



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

# **Institute Day 2016**

**25<sup>th</sup> April, 2016**

## **Annual Report**



# INSTITUTE DAY 2016



April 25, 2016



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 2016, **Shri. S. Gopinath**, Executive Director, BHEL, Tiruchirappalli, **Dr. Srinivasan Sundarrajan**, Director, NIT Tiruchirappalli, Deans, Registrar, Heads of the Department, Faculty, Staff, Mr. Rajat Sanklecha, President, Students' Association, Ms. Hemapriya, Vice President, Invited guests, the Press and the other media representatives

### **GOOD EVENING AND A WARM WELCOME**

National Institute of Technology, Trichy has carved a mark on the National Scene this academic year by being ranked first among all the NITs and 12<sup>th</sup> among all the technical institutes in the country by the National Institute Ranking Framework of the Government of India. On this occasion we proudly recognize the significant contributions of the faculty members and the students' in taking this Institute forward. NITT also won the prestigious **CII-AICTE best industry linked institute** competing among IITs, NITs and IIITs. The Institute also received national level awards from FICCI for social excellence and from ASSOCHAM for best Institute to use ICT tools.

As a matter of fact, among the top reputed technical institutes of the country, NITT has reached the pinnacle in academic reforms and research. The Academic Conclave conducted during this year has set the Institute on a road to major academic transformation. The Senate of the Institute has approved the deliberations of the Conclave and has endorsed the introduction of flexible curriculum, minor specializations; flipped classrooms based on course plans and new evaluation models.

The Institute this year also undertook a major peer review process by bringing in experts from IITs, leading industries and able educationalists. The critical comments of the reviewers were quite helpful in striving further to reach global standards. Further, NBA accreditation for all post graduate programmes has been sought to ensure that our excellence stands on par with the Institutes worldwide. In the first instance, the NBA teams for accrediting M.Tech. Programmes in Communication Systems, Materials Science and Engineering, Transportation Engineering and Management, Chemical Engineering and Power Systems, visited the Institute during the month of April.

The Institute recognized 30 of its distinguished Alumni this year by conferring Distinguished Alumnus Award on them. A new award Young Alumnus Achievers Award was instituted this year and five Alumnus received this award.

The students of NITT had proved their mettle this year also by sustaining their placement records at higher percentages despite global sluggishness. The overall percentage of placements as on 21.04.2016 for under graduate programme is 94% and Post Graduate Programme is 73%. The placement process is still in progress.

With a commitment to free and open inquiry, the faculty members and students in NITT take an interdisciplinary approach to research that spans from science to engineering. A total of 480 Journals have been published in Scopus and 302 articles are published in Web of Science. The faculty members had organized 44 workshops in emerging research areas.

I now bring out the significant contributions of various departments in taking the Institute to greater heights.

Dr. N. Anantharaman received the ‘Best Engineer Award’ for his meritorious services to the Engineering fraternity and the society at large by the Institution of Engineers (India), Tiruchirappalli local Chapter. Meera Sheriffa Begum K.M, and Anantharaman N wrote a book on “Advances in Bio-process Technology” published by Springer.

Dr. R. Karvembu along with few others wrote a chapter on “Carbon materials supported nanostructures in catalysis”, in the book “Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications”, published by Taylor & Francis, CRC Press, USA. Dr. S. Anandan received a project for Rupees 26 Lakhs titled “Medium Band Gap Donor-Acceptor Conjugated Polymers towards fabrication of Bulk Heterojunction Solar cells” from DST.

Dr. C. Natarajan received ICI- Ultratech Endowment Award- 2015 for “outstanding concrete structure of Trichy District”. Dr. G. Swaminathan was awarded a project worth 2 Lakhs to develop Methodologies for Safe Disposal of Missile Canister after Firing by the DRDL.

Dr. K. Muthukkumaran received Keynote Paper Award from GEOMATE, Japan.

Koppala Guravaiah of the Computer Science Department received the best paper award in the Eleventh International Multi Conference on Information Processing, Bangalore. Amrith Rajagopal Setlur, third year Computer Science and Engineering student received the President Gold Medal for best academic performance (Delhi Region) in 2015.

Dr. M. Venkata kirthiga received the Distinguished Alumnus Award in Academics, from Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur. Dr. Sishaj P Simon,

wrote a book titled “Soft Computing With MATLAB Programming” published by Oxford University Press. Dr. S. Senthilkumar awarded a project for Rs. 21 lakhs to study the dynamic loading of conveyer drive heads in mine from NLC.

Dr.N.P. Gopalan received the prestigious “Eminent Engineer” award from the Institution of Engineers (India).

Seema Tirkey and Nitesh Jha won third prize in poster presentation in the Telemedicine congress.

Dr. Ramkalyan received a project for Rs. 50 lakhs to Model Driven Engineering for Integration Industrial Automation Systems with Application to Water Networks from ABB.

Dr.P.Sathiya was awarded a project for Rs. 29 Lakhs to perform a comparative study on the weldability of high strength aluminium-magnesium alloy from SERB. Dr. S. Prasanna Venkatesan received a project for Rs. 17 lakhs from SERB.

Dr. G. Kannabiran along with other awards also won the Emerald Indian Management Research Fund Award 2016 from Napier University, UK, for a Research proposal on Determinants of Effective Strategic Positioning of University Business Incubators in India.

Dr. K. Murugesan won the Tamil Nadu Scientist Award from the Government of Tamil Nadu.

Prof. S.S.Arulappan won the international best research paper award from the International Journal of Mechanical and Production Engineering Research and Development. Dr. S. Suresh had obtained projects worth Rupees 60 Lakhs from the DST. Dr. R. Anand received a project worth of Rs.17 lakhs from SERB. Dr.S.P.Sivapirakasam and Dr.K.R.Balasubramanian were awarded a project for Rs. 20 Lakhs from DRDO.

Dr. V. Muthupandi won the First prize in the Metallographic contest in the category of ‘Light microscope’, conducted by Indian Institute of Metals. Dr. S. Natarajan was recognized by Taylor and Francis for his outstanding review of articles. Dr. S. Kumaran and Dr. S. Muthukumaran received projects for Rs. 14 lakhs and Rs.11 Lakhs respectively from ISRO.

Dr. A. Chandrabose was elected as fellow of the Tamil Nadu Academy of Sciences.

The Computer Support Group headed by Dr. Ramakalyan has internet Bandwidth upgraded to 150 Mbps (1:1) through STPI. The CSG from this year is operating the Pearson/GMAC’s authorized online testing center for the GMAT examination for the benefit of

the students from NIT-T as well as students from Trichy and nearby places. So far, 5 students have appeared for the GMAT examination through this center.

Twenty Four NCC cadets appeared 'B' certificate examination on 12th & 13th March, 2016 and Seven cadets appeared for "C" Certificate examination on 26th March 2016, conducted by NCC directorate.

Our sports teams participated in UDGOSH'15, Conducted by I.I.T KANPUR and won lots of prizes. Our athletes won lot of medals in the BOSM'15 Sports Meet At BITS Pilani. Our team also won lot of prizes and medals in the All India Inter NIT Sports Meet.

The presence of Eminent scientists Mr. Abhas Mitra, the Indian astrophysicist and Dr. Archana Sharma, the only Indian Scientist at the LHC project in CERN during Pragyan 2016 made the event very colourful.

The 41<sup>st</sup> edition of Festember'15 was undoubtedly one of the best of its kind. The fest successfully matched up to the expectations from the previous editions. In addition to this, the publicity and the sponsorships this year were unparalleled. This edition, the fest hosted 63 events, 7 workshops and numerous fun-filled informal events. This culminated into an incredible footfall of over 5000 participants from various colleges across the country. Further, the pro shows and the guest lecture series enhanced the glamour quotient of this 4- day extravaganza.

The Technical Education Quality Improvement Programme (TEQIP II) had also immensely contributed to the development of infrastructure and teaching and learning needs of the Institute.

The institution partner with the neighbouring industries and research institutes through MoU on innovative initiatives to promote collaborative research and consultancies with local benefits and replicable outcomes. NITT is continuously driving to dig deeper, push further, and ask bigger questions - and to leverage the knowledge to enrich all human life.

## INSTITUTE DAY PRIZE WINNERS (2016) / B.Tech. / B.Arch.

## B.Tech. / CHEMICAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011	1	102111008	ANIRUDH RAJARAM	9.81
	2	102111064	VIKRAM RAGHAVENDHAR R	9.49
	2	102111059	SWATI CHAUHAN	9.49
	3	102111011	DEVESH PATIDAR	9.33
2012	1	102112041	N HARINI	9.81
	2	102112048	PRASHANTHI BALAJI	9.6
	3	102112052	R BHARATH VENKATESH	9.33
	3	102112064	SUNKARA SUSHMA	9.33
2013	1	102113012	B SOUNDARYA	9.93
	2	102113009	ARVIND PARI	9.74
	3	102113056	SHRUTI SINHA	9.54
	3	102113016	CHARULATHA B	9.54

## B.Tech. / CIVIL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011	1	103111057	PIYUSH AGARWAL	9.59
	2	103111044	KAVIN KUMAR R	9.29
	3	103111052	NIKITAA SIVAAKUMAR	9.24
	3	103111015	ANURAG SAURAV	9.24
2012	1	103112092	SIDDHANT CHANDRA	9.76
	2	103112083	S GIRISH	9.7
	3	103112071	PAVITHRAA S	9.65
2013	1	103113030	CHAVA TRIVENI	9.82
	2	103113042	KANCHARLA VINUTHA	9.75
	3	103113052	MANEPALLI PRIYUSHA LAKSHMI	9.64

## B.Tech. / COMPUTER SCIENCE AND ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2011	1	106111029	D PARAMESWARAN	9.86
	2	106111015	ANUSHA HOLLA	9.51
	3	106111037	HARISH K	9.49
	1	106112012	ARJUN B	9.93

2012	1	106112033	HARI NARAYANAN S	9.93
	2	106112056	M LAKSHMI	9.86
	3	106112005	AKHILA YERUKOLA	9.7
2013	1	106113009	AMRITH RAJAGOPAL SETLUR	10
	2	106113091	SUBHAM ROY	9.83
	3	106113021	CHALLA BHAVYA	9.56
	3	106113031	HAR SIMRAT SINGH	9.56

**B.Tech. / ELECTRICAL AND ELECTRONICS ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	107111029	D SUZITH	9.81
	2	107111097	VISHNU NARAYAN V	9.47
	3	107111005	ABILASH G	9.42
2012	1	107112030	GURU PRAANESH R	10
	1	107112031	GURU RAGHAV R	10
	2	107112074	ROUNAK MEYUR	9.87
	3	107112069	RAMITHA SUNDAR	9.5
2013	1	107113077	ROSHINI DEVI K L	9.63
	2	107113032	HIMANSHI YADAV	9.6
	3	107113086	SATRUJIT MOHANTY	9.54

**B.Tech. / ELECTRONICS AND COMMUNICATION ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	108111052	PRASANNA R	9.93
	1	108111102	VIKAS SAKARAY	9.93
	2	108111017	CHANDRASEKHAR S	9.72
	3	108111014	BARATH J	9.4
2012	1	108112102	VINAYAK SURESH	10
	2	108112027	DASARI BHAVYA SRI	9.82
	3	108112066	REISHI KUMAAR T	9.8
2013	1	108113045	K VIGNESH RAM	9.59
	2	108113059	NEELI SRINIKETHAN	9.55
	3	108113011	AMMINENI BALAJI	9.5

**B.Tech. / INSTRUMENTATION AND CONTROL ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	110111064	RAHUL SRIVASTAVA	9.8
	2	110111050	P SRILAKSHMI	9.73
	3	110111090	VANAPALLI APARNA LATHA	9.49

2012	1	110112071	S DEEPAK	9.7
	2	110112030	HARISH K	9.6
	3	110112042	KADIRI MANASA	9.56
2013	1	110113064	PRAKASH V	9.51
	2	110113086	SUDHARSHAN SURESH	9.4
	3	110113007	AKHIL CHALLA	9.34

**B.Tech. / MECHANICAL ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	111111083	S VIJAY	9.48
	1	111111047	KARTHIK VIJAYAKUMAR	9.48
	2	111111043	K SATISH	9.38
	3	111111006	ADYASHA DASH	9.3
2012	1	111112090	SUBRAMANIAM B	9.64
	2	111112103	VIKASH KUMAR	9.53
	3	111112064	PADMEYA PRASHANT INDURKAR	9.49
2013	1	111113083	SIDDHANT DWIVEDI	9.69
	2	111113102	VUPPALA R K SAMPATH SAI	9.48
	3	111113032	I CHILTON FRAZER	9.44

**B.Tech. / METALLURGICAL AND MATERIALS ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	112111009	APOORVA SARAF	9.93
	2	112111008	ANANYA RAJAGOPAL	9.71
	3	112111035	PREETHI S	9.49
2012	1	112112058	VRINDAA SOMJIT	10
	2	112112027	KUNDURU TEJASWINI	9.6
	3	112112032	MUKKA ANUDEEP	9.49
2013	1	112113001	ADARSH S S	9.94
	1	112113062	YASHVI SINGH	9.94
	2	112113015	HARIPRIYA K	9.64
	3	112113037	PAVITHRAA DEVI A	9.53

**B.Tech. / PRODUCTION ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2011	1	114111047	NACHIAPPAN V	9.71
	2	114111052	PONNARASI RANJANA S	9.69

