:ZnFe ₂ O ₄ nanocomposites	T. Pandiyarajan and B. Karthikeyan	Spectrochimica Acta Part A	(2013) 106 247-252
11		Microstructure and enhanced exciton-phonon coupling in Fe doped ZnO nanoparticles	T. Pandiyarajan, R. Udayabhaskar and B. Karthikeyan	Spectrochimica Acta Part A	(2013) 103 173-178
12		Vibrational, giant dielectric and ac conductivity properties of agglomerated CuO nanostructures	Deepthi K R, T. Pandiyarajan Thangaraj and B. Karthikeyan	Journal of Materials Science: Materials in Electronics	24 (2013) 1045-1051
13		Structural, thermal and optical	T. Pandiyarajan and B.	Advanced Materials	678 (2013) 253-257

		properties of PVP capped ZnO films	Karthikeyan	Research	
N.V. Giridharan	1	Effect of annealing time in the low-temperature growth of BFO thin films spin coated on glass substrates	C. Anthony Raj, M. Muneeswaran, P Jegatheesan, N. V. Giridharan, V. Sivakumar, G. and Senguttuvan	Journal of Materials Science: Materials in Electronics	(2013) 24 4148-4154
	2	Structural, optical, and multiferroic properties of single phased BiFeO ₃	M. Muneeswaran, P. Jegatheesan · M. Gopiraman · I. S. Kim and N.V. Giridharan	Applied Physics A	(2014) 114 853–859
	3	Structural and multiferroic properties of YMnO ₃ ceramics synthesized by co-precipitation method	M. Muneeswaran, C. Mascovani and N. V. Giridharan	American Institute of Physics Conference Series	(2014) 1512 1270-1271
	4	Effect of thickness and annealing temperature on the properties of PZT films at Morphotropic Phase Boundary composition prepared by sol-gel spin-on technique	P Jegatheesan, M. Muneeswaran and N.V. Giridharan	Advanced Materials Research	(2014) 895 17-20
	1.	Synthesis and magnetic properties of flower-like FeCo	Prakash Karipoth, Arun Thirumurugan and R. Justin	J. Colloid and Interface Sci.	404 (2013) 49–55.

R. Justin Joseyphus		particles through a one pot polyol process	Joseyphus		
	2	Synthesis and Magnetic Properties of Prussian blue modified Fe nanoparticles	T. Arun, K. Prakash and R. Justin Joseyphus	J. Magn. Magn. Mater.	345 (2013) 100-105.
	3	Magnetic properties of prussian blue modified Fe ₃ O ₄ nanocubes	T. Arun, K. Prakash, R. Kuppusamy and R. Justin Joseyphus	J. Phys. Chem. Solids	74(2013) 1761-1768.
R. Nagalakshmi	1	Anisotropic magnetic, transport and thermodynamic properties of novel tetragonal Ce ₂ RhGa ₁₂ compound	S.Nallamuthu, T.P.Rashid, V.Krishnakumar, Celine Besnard, Hans Hagemann, Marian Reiffers, R. Nagalakshmi	Journal of alloys and compounds	Accepted
	2	Experimental and Theoretical Investigations of Non-Centrosymmetric 8-hydroxyquinolinium dibenzoyl-(L)-tartrate methanol monohydrate single crystal	N.Sudharsana, V.Krishnakumar and R.Nagalakshmi	Materials Research Bulletin	Accepted
	3	Synthesis, Experimental and Theoretical Studies of 8-hydroxyquinolinium-3, 5-dinitrobenzoate	N.Sudharsana, R.Nagalakshmi, and V.Krishnakumar	Journal of Crystal Growth	Accepted

		single crystal			
	4	Experimental and theoretical studies of 2,5-dichloroanilinium picrate	N.Sudharsana, G.Jasmine, S.Muthunatesan, V.Krishnakumar and R.Nagalakshmi	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	121 (2014) 53–62
	5	Oxygen and gold ion irradiation effects on hydroxyethylammonium (L) tartrate monohydrate single crystals	N.Sudharsana, K.Asokan, V.Krishnakumar, and R.Nagalakshmi	Radiation Measurements	2013(49) 88
S. Manivannan	1	Pure and Iso-butyl Methyl Ketone Treated Multi-walled Carbon Nanotubes Coated Fiber Optic Ethanol and Methanol Vapor Sensor	L.R.Shobin, B.Renganathan, D.Sastikumar, Kyu Chang Park and S. Manivannan	IEEE Sensors Journal	14 (2014) 1238-1243
	2	Silver nanowires coated fiber optic sensors for ammonia sensing application	L.R.Shobin, D.Sastikumar and S. Manivannan	Sensors and Actuators A : Physical	In press

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	S.Gowrisankar	N.Gopalakrishnan	NITT
2	Dr.T.Prabhakaran	Dr.J.Hemalatha	NITT
3	Ms. Swapna Ramella	Santhosh Kumar M.C.	NITT
4	T. Pandiyarajan	Dr. B. Karthikeyan	NITT
5	P.Jegatheesan	Dr.N.V. Giridharan	NITT

11. Other Important Points

N.Gopalakrishnan: Visited Australian National University (ANU), Canberra, Australia during Feb.20-28, 2014 under **study and networking tour** sponsored by TEQIP, NIT-T.



PRODUCTION ENGINEERING

PRODUCTION ENGINEERING

1. Notable Achievements

1.1. Faculty Members

S.No.	Name	Prizes/Awards	Organization
1	Dr.V.Anandakrishnan	Excellent Oral Presentation Award	International Conference on Mechatronics, Manufacturing and Automation (ICMMA 14) organized by IACSIT, Singapore
2	Dr.S.Vinodh	Young Engineer Award	Institution of Engineers, India presented at the National Convention of Production Engineers at MNIT, Jaipur during May 2013

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1	Sreenath, O, Mohamed Fasil, Prahas T.N.V. and Mohamed Razal	Won the safest car award in BAJA, February 2014	SAE -BAJA
2	A M Anirudh	WISE Scholarship (9th May 2013 to 18th July 2013),	DAAD
3	Vipul Gupta	Winner of Atulya Bharat (nittfest) - March 2014 Winner of Kaun banega chatur chankya -2013, Festember	NITT
4	Devendran Janani	Won Inter-NIT Volleyball tournament 2013 (1/3/2013 to 3/3/2013)	SVNIT, Surat.
5	Anirudh Krishnan	Part of NIT Trichy Football Team 3 rd Place at Colosseum (State Level Inter College Sports meet	SASTRA
6	S.Parameshwar	Vice captain of NIT-T Athletic Team 4 x 400 m Golo in Inter NIT Sports	Surathkal
7	S.Prashanth	Runner up at Sangam, the annual intra college project exhibition at Pragyan 2014, for the project "The Coanda effect flying saucer"	NITT

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Co ordinator	Programme	Period
1	HOD and Staff Advisors	PRODIGY '14 – Organised by Production Engineering Association	March 15-16, 2014

2.2. Papers presented by the Faculty / Students

S.No.	Author(s)	Details	Place & Date
1.	Varma Boodu, Noorul Haq A and Chaitali Dutta	A Fuzzy QFD Approach to Enhance Leagility in Supply Chain, ICAIEA	January 6-8 (2014)
2.	Varma Boodu, A Noorul Haq, Nitin Upadhyay and Vikas Singh Rathaur	Analysis of lean Supply Chain enablers using TOPSIS, CPIE	May-2013
3.	Mathiyazhagan K and Noorul Haq A	Analysis of pressure for adoption of Green supply chain management using Interpretive Structural Modeling, CPIE	NIT Jalandhar, May-2013
4.	Noorul Haq A and Mathiyazhagan K	Comparative Study of Green Supply chain Barrier analysis ICMPAE 2013	Dubai 2013
5.	S. Karthikeyan and P. Asokan	“A hybrid firefly algorithm for solving bi-criteria flexible job shop scheduling problem”, 2 nd International Conference on Industrial Engineering, SVNIT	Surat, Nov-2013
6.	S. Karthikeyan, P. Asokan and S. Nickolas	“A hybrid discrete firefly algorithm for flexible job shop scheduling International Conference on Advances in Industrial Engineering	Anna University, Chennai, January, 2014
7.	S.P.Leo Kumar, J.Jerald and S.Kumanan	“Automatic Feature Extraction and CNC Code Generation in a CAPP System International Conference on Advances in Materials and Manufacturing (ICAMME-14), (2014)	NITK, Surathkal, 13-15 March 2014
8.	S.P.Leo Kumar,	An Expert System for Cutting	NIT Calicut. 2013

S.No.	Author(s)	Details	Place & Date
	J.Jerald and S.Kumanan	Tool Selection for Micromachining Processes”International Conference on Precision,Meso,Micro and Nano Engineering(COPEN-8)	
9.	Raghul Goyal, Rakesh Chouhan and R Jeyapaul	Reduction of bullwhip effect in supply chain by Lib-SVM, CPIE	May-2013
10.	V Pakkirisamy and R Jeyapaul	Performance Evaluation of Reconfigurable Manufacturing System, CPIE	May-2013
11.	S.Baskaran, V.Anandakrishnan, M Duraiselvam, et al.,	“Taguchi grey relational analysis of dry sliding wear behaviour of annealed AA7075-TiC metal matrix composites”, International Conference (ICMMA-14) 18-28	Singapore, 2014
12.	S.Baskaran, B.M.Muthamizh Selvan, V.Anandakrishnan and M Duraiselvam	Effect of heat treatment on wear behaviour of hot extruded AA7075 – 4%TiC in-situ metal matrix composite”, International Conference (ICMMA-14) .	Singapore, 2014
13.	M.Hashim, K.E. S RaghavendraBabu and M Duraiselvam,	A comparative study of Laser surface treated hastelloy International conference on Advances in Materials processing and characterisation AU	Chennai, India. 2013
14.	P. Sathiya and Katherasan, D.	Mechanical and metallurgical characteristics of flux cored arc welding International Conference on Advances in Materials Processing, AU,	Chennai, India. 2013
15.	P.Sathiya	Mechanical, Metallurgical characteristics and Corrosion properties of Duplex Stainless steel” 2013 2 nd International Conference Computer Science	Phuket Thailand, 2013
16.	Yadunath R Varma and R Jeyapaul	A Novel Step towards Fall Prevention; Initial Research and Development of a “Safe Walk Carpet ” for Lateral Postural Stability, AETAME	Dec 13 - 14, 2013