	3	114111056	R ARVIND SRIVATSAN	9.4
2012	1	114112072	RANGARAJAN P	9.91
	2	114112065	PRAVIN NATH J	9.87
	3	114112003	ABHISHEK SHARMA	9.73
2013	1	114113062	R ARAVIND	9.73
	2	114113083	SREENIVAS V	9.63
	3	114113074	S P KANNAN	9.58
	3	114113073	S KARTHIK SUNDARAM	9.58

**B.Tech. / I YEAR (2014)**

Batch	Rank	Roll Number	Name	CGPA
2014	1	103114082	S R GIRISH KUMAAR	10
	2	112114059	V ARTHI	9.96
	3	107114068	NANDA KISHORE V	9.89

**B.Arch. / ARCHITECTURE**

Batch	Rank	Roll Number	Name	CGPA
2010	1	101110018	MONICA S	9.11
	2	101110037	DEVIKA PRAKASH	8.22
	3	101110011	VIVEKARASAN M	8.04
2011	1	101111038	IVANA RAKSHIT	8.94
	2	101111048	TANVI MODI	8.83
	3	101111037	ROSHITA SUDHIR	8.58
2012	1	101112043	SWETHA BHARGAVI A	9
	2	101112021	LAKSHMI K AJAYAN	8.61
	3	101112042	SUSAN ANN ABRAHAM	8.43
2013	1	101113006	ANAGHA D	9.45
	2	101113018	JESLU CELINE JACOB	8.86
	3	101113044	SNEHA MARIA VARGHESE	8.59
2014	1	101114023	PRIYA S	9.66
	2	101114006	B AMREETA	9.64
	3	101114038	STEPHY ANN TOMY	9.39

## INSTITUTE DAY PRIZE WINNERS (2016) / M.Tech. / M.Sc. / MCA / MBA

## M.Tech. / CHEMICAL ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2013	1	202113012	TUSHANT GHODE	9.67
	2	202113025	TIWARI MOHIT MANOJ	9.16
	3	202113024	MADHU NISHA R	9.06
2014	1	202114022	MALLURI SAI VIJAYA KRISHNA	9.12
	2	202114003	GAYATHRY L	9.1
	3	202114012	ANUPAMA KRISHNAN	8.98
	3	202114023	RELANGI VENUGOPALAKRISHNAGOWDA	8.98

## M.Tech. / ENERGY ENGINEERING

Batch	Rank	Roll Number	Name	CGPA
2013	1	202313003	REMYA G	9.88
	2	202313015	PISHARODY ASHWIN R	9.47
	3	202313009	ANUPAM KRISHNAN	9.36
2014	1	202314018	RAGHU KRISHNA MOORTHY	9.79
	2	202314009	CHATRAGADDA PRIYANKA	9.57
	3	202314023	SRAVYA VALLU	9.05

## M.Tech. / PROCESS CONTROL AND INSTRUMENTATION

Batch	Rank	Roll Number	Name	CGPA
2013	1	202213018	VIVEK A	9.56
	2	202213019	VINOD SHARMA	9.37
	3	202213010	RONISH SIMON	9.29
2014	1	210114024	JJO BENNI	9.27
	2	210114007	SREEDEVI GOPINATH	9.02
	3	210114002	G SRUTHI	8.88

## M.Tech. / TRANSPORTATION ENGINEERING AND MANAGEMENT

Batch	Rank	Roll Number	Name	CGPA
2013	1	203113004	KARTHIK K R	9.27
	2	203113029	PRAVEEN S B	9.15
	3	203113026	NOOJILLA SATYA LAKSHMI	9.14

			APARNA	
2014	1	203114021	BUSH B THOMAS	9.29
	2	203114023	BRAMHESWAR DAS	9.24
	3	203114015	RAJKUMAR A S	9.21

**M.Tech. / STRUCTURAL ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	203213023	POTHULA SATYANARAYANA	8.82
	2	203213019	MACCHA HEMANTH YADAV	8.64
	3	203213015	SABAREESAN M	8.5
	3	203213020	KRIPANJITH V P	8.5
2014	1	203214002	MUNUKUTLA SAIKRISHNA	9.62
	2	203214006	HITESH AGARWAL	8.81
	3	203214003	AMARA SATISHKUMAR	8.57

**M.Tech. / ENVIRONMENTAL ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	203413022	DHIVYA S	9.18
	2	203413017	ASWATHY P	9.15
	3	203413001	JINISHA R	9.11
2014	1	203414019	KIRTI TAMTA	9.5
	2	203414024	NANDHINI S	9.24
	3	203414009	ADDAGADA LAVANYA	9.12

**M.Tech. / CONSTRUCTION TECHNOLOGY AND MANAGEMENT**

Batch	Rank	Roll Number	Name	CGPA
2014	1	203514006	SUBRAJA R	9.63
	2	203514003	PALLAVI ANAND	9.55
	3	203514015	SACHIN RANA	9.08

**M.Tech. / COMPUTER SCIENCE AND ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	206113004	VIDYA T	9.95
	2	206113001	ANNAM RAJA SHEKHAR REDDY	9.42
	3	206113020	SANJIV KUMAR	9.18
2014	1	206114004	BORKAR PRAKASH TOLIRAM	9.72

	1	206114006	DHANANJAY KUMAR DUBEY	9.72
	2	206114026	REVATHI UDDARAJU	9.58
	3	206114023	HEMANTHKUMAR S	9.22

**M.Tech. / POWER ELECTRONICS**

Batch	Rank	Roll Number	Name	CGPA
2013	1	207213028	HASANAPURAM PRIYANKA	9.24
	2	207213007	CHINTHAKINDHI VINAY	9.21
	3	207213002	YALLA VAMSHIDHAR REDDY	9.19
2014	1	207214006	VIJAYANARAYANAN S	9.29
	2	207214024	AKHIL KRISHNAN M S	9
	2	207214002	NIPUN MANIRAJAN	9
	3	207214014	HARI KRISHNAN T	8.84
	3	207214021	KADI BHAGYA SRI	8.84

**M.Tech. / POWER SYSTEMS**

Batch	Rank	Roll Number	Name	CGPA
2013	1	207113008	ARAVINDRAJ A	9.71
	2	207113020	AGILIN PRASANTINI A	9.56
	3	207113006	KANDALA NAGA SAI UMA MAHESH	9.32
2014	1	207114002	S KISHORE REDDY	9.84
	2	207114024	PATIL VIRENDRA PRAKASH	9.76
	3	207114019	KONDRAPU ANUSHA	9.68

**M.Tech. / COMMUNICATION SYSTEMS**

Batch	Rank	Roll Number	Name	CGPA
2013	1	208113003	P SRIRAM	9.71
	2	208113007	K CHAITANYA	9.45
	3	208113024	VINAY KUMAR B	9.3
2014	1	208114009	VEENA K	9.45
	2	208114014	SOURABH SINGH RAJPUT	9.29
	3	208114032	MAHESULA SAMATHA SESHACHALAPATHI	9.17

**M.Tech. / VLSI SYSTEM**

Batch	Rank	Roll Number	Name	CGPA
2013	1	208213010	SHAH VIRAG HARESHKUMAR	9.48
	2	208213008	RAHUL P R	9.45
	3	208213002	DEVAREDDY MOKSHA	9.21
2014	1	208214018	THODIGOTLA SRINIVASA TEJA	9.71
	2	208214023	SANGEETHA M V	9.29
	3	208214012	KOTTAPALLI SUPRAJA	9.26

**M.Tech. / INDUSTRIAL SAFETY ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	211213025	SURAJ VERMA	9.67
	2	211213012	MINHAJ AHMED ANSARI	9.38
	3	211213009	S SAI KUMAR	9.06
2014	1	211214024	SINGAMSETTY VAMSHI KRISHNA	9.54
	2	211214020	BINAZ V	9.46
	3	211214001	ELDHOSE P ALIYAS	9.33

**M.Tech. / THERMAL POWER ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	211313029	VEEPURU BHARGAVI	9.56
	2	211313027	SATHISHKUMAR J	9.54
	3	211313020	AKASH SHRIVASTAVA	9.41
2014	1	211314010	SARAVANA KUMAR B	9.59
	2	211314026	GURDEEP SINGH	9.51
	3	211314028	BOGADI NAVEEN KUMAR REDDY	9.41

**M.Tech. / MATERIALS SCIENCE AND ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	212213004	JITHIN THOMAS K	9.38
	2	212213005	KOUSIK POLLEY	9.09
	3	212213018	BALACHANDIRAN B	9.06
2014	1	212214003	JAYDEEP SAHA	9.55
	2	212214011	NAMBIAR ROHITH RAGHAVAN	9.18
	3	212214013	SIDDI PRASHANTH	9.15

**M.Tech. / INDUSTRIAL METALLURGY**

Batch	Rank	Roll Number	Name	CGPA
2013	1	212313005	NUTAN NIHARIKA	9.34
	2	212313002	SRIDHARAN G	9.33
	3	212313004	ABHIJITH S	9.06
2014	1	212314015	SUBRAHMANYAM ADABALA	9.47
	2	212314019	GARUGU MIDHUN KUMAR	9.3
	3	212314013	SANJAY SINGH	9.19

**M.Tech. / WELDING ENGINEERING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	212113010	MORE SACHIN ASHRUBA	9.94
	2	212113009	MADIGA NEELAKANTA	9.45
	3	212113017	NISHANTH M V	9.17
2014	1	212114016	KAJVE AMRUT SHAHURAO	9.71
	2	212114006	VISHNU S J	9.54
	3	212114026	KESAVAMOORTHY M	9.34

**M.Tech. / INDUSTRIAL ENGINEERING AND MANAGEMENT**

Batch	Rank	Roll Number	Name	CGPA
2013	1	214213027	RAMYA C	9.29
	2	214213022	N SREEPHANI POOJA	9.03
	3	214213007	SUJITH S	8.98
2014	1	214214019	AGRAWAL RAHUL SUNIL	9.36
	2	214214001	WANKHEDE VISHAL ASHOK	9.33
	3	214214014	KANAV MAHAJAN	9.31

**M.Tech. / MANUFACTURING TECHNOLOGY**

Batch	Rank	Roll Number	Name	CGPA
2013	1	214113023	RISHABH SHRIVASTAVA	9.32
	2	214113032	KRISHNANUNNY S	9.06
	3	214113035	BATTA VISWESWARA	8.98
2014	1	214114029	BOOPATHY S	9.42
	2	214114028	CHOCKALINGAM C	9.36
	3	214114015	BADDAM BHASKAR REDDY	9.11

**M.Tech. / NON-DESTRUCTIVE TESTING**

Batch	Rank	Roll Number	Name	CGPA
2013	1	213113027	ANISH CHANDRAN	9.52
	2	213113023	MANU JOSEPH	9.48
	2	213113003	AKHIL B S	9.48
	3	213113029	SUBHASH KONER	9.38
2014	1	213114023	MANAS MISHRA	9.65
	2	213114027	RAJEEV J	9.48
	3	213114028	TORANE VAIBHAV VIJAY	9.35

**M.Sc. / OPERATIONS RESEARCH AND COMPUTER APPLICATIONS**

Batch	Rank	Roll Number	Name	CGPA
2013	1	216113011	GAYATHRI N	9.6
	2	216113017	R SAHITHYA PRIYAMVADHA	9.01
	3	216113016	KARTHIKA S	8.93

**M.Sc. / COMPUTER SCIENCE**

Batch	Rank	Roll Number	Name	CGPA
2014	1	216214009	MONISHA DEVI M	9.39
	2	216214011	JAYASURYA S	9.13
	3	216214015	SARVIKA S P J	8.55

**M.Sc. / CHEMISTRY**

Batch	Rank	Roll Number	Name	CGPA
2013	1	204113001	SWAMINATHAN SRIVIDYA	9.12
	2	204113018	VINAYBHARADWAJ B S	9.07
	3	204113013	KALPANA P	9.03
2014	1	204114008	R HARITHA	9.39
	2	204114005	TANYA MARIA D' ROZARIO	9.03
	3	204114003	M KEERTHANA	8.79

**M.Sc. / PHYSICS**

Batch	Rank	Roll Number	Name	CGPA
2013	1	213213006	V M M SAIPAVITRA	9.72
	2	213213004	VISHAL K JOSE	9.43
	3	213213007	R PRIYANKA	9.22

2014	1	213214004	RAJANI K GANGADHARAN	9.42
	2	213214011	ABHINAV ANAND	9.16
	3	213214005	KAVYA MUKUNDAN	9.13
	3	213214002	BANGOLLA HEMANTH KUMAR	9.13

**MBA / MANAGEMENT STUDIES**

Batch	Rank	Roll Number	Name	CGPA
2013	1	215113056	RAJESHWARI R	9.24
	1	215113092	REMYA G RAJAN	9.24
	2	215113009	BHATTARAM SAI DEEPIKA	9.18
	2	215113013	CHANNAN K CHAITANYA	9.18
	3	215113034	PARVEEN CHOUDHURY	8.94
2014	1	215114001	SHILPA SANKAR	9.7
	2	215114002	PRAMODH K P	9.05
	3	215114071	MADHUL JAIN	9.03

**MCA / COMPUTER APPLICATIONS**

Batch	Rank	Roll Number	Name	CGPA
2012	1	205112011	VIKAS MEGHWANI	9.78
	2	205112018	PRANAY HIWASE	9.59
	3	205112004	POOJA DANGI	9.37
2013	1	205113003	SHOBHAN GARG	9.95
	2	205113019	DIVYA MEHTA	9.66
	3	205113024	NEETU DHIMAN	9.21
2014	1	205114001	SRISHTI GUPTA	9.68
	2	205114048	CHANCHAL CHOUHAN	9.5
	3	205114059	MONIKA LALWANI	9.21

**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 Engineering.	102112041	N HARINI
		102112052	R BHARATH VENKATESH
		102112048	PRASHANTHI BALAJI
2.	Dr. M. Shanmugam award for the First Rank holder upto VII Semester in Civil Engineering.,	103112083	S GIRISH
3.	Sri. Karchae Endowment award for the best project in the Department of Architecture	101110040	DEEPAK SIVADASAN

4.	Sri. M.S. Balakumaran award for the best outgoing student of M.Tech. NDT	213114023	MANAS MISHRA
5.	Prof. S. Muthukaruppan Endowment award for the second Rank holder in EEE Branch up to VII Semester.	107112074	ROUNAK MEYUR
6.	Sri. Janardhana Iyengar memorial Award for the best Academic Performance in just concluded academic year.	107112030	GURU PRAANESH R
		107112031	GURU RAGHAV R
7.	Smt. Seethamma memorial award for the First Rank holder upto VII Semester in the ECE Branch.	108112102	VINAYAK SURESH
8.	Dr. Sargurudoss memorial award for the Best performance in Mathematics in I Year B.Tech.	106114101	VEDURUPAKA NAVEEN KUMAR
9	Sri. Avinash memorial award for the best outgoing male student of ICE branch	110112030	HARISH K
10	Sri. Avinash memorial award for the best outgoing female student of ICE branch	110112092	V RENUKA
11.	Prof. Ibrahim / Dr.Sittaraman Award for the best outgoing student of DoMS	215114001	SHILPA SANKAR
12.	Prof.Thirumalaiarasan Award for the Topper in HR and OB Subjects in MBA	215114001	SHILPA SANKAR
13.	Srimathi Neela Balasubramanian Memorial Award for best out-going student in ECE branch	108112102	VINAYAK SURESH
14.	Karthik S Memorial Award For the First Rank Holder upto VII semester in B.Tech Production Engineering.	114112065	PRAVIN NATH J
15.	Smt. Vijayalakshmi Kannan Memorial Award For the First Rank Holder upto VII semester in B.Tech. ECE	108112102	VINAYAK SURESH
16.	Late S.Doraiswamy Memorial Award For the First Rank Holder upto III semester M.Tech. industrial safety Engineering.	211214024	SINGAMSETTY VAMSHI KRISHNA
17.	Sri. Ramanujam and Smt. Sundari Ramanujam Memorial Award for the first rank holder in English in B.Tech.	108114086	SHANKARI S
18	Mr.Subash Chandrabose Endowment Award for the Best Outgoing in B.Tech. MME	112112058	VRINDAA SOMJIT
19	Dr.T.Balasubramaniam Endowment Award for the First Rank Holder in M.Sc Physics in I and II Semester	213214004	RAJANI K GANGADHARAN
20	Dr.A.L.Abdus Sattar, Memorial Award for the outstanding student in III year ECE	108113045	K VIGNESH RAM
		108113058	NANDHINI KUMAR

21.	Mr.Oisik Adak Endowment Award for “Best Creative Designer” in the Department of Architecture	101111033	LINDA REEBA KOSHY
22.	Joseph Martin Fernando trophy for excellence in the study and documentation of vernacular architecture	101113001	A J SUDHI
		101113004	AMIT KUMAR
		101113008	ANIRUDH DEORAH
		101113009	ANLET NIVA ROSE
		101113010	ANWIN P S
		101113012	ASHISH RANJAN
		101113014	CHANDU SAI TARUN
	101113023	LIMI SURESH ENGOOR	
23.	S J Chainulu Medal of Excellence (For the First Rank Holder in First Year)		
	1. Chemical Engineering	102114054	SHIBASHISH DEVIDUTTA JAYDEV
	2. Civil Engineering	103114082	S R GIRISH KUMAAR
	3. Computer science and Engineering	106114101	VEDURUPAKA NAVEEN KUMAR
	4. Electrical and Electronics Engineering	107114068	NANDA KISHORE V
	5. Electronics and Communication	108114015	ARVIND NATARAJ S
	6. Instrumentation and Control Engineering	110114091	TINU HAREESSWAR R
	7. Mechanical Engineering	111114055	KARTIK PRAKASH
	8. Metallurgical and Materials Engineering	112114059	V ARTHI
	9. Production Engineering	114114083	SNIGDHA NAGARAJAN
24.	Prof. J. Raja award (highest CGPA in all Accounting and Finance subjects in First Year MBA)	215114001	SHILPA SANKAR
25.	Best NCC Cadet	111112106	VISHAL ASOKAN

**ALUMNI AWARDS (B.Tech. / B.Arch.)**

Sl. No.	Department	Roll No.	Name	CGPA
1.	Architecture	101111038	IVANA RAKSHIT	8.74
2.	Chemical Engineering	102112041	N HARINI	9.78
3.	Civil Engineering	103112083	S GIRISH	9.61
4.	Computer Science and Engineering	106112012	ARJUN B	9.84
5.	Electrical and Electronics Engineering	107112030	GURU PRAANESH R	9.97
		107112031	GURU RAGHAV R	9.97
6.	Electronics and Communication Engineering	108112102	VINAYAK SURESH	9.92

7.	Instrumentation and Control Engineering	110112030	HARISH K	9.69
8.	Mechanical Engineering	111112064	PADMEYA PRASHANT INDURKAR	9.51
9.	Metallurgical and Materials Engineering	112112058	VRINDAA SOMJIT	9.88
10.	Production Engineering	114112065	PRAVIN NATH J	9.72

**ALUMNI AWARDS (M.Tech. / M.Sc. / MCA / MBA)**

S.No.	Dept./Specialization	Roll. No.	Name	CGPA
1.	<b>Chemical Engineering</b>			
	Chemical Engineering	202114003	GAYATHRY L	9.31
2.	<b>Energy and Environmental Engineering</b>			
	Energy Engineering	202314018	RAGHU KRISHNA MOORTHY	9.83
3.	<b>Civil Engineering</b>			
	Transportation Engineering and Management	203114021	BUSH B THOMAS	9.22
	Structural Engineering	203214002	MUNUKUTLA SAIKRISHNA	9.26
	Environmental Engineering.	203414024	NANDHINI S	9.19
	Construction Technology and Management	203514006	SUBRAJA R	9.48
4.	<b>Computer Science and Engineering</b>			
	Computer Science and Engineering	206114004	BORKAR PRAKASH TOLIRAM	9.79
5.	<b>Electrical and Electronics Engineering</b>			
	Power Systems	207214019	KONDRAPU ANUSHA	9.76
	Power Electronics	207214006	VIJAYANARAYANAN S	9.22
6.	<b>Electronics and Communication Engineering</b>			
	Communication Systems	208114009	VEENA K	9.35
		208114032	MAHESULA SAMATHA SESHACHALAPATHI	9.35
	VLSI System	208214018	THODIGOTLA SRINIVASA TEJA	9.56
7.	<b>Instrumentation and Control Engineering</b>			
	Process Control and Instrumentation	210114024	JJO BENNI	9.43
8.	<b>Mechanical Engineering</b>			
	Thermal Engineering.	211314010	SARAVANA KUMAR B	9.69
	Industrial Safety Engineering.	211214024	SINGAMSETTY VAMSHI KRISHNA	9.65
9.	<b>Metallurgy and Materials Engineering</b>			
	Welding Engineering	212114016	KAJVE AMRUT SHAHURAO	9.55
	Materials Science and Engineering.	212214003	JAYDEEP SAHA	9.65

	Industrial Metallurgy	212314015	SUBRAHMANYAM ADABALA	9.58
10.	<b>Production Engineering</b>			
	Manufacturing Technology	214114029	BOOPATHY S	9.54
	Industrial Engineering and Management	214214019	AGRAWAL RAHUL SUNIL	9.46
11.	<b>Physics</b>			
	Non-Destructive Testing (M.Tech.)	213114023	MANAS MISHRA	9.5
		213114028	TORANE VAIBHAV VIJAY	9.5
Physics (M.Sc.)	213214004	RAJANI K GANGADHARAN	9.45	
12.	<b>Chemistry</b>			
	Chemistry	204114008	R HARITHA	9.25
13.	<b>Management Studies</b>			
	Master of Business Administration	215114001	SHILPA SANKAR	9.72
14.	<b>Computer Applications</b>			
	Master of Computer Applications	205113003	SHOBHAN GARG	9.87
	Computer Science (M.Sc.)	216214003	SANTHIYA R	8.84

**OTHER AWARDS (INSTITUTED BY RECAL)**

Sl. No.	Name of the award	Roll No.	Name
1.	Overall Outstanding Student of the year	111112064	PADMEYA PRASHANT INDURKAR
2.	Anand Chidambaram Memorial Award	102112012	ATMURI DATTA SAI HAREESH
3.	Outstanding Sportsman	111112016	ATHIP T
4.	Outstanding Sport Woman	112112024	KARTHEEPANA PAYAM
5.	Best Batsman of the year	110112006	AKSHAY P ROY
6.	Best Bowler of the year	111113054	NIKHIL CHAUDHARY

## DEPARTMENT: ARCHITECTURE

## 1. Notable Achievements

## 1.1 Faculty Members: NIL

## 1.2 Students

S. No.	Name	Details of Prizes / Awards	Organization
1.	Nishant , Gokul	Hockey Gold	Sportsfete 2016
2.	Mariganka	Discuss Throw Gold	Sportsfete 2016
3.	Biswajit Das	Powerlifting Gold	Sportsfete 2016
4.	Nishant , Gokul	Swathkal Silver medal	Inter NIT
5.	Second year and Third year batch	HUDCO and Louis I Kahn Citation	Annual NASA 2015 Convention held in GCPIA, Surat
6.	Julian Divakar (3rd Year)	3rd Position in L&T Ideation Contest - ScapeiOT	Pragyan 2015
7.	Jeslu Celine Jacob (3rd Year)	1st Position in Aakriti, the Resilient Design Competition	Pragyan 2016
8.	Ashish Ranjan , Sidharth Kizhakkiveetil(3rd Year)	2st Position in Aakriti, the Resilient Design Competition	Pragyan 2016
9.	Amit Kumar(3rd Year)	Best Player of the Tournament	Inter NIT Sports Meet 2016
10.	Madam Mallikarjun (3rd Year)	Honours position at Autodesk Product design competetion	Autodesk powered by Mindusmo
11.	2 <sup>nd</sup> Year	Winner	Horizons 2015
12.	Stephy (2 <sup>nd</sup> Year)	3 <sup>rd</sup> place Girls Football	Sportsfete 2016
13.	Stephy, Priya, Ritu (2 <sup>nd</sup> Year)	1 <sup>st</sup> place Girls throwball	Sportsfete 2016
14.	Yogesh, Jayakumar, Vimal (2 <sup>nd</sup> Year)	3 <sup>rd</sup> place Boys Khokho	Sportsfete 2016
15.	Jayakumar (2 <sup>nd</sup> Year)	2 <sup>nd</sup> Place Power lifting	Sportsfete 2016
16.	Jayakumar (2 <sup>nd</sup> Year)	3 <sup>rd</sup> Place Shotgun	Sportsfete 2016
17.	Vimal (2 <sup>nd</sup> Year)	1 <sup>st</sup> place Mens'	Sportsfete 2016

		hockey	
18.	Aishwarya, Nanditha, Ankitha (2 <sup>nd</sup> Year)	3 <sup>rd</sup> place Girls Khokho	Sportsfete 2016
19.		1 <sup>st</sup> place Girls Basketball	Sportsfete 2016
20.	Alwin Mathew		IIT kanpur (basketball tournament ) Part of nitt basketball team Saastra (basketball tournament ) Inter nit (basketball tournament ) Aaveg Solo singing Solo dance Band Basketball Sportsfete Marathon(completed in time ) Basketball Jhankaar Solo singing Group dance (1st place)
21.	Ashutosh Shukla	1st	Chakravayuh Aayam
		2nd	FESTEMBER Chakravayuh
		2nd	Aaveg Triple Tackle
		1st	Pragyan Design Challenge
			Aaveg Organiser
			Orientation Core for 2016 Batch
Flight Cadet In N.C.C			
22.		1st	NITTFEST Best Male Model
			NITTFEST Nukkad
			NITTFEST Extempore
			Festember Ambience
			Trichy Marathon
			Pragyan Ambience
23.	Chittari Tarun Kumar		Pragyan ambience,
			Archcult ambience,
			Archcult hospitality
			Archcult Publicity, Nittfest
24.	Dhruv Shah		Aaveg
		1st	Terribly Tiny Tales -
		1st	Basketball-
		1st	Movie making-
			Sportsfete
			Basketball and football ( participation)