S.No.	Author(s)	Details	Place & Date
17.	Yadunath R Varma and R Jeyapaul	Trip-Hit Accidents And Safety: Human Error Psychology and Influence of The Subconscious Mind in Preventing and Causing Trip Hit Accidents, International Conference On Ergonomics And Human Factors.	Dec 4 - 6, 2013
18.	Yadunath R Varma and R Jeyapaul	Novel Ergonomic Design of a Shoe Sole for Coupled Usage with Stubbed Carpet ICIE	Surat, November 20-22, 2013
19.	R Jeyapaul and P.Parthiban	A Comprehensive Review in the Measures and Metrics of Sustainable Supply Chain, ICAIEA	January 6 – 8, 2014
20.	Sathiya Narayanan and Ratnasekhar ch	A Review on Electrode Wear and Surface quality of Electrical Discharge Machining International Conference on PRECISION, MESO, MICRO AND NANO ENGINEERING	NIT Calicut, December 13-15, 2013
21.	P.Parthiban	An Integrated Multi-Objective Decision making Process for Supplier Selection A simple warehouse location problem using Hub model,, CPIE	May-2013
22.	P.Parthiban and Vikrant V Malwadkar	Drivers Affecting Eco Design In Supply Chain, ICAIEA	Anna University, Chennai January 6-8, 2014
23.	P.Parthiban and Dnyaneshwar G Mogale	Applications Of RQFD In Evaluating Green Supply Chain Management, ICAIEA	Anna University, Chennai January 6-8, 2014
24.	S.Vinodh and Adarsh Kumar Singh	Agility evaluation of an organisation using ANFIS approach”, International Conference of the SOM	IIT, Madras, Chennai, December 20-22, 2013
25.	K.Jayakrishna, K.E.K.Vimal and S.Vinodh	Application of Artificial Neural Network for Fuzzy Logic based Sustainability Assessment”. (ICAIEA 2014)	Anna University, Chennai January 6-8, 2014
26.	K.J.Manjunatheshwara and S.Vinodh	Rapid plant assessment using MCDM Technique in a manufacturing organisation, ICAIEA.	Anna University, Chennai January 6-8, 2014
27.	S.Aravind Raj,	Agile practices in Automotive	Anna University, Chennai

S.No.	Author(s)	Details	Place & Date
	K.Pandiyam and S.Vinodh	manufacturing organisation, ICAIEA	January 6-8, 2014
28.	S.Vinodh	Scoring Approach for Evaluation of Process Sustainability Characteristics, ICAIEA-Jan 2014	Anna University, Chennai January 6-8, 2014
29.	Palash Jha	Selection of best automotive product to suit Agile Manufacturing environment” in the International Conference on Production and Industrial Engineering	NIT Jalandhar
30.	Ajay Yeshwanth, V.	Ranking of smart phone features using AHP” in Business Analytics and Intelligence Conference	IIM Bangalore, December 2013.

3.0. Summer School / Winter School / Workshops

3.1. Organised

Co-ordinator	Title	Period
Dr M Duraiselvam , Dr P Parthiban and Dr V Anandakrishnan	Production Process for Defence Applications	27May – 01 June 2013
Dr M Duraiselvam , Dr P Parthiban and Dr V Anandakrishnan	Design and Optimisation of Production Management System	03-08 June 2013
Dr M Duraiselvam and Dr D Lenin Singaravelu	Surface Engineering and Tribological Applications	10-12 June 2013
Dr A Noorul Haq, Dr P Sathiya and Dr K Panneerselvam	Welding Processes for Manufacturing Industries	27-29 June 2013
Dr S Kumanan and Dr S Vinodh	TEQIP workshop on Sustainable Manufacturing	18-19 July 2013
Dr V Senthilkumar and Dr P Senthil	Modeling of Manufacturing Processes	25-27 July 2013
Dr.S.Prasanna Venkatesan and Dr S Kumanan	TEQIP workshop on Recent Trends in System Simulation	01-02 Aug 2013
Dr J Jerald and Dr C Sathiyarayanan	Advances in Manufacturing Technology	08-10 Aug 2013
Dr P Sathiya and Dr K	Fluid Power control system &	03-07 June

Co-ordinator	Title	Period
Panneerselvam	Mechatronics	2013
Dr J Jerald and Dr P Asokan	Two Day Course on Micro Manufacturing	14-15-March 2014
Dr S Kumanan	One Day TEQIP Workshop on Super conductive Materials	17 March 2014
Dr P Asokan and Dr S Vinodh	Two Day Workshop on Agile Manufacturing	28-29 March 2014

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.R.Narayanasamy	Recent advances in welding of dissimilar materials	CSIR Sponsored two day national level workshop	National Engineering College, Kovilpatti, 19-04-2013
Dr.M.Durai selvam	Recent Advances in Engineering Tribology	National workshop	Sri Viswa Mahavidyalaya, Kancheepuram 13,14 February 2014
Dr.M.Durai selvam	Processing and Application of composite materials	Faculty Development programme	Government college of engineering Bargur, 21.07.2013 to 27.07.2103
Dr.P.Sathiya	Advances in Manufacturing Processes	Guest lecture	Kongunaadu college of Engineering and Technology ,Thottiyam, 29-08-2013
Dr.V.Anandkrishnan	“Composite Materials through Powder Metallurgy Technique”	TEQIP-II Sponsored One Week Faculty Development Programme	Government College of Engineering, Bargur – 635104 on 26 th June 2013.
Dr.V.Anandkrishnan	“Powder Metallurgy Techniques”	AICTE Workshop on “Advanced Materials & Manufacturing	M.Kumarasamy College of Engineering, Karur on 29 th June 2013.
Dr.V.Anandkrishnan	“Overview of Piping Engineering and its applications	CSIR National Seminar on “Mechanical	M.Kumarasamy College of Engineering, Karur on 6 th July 2013.

Faculty	Topic	Programme	Place & Date
	in various fields.”	Behavior	
Dr.V.Anandkrishnan	“Cutting Tool Technology”	SMILE 2k13	BHEL, 19 th August, 2013.
Dr.V.Anandkrishnan	“ Composite Materials” “Powder Metallurgy Techniques”	One Day Workshop on Composite Materials	Vetri Vinayaha College of Engineering and Technology,on 13 th September 2013.
Dr.P.Parthiban	Reverse Engineering and Rapid Prototyping	Guest Lecture	Government college of – Engineering,Bargur , 19-07-2013
Dr.V.Senthil Kumar	Programme on Machining	SMILE 2K13	IIM ,19-8-13
Dr.V.Senthil Kumar	Advance materials and Manufacturing Techniques	Guest Lecture	M.Kumarasamy college of Engineering, Karur, 28-06-2013
Dr. J.Jerald	Inspired Mechatronics system design optimization	Guest lecture	Kongu Engineering college, Erode , 24-10-2013
Dr. J.Jerald	Recent advances in optimization Techniques	Faculty Development Programme	Government college of Engineering ,Bargur, 19-11-2013
Dr.S.Prasanna Venkatesan	Models and methods for supply chain decision	Guest Lecture	NIT ,Calicut ,06-04-2013
Dr.S.Prasanna Venkatesan	Mathematical modelling ,simulation and optimisation techniques	Faculty development programme	KLN college of Engineering, sivagangai, 20-11-2013
Dr.S.Prasanna Venkatesan	Swarm and evolutionary optimization	National workshop	Knowledge institute of Technology,Salem, 13-12-2013

5. Research Projects Undertaken & Status

Co-ordinator	Name of the Project	Sponsor	Amount (Rs. In Lakhs)
HOD/Production Engineering	DST-FIST	DST, New Delhi	105.00
Dr.A. Noorul haq	Experimental studies and numerical simulations on micro joining of shape memory alloys (nitinol)	MHRD	43.92
Dr.P.Asokan and Dr.V.Senthilkumar	Improvement of surface characteristics of bio-degradable magnesium alloys through cryogenic machining (PI)	DST-SERC	21.75
Dr.M.Durai selvam	Structural Integrity Evaluation studies on High Speed Transmission shaft for Turbofan Engine Application	GTRE	49.59
Dr.P.Sathiya	Experimental investigation and metallurgical analysis of friction welded duplex stainless steel joints	CSIR, New Delhi	17.96
Dr.P.Sathiya	Study on effect of cryo rolling precipitation hardenable AA 2219 aluminium alloy of friction stir welds	DOMR, DRDL, Hyderabad	09.75
Dr.J.Jerald	Development of Indigenous Capability for Ultra-Precision Electrolytic In-Process Dressing (ELID) Grinding Facility for Micro/Nano Machining	Department of Science and Technology, New Delhi.	15.60
Dr.S.Vinodh	Development of a model for ensuring sustainable product design in automotive organizations	DST, New Delhi	11.90
	Decision support systems for measuring Agile characteristics	CSIR, New Delhi	07.00
Dr.V.Senthilkumar	Development of nanocoating to prevent seawater corrosion in boiler tubes-PI	BHEL,Trichy	14.51
	Validation and site demonstration of nanostructured coating for Boiler water wall and super heater tubes-PI	BHEL,Trichy	07.00

6. Major Equipment / Software Purchased (more than Rs. 5 lakh.)

S.No	Equipment	Amount (Rs. in Lakhs)
1	Scratch tester TEQIP	07.16
2	HMT High Speed Precision Lathes (Model No.NH26) (Three Lathes)	42.01
3	Servo Controlled Hot Deformation Testing Equipment and accessories TEQIP	15.73
4	Human Body Vibration meter TEQIP	09.00
5	Trans Synergic Welding machine TEQIP	06.24
6	Over Crank Shearing machine	10.41

7. Research Papers Published in National / International Journals

7.1. Faculty

S. N o	Title	Author(s)	Journal	Year Vol. (No) Page
1.	An ISM approach for the barrier analysis in implementing green SCM	Mathiyazagan.K ,Kannan Govindan, Noorul Haq.A andYong Geng	Cleaner Production	2013 47,283- 297
2.	Multiple comparative studies of green supply chain management	Lei Xu, Mathiyazagan.K ,Kannan Govindan and Noorul Haq.A	Pressure analysis, Resource conservation and recycling	2013 78,26- 35
3.	Analysis of the influential pressures for Green supply chain management adoption	Mathiyazagan.K and Noorul Haq.A	Advanced Manufacturing Technology	2013 68,817- 833
4.	Experimental Investigations on microstructure and formability of cryo rolled AA 5052 sheets	K.Chandra Shekar, R.Narayanasamy and K.Velmanirajan	Materials and Design	2014-03- 0653,1064- 1070
5.	Forming limiting diagram and void coalescence analysis of	N.Selvakumar, M.Jinnah sheik	Materials and	2013 52, 393-

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
	AA5052 coated with molybdenum based ceramic nano composites	Mohamed, R.Narayanasamy, et al.,	Design	403
6.	Study on the wrinkling of bulged AA5052 alloy sheet metal during restoration	P.R.Jeyakrishnan, K.S.K.chockalingam, R.Narayanasamy, et al.,	Materials and Design	2013 52, 541-546
7.	Numerical modelling ,prediction of Cu-W nano powder composite in dry sliding wear condition using response surface methodology	S.C.Vettivel , N.Selvakumar, R.Narayanasamy, et al.,	Materials and Design	2013 50, 977-996
8.	Experimental investigation on workability and strain hardening behaviour of Fe-C-Mn sintered composites	A.P.Mohanraj, N.Selvakumar, R.Narayanasamy, et al.,	Materials and Design	2013 49,791-801
9.	Effect of Annealing temperature in Al1145 Alloy sheets on formability, void coalescence , and texture analysis	K.Velmanirajan, A.Syed Abu Thaheer, R.Narayanasamy, et al.,	Material Engineering and Performance	2013 22, 4,1091-1107
10.	Tribological Behaviour of powder metallurgy processed Aluminium Hybrid composites with addition of graphite solid lubricant	P.Ravindran, K.Manisekar, R.Narayanasamy, et al.,	Ceramics International	2013 39,2,1169-1182
11.	Study on hot deformation behaviour and microstructure evolution of cast extruded AZ31B Magnesium alloy	M.Srinivasan, C.Loganathan, R.Narayanasamy, et al.,	Material science and design	2013 47, 449-455
12.	Influence of Turning parameters on the machinability of homogenized Al-Cu/TiB ₂	P.Senthil, T.Selvaraj and K.Siva Prasad	Advanced Manufacturing Technology	2013 67,1589-1596
13.	A performance Study of Real coded genetic Algorithm on Gear Design Optimization	S.Padmanabhan, M.chandrasekar P.Asokan et al.,	Advanced Materials Research	2013 622, 64-68
14.	Experimental Investigation	Jerald J, Kumanan. S,	<i>Manufacturing</i>	2013 .27,

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
	and Optimisation of Process Parameter in Micro-Electrical Discharge Machining",	Leokumar S.P, Chandrakar H.V, "	<i>Technology and Management</i>	Nos.1/2/3: 88-100
15.	Improvement of Wear Resistance of hastelloy C-276 through Laser surface melting	M.Hashim, K.E. Sarath RaghavendraBabu, M Duraiselvam, et al.,,	Materials and Design	2013 46,546-551
16.	Statistical modelling and analysis of Dry sliding Wear of SiC reinforced Aluminium MMCs	S.Rajesh, A.GopalaKrishna , P.Rama Murthy Raju, M.Duraiselvam et al.,	Surface Engineering and Inter disciplinary Material science	20131, 57-90
17.	Taguchi grey relational analysis of dry sliding wear behaviour of annealed AA7075-TiC metal matrix composites	S.Baskaran, V.Anandkrishnan, M Duraiselvam, S.Raghuraman and V.M. Illayaraja Muthaiyaa,	Applied Mechanics and Materials	2014 541-542 258-262.
18.	Effect of heat treatment on wear behavior of hot extruded AA7075 - 4%TiC in-situ metal matrix	S.Baskaran, B.M.Muthamizh Selvan, V.Anandkrishnan, R.Venkatraman and M Duraiselvam	Applied Mechanics and Materials	2014 541-542 263-267.
19.	Shielding Gas effects on flux cored Arc welding of AISI 316L(N)Austenitic stainless steel joints	Katherasan.D, P.Sathiya and A.Raja	Materials and design	2013 45,43-51
20.	Genetic algorithm based optimization of the process parameters for gas metal arc welding	P. Sathiya, P. M. Ajith and R. Soundararajan	Mechanical Science and Technology	2013,27(8), 1~9
21.	Prediction and optimization of friction welding parameters for super duplex stainless steel (UNS S32760) joints,	T.Udayakumar, K.Raja, Afsal Husain T.M and P.Sathiya	Materials and Design,	2014 53 226-235.
22.	Mechanical, Metallurgical Characteristics and Corrosion	P.M.Ajith, P.Sathiya, Kondaiah Gudimetla	Advanced Materials	2013 717 pp

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
	Properties of Equal Channel Angular Pressing of Duplex Stainless Steel	and B.Ravishankar,	Research	9-14.
23.	Evaluation of Mechanical and Metallurgical properties of dissimilar materials by friction welding	Shanjeevi.C, Satish Kumar.S and Sathiya.P	Procedia Engineering	2013 64 1514-1523.
24.	Process parameters optimization of AISI 316L(N) weld joints produced using flux-cored arc welding process,	Katherasan, D., Sameer Srivastava and P. Sathiya	Metals and Materials Engineering	2013 (TIIM), 66 (2), 123-132.
25.	Optimization of process parameters in ECM using DFA –Fuzzy set theory- TOPSIS	M.Santhi, R.Ravikumar and R.Jeyapaul	Modeling in Materials and Structures	2013 9, Issue 2
26.	Evaluation of Milling characteristics of Resin hybrid GFRP laminates using Taguchi Approach	R.Jeyapaul and M.P. Jenarathanan.	Pigment and Resin Technology	2013.42.Issue :5
27.	Intelligent Heuristics to solve a balanced routine problem in supply chain	P.Parthiban	Engineering Applications of Artificial Intelligence	2013 14,28-39
28.	An integrated multi objective decision making process for the performance evaluation	P.Parthiban	Production Research	2013 51 issue 13, 3836-3848
29.	Hybrid MCDM approach for vendor ranking	P.Parthiban	Journal of Manufacturing Technology Management	2013 24 issue 6, 905-928
30.	Applications of constitutive and neural network models for the prediction of high temperature flow behaviour of Al-Mg	V.Senthilkumar, A.Balaji and D.Arul Kirubakaran	Transaction of non-ferrous metal society of china	2013 23,(6)1737-1750
31.	Synthesis and Forming Behaviour of AA 7075–TiC	V.Anandakrishnan, S.Baskaran and	Advanced Materials	2013 651 251-256

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
	Metal Matrix Composites	S.Sathish	Research	
32.	Effect of Sintering Temperature on the Formability and Pore Closure Behavior of Al-SiC Composites	J.Bensam Raj, P.Marimuthu, M.Prabhakar and V.Anandkrishnan	Applied Mechanics and Materials	2013 392 24-30.
33.	Workability Behavior of Al-SiC Matrix P/M Composites Under Triaxial Stress State Condition	J.Bensam Raj, P.Marimuthu, M.Prabhakar and V.Anandkrishnan	International Review of Mechanical Engineering	2013 7(5) Pages 947-954.
34.	An ANN approach for predicting the cutting inserts performances of different geometries in hard turning	N.Senthilkumar, T.Tamizharasan and V.Anandkrishnan	Advances in Production Engineering & Management,	2013 8 (4) Pages 231–241.
35.	Synthesis and forming behavior of aluminium-based hybrid powder metallurgic composites	M. Ravichandran, A.Naveen Sait and V.Anandkrishnan	Mineral, Materials and Metallurgy	2014 21, Number 2, , Page 181-189 (0.483).
36.	Development of checklist for evaluating sustainability characteristics of manufacturing	K.E.K.Vimal and S.Vinodh	Process Management and Benchmarking	2013 3(2) 213-232
37.	Lean Six Sigma in SMEs: an exploration through literature review	M.Prasanna and S.Vinodh	Engineering, Design and Technology	2013 11(3), 224-250
38.	Application of fuzzy compromise solution method for fit concept selection	S.Vinodh, S.Sarangan and S.Chandra Vinoth	Applied Mathematical Modelling	2014 38 1052-1063
39.	Development of integrated ECQFD, LCA and sustainable analysis model A Case study	S.Vinodh and K.Jayakrishna	Engineering, Design and Technology	2014 12(1) 102-127

7.2 Students:

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Rating of smart phone features – A Demographic study	Ajay Yeshwanth, V.	Global Economics, Management, Marketing, Finance and Social Sciences, Chennai	January 2014

8. Ph.D Awarded

S.No.	Name of the Research Scholar	Guide(s) / Supervisor(s)	University / Institute
1	D.Kathiresan	Dr.P.Sathiya	NITT
2	A.Balaji	Dr.V.Senthil Kumar	NITT
3	M.Manohar	Dr.T.Selvaraj	NITT
4	M.Hashim	Dr.Duraiselvam	NITT
5	P.Janarthan	Dr.R.Paneerselvam	NITT
6	H.Abdul zubar	Dr.P.Parthiban	NITT
7	K Lenin	Dr.R.Paneerselvam	NITT
8	K Mathiyazhagan	Dr.A.Noorul Haq	NITT
9	S Sivasankaran	Dr.R.Jeyapaul	NITT

CENTRE OF EXCELLENCE IN CORROSION AND SURFACE ENGINEERING

(CECASA)

1. Notable Achievements

1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1	J.Yoganandh, S.Natarajan and S.P.Kumaresh Babu	Best paper award	CST-2013, NIT, Trichy
2	M Yaswanth, Mathan Kumaran V, L Vairavan Gowtham, S Natarajan, Edward Anand.E and M.Adam Khan	Best paper award	CST-2013, NIT, Trichy

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised

S.No	Coordinator	Programme	Period
1	Prof.S.Natarajan	National Conference on Corrosion, Surface Engineering and Tribology, CST-2013	April 22-24, 2013
2	Prof.S.Natarajan	International Corrosion Awareness Day	April 24, 2014

2.2. Papers presented by the Faculty / Students

Author(s)	Details	Place & Date
J.Yoganandh, S.Natarajan and S.P.Kumaresh Babu	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23-24 Aug, 2013
M.Adam Khan, S.Sundarrajan, S.Natarajan, P.Parameswaran and E.Mohan Das	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23-24 Aug, 2013

2.3. Attended by the Faculty / Students

Faculty / Students	Details	Place & Date
J.Yoganandh, S.Natarajan and S.P.Kumaresh Babu	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23-24 Aug, 2013
M.Adam Khan, S.Sundarrajan, S.Natarajan, P.Parameswaran and E.Mohan Das	National Symposium on Electrochemical Science and Technology, NSEST-2013	IISc, Bangalore, 23-24 Aug, 2013
J.Yoganandh, S.Natarajan and S.P.Kumaresh Babu	National Conference on Corrosion, Surface Engineering and Tribology, CST-2013	April 22-24, 2013
M Yaswanth, Mathan Kumaran V, L Vairavan Gowtham, S Natarajan, Edward Anand.E and M.Adam Khan	National Conference on Corrosion, Surface Engineering and Tribology, CST-2013	April 22-24, 2013

6. Major Equipment / Software Purchased (more than Rs. 5.00 Lakhs)

S.No	Equipment	Amount (Rs. in Lakhs)
1	Hot air jet erosion equipment	10.42
2	Reciprocating Wear Testing Unit	10.88
3	Multichannel Potentiostat	37.60
4	Pulse Rectifier	15.62
5	High Temperature Impedance Analyser/Spectroscopy	27.85
6	Vacuum & High Temperature Tribometer	26.25
7	Metallography kit	14.65