			Nittfest Manoranjan
25.	Ganesh Kumar	1st	Painting Competition Bangalore
26.	Himanshu Mewara		Nittfest Quizes
			Trichy Marathon
			Sportfete – Marathon
			Sportsfete - Kabaddi
			Nittfest – Qawali
			Nittfest Nukkad Natak
			Pragyan Labyrinth challenge
			AF Certified Ethical Hacker
27.	Ishaan Singhala		Sportfit cricket
		Bronze Medal	Sportfit kho-kho
			Nittfest quizzes
28.	M.Gowtham	1st	Aaveg Filmmaking
		2nd	Nittfest Tamil Play
29.	M.Gowtham Arvintham	1st	Pragyan Design Challenge
30.	Mavuduru Sukanya		Fashion Show
31.	Nirmal B. Pillai		Aaveg movie making
			Photography
			Athletics team Udgoth 2015
			The Thespian Society
			Member of Pixelbug
32.	Oishe Ghosh		Festember wall painting
			Dramatics for nittfest
		1st	Participated in collage,
33.	Rajneesh Kumar	2nd	Pragyan Design Challenge (Inhott)
			-
		1st	Aaveg Bollywood Quiz
		3rd	Aaveg Movie Spoof
			Aaveg Shoot At Sight
			Organising Committee of Aaveg 2016.
			Aaveg Talk to Hand
		H.R for CORAL HOSTEL	
34.	S.Joy Gloria	1st	Aaveg Tal To Talk
35.	S Varun Prasanth	1st	Painting Competition Bangalore
36.	Sahib Singh Chawla	2nd	Aaveg Band Wars
		1st	Channel Surfing
			Aaveg OC
37.	Sarath Muralidharan	1st	Aaveg Solo Dance
		1st	Nittfest Group Dance
38.	Shajitha Gajendran	1st	Jhankar group dance
		1st	Aaveg group dance
39.	Shirin Hussain		Flight Cadet In N.C.C

		1st	Aaveg group dance
40.	Snehal Nagras	1st	Aaveg Group Dance
		3rd	Sportfete Football
			Fashion Show
41.	T Srinivas Sarath		Athletics team Udgosh 2015
			IIT kanpur (Athletic Tournament )
			Flight Cadet In N.C.C
42.	Venkatlaxmi	1st	NITTFEST-Villupaattu
		2nd	Eastern Duet
		2nd	Aaveg Solo singing
43.	Vevin Nikhil Subhash	1st	Aaveg group dance
			Part Of Dance TROUP NITT
		2nd	Aaveg Solo Dance
44.	Viyyapu Jaya Surya	1st	Pragyan Design Challenge

## 2. Conference

### 2.1. Organised

**International: NIL**

**National: NIL**

### 2.2. Papers presented by the Faculty / Students

#### International

S. No.	Author(s)	Details
	D.Kannamma and A. Meenatchi Sundaram,	1. <i>Empirical study on the interaction between vegetation and street geometry elements towards ambient urban microclimate.</i> Presented in International Conference on Sustainable Technologies in Building & Environment (ICSTBE-2015) held at Satyabhama University, Chennai, India, during 15 <sup>th</sup> to 17 <sup>th</sup> July 2015.

**National: NIL**

## 3. Workshops / Seminars

### 3.1. Organised: NIL

### 3.2. Attended: NIL

4. Invited / Guest Lectures Delivered by the Faculty NIL
5. Sponsored Projects undertaken NIL
6. Major Equipment / Software Purchased (More than Rs. 5.00 lakhs.) NIL
7. Research papers Published in National / International Journals

### 7.1. Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No.) Page
1.	Implications of Building Material Choice on Outdoor Microclimate for Sustainable Built Environment,	D.Kannamma and A. Meenatchi Sundaram,	Key Engineering Materials , Trans Tech Publications, (ISSN: 1662-9795)	2015, Vol 650 (2015) pp 82-90

#### National Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No.) Page
1	Significance of Microclimatic Study in Urban Canyons towards Ambient Urban Space Design	D.Kannamma and A. Meenatchi Sundaram,	Journal of Today's Ideas Tomorrow's Technologies ,(ISSN Print: 2321 – 3906 , ISSN Online: 2321 – 7146)	Vol. 3, No. 1, June 2015 pp. 95–109
2	Empirical study on the interaction between vegetation and street geometry elements towards ambient urban microclimate	D.Kannamma and A. Meenatchi Sundaram,	Indian Concrete Journal (ISSN: 00194565)	July 2015, Volume 89 pp 20-27,

### 7.2. Students

International Journal NIL

National Journal NIL

8. Ph.D. Awarded NIL

**9. Details of Books authored by faculty NIL**

**10. Patent if any obtained by faculty NIL**

**11. Other Important Points NIL**

**12. Summary**

S.No.	Details	Total Nos.			
1.	International Journals	1			
2.	National Journals	2			
3.	International Conference Publications	1			
4.	National Conference Publications	nil			
5.	Sponsored Project	No's:	NIL	Amount:	NIL
6.	No. of Ph.D. Produced	NIL			
7.	No. of Patents obtained	NIL			
8.	No. of books published	NIL			

## DEPARTMENT: CHEMICAL ENGINEERING

## 1. Notable Achievements

## 1.1 Faculty Members:

Dr.N.Anantharaman received the 'Best Engineer award' from Institution of Engineers (India) Tiruchirappalli local centre during the 48th Engineers' day celebrations on 15.09.2016 in view of his meritorious services to the Engineering fraternity and the society at large.

## 1.2 Students

## SPECIAL ACHIEVEMENTS ( B Tech , IV YEAR)

- **Bharath Venkatesh** final year B Tech , Chemical Engineering has got a GRE score of 340/340 .
- **V Mahesh** final year B Tech , Chemical Engineering has got 99.2 percentile in CAT.

## M.Tech (Chemical Engineering)

S.No	Name	Details of Prizes/Awards	Organisation
1.	Mr.Vinit Nair	internship as a part of dissertation work	Bosch ,Banglore
2.	Mr.SrinivasKuchibotla	internship as a part of dissertation work	Bosch ,Banglore
3.	Mr.AniketBhate	internship as a part of dissertation work	Genral Electric Banglore
4.	Mr.Ram Bilas Dhakkad	internship as a part of dissertation work	Genral Electric Banglore
5.	Mr.Krupa Krishna	internship as a part of dissertation work	Praxair, Banglore
6.	Mr.ArjunRavikumar	internship as a part of dissertation work	Petroleum Institute, Abu Dhabi.
7.	Mr.Vikas Kumar	internship as a part of dissertation work	University Technology Malaysia

## B.Tech (Chemical Engineering)

## INTERNSHIPS (III YEAR)

S.No	Name	Details of Prizes/Awards	Organisation
1.	Amrutha Raghu	Summer Intern and Winter Intern	NUS, IISc, TATA Chemicals, Gujarat.
2.	Arvind Pari	Summer Intern and Winter Intern	JNCASR, MITACS, DAAD
3.	Anushka Mishrra	Summer Intern and Winter Intern	CSIR, Bhubaneshwar,

			IIT Bombay, 2016
4.	<b>B Soundarya</b>	Summer Intern and Winter Intern	SN BOSE, MITACS, DAAD, IAS SRFP, IIT-D, IIT-G
5.	<b>Sruti Dammalapati</b>	Summer Intern and Winter Intern	Dr Reddy's, 2016 *Summer Intern, IIT Madras.
6.	<b>Neeraj Kumar Jaligam</b>	Summer Intern and Winter Intern	ITC
7.	<b>Lekshmi Unnithan</b>	Summer Intern and Winter Intern	NTU, COIM Asia Pacific, Singapore
8.	<b>Shruti Sinha</b>	Summer Intern and Winter Intern	MITACS IAS IIT-D
9.	<b>Souvik Mondal</b>	Summer Intern and Winter Intern	Sterlite Tech., ESSAR Steel India
10.	<b>Sushmita Preetu Binil</b>	Summer Intern and Winter Intern	P&G, CSIR-NAL
11.	<b>Vadapalli V.S. Akhila</b>	Summer Intern and Winter Intern	IIT Madras, IIT Bombay
12.	<b>Yatharth Srivastava</b>	Summer Intern and Winter Intern	PT. Gunnunh Garuda, Indonesia

**AWARDS/ACADEMIC ACHIEVEMENT (III YEAR)**

S.No	Name	Awards/Academic Achievement
1.	<b>Amrutha Raghu</b>	*2 <sup>nd</sup> , Solo Eastern Singing, NITTFest
2.	<b>Arvind Pari</b>	*Paper submitted for book chapter, Elsevier Journal
3.	<b>Anushka Mishrra</b>	*Poster presentation, CRSI, 2015
4.	<b>B Soundarya</b>	*Paper submitted for book chapter, Elsevier Journal *Cargill Global Scholaeship Award *All India Rank 1, Indian Engineering Olympiad, 2016 *IET Regional Round Runner Up
5.	<b>Sruti Dammalapati</b>	*Paper submitted for book chapter, Elsevier Journal
6.	<b>Shruti Sinha</b>	*All India Rank 21, Indian Engineering Olympiad, 2016
7.	<b>Souvik Mondal</b>	*Paper submitted for book chapter, Elsevier Journal, 2016 *1 <sup>st</sup> , Sangam, 2015
8.	<b>Yatharth Srivastava</b>	*1 <sup>st</sup> , Delta-T, Pragyam, 2016

		*2 <sup>nd</sup> , Model Making, Alchemy, 2015
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## SPORTS ACHIEVEMENTS (III YEAR)

S.No	Name	Sports Achievements
1.	<b>Aman Kumar Bakolia</b>	*2 <sup>nd</sup> , Powerlifting, IIT Kanpur, 2015 *3 <sup>rd</sup> , Powerlifting, NIT Trichy, 2015 *3 <sup>rd</sup> , Powerlifting, Inter NIT, 2016 *1 <sup>st</sup> , Powerlifting, Sportsfete, 2016
2.	<b>Anushka Mishrra</b>	*2 <sup>nd</sup> , Throwball, Sportsfete, 2015 *2 <sup>nd</sup> , Basketball, Sportsfete, 2015 *1 <sup>st</sup> , Basketball, Sastra, 2016
3.	<b>B Soundarya</b>	*1 <sup>st</sup> , Badminton, Sportsfete, 2014 *2 <sup>nd</sup> , Badminton, Sportsfete, 2016 *3 <sup>rd</sup> , Freestyle, Sportsfete, 2015
4.	<b>Sruti Dammalapati</b>	*1 <sup>st</sup> , Basketball, Udghosh 2015 *1 <sup>st</sup> , Basketball, Sastra, 2015 *1 <sup>st</sup> , Basketball, Sportsfete, 2015
5.	<b>Ganti Lavanya</b>	*3 <sup>rd</sup> , Freestyle Relay, Sportsfete, 2015
6.	<b>Lekshmi Unnithan</b>	1 <sup>st</sup> , Football, Sportsfete, 2015 1 <sup>st</sup> , Basketball, Sportsfete, 2015 1 <sup>st</sup> , Marathon, Sportsfete, 2015 2 <sup>nd</sup> , Throwball, Sportsfete, 2015 2 <sup>nd</sup> , Tennis, Sportsfete, 2015 1 <sup>st</sup> , Basketball, Udghosh, 2015 1 <sup>st</sup> , Basketball, Sastra, 2016 1 <sup>st</sup> , Football, Sportsfete, 2015 1 <sup>st</sup> , Marathon, Sportsfete, 2015 2 <sup>nd</sup> , Discus throw, Sportsfete, 2015 2 <sup>nd</sup> , 1500m relay, Sportsfete, 2015 3 <sup>rd</sup> , Throwball, Sportsfete, 2015 3 <sup>rd</sup> , 800m run, Sportsfete, 2015
7.	<b>Sushmita Preetu Binil</b>	*3 <sup>rd</sup> , Freestyle relay, Sportsfete, 2015 *1 <sup>st</sup> , Football, Sportsfete, 2016
8.	<b>Vadapalli V.S. Akhila</b>	*2 <sup>nd</sup> , Throwball, Sportsfete, 2015

## INTERNSHIPS (IV YEAR)

S.No	Name	Details of Prizes/Awards	Organisation
1.	N Harini	Summer Intern and Winter Intern	MITACS
2.	Manan Dosi	Summer Intern and Winter Intern	MITACS
3.	R Bharath Venkatesh	Summer Intern and Winter Intern	MITACS
4.	Pranav Sundaram	Summer Intern and Winter Intern	MITACS
5.	Manas Nigam	Summer Intern and Winter Intern	IN GEAR
6.	S Sanjuna	Summer Intern and Winter Intern	NUS
7.	Sushma Sunkara	Summer Intern and Winter Intern	Reliance Industries LTD
8.	Ads Hareesh	Summer Intern and Winter Intern	Reliance Industries LTD
9.	Abhinav Ramachandran	Summer Intern and Winter Intern	Reliance Industries LTD
10	Athanu Ashokan	Summer Intern and Winter Intern	SRF Limited
11	Anjana Rajmohan	Summer Intern and Winter Intern	SRF Limited
12	Tanaya Devi Choudhury	Summer Intern and Winter Intern	Procter and Gamble
13	K Vijaya Durga	Summer Intern and Winter Intern	Hindustan Unilever
14	J Sai Priyanka	Summer Intern and Winter Intern	Schlumberger
15	Raghavi K	Summer Intern and Winter Intern	Dow Chemicals
16	A Rohith Chaitanya	Summer Intern and Winter Intern	DRDL
17	Ashwin G	Summer Intern and Winter Intern	IIT Madras
18.	Vishal S Balashankar	Summer Intern and Winter Intern	IIT Madras
19.	Nandalal G	Summer Intern and Winter Intern	IIT Madras
20.	B Badrinath	Summer Intern and Winter Intern	Tebodin Middle East LTD. (Abu Dhabi)