7. Research Papers Published in National / International Journals

7.1. Faculty

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Highly Selective Fluorogenic Anion Chemosensors: Naked-eye Detection of F ⁻ and AcO ⁻ ions in Natural Water using a Test Strip	S. L. A. Kumar, M. Saravana Kumar and A. Sreekanth	Analytical Methods	2013 (5), 6401-6410
2	Spectroscopic and DFT investigations on the corrosion inhibition behavior of tris (5-methyl-2-thioxo-1, 3, 4-thiadiazole) borate on High carbon steel and Aluminum in HCl medium	R. Tamilarasan and A. Sreekanth	RSC Adv	2013 (3), 23681-23691
3	Novel Heterocyclic Thiosemicarbazones Derivatives as Colorimetric and "turn on" Fluorescent Sensors for Fluoride anion sensing employing Hydrogen Bonding	S. L. A. Kumar, M. Saravana Kumar, P. B. Sreeja and A. Sreekanth	Spectro. Chim. Acta Part A : Molecular and Biomolecular Spectroscopy,	2013 (113), 123-129.
4	1, 5-Bis (2-hydroxyacetophenone) thiocarbohydrazone: A Novel Colorimetric and Fluorescent Dual-mode Chemosensor for the Recognition of Fluoride	S. L. A. Kumar, M. S. Kumar, R. P. John, P. T. Muthiah and A. Sreekanth	Mat. Sci. Engg. C,	2013 (33), 2519-2525
5	An efficient triazole-based fluorescent turn-on chemosensor for naked-eye recognition of F and AcO: UV-visible, Fluorescence and ¹ H NMR studies,	S. L. A. Kumar, M. S. Kumar and A. Sreekanth	Mat. Sci. Engg. C,	2103 (33), 3346-3352
6	Synthesis, Spectral and Structural characterization of Bisthiocarbohydrazone	S. L. A. Kumar, M. S. Kumar, S. J. Jenniefer, P. T. Muthiah and A.	Phosphorus Sulfur Silicon Relat. Elem	2013 (188) 1110-1118

	Derivatives,	Sreekanth		
7	Erosive Wear Behavior of Nickel-Based High Alloy White Cast Iron Under Mining Conditions Using Orthogonal Array.	Yoganandh, J., S. Natarajan and S.P. Kumaresh Babu	ASM International - Journal of Materials Engineering and Performance,	2013 22(9), 2534-2541.
8	Erosion Behaviour of WC-Co-Cr Thermal Spray Coated Grey Cast Iron under Mining Environment	Yoganandh, J., S. Natarajan and S.P. Kumaresh Babu	Transactions of the Indian Institute of Metals	2013 66(4), 437-443.
9	Slurry Jet Erosive Wear Behaviour of NiCrBSi Coated Grey Cast Iron under Mining Environment.	Yoganandh, J., S. Natarajan, and S.P. Kumaresh Babu	Surface Engineering	2013 30(1), 71-77.
10	Oxidation And Hot Corrosion Behaviour Of Nickel Based Superalloy For Gas Turbine Applications	M.Adam Khan, S.Sundarrajan, S.Natarajan, P.Parameswaran and E.Mohan Das	Journal of Materials and Manufacturing Processess	2014 Article in press



LIBRARY

CENTRAL LIBRARY

The Institute has a Modern Central Library with more than two and half lakhs of documents, consisting of Technical books, Reports, Standards, CD-ROMS, AV Educational Cassettes and back volumes of Journals. The library subscribes to 179 periodicals (print), 5000+ e-Journals and 500+ e-books besides a holding of 17690 back volumes of journals. The library also contains 16,000 books in the Book Bank scheme.

Digital Knowledge Centre has been established with 60 Computer systems provided with DVD-RW Drive and Wi-Fi facility has been provided for laptop users. CCTV Web cameras also have been fixed in the Central Library. RFID Technology of Document Identification and Library Security System have been implemented in the Central Library for providing better circulation service to the users.

2. Conference / Seminars / Symposium / Special Lectures

2.1. Organised:

S.No.	Co-Ordinator	Programme	Period
1.	Dr. G. Thamaraiselvi	NITT User Orientation Programme on “IEEE XPLORE Digital Library”	24.05.2012
2.	Dr. G. Thamaraiselvi	Library Orientation Programme to the UG fresh students of NITT	23-25, July 2012
3.	Dr. G. Thamaraiselvi	Digital Library User Orientation Programme for the Ph.D. & M.S. Research scholars	29.10.2012

2.2. Papers presented by the Faculty / Students

Author(s)	Details
1. Dr. G. Thamaraiselvi	Implementation of RFID Technology in Library & Information Centers
2. Dr. G. Thamaraiselvi	Access to scholarly information through e-resources: Issues and solutions

3. Summer School / Winter School / Workshops

3.1. Organised

S.No	Co-ordinator (s)	Title	Period
1	Dr. G. Thamaraiselvi and Dr. C. Natarajan	One day workshop on “DELNET: Resources and Services-Koha: An Open Source Integrated Library Management Software etc.”	April 22 nd 2013
2	Dr. G. Thamaraiselvi and Dr. C. Natarajan	One day workshop on “ Implementation of RFID technology in Library and Information Centers”	23 rd August 2013
3	Dr. G. Thamaraiselvi Dr. C. Natarajan and Dr. G. Thamizhavel	2 days workshop under TEQIP-II ON “Access to E-Resources: Copyright Issues, Licensing Policy, & Best Practices for Effective Usage”	13.09.2013 to 14.09.2013
4	Dr. G. Thamaraiselvi	Organized and conducted a Book Exhibition for 3 days inviting the Registered Book Vendors from all over India,	12-14 th Feb. 2014,

3.3. Attended:

Faculty	Details	Place & Date
Dr.G. Thamaraiselvi and Dr. G. Thamizhavel	Training Programme on RFID Based Document Identification & Library Security System integrated with existing LIBSYS Software” conducted by M/S. M/S. 2CQR INDIA, Library Security Solutions, CHENNAI – 600 116	Central Library, NIT, Trichy-15, 03.07.2012 to 03.08.2012
Dr. G. Thamaraiselvi	One Day workshop on “Content Management system” conducted by CSG	NIT, Trichy-15, 8 th Sept. 2012
Dr. G. Thamaraiselvi	Training Programme on “Communication Skill Development” organized by the Women Cell	NIT, Trichy-15, 21-22 February 2013
Dr. G. Thamaraiselvi	Short term Training programme on “Virtualization and Cloud Computing” held at CSG	NITT 14-15 th June 2013
Dr. G. Thamaraiselvi and Dr. G. Thamizhavel	Workshop on “Promoting Excellence in Research among NITs Through E-Journals”	NIT, Warangal, 12-13 July, 2013
Dr. G. Thamaraiselvi	Training Programme on “Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013” conducted by Institute of Public Administration	Hyderabad, 18.11.2013 to 19.11.2013
Dr. G. Thamizhavel	One day workshop on “DELNET: Resources and Services-Koha: An Open Source Integrated Library Management Software etc”	NITT Central Library, April 22 nd 2013
Dr. G. Thamizhavel	one day workshop on “ Implementation of RFID technology in Library and Information Centers”	Central Library, NITT, 23 rd August 2013

4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. G. Thamaraiselvi	National Institute of Technology Library : A presentation	DELNET One Day Workshop	NITT, Central Library 22.04.2013
Dr. G. Thamaraiselvi	Implementation of RFID Technology in Library & Information Centers	One Day workshop on RFID Technology	NITT, Central Library 23.08.2013
Dr. G. Thamaraiselvi	Access to scholarly information through e-resources: Issues and solutions	TEQIP-II Seminar on E-resources for Scholarly Communication t	Anna University, Trichy 28.02.2014

6. Major Equipment / Software Purchased (more than 5.00 Lakhs)

S.No.	Equipment	Amount (Rs. In Lakhs)
1.	RFID – Reader, Antenna & other accessories	25.45
2.	DELL OPTI PLEX - Personal Computers (30 Nos.)	8.3
3.	CCTV Web Cameras (25 Nos)	6.75

7. Research Papers Published in National / International Journals

S.No.	Title	Autor(s)	Journal	Year Vol.(No.) Page
1.	Knowledge Management in Libraries for the Knowledge Society and its Perspectives	Dr. G. Thamaraiselvi	Library High Tech	2013
2.	Conservation of Tholkappiam Manuscripts	G. Thamizhavel	Thamizh Pozhil	2013

8. Ph.D. Awarded

Sl. No.	Name of the Research Scholar	Guide / Supervisor	University
1.	G. Thamizhavel	Dr. Madhavan, Dept. of Manuscriptology	Nov. 2013 TAMIL UNIVERSITY, Thanjavur.

TRAINING AND PLACEMENT

STUDENTS' PLACEMENT

During the year under report (2013-14), the students placement record continues to be maintained at higher percentage despite global slowdown, combined with local slowdown with Industry adopting wait and watch strategy because of the year being election year. The overall percentage of placements as on 08.04.2014 for Under Graduate programme is 85.4% and Post Graduate Programme is **51.5%**. The placement process is still in progress. The details are given below:

Campus Placements: Under Graduates

Sl. No.	UG Branch	Total Placed	As Percentage of Registered Students
01.	Civil	62	79.5
02.	C.S.E.	85	94.4
03.	E.E.E.	75	89.3
04.	E.C.E.	78	92.9
05.	Mech.	70	75.3
06.	MME	25	69.4
07.	Prod.	54	72.0
08.	I.C.E.	64	82.1
09.	Chem.	39	73.6
10.	Arch.	05	100.0

Campus Placements: Post Graduates

Sl. No.	PG Branch	Total Placed	As Percentage of Registered Students
01.	M.B.A.	43	52.4
02.	M.C.A.	44	67.7
03.	M.Tech. Comp. Science & Engineering	20	87.0
04.	M.Tech. Thermal Power Engineering	13	61.9
05.	M.Tech. Industrial Safety Engineering	11	52.4
06.	M.Tech. Manufacturing Technology	6	30.0
07.	M.Tech. Power Systems	6	33.3
08.	M.Tech. Power Electronics	8	47.1
09.	M.Tech. Material Science	7	33.3
10.	M.Tech. Transportation Engg. & Management	2	15.4
11.	M.Tech. Welding Engineering	10	41.7
12.	M.Tech. Communication Systems	14	70.0
13.	M.Tech. VLSI Systems	7	31.8
14.	M.Tech. Industrial Engineering	8	44.4

15	M.Tech. Industrial Metallurgy	5	33.3
16.	M.Tech. Structural Engineering	13	59.1
17.	M.Tech. Environmental Engineering	4	23.5
18.	M.Tech. Plant Design (Chemical Engineering)	7	33.3
19.	M.Tech. Non-Destructive Testing.	12	52.2
20.	M.Tech. Energy Engineering	6	31.6
21.	M.Tech. Process Control & Instrumentation	3	17.6

Notable Achievement : (As on 08.04.2014)

No. of Companies Visited	No. of Students Attended	No. of Students Placed	Percentage	Double offer (UG & PG)
186	811	UG : 557 PG : 254	UG : 85.4 PG : 51.5	UG : 22 PG : 01

With the placement process still in progress, the Institute is expected to end the year with near normal placements, despite unfavorable global and local factors.

Significant Institution Level Contribution during the year

In a significant step towards enhancing the skills sets and employability of M.Tech Students, three separate, 5-day lead auditor certification courses with international validity were organized under TEQIP for ISO 14001, ISO 18001 and ISO 50001.

The entire documentation and approval process for sanction of decommissioned MiG-23 Fighter Aircraft initiated in 2012 saw fruition with the assembly and erection and birth of MiGold Plaza.

During the year, more than 150 BHEL Executives were trained on various aspects of personality development including a specially designed programme titled PrIME - Program for Introspection, Motivation Effectiveness.

The department coordinated and functioned as the DAA Secretariat for the Distinguished Alumnus Award 2013. In all, twenty three Alumnus were honored by the DAA. Dr.APJ Kalam was the Chief Guest and gave away the awards in a grand function.

As a member of the III Cell, initiated and secured the prestigious L&T Build India Scholarship along with IIT-M, IIT-D, and NIT-K. The industry driven global elective New Product Development by TCS was also introduced.

During the year, 2 roof top 100 KWp each Solar Photo Voltaic Power Plants were commissioned successfully lending momentum to the renewable and green initiatives at NITT. With 2 plants in operation, NITT is the first and the only NIT and probably among IIT as well, to have 200 kWp Solar Plant.

FDP for Faculty and Placement Officers was organized under the ongoing UKIERI project on preparing graduates for business life.

COMPUTER SUPPORT GROUP

3.0. Summer School / WinterSchool / Workshops

3.1. Organised

Co-ordinator	Title	Period
Mr.K.Srinivasan	Windows and Linux System Administration	June 10th to 13th, 2013.
Dr.S.R.Balasundaram	Cloud Computing and Virtualization	June 14th to 15th, 2013
Dr.S.R.Balasundaram	AJAX	January 27 -28 , 2014.

6. Major Equipment / Software Purchased (more than Rs. 5.00 Lakhs)

Equipment

S.No	Equipment	Amount (Rs. in Lakhs)
1	Dell Precision work station T1650N Intel Xeon Quadcore 3.60Ghz, 8GB (2 x 4GB), 2 x 500GB HDD 1 GB NVIDIA Quadro 2000, Dell Professional P2412H with 5 years warranty	INR 23,65,000
2	Dell PowerEdge R420 1U Rack Server, 2 x Intel Xeon E5-2440 2.4GHz, 15M Cache, 7.2 GT/s, 16GB Memory (2 x 8GB) RDIMM 1600Mhz DDR3, Integrated Dual 1000 NIC Gigabit Chassis, PERC H710 RAID Controller, 512MB NV Cache, 3x600GB, 15000 rpm Hot Plug SAS, Redundant Power supply	INR 25,77,850
3	Dell PowerEdge R920 1U Rack Server, 4 x Intel Xeon E7-8837 2.66GHz, 24M Cache, 6.4 GT/s QPI, 64GB Memory (4 x 16GB) RDIMM 1600Mhz DDR3, Integrated Dual 1000 NIC Gigabit Chassis, PERC H710 RAID Controller, 1GB NV Cache, 6x600GB, 10000 rpm Hot Plug SAS, Redundant Power supply (4+4)	INR 19,97,257

Software

S.No	Equipment	Amount (Rs. in Lakhs)
1	Upgradation of MATLAB (5 User) Base License 820196 + Upgradation of MATLAB Base License 344715 + New tools additional to MATLAB 821096	Rs.5,07,310
2	MSC Software University MD FEA + Motion bundle (150 users)	Rs. 7,89,182
3	Microsoft Campus Agreement for 1 Year	Rs. 10,19,085.71

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

Preamble

The Indian system of engineering education has become vast and so far around 3000 engineering institutions have been established throughout the country. The exponential growth in Technical Education has, however, not translated into any significant growth in the number of quality graduates due to restricted availability of qualified faculty and better teaching-learning and training facilities. There is currently a huge gap between quality and quantity in Technical Education. The World Bank took keen interest in systemic transformation of country's technical education system to make it globally competitive and showed willingness to assist the Government of India to launch a Technical Education Improvement Programme (TEQIP) as a long term programme of 10-12 years and in three phases.

The Ministry of Human Resource Development, Government of India through NPIU have competitively selected 127 institutions including 18 Centrally funded institutions, 68 State funded institutions, 22 private unaided institutions and 19 Polytechnics spread across 13 States of India to participate in the first phase of TEQIP during 2003-09. After the completion of TEQIP Phase-I, a study was carried out for evaluating the impact of the Programme and learn lessons for TEQIP Phase-II.

TEQIP PHASE - II

As per TEQIP design, each phase is required to be designed on the basis of lessons learnt from the implementation of an earlier phase. As mentioned above, TEQIP-I started a reform process in 127 Institutions. The reform process needs to be sustained and scaled-up for embedding gains in the system and taking the transformation to a higher level. To continue the development activities initiated through TEQIP-I, a sequel Project is planned as TEQIP-II.

Objectives:

1. Strengthening Institutions to produce high quality engineers for better employability,
2. Scaling-up PG education and demand-driven Research & Development and innovation,
3. Establishing Centers of Excellence for focused applicable research,
4. Training of faculty for effective Teaching, and
5. Enhancing Institutional and System Management effectiveness.

Status of TEQIP – II at National Institute of Technology, Trichy, 2013 – 2014)

The following are office bearers involved in the TEQIP-II.

TEQIP PHASE-II

Sl. No.	Name	Role
1	Dr.S.Sundarrajan	Director
2	Dr.G.Swaminathan	TEQIP- II Advisor
3	Dr.T.K.Radhakrishanan	TEQIP-II Coordinator
4	Dr.N.Sivakumaran	Additional Coordinator
5	Dr.V.Senthilkumar	Nodal Officer - Procurement
6	Dr.Sishaj P.Simon	Nodal Officer - Academic
7	Dr.K.N.Sheeba	Nodal Officer - Equity Plan
8	Dr.K.R.Balasubramanian	Nodal Officer - Finance
9	Dr.R.Anand	Nodal Officer - MIS

Procurement :

- ❖ Equipments worth INR 3.00 Crore were purchased
- ❖ PO released for equipments and learning resources worth Rs 2.26 Crores
- ❖ Tenders floated (pipeline) for equipments worth Rs 45 Lakhs
- ❖ Total Amount (Expenditure + Committed + Pipeline) for procurement alone : 6.00 Crore

Purchase of ICT enabled classroom equipments (Virtual Class Rooms) for 10 TEQIP-II sponsored PG departments – PO released for Rs. 1.34 Crore

OUTCOME

- Students and faculty started using these equipment in laboratory classes Research scholars are highly benefitted and the results are published in reputed journals

List of Equipments Procured Since Inception worth above Rs.5 Lakhs

Sl. No.	Name of the Equipment	Cost of the Equipme nt in INR	Department
1	Cube 5	5,00,000	Civil
2	Portable HAZ-DUST Environmental Particulate Air Monitor	5,51,250	Civil
3	Digital Eddy Current with Accessories	6,62,663	NDT
4	Electrochemical Machine	8,01,191	Production
5	Melting Furnace	8,76,857	MME
6	Ericsson Cup Tester	6,85,125	Mech
7	Slow Speed Diamond Cutter	6,65,106	MME
8	HPLC System	2,407,350	Chemical

9	Squeeze Casting Unit	6,99,510	MME
10	Complete protection scheme of a 3-Phase Generator using electromagnetic/Static Relays	6,21,920	EEE
11	Trans Synergic Welding Machine	6,24,750	Production
12	Vaccum Furnace	5,72,500	MME
13	Multi Purpose Invertor Power source	9,96,450	MME
14	Scratch Tester	7,16,770	Production
15	DIC Microscope with Image Processing	9,98,440	MME
16	FTIR Spectrophotometer	9,74,794	Chemical
17	Varestrain and Implant Testing Unit	4,00,750	MME
18	Accessories for Perkin - Elmer make DSC and TGA	5,68,503	Chemical
19	5 Ton Capacity Electrically operated Dynamic Actuator	7,78,600	Civil
20	Tactile Force Measurement System	5,17,500	Mech
21	Total Organic carbon analyzer- High Sensitivity by using Combustion technique with auto sampler	14,42,700	Civil
22	Vibration Analysis tool Kit	10,80,000	Production
23	2 channel digital storage oscilloscope	5,00,000	EEE
24	Triaxial Cell including Pore pressure apparatus	6,91,875	Civil
25	Mixed Signal Oscilloscope 350 MHz – 2 GHz, Channels: 4 analog & 16 digital	9,69,150	ECE
26	Servo Controlled Hot Deformation Testing Equipment	15,73,320	Production
27	Thermal Conductivity Meter of Liquids and Gases	9,49,500	Mech
28	Welding Expert Software and System	9,98,750	Mech

Academic and Other Activities:

S.No	Particulars		Nos
1	No of training undergone by faculty		142
2	No of training undergone by Non Teaching staff		280
3	No of workshops conducted by faculty		51
4	No of International Training	Faculty 18	20
		Research scholars 2	
6	No of TEQIP Conclave		1
7	Faculty seed money Expenditure Rs.35 Lakhs		102
9	Contingency & Assistantship to research scholars Expenditure Rs.6.5Lakhs		77
10	Guest Lectures (ICE – 4, CHL – 2 , EEE -1)		7
11	MOU signed under TEQIP		2
12	III Cell	No of PG students benefitted through Industrial visit (Expenditure Rs. 5 Lakhs)	167
		No of Faculty benefitted through industrial Visit	3
		No of industrial workshop conducted	2
13	TEQIP Research scholars (2 batches) Expenditure Rs. 1.22Crores		33

14	No of M.Tech faculty who are PhD enrolled benefitted through TEQIP contingency (Rs. 1.24 Lakhs)	5
15	Capacity development (Management) programmes Expenditure (Rs. 12 Lakhs)	5
16	Academic Reforms Accreditation Expenditure (Rs. 18 Lakhs)	7 UG Programmes
	BoS & Academic Audit/ Curricula revision Expenditure (Rs. 9 Lakhs)	All UG & M.Tech Programmes

EQUITY PLAN – Expenditure – Rs. 10 Lakhs

- ❖ Around 50 girl students are trained in martial arts and yoga for self defense and motivation
- ❖ 110 Students of B.Tech. 1st year who had undergone schooling in respective state languages are trained for effective communication in English
- ❖ 371 M.Tech. final year students are subjected to finishing school to develop self confidence, communication and personality development in focus towards placement
- ❖ Counseling and Guidance Cell is set up through MoA (Memorandum of Agreement) with M/s Sowmanasya Hospitals and Institute of Psychiatry, Tiruchirappalli to provide mentoring services for NITT community under TEQIP-II
- ❖ Bridge course was conducted for B.Tech students (2012-14) in Mathematics and computer programming.