## SPORTS ACHIEVEMENTS (IV YEAR)

S.No	Name	Sports Achievements
1.	Naveen Kumar	CBSE South zone School tournaments: Gold , 2012 CBSE national tournament : Bronze, 2012 Aita National Men's maindraw qualified , 2012 IIT karaghpur : bronze, 2012 Inter NIT gold medallist, 2012 Inter NIT Most valuable Player for Tennis, 2012 Trichy District Third division Gold, 2012 Named as Trichy district Tennis Team Captain, 2012 IIT Kanpur udgosh tournament : Gold,2013 IIT Kanpur udgosh Most valuable Player,2013 Sastra colloseum national sports meet : silver,2013 Inter NIT Sports meet : Gold,2013 Inter NIT sports meet most valuable player,2013 IIT Udghosh National sports fete : SILVER, 2015 Sastra Colosseum national sports meet : Bronze, 2015 Cm trophy District tournament second division : Gold, 2015 Inter NIT National Tournament Tennis : Gold, 2015 Inter NIT national tournament handball : Gold, 2015 Inter NIT tennis 2015 Most valuable player Sports fete :
2.	Prabhuram	ALUMNI Institute day award for outgoing sportspersons(best bowler of the institute cricket team)
3.	Mohammed Wahajuddin Siddiqui	3 <sup>rd</sup> place Inter NIT Calicut 1 <sup>st</sup> Place IIT Kanpur Udghosh 2014 Best Goal keeper in IIT Kanpur Udghosh 2015

**2. Conference****2.1 Organised****International: Nil****National**

S.No	Name	Programme	Period
1.	Dr.(Mrs.).P.Kalaichelvi	Women Entrepreneurship Ecosystem- Present and Future.	27 <sup>th</sup> October 2015

## 2.2 Papers presented by the Faculty/Students

Faculty  
International

S.No	Authors	Details
1.	Sathishkumar,K., V. Kirubakaran and <b>T.K.Radhakrishnan</b>	“Real Time Modeling and Control of Three Tank Hybrid System”. International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2015), March 20-21, 2015, National Institute of Technology, Warangal.
2.	Kranthikumar,M., V.Kirubakaran, K.Murugesan and <b>T.K.Radhakrishnan</b>	“Control of Temperature in Cement Clinker Process using Least Squares SVM Modeling”, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2015), March 20-21, 2015, National Institute of Technology, Warangal.
3.	S.Karthika, <b>T.K.Radhakrishnan</b> , P.Kalaichelvi	“Use of ionic liquids as alternate solvents for crystallization”, CHEMCON-2015, Dec 27-30, IIT , Guwahati.
4.	A.K.Shukla and <b>T.K.Radhakrishnan</b>	“Fuzzy aggregated Multilinear Internal Model based PI controller design for non linear Continuous Stirred Tank Reactor, CHEMCON-2015, Dec 27-30, IIT ,Guwahati.
5.	M.Kranthi Kumar, V.Kirubakaran, Murugasen, and <b>Dr.T.K.Radhakrishnan</b> ,	“Control of temperature in Pre-Calciner of cement manufacturing process using CBA based least squares” CHEMCON-2015, Dec 27-30, IIT ,Guwahati.
6.	Powar,S.T., K. Muthamizhi, <b>P. Kalaichelvi</b> and A. Arunagiri	“Comparative Study of Heat Transfer and Flow Friction in Plate Heat Exchangers with Carboxymethyl Cellulose and Sodium Alginate”, 4th International Conference on Chemical and Biological Processes, 22-24 November 2015, Dubai (UAE).
7.	Dinesh,G.K. and <b>T.Sivasankar</b> ,	“Synthesis and Sonophotocatalytic Activity of Fe(0) Doped TiO <sub>2</sub> Nanocatalyst on BB1 Dye Degradation”, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2015), March 20-21, 2015, Department of Chemical Engineering, National Institute of Technology Warangal, (India).
8.	Nazimudheen,G. and <b>T.Sivasankar</b>	“Ultrasound Pretreatment for Biomethanogenesis of Landfill Leachate”, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2015), March 20-21, 2015,

		Department of Chemical Engineering, National Institute of Technology Warangal, (India).
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### National

S.No	Authors	Details
1.	Shukla,A.K., K.Vedi, V.Kirubakaran and <b>T.K.Radhakrishnan</b> .	“Fuzzy Aggregated Multilinear Linear Quadratic Regulator Nonlinear CSTR”, Recent Trends in Instrumentation and Control (RTIC 2015), March 13-14, 2015, MIT, Chennai.
2.	Divyesh,V.R., H.K.Vedi, V.Kirubakaran and <b>T.K.Radhakrishnan</b> ,	“Adaptive explicit model predictive controller for coupled continuous stirred tank reactor using least squares support vector machines”, Proceedings of Indian Control Conference, 304-309, January 5-7, 2015, Indian Institute of Technology Madras, Chennai, India.
3.	Begum,K.M.M.S., K.Sriram, P.Umamaheshwari, A.Ezhilarasu and <b>G.Arthanareeswaran</b>	“Modified chitosan: Synthesis, Characterization and application towards biological activities” 17 <sup>th</sup> Chemical Research Society of India (CRSI) symposium in Chemistry, Pune, 2015.
4.	Nazimudheen,G. and <b>T.Sivasankar,</b>	“National conference "Innovations and New Horizons in Algal Technology and Biotechnology" at Kamaraj college of Engineering & Technology, Virudhunagar, (India).

### Students

#### International

S.No	Authors	Details
1.	<b>ArathiBhaskaran</b> , K.N.Sheeba	Determination of thermal degradation kinetics of coal dust and sugar dust using thermogravimetric analysis in the conference proceedings of the International conference on energy efficient technologies for automobiles (EETA'15) organized by Anna University, Trichy campus during 20-21 <sup>st</sup> March 2015.
2	<b>John Indulekha</b> , M.S.G.Siddarth and A.Arunagiri	“Characterization of Citrus Peels for Bioethanol Production” Accepted for Oral Presentation in International Conference on Advances in Chemical Engineering (ICACE – 2015), NITKSurathkal, India – Dec20-22, 2015.

## National

Authors(s)	Details
R. V. G. K. Gowda, M. S. Seshasayee and A. Arunagiri	A Review on Liquid to Air Membrane Energy Exchangers and Flow mal-distribution in LAMEE at Seminar on Heat Transfer and Fluid Flow-2015 organized at Asia Pacific Centre for Energy and Environment and IIT Madras during 11 <sup>th</sup> February, 2016.

## 3. Workshops/ Seminars

## 3.1 Organised

S.No	Coordinator	Title	Period
1.	Dr.(Mrs.).P.Kalaichelvi	1.Conclave on “Strengthening chemical Engineering curriculum for the Present and Future scenario” 2. Entrepreneurship Development Programme on Women Entrepreneurship	March 13 & 14, 2015  15th – 20th December 2015
2.	Dr.A.Arunagiri	Conclave on “Strengthening chemical Engineering curriculum for the Present and Future scenario”	March 13-14, 2015

## 3.2 Attended

S.No	Faculty	Details
1.	Dr. P.Sivashanmugam	Experimental and Theoretical aspects of sonochemical effects in food emulsions , Moscow state University, Technologies and Management, Russia , 15 <sup>th</sup> -30 <sup>th</sup> Sep, 2015
2.	Dr. M.Arivazhagan	1. Waste and wastewater treatment: Recent advances,IITRoorkee, Jul 21-25, 2015 2. Nano-biotechniques (I WiSHNanoBio:2016) at IITRoorkee, Feb 9-14, 2016
3.	Dr.A.Arunagiri	1. Academic Reforms, Conclave ,April 28 – 29, 2015 2. Nano-biotechniques (I WiSHNanoBio:2016) at IITRoorkee, Feb 9-14, 2016

4.	<b>Dr.N.Samsudeen</b>	Electrochemical technologies in hydrogen production and utilization for electrical energy, Department of chemical engineering, IIT Delhi, 8 <sup>th</sup> & 9 <sup>th</sup> October 2015
5.	<b>Dr M. Matheswaran</b>	1. Electrochemical Technologies in Hydrogen Production and Utilization for Electrical Energy Oct 2015 2. Nano-biotechniques (I WiSHNanoBio:2016) at IITRoorkee, Feb 9-14, 2016
6.	<b>Dr.T.Siva Shankar</b>	Drinking water purification and industrial wastewater treatment, March 2015

Students: Nil

#### 4. Invited /Guest Lectures delivered by the Faculty

Faculty	Topic	Programme	Place & date
<b>Dr. P. Sivashanmugam</b>	1. Curriculum development for Chemical Engineering	Conclave on Strengthening chemical Engineering	NIT, Trichy 14.03.2015 to 15.03.2015
	2. Overall view of Process Instrumentation Dynamics and control	Curriculum for the present and Future Scenario	Anna University, Trichy 14.12.2015 to 20.12.2015

#### 5. Sponsored projects undertaken

Coordinator	Title of the Project	Sponsor	Amount(Rs )
<b>Dr. P. Sivashanmugam</b>	Experimental and Theoretical aspects of Ultrasound in Food Emulsion	Indo-Russia	20 lakhs
<b>Dr. N. Anantharaman</b>	Miniaturized compact solar concentrators for water desalination/purification	DST-UKIERI	13.86 Lakhs
<b>Dr.T.K.Radhakrishnan</b>	1. Developing suitable pedagogical methods for	MHRD-NMEICT	28 lakhs

	various classes, intellectual calibers and research in e-learning		
	2. Instrumentation and Process Control	MHRD-NMEICT	7 lakhs
<b>Dr. J. Sarat Chandra Babu</b>	Experimental and Numerical Investigation of Gas - solid Reaction in a Tubular reactor,	BARC	
<b>Dr. P. Kalaichelvi</b>	Business and Management Capacity Development of Rural Women Entrepreneurs of India and Sri Lanka	The Asia Foundation	US\$ 55000
<b>Dr. M. Matheswaran</b>	1. Novel Energy Production from Distillery Effluent Treatment by Bio-electrochemical Method	Department of Biotechnology	22.80 lakhs

#### 6. Major equipment/ Software purchased (more than RS. 5.00 lakh)

S.No	Equipment /Software	Amount (Rs. In lakhs)
1.	Shear Tester	30.00
2.	Servers	23.60
3.	pH control system	14.00
4.	Particle size Analyser	35.00
5.	Aspen one 5years License	US\$10000
6.	Design Expert software (10 User license)	2.9 Lakhs

#### 7. Research papers published in National/ International journals

##### 7.1 Faculty

##### International Journal

S.No	Authors	Title	Journal	Year Vol, (No) Page
1.	Hariharan, N.M., P.Sivashanmugam and S. Kasthuriengan	Studies on Performance of Thermoacoustic Prime Mover.	Experimental Heat Transfer	2015, 28, 267-281.
2.	Arun, C. and P.Sivashanmugam	Investigation of bio catalytic potential of garbage enzyme and its influence on stabilization of industrial waste activated sludge.	Journal of Process Safety and Environmental Protection,	2015, 94, 471-478.

3.	Arun,C. and <b>P.Sivashanmugam</b>	Solubilization of waste activated sludge using a garbage enzyme produced from different preconsumer organic waste	RSC Adv	2015, 5, ,51421-51427.
4.	Arun,C. and <b>P.Sivashanmugam</b>	Identification and optimization of parameters for the semi-continuous production of garbage enzyme from pre-consumer organic waste by green RP-HPLC method	Waste management	2015, 44, 28-33.
5.	Mohammed,S., A. Raj, A. A.Shoaibi and <b>P. Sivashanmugam</b>	Formation of polycyclic aromatic hydrocarbons in Claus process from contaminants in H <sub>2</sub> S feed gas.	Chemical Engineering Science	2015, 137, 91-105.
6.	Arulmozhi;M., K.M.M.S.Begumand <b>N .Anantharaman</b>	Continuous Foam Fractionation of Chromium (Vi) Ions from aqueous and Industrial Effluents.	Desalination and Water Treatment	2015, <a href="#">53</a> (6), 1664-1674.
7.	Begum, K.M.M.S., S.Nijuand <b>N.Anantharaman</b>	Preparation of Biodiesel from Waste Frying Oil Using a Green and Renewable Solid Catalyst derived from Egg Shell	Env. Prog. &Sust. Energy	2015, 34(1), 248-254.
8.	Begum, K.M.M.S., S.Nijuand <b>N.Anantharaman</b>	Preparation of Biodiesel from Waste Frying Oil Using a Green and Renewable Solid Catalyst derived from Egg Shell.	Env. Prog. &Sust. Energy	2015, 34(1), 248-254.
9.	Niju,S., M.Niyas, K.M.M.S.Begumand <b>N .Anantharaman</b>	KF-impregnated clam shells for biodiesel production and its effect on a diesel engine performance and emission characteristics	Env. Prog. &Sust. Energy	2015, 34(4), 1166–1173.
10.	Mahesh,S.E., A.Ramanathan, K.M.M.S.Begum and <b>N.Anantharaman</b>	Biodiesel production from waste cooking oil using KBrimpregnatedCaO as	Energy Conversion and Management	2015, 91, 442-450.