OUTCOME

- Confidence among girl students has increased
- Health benefits
- Increased confidence in communication
- Self confidence to face placement
- Student started visiting counseling and guidance cell
- Pass percentage in Mathematics has increased the overall transition rate

Financial Status as on 31.03.2014

Total Fund Allocation	: 12.50 Cr
Grand Received	: 9.00 Cr
Total Expenditure	: 6.21 Cr

INDUSTRIAL CONSULTANCY AND SPONSORED RESEARCH

Sponsored Research Projects 2013-2014				
S.No	Title of the Project	Funding Agency	Duration	Total Fund Rs.
1.	Experimental Investigations and Metallurgical Analysis of Friction Welded Duplex Stainless Steel Joints	CSIR	2013-2015	989000
2.	Synthesis, exciton and phonon properties of NiO nanotube composite polymers	CSIR	2013-2014	901667
3.	Development of biofouling resistant membranes for waste water treatment	DST_IND_KOREA	2013-2016	292440
4.	Structural Integrity Evaluation Studies on High Speed Transmission Shaft for Turbofan Engine Application	GTRE/GATET	2013-2015	4959000
1.	Exploratory Studies on Localized repair of Aero engine blade by welding techniques	CARS	2013-2015	990000
2.	Centre of Excellence for training and research in frontier areas of science and technology	MHRD	2013-2014	1000000
3.	Sonochemical preparation of metal nanoparticles and application of fuel cell catalysts	DST /INT/TAIWAN	2013-2016	2278800
4.	Preparation of solid Polymer electrolytes for fabrication of dye-sensitized solar cells	DST/TM/SERI	2013-2016	4480000
5.	Development of high niobium containing Nanostructured TiAl Intermetallic compounds produced by Spurt Plasma sintering and their Structure-Property correlation	DRDO	2013-2014	2367600
6.	Experimental investigations and finite element simulation of laser welding of Titanium sheets for Airframe structures	SERB(DST)	2013-2014	2442000

7.	Design fabrication & testing of meso and micro scale resonant sensors with electronics	SERB(DST)	2013-2014	4903600
8.	Cognitive based Curriculam development tool for Emerging areas of CS & MS	Indo-US Century knowledge through UGC	2013-2016	3000000
9.	Development of Micro-Grid controller integrated with multiple types of renewable sources and loads	PGCI	2013-2014	1490000
10.	Direct conversion of CO ₂ to hydrocarbon fuel using novel nano photocatalyst	SERB	2013-2016	2160000
11.	Laser glazed plasma sprayed functionally graded thermal barrier coatings for high temperature applications	DRDL/CARS	2013-2015	988900
12.	A pilot project on economic demand response management through on line monitoring	SERB	2013-2016	2439000
13.	Improvement on Mechanical properties of cryrolled precipitation hardenable AA 2219 alloy by friction stir welding process	DRDO	2013-2014	571978
14.	DST FIST PROJECT	DST-FIST	2013-2014	6000000
15.	Numerical methods for two parameter singularly perturbed boundary value problems	SERB	2013-2014	1200000
16.	A Novel Hybrid energy system for supplying isolated loads with FPGA based energy management scheme	CWET	2013-2014	1166000
17.	Novel Energy Production from Distillery Effluent Treatment by Bio-electrochemical Method	DBT	2013-2014	2280000
18.	UGC JRF Fellowship & HRA	UGC	2013-2014	732200

MOUs

STATUS OF EOI IMPLEMENTATION

Name of the Institute:

Date:

NATIONAL INSTITUTE OF TECHNOLOGY, TRICHY-15.

28-Aug-

2013

S.No	Partner Agency	Scope of Activities	Timeline (Date of Effect)	Current Status	Active upto	Problems (if any) ³
1. 2	Tata Consultancy Services Limited (TCS), Chennai	Sponsor fellowships for Ph.D. scholars, M.S. (by research), sponsored research program	05.09.2007	Active	31.05.2014	Rs.6,29,332 /- Received on 16.09.2013
2. 3	FLS Automation India Private Limited (FLSA), Chennai	Faculty exchange, industrial visit, joint seminars, students project and offering M.S & Ph.D	11.07.2007	MoU only	10.07.2012	
3. 4	National Institute of Materials Science (NIMS), Tsukuba (Japan)	Exchange of researchers; joint seminars; co-operative research; joint research proposal	23.02.2007	MoU only	22.02.2012	
4. 5	Dong-Eui University, Korea	Collaborative research, sharing of resources in research laboratories,	23.01.2008	MoU only	22.01.2013	

		organized joint international conferences and workshops				
5. 6	Electronics Corporation of India Limited (ECIL)	Faculty training at ECIL, provide opportunities for research interactions for MS and Ph.D. students, joint research projects and students project	27.03.2008	MoU only	26.03.2013	Request letter for extension
6. 7	Nagoya Institute of Technology (NIT)	Exchange of students, exchange of professors, research scholars and staff, exchange of scientific materials ,publications and informations, joint research activities	24.02.2009	MoU only	23.02.2014	
7. 8	Neyveli Lignite Corporation(NLC)	Sponsored research and development project	03.12.2009	MoU only	24 months from date of receipt of money	
8. 9	Sree Chithra Tirunal Institute of Medical Sciences and Technology,DST,GOI(SCTI MST)	Exchanges of scientific and technological information, collaboration in academic, scientific research and technical fields	04-08-2010	MoU only	03.08.2013	Request letter for extension

9. 10	4Alianza Universidades, Spain with the consortium of NITs	Students exchange, faculty exchange ,joint research projects and conference	07.09.2010	MoU only	06.09.2015	
10. 11	Bharat Heavy Electrical Limited(BHEL),Tiruchirappalli	Exposure latest techniques, invite foreign experts, share faculty Etc.	29.12.2011	MoU only	28.12.2016	
11. 12	University of Rennes I, France	To start a co-operation including undergraduate teaching at the Master level in the International Master programme “Molecular Catalysis and Green chemistry”(MCGC). The application of the best students selected at NIT-T at the Master I level in Chemistry will be examined preferentially by the teaching committee of MCGC at URI.etc.	06.01.2012	MoU only	05.01.2014	
12. 13	French Institute for Advanced Mechanics(IFMA),France	Exchange of staff, students and information along with joint research	12-09-2012	MoU only	11.09.2017	
13. 14	CSIR-Central Electrochemical Research Institute, Karaikudi	Joint research projects and participates the	20.02.2012	MoU only	19.02.2017	

	(CECRI)	Ph.D, M.S scholars				
14. 15	The University of Shiga Prefecture, Japan	Mutual Exchange of faculty ,researchers, and students, joint implementation of educational programs	11-03-13	MoU only	10.03.2016	
15. 16	High Energy Batteries(India)Limited	Industrial visits, in plant training for students, R&D lab sponsored, faculty training and exchange Etc.	29-05- 2013	MoU only	28.05.20 18	
16. 17	Binghamton University , Newyork	Joint research, academic exchange, Joint courses and conference	Valid for 5yrs from date of signing	MoU only		

NATIONAL CADET CORPS (Air wing)

“A” flight has started regular parades from August 5, 2013 with total strength 50. Forty parades, each of two hours duration were conducted. The two hours of parade consists of 40 minutes of foot & weapon drill, followed by 80 minutes of theory classes on the subjects like General Service Knowledge, Aero-modeling, Air Frame, Aero-engine, Principles of Flight, Health and Hygiene, First aid etc.

NCC Cadets performed the National Salute, delivered speeches and sang patriotic songs on Independence Day (Aug 15, 2013) as well as on the Republic Day (Jan 26, 2014).

Thirteen second year NCC cadets have attended NCC Inter-Unit Competition (IUC) Camp from 16th June, 2013 to 25th June 2013 at NIT Trichy organized by NCC Group Head Quarter, Trichy. Forty two of NITT NCC cadets have attended Combined Annual Training Camp (CATC) 2013-14 conducted by 3 (TN) AIR SQN (TECH) NCC, Trichy, from 22nd December 2012 to 31st December 2013 at Chettinadu Public School, Karaikudi. In all the camps, NIT Trichy cadets performed excellently and won many awards.

NCC cadets organized tree plantation camp at NITT campus on 14th Sep 2013. They planted all the saplings with utmost care and with due regard to precautions. On the whole, they planted 86 Neem saplings. Neem will grow into a tree with medical benefits and also provide shade yet, taking in less water.

The National Foundation for Communal Harmony (NFCH) observes the Communal Harmony Campaign and the Fund Raising Week every year from November 19 – 25 and the Flag Day is observed on 25th November. NCC at NITT observed the Communal Harmony Campaign, the Fund Raising Week (19-25 Nov, 2013) and the Flag Day on 25th Nov 2013 in NITT campus and the members of NCC, NITT have requested all teaching & non-teaching staffs and students of NITT to take personal interest to spread the message of peace, communal harmony, national integration and fraternity, and to make donation for fund raising effort to achieve the noble objectives of the Foundation. In fund raising event, a total amount of Rs. 2650/- was collected and contributed to the Foundation to be used for NFCH's noble task.

NCC cadets have given support to police officials in security arrangements and crowd control during the visit of the former President of India, Dr. A.P.J Abdul Kalam to NITT. They have also performed the Guard of Honour to Air marshal P. Kanakaraj, VSM, AVSM during his visit to NITT for receiving the Distinguished Alumni Award.

Twenty three cadets appeared for ‘C’ Certificate examination and one cadet appeared for ‘B’ Certificate examination, conducted by NCC Directorate on 22 & 23rd Feb’, 2014.

NSS ACTIVITIES

Total of 665 NSS Volunteers have been registered for the Year 2013-2014.

NSS volunteers participated and assisted Steward Committee for the smooth conduct of Convocation 2013.

Apart from regular activities, an annual special camp was conducted from 17.03.2014 to 23.03.2013 at nearby villages namely Ayyampatti, Valavanthankottai, Thirunedungulam.

The following important activities were performed by our NSS volunteers.

1. Free Eye camp was organized in association with Vasan Eye care at our campus on 22.03.2014.
2. Sports competitions were conducted for both primary and high school students and prizes were distributed for winners.
3. Tree plantation activities were held at various zones of our campus.
4. Awareness programme on health and hygiene was conducted.
5. Pulse Polio Awareness Programme was conducted.
6. Quiz and painting competitions were conducted for village children.
7. Spoken English and computer classes were conducted for high school students.
8. NSS volunteers visited and interacted with orphanage people at Thirunedungulam and provided dinner for them.
9. Nearly 60 volunteers were engaged in temple cleaning activities at Erumbeeswarar Temple at Malai kovil, Tiruverumbur, Trichy.

FESTEMBER, PRAGYAN AND NITTFEST

FESTEMBER

NIT Trichy has always believed in the independence of its students. College festivals promote cultural and organizational growth in students and Festember is one of the biggest of such festivals. With a 40 year old history and setting new and higher records with every edition and endeavor, it has come a long way.

A student organized festival, with guidance from professors and the college administration, it is a host to 10,000 students from across the country and from 300 different colleges. It offers a plethora of events that tests skills and talents in various fields of arts, culture, literature, music and dance. Choreo Night, Tarangini and Srutilaya, some of Festember's flagship events, have attracted a larger audience. Celebrities like playback singer Unni Krishnan have been associated with Festember in the past.

This four day festival has its biggest attraction during the Popular Nights. The stage of the classical night has witnessed the performances of Illayraja and Punya Srinivas among others. The Festember rolling trophy is given to the institute that performs the best at the festival.

Festember Social Responsibility, is one of the first of its kind. The Golden Dustbin, a waste recycling drive, an environmental awareness rally and events for orphans are just few of their initiatives.

The Curtain Raiser, held in one of the major cities annually, is a pre Festember event that declares Festember open.

Six months of relentless work and effort goes into pulling off this festival. Various teams like workshops, events, photography, organizing committee work during the festival while many other teams like marketing, publicity, media and Festember Social Responsibility work prior and post Festember.