		catalyst.		
11.	Thuyavan, Y.L., <b>N.Anantharaman</b> , G.Arthanareeswaran', <a href="#">A.F.Ismail</a> and <a href="#">R.V. Mangalaraja</a>	Preparation and characterization of TiO <sub>2</sub> -sulfonated polymer embedded polyetherimide membranes for effective desalination application	Desalination	2015, <a href="#">365</a> (1), 355–364
12.	Dhanuskodi,R., <a href="#">R.Kaliappan</a> , <a href="#">S.Suresh</a> , <b>N.Anantharaman</b> , <a href="#">A.Arunagiri</a> and <a href="#">J. Krishnaiah</a>	Artificial Neural Networks model for predicting wall temperature of supercritical boilers.	Applied Thermal Engineering	2015, 90, 749–775.
13.	Kirubakaran, V., C.Sahu, <b>T.K.Radhakrishnan</b> and N.Sivakumaran	Energy efficient model based algorithm for control of building HVAC systems.	Ecotoxicology and Environmental Safety	2015, 121, 236–243.
14.	Seban, L., V. Kirubakaran, B.K.Roy and <b>T.K.Radhakrishnan</b>	GOBF-ARMA based model predictive control for an ideal reactive distillation column.	Ecotoxicology and Environmental Safety	2015, 121, 110–115.
15.	Samsudeen, N., <b>T.K.Radhakrishnan</b> and M.Matheswaran	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate	Environmental Progress & Sustainable Energy	2015, 34(2) 589-594.
16.	Subathra, B., S.Sesahadri and <b>T.K.Radhakrishnan</b>	A comparative study of neuro fuzzy and recurrent neuro fuzzy model-based controllers for real-time industrial processes	Systems Science & Control Engineering	2015, 3, 412–426.
17.	Sivasankari, S. and <b>J.S.C. Babu</b>	Exergy and Energy analysis of a 100kWp multicrystalline solar photovoltaic array system in a tropical savanna climate in India	International journal of Exergy	2015, 18, 157-175.
18.	Sivasankari, S. and <b>J.S.C. Babu</b>	Theoretical prediction and validation of global horizontal solar irradiance for a tropical climate in India	Frontiers in Energy	2015, 9, 1-11.
19.	Sivasankari, S. and	Performance analysis and	Energy Conversion and	2015, 100, 429-

	<b>J.S.C. Babu</b>	validation of 5MWp grid connected photovoltaic plant in south India	Management	439.
20.	Sivasankari, S., K.N.Sheeba and <b>J.S.C. Babu</b>	Grid connected photovoltaic systems: Challenges and Control solutions –A potential review	International Journal of Electronics and Electrical Engineering	Accepted
21.	Kavita, S. and <b>J.S.C.Babu</b>	Performance evaluation of photovoltaic cells using functionalized carbon nanotube and polyaniline film	Advances in Natural Sciences: Nanoscience and Nanotechnology	2015, 6(2), 025013.
22.	Sugashini,S. and <b>K.M.M.S.Begum</b>	Preparation of activated carbon from carbonized rice husk by ozone activation for Cr(VI) removal.	New Carbon material	2015,30(3), 250-260.
23.	Sugashini,S., <b>K.M.M.S.Begum</b> and A.Ramalingam	Removal of Cr(VI) ions using Fe-loaded chitosan carbonized rice husk composite beads (Fe-CCRCB): Experiment and quantum chemical calculations.	J. Mol. Liq	2015, 208, 380–387.
24.	<b>Begum,K.M.M.S.,S.</b> Niju and N.Anantharaman	Preparation of Biodiesel from Waste Frying Oil Using a Green and Renewable Solid Catalyst derived from Egg Shell	Env. Prog. &Sust. Energy	2015, 34(1), 248-254.
25.	Mahesh,S.E., A.Ramanathan, <b>K.M.M.S.Begum</b> and N.Anantharaman	Biodiesel production from waste cooking oil using KBr impregnated CaO as catalyst.	Energy Conversion and Management	2015, 91, 442-450.
26.	Niju,S., M.Niyas, <b>K.M.M.S.Begum</b> and N.Anantharaman	KF-impregnated clam shells for biodiesel production and its effect on a diesel engine performance and emission characteristics.	Env. Prog. &Sust. Energy	2015,34(4), 1166–1173.
27.	Tamilselvi,S. and <b>P.Kalaichelvi</b>	Review of Fluid Flow and Heat Transfer in Impinging Jet System.	Recent Trends in Fluid Mechanics	2015, 1(3), 1–14.
28.	M. Dheenamma and	Numerical Study of Heat	Journal of Thermal	2015, 2(1), 15-

	<b>P.Kalaichelvi</b>	Transfer in Six Channeled Dimpled Plate Heat Exchanger.	Engineering and Applications	25.
29.	Pachathu,A., <b>P.Kalaichelvi</b> , K.N.Sheeba and A.Arunagiri	Microwave Assisted Preparation of Bagasse and Rice Straw for the Removal of Emulsified Oil from Wastewater	Bioremediation Journal	(Accepted).
30.	Augusta,P. and <b>P.Kalaichelvi</b>	Investigation on microwave and ultrasound-assisted cornhusk for the removal of emulsified engine oil from water.	Desalination and Water Treatment,	2015, 1-12.
31.	Arunagiri,A., P.Purushothaman, <b>P.Kalaichelvi</b> and R.Anantharaj	Separation of Methylene Blue Dye from Aqueous Solution Using Triton X-114 Surfactant.	Journal of Thermodynamics	Accepted
32.	David,C., <b>M.Arivazhagan</b> , M.N.Balamurali and D.Shanmugarajan	Decolorization of Distillery Spent Wash Using Biopolymer Synthesized by <i>Pseudomonas aeruginosa</i> Isolated from Tannery Effluent.	BioMed Research International	Article ID 195879, 9 pages.
33.	David,C., M. <b>Arivazhagan</b> and M.Ibrahim	Spent wash decolorization using nano-Al <sub>2</sub> O <sub>3</sub> kaolin photocatalyst: Taguchi and ANN approach.	Journal of Saudi Chemical Society	2015, 19, 537–548.
34.	David,C., M. <b>Arivazhagan</b> and F. Tuvakara	Decolorization of distillery spent wash effluent by electro oxidation (EC and EF) and Fenton processes: A comparative study.	Ecotoxicology and Environmental Safety.	2015, 121, 142–148.
35.	R. Sathish Kumar, G. <b>Arthanareeswaran</b> ,	Modification methods of polyethersulfone	Membrane Water Treatment. Techno Press	2015, 6 (4), 323-337 .

	Diby Paul, Ji HyangKweon	membranes for minimizing fouling – Review,		
36.	R. Saranya, <b>G. Arthanareeswaran</b> , A. F.Ismail, Dion D Dionysiou and Diby Paul	Zero-valent iron impregnated mixed matrix membranes for the treatment of textile effluent.	RSC Advances	2015,5 (77), 62486-62497.
37.	S. Adithya Kiran, <b>G. Arthanareeswaran</b> , YLThuyavan, AF Ismail	Influence of bentonite in polymer membranes for effective treatment of car wash effluent to protect the ecosystem	Ecotoxicology and Environmental Safety,	2015
38.	ArunaPagidi, Y. LukkaThuyavan, <b>G. Arthanareeswaran</b> , JuhanaJaafar, A .F. Ismail, Diby Paul	Polymeric membrane modification using SPEEK and bentonite for ultrafiltration of dairy wastewater	Journal of Applied Polymer Science	2015,132, 41651.
39.	A Sumisha, <b>G. Arthanareeswaran</b> , AF Ismail, DP Kumar, MV Shankar	Functionalized titanate nanotube-polyetherimide nanocomposite membrane for improved salt rejection under low pressure nanofiltration	RSC Advances,	2015, 5 (49), 39464-39473.
40.	A Sumisha, <b>G. Arthanareeswaran</b> , YLThuyavan, AF Ismail, S Chakraborty	Treatment of laundry wastewater using polyethersulfone/ polyvinylpyrrolidone ultrafiltration membranes	Ecotoxicology and Environmental Safety.	2015
41.	R. Saranya, M. Kumar, R. Tamilarasan, A. F. Ismail, <b>G. Arthanareeswaran</b>	Polyphenylsulfone membranes modified with functionalised activated carbon for adsorption enhanced phenol removal	Journal of Chemical Technology and Biotechnology.	2015,DOI: 10.1002, jctb.4641
42.	M Kumar, R Tamilarasan, <b>G. Arthanareeswaran</b> , AF Ismail	Optimization of methylene blue using Ca <sup>2+</sup> and Zn <sup>2+</sup> bio-polymer hydrogel beads: A comparative study	Ecotoxicology and Environmental Safety	2015
43.	R.Sathish Kumar, <b>G. Arthanareeswaran</b> , D Paul, JH Kweon (2015)	Effective removal of humic acid using xanthan gum incorporated polyethersulfone membranes,	Ecotoxicology and Environmental Safety,	2015

44.	Parthiban,K.S. and <b>M Perumalsamy</b>	Nano sized heterogeneous acid catalyst from Ceibapentandra stalks for production of biodiesel using extracted oil from Ceibapentandra seeds.	RSC Advances	2015,5, 11180-11187.
45.	<b>Sheeba, K.N.,P.Prakash</b> and S.Jaisankar	Performance evaluation of a flat plate collector coupled solar still System.	Energy Sources Part A	2015, 37, 291–298.
46.	<b>Sheeba, K.N.,R.M. Rao</b> and S.Jaisankar	A study on the underwater performance of solar photovoltaic panel.	Energy Sources Part A	2015, 37, 1505–1512.
47.	Maddukuri,G., <b>K.N. Sheeba</b> , P.S. Biruli and S. Jaisankar	Effect of co-firing coals of varying fuel characteristics.	Energy Sources Part A	2015, 37, 2047–2055.
48.	Prakash, P. and <b>K. N. Sheeba</b>	Combined slow pyrolysis and steam gasification of biomass for hydrogen generation- A review.	International Journal of Energy Research	2015, 39, 147-164.
49.	Prakash, P. and <b>K. N. Sheeba</b>	Effect of combined slow pyrolysis and steam gasification of sugarcane bagasse on hydrogen yield	Korean journal of chemical engineering,	2015,32(11), 2236-2246.
50.	Reeshab,G., P.Prakash, G. N.Kumar, B.N.Kumar and <b>K.N.Sheeba</b>	Kinetic analysis of biomass and comparison of its chemical compositions by thermogravimetry wet and experimental furnace methods	Waste and Biomass Valorization	6(6), 989-1002.
51.	Dhanuskodi,R., R. Kaliappan, S. Suresh, N. Anantharaman, <b>A. Arunagiri</b> and J. Krishnaiah ,	Artificial Neural Networks model for predicting wall temperature of supercritical boilers	Appiled Thermal Engineering.	90, 749-753.
52.	Akbar,M.M., F.Chemat, <b>A.Arunagiri</b> and T.Murugesan	Density and excess properties of N-methyldiethanolamine (MDEA) with 1-hexyl-3-methylimidazoliumtris(pentafluoroethyl)trifluorophosphate [hmim][FAP]	J Therm Anal Calorim	Accepted
53.	Naidu,L.D., <b>S.Saravanan</b> ,M.Chida	Nanofiltration in Transforming Surface	Journal of Chemistry	2015, 326869,7.

	mbaram, M.Goel, A.Das, and J.S.C.Babu	Water into Healthy Water: Comparison with Reverse Osmosis		
54.	<b>Samsudeen,N.,</b> T.K.R adhakrishnan and M.Matheswaran	Bioelectricity production from microbial fuel cell using mixed bacterial culture isolated from distillery wastewater.	Bioresour. Technology	2015,195, 242- 247.
55.	<b>Samsudeen,N.,</b> T.K.R adhakrishnan and M.Matheswaran	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate.	Environ. Prog. Sustainable Energy	2015,34, 589- 594.
56.	<b>Samsudeen,N.,</b> A.Shar ma, T.K.Radhakrishnan and M.Matheswaran	Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system	J. Renewable Sustainable Energy	2015,7(4), 3101.
57.	Samsudeen, N., T.K.Radhakrishnan and <b>M.Matheswaran</b>	Bioelectricity production from microbial fuel cell using mixed bacterial culture isolated from distillery wastewater.	Bioresource technology	2015,195, 242- 247.
58.	Samsudeen, N., A.Sharma, T.K.Radhakrishnan and <b>M.Matheswaran</b>	Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system.	Journal of Renewable and Sustainable Energy	2015,7(4), 043101.
59.	Harshiny, M., <b>M.Matheswaran</b> , G.Arthanareeswaran, S.Kumaran and S.Rajasree	Enhancement of antibacterial properties of silver nanoparticles– ceftriaxone conjugate through Mukiamaderaspatana leaf extract mediated synthesis.	Ecotoxicology and environmental safety	
60.	Samsudeen, N., T.K.Radhakrishnan and <b>M.Matheswaran</b>	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate	Environmental Progress & Sustainable Energy.	2015,34(2), 589-594.
61.	Kurukutla,A.B.,	Intensification of	Environmental	2015 ,32(2),