With so much of effort and enthusiasm driving Festember, it doesn't come as a surprise to see it being awarded, one of the best college fests, in South India

PRAGYAN

The Tenth Edition of Pragyan, an ISO 9001:2012 certified annual techno-management festival of National Institute of Technology, Tiruchirapalli was conducted from 6th to 9th March, 2014. It is not just a 4 day fest but a phenomenon that captures the true NITTian spirit. Pragyan activities are conducted round the year, starting with the induction process in September.

On November 6th, Campus Connect was conducted for the first years to introduce them to the life at NIT, Trichy. This was followed by a laptop service drive with special offers for NIT-Trichy students on November 12th.

The month of December was packed with outreach activities. On December 6th, Catalyst, a PSR initiative to spread scientific knowledge among school students in and around Trichy was conducted in association with The Third Dimension, the Aero Modelling Club of our college.

WIRED, the first technical workshop for school students was conducted at the college by Pragyan and the RMI club of NITT during the second week of December. This year Pragyan became a truly international festival with the Pragyan Quiz conducted on December 16th for school students in Dubai. This was followed by Srishti, a mobileBOTICS workshop conducted in Hyderabad and Pragathi, a two day Data Acquisition Workshop, in association with Texas Instruments, held at Cochin University of Science and Technology.

With hilarious captions and thought provoking images, PSR in association with NITT Trolling came out with the sticker campaign in January. Pragyan QUIET, an open platform for NITTians – current students and alumni, to share stories/ideas or incidents left the audience spellbound. The stories and incidents shared were indeed Quite-Untold-Inspiring-Enticing-Tales!

Pragyan became the first organization in India and the first student-run organization in the world to receive ISO 20121-2012 certification for Event Sustainability Management Systems. This puts us on par with The Manchester United Football Club and The London Organising Committee of the Olympic and Paralympic Games, the only other organizations to have received this certification.

Several online events such as Labyrinth (online puzzle based treasure hunt); Crack the Shell, Digital Fortress, Code Character, Hacker Rush and Dalal Street (an online real time stock market simulator) were conducted between February 25th and March 4th, 2014.

Pragyan '14 began on March 6th - the day 0 of the fest. The event was inaugurated by Mr. T.V. Narendran, the Managing Director of Tata Steel and an alumnus of NIT, Trichy (then REC Trichy). The main attraction of the day was the UV Glow Balloons show held in the football grounds. Flagged off by the Dr. Srinivasan Sundarrajan, Director, NIT Tiruchirappalli with the launch of the Pragyan logo into the air, the show lit up the skyline

with over 250 hydrogen-helium filled balloons. Day 0 also saw the start of the satellite launching and robotics workshop.

Day 1 of the event began on March 7th. The major events included Crossfire, guest lectures by Dr. V. Ramgopal Rao from the department of Electrical Engineering in IIT-Bombay and Marcus du Sautoy, OBE, a professor of mathematics at the University of Oxford. Crossfire panel discussion featured the following panellists - Mr. Santosh Hegde, Former justice of the Supreme Court; Mr D R Karthikeyan, IPS Officer and former special director of the CBI and Director General of the National Human Rights Commission, Mr Bhagwan Singh, the Executive Editor of Deccan Chronicle, Group Captain N Thinakaran-3TN Commanding Officer and Mr Karthik Jankiram, a Supreme Court lawyer. The intense discussion on 'The Role of Youth in Nation Building' was moderated by Dr. Balakrishnan, former vice principal and Head of the English Department, St. Joseph's College Tiruchirappalli. The events of the day included various workshops, events and the infotainment show, Unconferencing hosted by Kiruba Shankar, the CEO of business blogging and the founding director of F5ive Technologies. Pragyan concluded for the day with a scintillating and mesmerising performance by Shobana Chandrakumar, a trained Bharatanatyam dancer, actress, director and NGO activist.

Day 2 of Pragyan 2014 opened with Guest lectures by Jamie Hynenan of the famous international TV show, Mythbusters and Valerie R Wagoner, a silicon valley veteran, who got enormous success with ZipDial - a missed call marketing service. Pengufest - an open source software technology workshop - helped the participants come to grips with Firefox OS. Participants were then able to make an app within 3 hours. The day was filled with the exciting workshops on Surveillance Quadcopter, Solar Mobile Charger and BSE workshop among others. The prelims of various events that tested the technical aptitude of the participants were also conducted. The Day 2 ended on a high note with exciting performances in Pragyan's Got Talent.

The Final day of Pragyan 2014 hosted the finals of major events like Topographya and NITTro offering prizes worth Rs. 1.2 million. Guest lectures by Anirudh, a Masters' student and research assistant at the Fluid Interfaces Group and Pragnu Goyal, a Masters' student at the Responsive Environments research group at the MIT Media Lab were the highlights of the day. They were inventors of Le Chal, an unobtrusive navigation aid for the visually impaired and Sohum, a non-invasive device capable of improving the quality of life for the visually challenged people worldwide.

Robowars, a highlight of Pragyan, came to a close with the finals held between MYTH HADES, HARD TARGETS and AMS RIDERS –the teams that qualified for the last round. AMS RIDERS emerged victorious at the end of a gruelling one hour battle. Their aggression was unmatched and they consistently won all the bouts.

Pragyan Cube Open - a Rubik cube solving competition was held during the fest. It had 11 events -variations of 2x2, 3x3, 4x4, 5x5, one-handed, blindfolded and 3x3. Bhargav Narasimha solved the cube in 8.57 seconds and was placed 3rd in national records; he also solved the 12 faced cube in 1min 2 seconds and was placed 2nd in national records.

The day also witnessed an air show in the NITT sports ground.

The valedictory ceremony was preceded by a guest lecture by Mr. L. Sivasankaran, Head, Strategic Initiatives, NVIDIA. Pragyan 2014 concluded with a stand-up comedy night by Sapan Verma and Sahil Shah of the East India Comedy.

At 50 years of NITT, Pragyan in its 10th year of celebrating technology saw a footfall of over 3200 participants, more than fourteen thousand site registrations, 130+ company associations and 54 media converts, all made possible by a family 650 member strong.

NITTFEST

VIKING WARS AT NITTFEST '14

Over the past one month, the NITTFEST fever engulfed the campus and Viking aura hung in the air. With every clan preparing for the storm, the department rivalries were at an all time high, and, NITTFEST'14 was nothing short of extraordinary. In the inauguration ceremony, our beloved director, Dr. S. Sundarrajan expressed his hope that NITTFEST '14 will outdo all its previous editions.

This edition of NITTFEST came in with a sea of change. It saw an increase in the number of events to 65. A number of new events like Boat Making, Oodles of Doodles, Flash Fictions and Treasure Hunt gave NITTFEST a refreshing look.

The main events were kicked off by the soulful Sufi music of Qawwali night. Being the first major competition, it attracted larger audiences and zealous cheering.

Day 1 had many popular events like Dumb C and Event X. Fun events like Rock Mime at the informal stage kept the audience entertained.

Day 2 The next day saw some amazing performances in Nukkad Natak - the Hindi street play event. The major event of the day was Choreonite and it definitely lived up to the hype.

Day 3- The major event of the day was Manoranjan. It was either the winner takes all- or rather, the entertainer takes all. Every performance left the audience dumb-founded and amazed. The defending champions E.C.E. won again. The war of the Viking clans came to a fitting end.

APEKSHAA - The Social Service Organization of NITT

The Apekshaa organization was established by the students of NIT, Trichy in 2004.

“Someone somewhere needs you”

Triggered by this thought, a few individuals have joined hands to lend a helping hand to their not so fortunate fellow humans.

"APEKSHAA" is a platform for all those with a noble conscience, the people who believe they can make a difference; an organization that binds people who want to serve mankind; an organization that can make you realize the power and purpose of your life.

We, as an organization carry out several activities on a regular basis as a part of fulfilling our rationale. Some of those have been listed below:

Independence Day celebration- Organized competitions for families in NITT Staff Quarters. Visited various ashram like Malarchi, Synthika trust , Gangaru Ashram, Rojavanam Ashram(Diwali Celebrations) where we provided gifts and lunch for them. Festember and Pragyan we conducted fund raising events in order to help the under privileged. Marathon was conducted for the cancer patients for general awareness in the campus. As Part of Joy Of Giving Week, We conducted various events for ashrams and Fund raising events. Since inception of our club, all our activities is very much taken care of by our Staff Advisor Dr R Murugesan , Associate Professor , Department of Humanities.

Future goals:

Currently Apekshaa is working on a project for “Recycling Waste Paper”. This Scheme would soon be implemented once required procedures are finished. With the Director’s approval, the scheme would be implemented in a full-fledged way to recycle the waste paper and papers are to be provided to ashrams, schools and other charity houses at a discounted price.

Industry-Institute Interaction cell

The Need:

- Feedback from Industries and Alumni
- Need to offer courses to suit requirements of Industries – one of our stake holders
- To enhance the employability of students
- Recent communication from MHRD Lr.No. 33-8/2012/TS-III dt. 9.11.2012 requiring 25% of lectures to be delivered by Industry experts.
- The need to float Global/continental electives to suit the present demand either with the experts from Industry/IISc/IITs/R&D/professional organizations.

Details of Guest Lecture

S.No	Date	Department	Guest Faculty	Lecture Topics/Area
1	Feb-April 2013	Mechanical Engineering	Dr.Santhosh Kumar, BHEL, Trichy	Computer Fluid Dynamics
2	26-03-2013	Electrical and Electronics Engineering	Kalai Selvi, CISCO System India Ltd, Bangalore	Operating System
3	05-04-2013	Instrumentation and control Engineering	P.Atchutha Rao, NID, Bangalore	Product Design and Development
4	6-4-2013	Architecture	D.Balaji, Shree SRBT associates, Chennai.	Architecture design
5	17-07-2013	Computer Applications	P.Anand Kumar, Roots Technology, Trichy.	Fundamentals of programing
6	18-07-2013	Computer Science and Engineering	Dr. Deepak Garg, Thapar University	Web Intelligence
7	25-07-2013 & 26-07-2013	Metallurgical and Materials Engineering	Dr.Ashok kumar Vaish, National Metallurgical Laboratory, Jamshedpur	From Iron ore to steel, Development of technologies foe eco-friendly and cost effective melting, Utilization of multi-metallic magnetite ore
8	31-07-2013	Instrumentation and control Engineering	Dr. Muthukumaran Packirisamy Res Chair in BIOMEMS Prof./Mech Engg Concordia Univ., MONTREAL ,CANADA	Nano integrated Bio-photonics
9	08-08-2013	Architecture	Ar. Bharathi Basu, Practicing Architect, Tiruchirappalli.	Architectural design –III (AR211)
10	08-08-2013	Architecture	Ar. Ramanathan, Practicing Architect, Tiruchirappalli.	Architectural design –IV (AR311)
11	08-08-2013	Architecture	Ar. M. Dhanasekaran,	Architectural design

			Practicing Architect, Thanjavur.	–IV (AR311)
12	08-08-2013	Architecture	Ar. P.S. Gopal, Practicing Architect, Thanjavur.	Computer application in Architecture-II (AR309)
13	08-08-2013	Architecture	Ar. N. Ramalingam, Practicing Architect, Madurai.	Architectural design –VIII (AR505)
14	08-08-2013	Architecture	Ar. Jaikumar Ranganathan, Practicing Architect, Chennai.	Architectural design –III (AR211)
15	10-8-2013	Interdisciplinary	Mr. Hari Shankar, Entrepreneur	Entrepreneurship and start-up experience
16	17-8-2013	Chemical/Civil Engineering	Mr. Ramasubramanian Mangalore Petrochemicals Ltd	Development of standard refineries and downstream units Effluent management
17	17-8-2013	Metallurgical and Materials Engineering	Dr.Damian Kotecki, USA	Stainless steels- developments in welding,
18	17-8-2013	Metallurgical and Materials Engineering	Dr. M.D. Mathew, IGCAR Kalpakkam	Stainless steels-for nuclear applications
19	7-08-2013	Instrumentation and control Engineering	Mr.P .Bala, Ampere Vehicle Pvt Ltd, Coimbatore	Storage Technology (Electric power)
20	24-8-2013	Computer Science and Engineering	Mr. Katni Venkatasubramanian, (Alumnus) Sun Microsystems	Virtualization in the data center
21	6-9-2013	Architecture	Ms.V.Sangeetha, Zaxis Engineering solution, Chennai	Building Service
22	7-10-2013	Metallurgical and Materials Engineering	Dr.P.C.Angelo, PSG College of Technology, Coimbatore	Selection of materials for aerospace applications.
23	15-1-2013	Metallurgical and Materials Engineering	Dr. M. Sundar, PSG College of Technology	Selection of materials with some case studies.
24	8.8.2013	Production	Dr.P.V. Varde. Sr. Prof., Homi Bhaba Nat. Inst., BARC	Prognosis in Electronics
25	9.11.2013	Computer Applications/CSE	Dr. Pethuru Raj, Infrastructure Architect, IBM Global Cloud Center of Excellence (CoE),	Cloud computing

			IBM India Pvt. Ltd., Bangalore	
26	26.10.2013	CSE	George Mathew, Managing Director, Exeter Group (India office)	Software Engineering: The Industry Paradigm

An Industrial visit to NLC was arranged for the benefit of EEE students

Details of Guest Lecture (from 1.11. 2013onwards)

S.No	Date	Department	Guest Faculty	Lecture Topics/Area
1	4.12.2013	Chemistry	Prof.T.Swaminathan Department of chemical engineering, IIT-Madras, Chennai.	Wastewater treatment by heterogenous photocatalysis : a journey in search of efficiency & cost effectiveness
2	4.12.2013	Chemistry	Prof.P.Maruthamuthu Department of Energy, University of Madras, Chennai.	Use of TiO ₂ Nanoparticles for pollution control problems and Direct conversion of Solar radiation into electricity
3	4.12.2013	Chemistry	Prof.R.Murugan Department of Physics, Pondicherry University, Pondicherry.	Garnet structured electrolytes for Electrochemical energy storage devices
4	4.12.2013	Chemistry	Prof.Jerry J.wu Department of Chemical Engineering and Science, Feng Chia University, Taiwan.	The potential application of ozone-based advanced oxidation processes on environmental remediation and pollution abatment
5	4.12.2013/5/12/2013	Chemistry	Dr Mahesh Hariharan . Department of Chemistry	Atomic Force Microscopy

			Indian Institute of Science Education and Research Thiruvananthapuram (IISER-TVM).	
6	4.12.2013/5/12/2013	Chemistry	Ponnambalam Venuvanalingam School of Chemistry, Bharathidasan University, Tiruchirappalli-620 024, INDIA	Insights from Ab initio and DFT Modeling
7	21-01-2014	Chemistry	Dr. Gopalan Rajaraman Department of Chemistry, Indian Institute of Technology Bombay.	Molecular magnetic materials.
8	24-01-2014	Computer Application	Dr.ASD Pillai St. Joseph College (Autonomous), Trichy	Effective communication in English
9	24-01-2014	Civil Engineering	Dr.J. Vasudevan, Associate Director, Consulting Engineering services, Chennai.	Transport management and Economics (CE602)
10	Feb- March 2014	Metallurgical and Materials Engineering	Dr.S.Suresh, Former GM, Welding Research Institute	Welding Application Technology (MT616)
11	Feb- March 2014	Metallurgical and Materials Engineering	Dr.G.Ravichandran, AGM, BHEL	Welding Application Technology (MT616)
12	Feb- March 2014	Metallurgical and Materials Engineering	Dr.M.Palaniappa, Senior Scientist, Honeywell (P) Ltd. Bangalore.	Welding Application Technology (MT616)
13	Feb- March 2014	Metallurgical and Materials Engineering	Dr. Balasrinivasan, Senior Scientist, GE Bangalore.	Welding Application Technology (MT616)
14	Feb- March 2014	Metallurgical and Materials Engineering	Mr.Jaspal Sing, Manufacturing Process Leader-Welding at GE,, Multi model Manufacturing Pune.	Welding Application Technology (MT616)
15	30-01-2014	Physics	Dr.P. Poddar, Senior Scientist, Physics and materials chemistry Division, CSIR-NCL Pune.	Materials and their properties at nanoscale from plasmonics, magnetism and ferroelectricity to semiconductors.

16	30-01-2014	Civil Engineering	Dr. K.Muthukkumar, Department of Health, safety and Environment, BHEL Tiruchirappalli.	Industrial safety (ME453)
17	18-02-2014	Chemistry	Dr. A.G. Samuelson, Professor, Department of Inorganic and Physical Chemistry, Indian Institute of Science Bangalore	Applying coordination chemistry to cancer therapy
18	11-03-2014	Electrical and Electronics Engineering	DrS. Dharmalingam, GM(retired/Quality), BHEL	Power Generation System (EE358)
19	26-03-2014	Physics	Shri.S. Thirunavukkarasu, Senior Officer E, IGCAR, Kalpakkam.	Advances in Electromagnetic NDE techniques.
20	27-03-2014 and 28-03-2014	Computer Application	Ms. Shiladitya Kar, Application Developers, Griffin Info systems Pvt.Ltd, Chennai.	Android Apps Development
21	27-03-2014 and 28-03-2014	Computer Application	Mr. Sundaravigneswaran, Application Developers, Griffin Info systems Pvt.Ltd, Chennai.	Android Apps Development
22	27-03-2014 and 28-03-2014	Computer Application	Ms. K.M. Komathy, Application Developers, Griffin Info systems Pvt.Ltd, Chennai.	Android Apps Development
23	13-03-2014 to 14-03-2014	Mechanical Engineering	Dr.M.Suriya narayanan, Principal Scientist, Central Leather research Institute, Adyar, Chennai.	Computer aided risk analysis (ME 652)
24	05-02-2014	Mechanical Engineering	Dr.K.Muthukumar, Sr.Manager, Safety Management/BHEL Trichy.	Electrical Safety (ME674)
25	05-02-2014	Mechanical Engineering	Mr.Harsha, G.M (retd)/BHEL Trichy	Environmental Pollution (ME 671)
26	05-02-2014	Mechanical Engineering	Mr.Rajmohan/ Head Safety/ Toshiba Chennai.	Computer aided risk analysis (ME 652)
27	05-02-2014	Mechanical Engineering	Mr. Hepat Sr.Manager/Fire and Safety/ CPCL, Chennai	Fire Engineering and explosion control (ME 656)
28	05-02-2014	Mechanical Engineering	Mr. V. Natatajan, Former DSCO, BHEL Trichy, Chief Executive, SRB academy and consultant, Srirangam	Fire Engineering and explosion control (ME 656)

29	05-02-2014	Mechanical Engineering	Mr.A.Kalayanasundaram , Sr.Manager Retired/ Maintenances and services, BHEL Trichy.	Safety in Material Handling (ME 675)
30	05-02-2014	Mechanical Engineering	Mr.P.Thangaraj/ Chief HSE Manager/CCC Chennai.	Safety in Material Handling (ME 675)
31	14-02-2014	Electronics and communication engineering	Dr.Arun Chandarsekar Senior Design Engineer Intel Bangalore	Electronics Packaging
32	14-02-2014	Electronics and communication engineering	Mr.Srikrishnan Senior Design Engineer Intel , Bangalore	Electronics Packaging
33	07-03-2014	Physics	Dr. Reji Philip, Associate Professor, Raman Research Institute Bangalore.	Intense-Matter interactions.
34	10-03-2014	Mechanical Engineering	Dr. A.Salih, Associate Professor, Department of Aerospace Engineering, IIST, Thiruvananthapuram	Computational Fluid Dynamics(ME606)
35	12-3-2014	Chemistry	Dr. G.Sozhan, Senior Scientist, CECRI Karaikudi.	Role of Electrochemistry in hydrogen economy
36	12-3-2014	Chemistry	Dr. N.Srinivasan, Senior Scientist, IMF Division CECRI Karaikudi.	Electroforming
37	12-3-2014	Chemistry	Dr. S. Mohan, Placement officer, EMFT, CECRI Karaikudi.	Preparation of nano structured metals and alloys using electrodeposition technique.
38	12-3-2014	Chemistry	Dr. Arul Raj, Senior Scientist, Fuel Cell Division CECRI Karaikudi.	Principle and prospects of fuel cell.
39	12-3-2014	Chemistry	Dr. Shailendra Kumar Jha, Scientist, EMFT CECRI Karaikudi.	Self assembled layers and their electrochemical significances.
40	14-03-2014	Mechanical Engineering	Shri D.Vasudevan, Retired Chief Inspector of factories, Government of Tamil Nadu, Chennai	Safety in Engineering industries.
41	24-03-2014	Mechanical Engineering	Renith Richardson, Lead Engineer, Combustion and Kinetic Lab, GE Global research.	Computational Fluid Dynamics(ME606)

42	24-03-2014	Instrumentation and control Engineering	Mr. Arumugam Murhu, Managing Director, Rainbow Control Systems Private Limited Tiruchiarappalli.	Instrumentation and control in Petrochemical Industries.
43	04-04-2014	Gen/Women Cell	Mr. V.Sundaramurthy Lecturer/Trichy	Cooking without fuels: Salads, Sandwiches and canopy. Cooking with fuel: Bread based rice dishes, gravy and sweet, Demo-I
44	04-04-2014	Gen/Women Cell	Mr. Suresh Kumar Lecturer/Trichy	Cooking tips, Demo-II
45	04-04-2014	Gen/Women Cell	Ms. Bhuvaneshwari Lecturer/Trichy	Vegetable carving, Demo-III
46	17-04-2014	Instrumentation and control Engineering	K. Krishna Rao Dy. Manager, Ultra Tech Cement Ltd.	Process flow of cement industry and instruments used in cement industry.

Architecture

Chemical

Civil

Computer Science & Engineering

Electrical & Electronics

Electronics & Communication

Instrumentation & Control

Mechanical

Metallurgical & Materials

Production

Chemistry

Computer Applications

Humanities

Management Studies

Mathematics

Physics