	P.Satishkumar, S.Anandan and <b>T.Sivasankar</b>	Sonochemical Degradation of Rhodamine B using Oxidants, hydrogen peroxide- peroxydisulphate- peroxymonosulphate with Fe <sup>2+</sup> ion: Proposed Pathway and Kinetics	Engineering Science	129-140.
62.	Saravanan.S. and <b>T.Sivasankar</b>	Ultrasound Assisted Fenton's treatment of Reactive Black 5 dye: Effect of system parameters, kinetics and mechanism.	Desalination and Water Treatment	2015, 56, 492- 501.
63.	Hemapriyamvadha,R. and <b>T.Sivasankar</b>	Sonophotocatalytic treatment of Methyl Orange Dye and Real Textile Effluent using synthesized nano-Zinc Oxide.	Coloration Technology	2015, 131, 110- 119.
64.	Dinesh,G.K., S.Anandan and <b>T.Sivasankar</b>	Sonophotocatalytic treatment of Bismarck Brown G dye and real textile effluent using synthesized novel Fe(0) doped TiO <sub>2</sub> catalyst.	RSC Advances	2015, 5, 10440- 10451.
65.	Geddam,S., G.K.Dinesh and <b>T.Sivasankar</b>	Determination of Thermal Performance of a Box Type Solar Cooker.	Solar Energy	2015, 113, 324-331.
66.	Saravanan,S. and <b>T.Sivasankar</b>	Sono-Fenton degradation of Basic Blue 3 dye: Understanding the mechanism, parametric effect and kinetic studies.	Materials Focus	2015,4, 313- 320.
67.	Saravanan,S. and <b>T.Sivasankar</b>	Synthesis of Copper Oxide Nanoparticles using Ultrasound for the Treatment of Textile Organic Dyes (Reactive Black 5 and Basic Blue 3).	Journal of Catalyst & Catalysis	2015, 2, 1-7.
68.	Saravanan,S. and <b>T.Sivasankar</b>	Effect of ultrasound power and calcination temperature on the	Environmental Progress & Sustainable Energy	(Accepted )

		sonochemical synthesis of Copper Oxide nanoparticles for textile dyes treatment.		
69.	Reddy,D.R., G.K.Dinesh, S.Anandan and <b>T.Sivasankar</b>	Sonophotocatalytic Treatment of Naphthol Blue Black dye and Real Textile Wastewater using Synthesized Fe doped TiO <sub>2</sub> .	Chemical Engineering and Processing: Process Intensification.	2016, 99, 10-18.

### National Journal

S.No	Authors	Title	Journal	Year Vol, (No) Page
1.	Mathew,R.K., D.Aravind, K.M.M.S.Begum and <b>N.Anantharaman</b>	Studies On Fluidized Beds Using Disk Type Internals And Modeling By ANN.	<i>Indian Chemical Engineer</i>	2015, 57 (2), 164-176.
2.	David,C., R.Narlawar and <b>M. Arivazhagan</b>	Performance Evaluation of <i>Moringaoleifera</i> Seed Extract (MOSE) in Conjunction with Chemical Coagulants for Treating Distillery Spent Wash.	<i>Indian Chemical Engineer.</i>	2015, 1–12.

### 7.2 Students

#### International Journal

S.No	Authors	Title	Journal	Year Vol, (No) Page
1.	S. Adithya Kiran, G Arthanareeswaran, YLThuyavan, AF Ismail,	Influence of bentonite in polymer membranes for effective treatment of car wash effluent to protect the ecosystem,	<i>Ecotoxicology and Environmental Safety,</i>	121, (2015), 186-192
2.	Reddy, D.R., Dinesh, G.K., Anandan, S., Sivasankar,	T., Sonophotocatalytic Treatment of Naphthol Blue Black dye and Real Textile Wastewater using Synthesized Fe doped TiO <sub>2</sub> ,	<i>Chemical Engineering and Processing: Process intensification,</i>	2016, 99, 10-18.

3.	A Sumisha, G Arthanareeswaran, AF Ismail, DP Kumar, MV Shankar	,Functionalized titanate nanotube-polyetherimide nanocomposite membrane for improved salt rejection under low pressure nanofiltration	<i>RSC Advances,</i>	<i>RSC 5 (49), (2015) 39464-39473</i>
4.	A Sumisha, G Arthanareeswaran, YLThuyavan, AF Ismail, S Chakraborty,	Treatment of laundry wastewater using polyethersulfone-polyvinylpyrrolidone ultrafiltration membranes	<i>Ecotoxicology and Environmental Safety</i>	<i>Elsevier 121, (2015), 174-179</i>
5.	Dheenamma M, P. Kalaichelvi,	“ Numerical Study of Heat Transfer in Six Channeled Dimpled Plate Heat Exchanger,	<i>Journal of Thermal Engineering and Applications</i>	<i>2(1), 15-25. 2015.</i>
6.	Shabin Mohammed, Abhijeet Raj, Ahmed Al Shoaibi , and P Sivashanmugam,	Formation of polycyclic aromatic hydrocarbons in Claus process from contaminants in H <sub>2</sub> S feed gas	<i>Chemical Engineering Science</i>	<i>137 (2015) 91–105</i>
7	R. V. G. K. Gowda, M. S. Seshasayee and A. Arunagiri	A Review on Liquid to Air Membrane Energy Exchangers and Flow mal-distribution in LAMEE	<i>Journal of Energy, Heat and Mass Transfer</i>	<i>V-37, 173-185, 2015</i>

#### National Journal

S.No	Authors	Title	Journal	Year Vol, (No) Page
1.	TushantGhode, K.M. Meera S. Begum, AnandBabu, N.Anantharaman	"A comparative study of ANN and CFD modeling for pressure drop prediction in a fluidized bed with internals	Indian Chemical Engineer	(Accepted)
2.	Tamilselvi S, Kalaichelvi P.	“Review of Fluid Flow and Heat Transfer in Impinging Jet System,”	Recent Trends in Fluid Mechanics,	1(3), 1–14, 2015.

#### 8. Ph.D awarded

S.No	Name of the research Scholar	Guide/ Supervisor	University/Institute
01	Mr.S.Saravanan	Dr.T.Sivasankar	NIT, Trichy
02	Mr.R. Saranya	Dr.G. Arthanareeswaran	NIT, Trichy
03	Mr.N.Samsudeen	Dr.T.K.Radhakrishnan and Dr.M.Matheswaran	NIT, Trichy

**9. Details of Books authored by faculty**

<p><b>Dr. T.K. RADHAKRISHNAN</b></p> <ul style="list-style-type: none"><li>• Course on “Instrumentation and Process Control” for the main phase of Pedagogy Research Project, National Mission Project on Education through ICT, coordinated by IIT, Kharagpur</li></ul>
<p><b>Dr. K.M. MEERA S. BEGUM</b></p> <p>2. Book chapter on “Agro-Residues as fuel and as a feedstock for □ other Products”, Anupama R, Niju S, MeeraSheriffa Begum K.M, and Anantharaman N, Advances in Bio-process Technology by Springer Publishers, 2015.</p>
<p><b>Dr. P. KALAICHELVI</b></p> <p>3. Course on “Computer Aided Design in Chemical Engineering” for the main phase of Pedagogy Research Project, National Mission Project on Education through ICT, coordinated by IIT, Kharagpur.</p> <p>4. Book chapter on „Microwave and ultrasound assisted surfactant treated adsorbent for the efficient removal of emulsified oil from the wastewater” ,P.Augusta, P,Kalaichelvi, K.N.Sheeba and Dr.A.Arunagiri . Submitted on Innovations in Waste water treatment -Apple Academic press.</p>
<p><b>Dr. G. ARTHANAREESWARAN</b></p> <ul style="list-style-type: none"><li>• R.Saranya, Y. LukkaThuyavan, G. Arthanareeswaran, A.F. Ismail, “Membrane Technology for Water and wastewater treatment, Energy and Environment” copyright given to CRC press/Balkema,Taylor&amp; Francis Group (2015).</li></ul>
<p><b>Dr. M. PERUMALSAMY</b></p> <ul style="list-style-type: none"><li>• Course on“Computer Aided Design in Chemical Engineering” for the main phase of Pedagogy Research Project, National Mission Project on Education through ICT, coordinated by IIT, Kharagpur.</li></ul>
<p><b>Dr. K.N. SHEEBA</b></p> <ul style="list-style-type: none"><li>• Biomass- Potential Sustainable Source of Energy, K.N.Sheeba, P.Prakash, Energy science and technology, Studium Press LLC, USA, Volume 7, 54-78, ISBN 1-62699-068-9, 2015.</li><li>• Book chapter on „Microwave and ultrasound assisted surfactant treated adsorbent for the efficient removal of emulsified oil from the wastewater” Submitted on Innovations in Waste water treatment - Apple Academic press.</li></ul>

**Dr. A. ARUNAGIRI**

- Course on “Computer Aided Design in Chemical Engineering” for the main phase of Pedagogy Research Project, National Mission Project on Education through ICT, coordinated by IIT, Kharagpur.
- Book chapter on “Microwave and ultrasound assisted surfactant treated adsorbent for the efficient removal of emulsified oil from the wastewater”, Submitted on Innovations in Waste water treatment - Apple Academic press.

**Dr. M. MATHESWARAN**

- Book chapter “Heterogeneous photo-catalytic oxidation an effective tool for waste water treatment-A review”, Studies on water management issues. Published by InTech, ISBN 978-953-307-961-5.

**10. Patent if any obtained by the faculty: NIL**

**11. Other important points: NIL**

**12. Summary**

S.NO	Details	Total Nos			
1.	International Journals	76			
2.	National Journals	4			
3.	International conference publications	10			
4.	National conference publications	5			
5.	Sponsored Project	No's	7	Amount	Rs.36,85,122 /-
6.	No of Ph.D produced	03			
7.	No of patent obtained	nil			
8.	No of books published	11			

## DEPARTMENT : CHEMISTRY

## 1. Notable Achievements

## 1.1 Faculty Members

S.No	Name	Details of Prizes / Awards	Organization
1	Dr. L.Cindrella	Author of most downloaded article	International Journal of Applied Surface Science
2	Dr. R. Karvembu	Adjunct Professor	Karunya University, Coimbatore
3	Dr. R. Karvembu	Editorial Board Member in the Journal "Current Organocatalysis"	Bentham Science

## 1.2 Students

S.No	Name	Details of Prizes / Awards	Organization
1	P. N. Sathishkumar	Best Poster Award	10 <sup>th</sup> Mid-Year CRSI Symposium in Chemistry held at NIT, Trichy from July 23 to 25, 2015
2.	Neethu Mohan(Ph.D scholar of Dr. L Cinderlla)	Best Poster Award in National Convention of Electro Chemists (NCE-19)	SAEST and CECRI Karaikudi

## 2. Conference

## 2.1 Organised

International: Nil

## National

S.No	Coordinator	Programme	Period
1	Dr.L.Cindrella	National Convention of Electrochemists (NCE-19)	28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016
2	Dr. R. Karvembu	10 <sup>th</sup> Mid-Year Chemical Research Society of India (CRSI) Symposium in Chemistry	23-25 July 2015
3	Dr. R. Karvembu	National Level Student's Symposium on Innovative Catalysis (Horizon 2015)	11 <sup>th</sup> & 12 <sup>th</sup> September 2015

## 2.2 Papers presented by the Faculty / Students

## International

Author (s)	Details
P. Jerome and R. Karvembu	Paper entitled "Preparation of CuO nanoflakes catalyst from copper pincer complex for N-arylation of benzimidazole" is presented in the International Conference on Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS-15) held at Madurai Kamaraj University, Madurai during 11 to 12, September 2015.
P. N. Sathishkumar and R. Karvembu	Paper entitled "Heck and Suzuki-Miyaura cross coupling reactions in aqueous medium catalyzed by dicarboxamide based palladium(II) complex" is presented in the International Conference on Recent Advances in Materials and Chemical Sciences (ICRAMCS-2015) held at Gandhigram Rural Institute, Gandhigram during 14 to 15, December 2015.
J. Haribabu and R. Karvembu	Paper entitled "Nickel(II) complexes with indole based thiosemicarbazone ligands for biological applications" is presented in the Sixth International Conference on Metals in Genetics, Chemical Biology and Therapeutics held at Indian Institute of Science, Bangalore during 17 to 20, February 2016
<b>Vipin Vijay V, Dr. V M Biju and Dr. Renjith Devasia</b>	"Evolution of advanced ceramics from filler incorporated novel polyborosiloxane precursor", , <b>presented in International Conference on Ceramic &amp; Advanced Materials for Energy and Environment</b> , December 14-15, 2015, Christ University, Bangalore.

## National

Author (s)	Details
L. Cindrella and R. Venkatesan	Semiconductive organic polymer of [1,2-bis (1-pyrrole-2-yl)methylidene) hydrazine, Proceedings of the 22 <sup>nd</sup> Conference of National Magnetic Resonance Society, IIT, Kharagpur, 18 <sup>th</sup> – 21 <sup>st</sup> Feb.2016.
N.Mohan and L.Cindrella	Pt and Pd supporting Zeolite-A host as efficient electrocatalyst for methanol oxidation, National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
S.Prabhu and L.Cindrella	Facile template free synthesis of CuO nanorods and its photoelectrochemical property for energy application, National Convention of Electrochemists (NCE-19), 28 <sup>th</sup>

	& 29 <sup>th</sup> Mar.2016, NIT, Trichy
K. Mohanraju and L.Cindrella	Enhanced electrocatalytic activities of Pt decorated Spinals ( $M_3O_4$ , M = Mn, Fe, Co)/C electrocatalyst for oxygen reduction reaction in PEM fuel cell, National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
Aneesiya K Rajan and L.Cindrella	Anthracene based organic chromophores for Dye Sensitized Solar Cell (DSSC), National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
Neethu Mohan and L.Cindrella	Design of D- $\pi$ -A organic dyes for dye sensitized solar cells (DSSCs), National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
Hema malini and L.Cindrella	Electrochemical studies of barbituric acid based transition metal complexes, National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
T. Karthikeyan, K.Mohanraju and L.Cindrella	enhanced electrocatalytic activities of PdM <sub>3</sub> /C (M= Mn, Fe, CO, Ni, Cu) binary alloys for fuel cell application National Convention of Electrochemists (NCE-19), 28 <sup>th</sup> & 29 <sup>th</sup> Mar.2016, NIT, Trichy
J. Haribabu and R. Karvembu	Paper entitled "Synthesis, DNA/protein binding, molecular docking, DNA cleavage and <i>in vitro</i> anticancer activity of nickel(II) bis(thiosemicarbazone) complexes" is presented in the 10 <sup>th</sup> Mid-Year CRSI Symposium in Chemistry held at NIT, Trichy from July 23 to 25, 2015.
P. N. Sathishkumar and R. Karvembu	Paper entitled "Palladium(II) catalyst containing dicarboxamide based tetradentate ligand for the Suzuki-Miyaura and Heck coupling reactions" is presented in the 10 <sup>th</sup> Mid-Year CRSI Symposium in Chemistry held at NIT, Trichy from July 23 to 25, 2015.
S. Yasar Arafath, P. Jerome and R. Karvembu	Paper entitled " Pd(II)-NNN chiral pincer complexes containing CH <sub>3</sub> CN for the transfer hydrogenation of ketones" is presented in the 10 <sup>th</sup> Mid-Year CRSI Symposium in Chemistry held at NIT, Trichy from July 23 to 25, 2015.
P. N. Sathishkumar and R. Karvembu	Paper entitled "Palladium(II) catalyst containing dicarboxamide based ligand for the Suzuki-Miyaura and Heck coupling reactions" is presented in the Indian National Conference on Development in Inorganic Applications held at Periyar University, Salem on October 15 & 16, 2015.
Aswathi.M and V.M.Biju,	Room temperature ionic liquid supported cloud point

	extraction of copper from natural samples presented in CSIMC 2015, Jamal Mohamed College, Tiruchirappalli.
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### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
Dr.L.Cindrella	Self assembled layers – Preparation, characterization and applications	27 <sup>th</sup> & 28 <sup>th</sup> Nov.2015

#### 3.2 Attended

Faculty	Details
Dr.L.Cindrella	22 <sup>nd</sup> Conference of National Magnetic Resonance Society, IIT, Kharagpur, 18 <sup>th</sup> – 21 <sup>st</sup> Feb.2016.

**Students: Nil**

#### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.L.Cindrella	Solar and fuel cells	Inauguration of Resonance – Intercollegiate Event.	Gandhigram University, 16 <sup>th</sup> Feb.2016
Dr. R. Karvembu	Nanomaterials in catalysis	TEQIP II sponsored Faculty Development Programme on Nanotechnology Applications in Engineering and Technology	Anna University, Trichy, 13.05.2015
Dr. R. Karvembu	Nanocatalysis	Inauguration of Chemistry and Physics associations	Srinivasan College of Arts and Science, Perambalur, 06.08.2015
Dr. R. Karvembu	Transition metal complexes with acyl/royl thiourea ligands: Interesting structures and efficient catalysis	Indian National Conference on Development in Inorganic Applications	Periyar University, Salem, 16.10.2015
Dr. R. Karvembu	Transition metal complexes with acyl/royl thiourea ligands: Interesting structures and efficient catalysis	National Conference on Recent Trends in Bioinorganic and Organometallic Chemistry	Sri Shakthi Institute of Engineering and Technology, Coimbatore, 17.10.2015

Dr. R. Karvembu	Novel nano catalytic systems	International Conference on Nanomaterials and Nanotechnology (Nano-15)	K. S. Rangasamy College of Technology, Tiruchengode in association with World Class University, GIST, South Korea, 09.12.2015
Dr. R. Karvembu	Corrosion inhibition	Two-day training programme for mining executives of NLC, Neyveli on the theme Recent Trends in Corrosion Control and Tribological Scenario in Mining Industries	NLC, Neyveli, 29.12.2015
Dr. R. Karvembu	Corrosion inhibition	Two-day training programme for thermal power station executives of NLC, Neyveli on the theme Emerging Trends in High Temperature Corrosion and Erosion Control in Thermal Power Plants	NLC, Neyveli, 15.02.2016
Dr. R. Karvembu	Transition metal complexes with acyl/aryl thiourea ligands: Interesting structures and efficient catalysis	Seminar on Emerging Trends in Frontiers of Metal Organic Chemistry	Nirmala College for Women, Coimbatore, 18.02.2016
Dr. R. Karvembu	Nanomaterials in catalysis	Seminar on Modern Synthetic Designs	Periyar E. V. R. College, Trichy, 23.02.2016
Dr.V.M.Biju	Green chemistry & its applications in day-to-day life	State level Seminar on RECENT TRENDS IN ANALYTICAL CHEMISTRY.	Department of Chemistry, Shanmuga Industries Arts & Science College, Tiruvannamalai, on 6, October 2015
Dr.V.M.Biju	Atomic absorption spectroscopy & its applications in analytical chemistry”	Special Lecture programme.	Department of Chemistry, Jamal Mohammed College, Trichy, at 14 , October 2015

Dr.V.M.Biju	“Atomic & molecular spectroscopies and its applications”	National level seminar on advanced analytical techniques (NSAAT 2016) sponsored by UGC.	PG & Research Department of Chemistry, Mar Ivanios college (Autonomous), Thiruvananthapuram on 10, March 2016
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### 5. Sponsored Projects undertaken: Nil

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1	Rotary Evaporator	8

### 7. Research Papers Published in National / International Journals

#### 7.1 Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Semiconducting composite of chalcone-bridged polythiophene and titania, its ammonia vapor sensing property, ,	R.Venkatesan, L. Cindrella	Materials Science in Semiconductor Processing	34, 126-137, 2015.
2	Enhanced electrocatalytic activity of PANI and CoFe <sub>2</sub> O <sub>4</sub> /PANI composite supported on graphene for fuel cell applications	K. Mohanraju, V. Sreejith, R. Ananth, L. Cindrella	J. Power Sources	284, 383-391, 2015.
3	Electrocatalytic activity of Mn/Cu doped Fe <sub>2</sub> O <sub>3</sub> -PANI-rGO composites for Fuel cell applications	K. Mohanraju, L. Cindrella	RSC Advances	5, 39455-39463, 2015
4	Direct synthesis of Fe-ZSM-5 zeolite and its prospects as efficient electrode material in methanol fuel cell	N. Mohan, L. Cindrella	Materials Science in Semiconductor Processing	40, 361-368, 2015.
5	CuO-PANI nanostructure with tunable spectral selectivity for solar selective coating application	L. Cindrella, S.Prabhu	Applied Surface Science	In Press (2016)

6	Copper supported on lepidocrocite: A highly active magnetically separable nanocatalyst for N-arylation of imidazole	R. Sivakami, S. Dhanuskodi, S. Ganesh Babu and R. Karvembu	RSC Advances	5(12), 8571-8578 (2015)
7	Synthesis, structure and pharmacological evaluation of Co(III) complex containing tridentate Schiff base ligand	S. Jone Kirubavathy, R. Velmurugan, R. Karvembu, N. S. P. Bhuvanesh, K. Parameswari and S. Chitra	Russ. J. Coord. Chem.	41(5), 345-352 (2015)
8	Synthesis, crystal structure, <i>in vitro</i> and <i>in silico</i> molecular characterization of novel acyl thiourea derivatives	J. Haribabu, G.R. Subhashree, S. Saranya, K. Gomathi, R. Karvembu and D. Gayathri	J. Mol. Struct.	1094, 281-291 (2015)
9	Synthesis, DNA/protein binding, molecular docking, DNA cleavage and <i>in vitro</i> anticancer activity of nickel(II) bis(thiosemicarbazone) complexes	J. Haribabu, K. Jeyalakshmi, Y. Arun, N. S. P. Bhuvanesh, P. T. Perumal and R. Karvembu	RSC Advances	5(57), 46031-46049 (2015)
10	Photodegradation of dyes by TiO <sub>2</sub> /RuO <sub>2</sub> /GNS nanocatalyst derived from Ru/GNS after its use as catalyst in aerial oxidation of primary alcohols (GNS = graphene nanosheets)	M. Gopiraman, S. Ganesh Babu, Z. Khatri, B.-S. Kim, K. Wei, R. Karvembu and I.S. Kim	React. Kinet. Mech. Catal.	115(2), 759-772 (2015)
11	DNA/protein binding, DNA cleavage, cytotoxicity, superoxide radical scavenging and molecular docking studies of copper(II) complexes containing N-benzyl-N'-aryl-N'-benzoylguanidine ligands	K. Jeyalakshmi, N. S. P. Bhuvanesh, Y. Arun, P. T. Perumal, A. Sreekanth and R. Karvembu	Inorg. Chem. Front.	2(8), 780-798 (2015)
12	Noble metal / functional cellulose nanofiber composites for catalytic applications	M. Gopiraman, G. Yuan, C. Yin, K. -H. Song, J. S. Lee, R. Karvembu and	Carbohydr. Polym.	132, 554-564 (2015)

		I. S. Kim		
13	Recyclable mesoporous ceria supported gold nanoparticles based catalyst for <i>O</i> -arylation of phenols	P. Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj	J. Nanosci. Nanotechnol.	15(12), 9358-9368 (2015)
14	Half-sandwich Ru( $\eta^6$ -C <sub>6</sub> H <sub>6</sub> ) complexes with chiral aroylthioureas for enhanced asymmetric transfer hydrogenation of ketones – Experimental and theoretical studies	M. Mary Sheeba, S. Preethi, A. Nijamudheen, M. Muthu Tamizh, A. Datta, L.J. Farrugia and R. Karvembu	Catal. Technol. Sci.	5(10), 4790-4799 (2015)
15	Sustainable and versatile CuO/GNS nanocatalyst for highly efficient base free coupling reactions	M. Gopiraman, D. Deng, S. Ganesh Babu, T. Hayashi, R. Karvembu and I. S. Kim	ACS Sustained Chem. Eng.	3(10), 2478-2488 (2015)
16	Estimation of lattice strain in nanocrystalline RuO <sub>2</sub> by Williamson-Hall and size-strain plot methods	R. Sivakami, S. Dhanuskodi and R. Karvembu	Spectrochim. Acta Part A	152(1), 43-50 (2016)
17	Green synthesis of CuO nanoflakes from copper pincer complex for effective N-arylation of benzimidazole	P. Jerome, G. Kausalya, T. Daniel Thangadurai and R. Karvembu	Catal. Commun.	75, 50-54 (2016)
18	Isatin based thiosemicarbazone derivatives as potential bioactive agents: Anti-oxidant and molecular docking studies	J. Haribabu, G. R. Subhashree, S. Saranya, K. Gomathi, R. Karvembu and D. Gayathri	J. Mol. Struct.	1110, 185-195 (2016)
19	Gold nanoparticles supported on magnesium oxide nanorods for oxidation of alcohols	P. Emayavaramban, S. Ganesh Babu, R. Karvembu, K. Kadirvelu and N. Dharmaraj	J. Nanosci. Nanotechnol.	16, 2517-2526 (2016)
20	Crystal structure of <i>N</i> [(naphthalen-1-yl)carbamoithiyl]cyclohexanecarboxamide	G. Vimala, J. Haribabu, S. Aishwarya, R. Karvembu and A. Subbiah Pandi	Acta Cryst.	E71(7), o508-o509 (2015)

21	Crystal structure of N-[(4-ethoxyphenyl)carbamothioyl]cyclohexanecarboxamide	G. Vimala, J. Haribabu, S. Srividya, R. Karvembu and A. SubbiahPandi	Acta Cryst.	E71(10), o820-o821 (2015)
22	Synthesis and chelation properties of a new polymeric ligand derived from 1-amino-2-naphthol-4-sulfonicacid,	D.Manivannan and V.M.Biju,	Journal of AOAC international	2015, 98, 188-191.

**National Journal : Nil**

### 7.2 Students

**International Journal: Nil**

**National Journal: Nil**

### 8. Ph.D Awarded

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1.	K. Mohanraju	Dr.L.Cindrella	National Institute of Technology, Trichy
2.	A.M. Vinumohan	Dr.V.M Biju	National Institute of Technology, Trichy
3.	D. Karunanithi	Dr.V.M Biju	National Institute of Technology, Trichy

### 9. Details of Books authored by faculty.

S. Ganesh Babu, M. Gopiraman, R. Karvembu and I. S. Kim, Carbon materials supported nanostructures in catalysis, In **Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications**, V.K. Thakur and M.K. Thakur (Editors), Chapter 6, pp. 147-172, 2015, Taylor & Francis, CRC Press, USA.

**12. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>			
1.	International Journals	<b>22</b>			
2.	National journals				
3.	International conference publications	<b>3</b>			
4.	National conference publications	<b>13</b>			
5.	Sponsored Project	<b>No's:</b>		<b>Amount:</b>	
6.	No of Ph.D produced	<b>3</b>			
7.	No of Patents obtained				
8.	No of books published	<b>1</b>			

**DEPARTMENT : CIVIL ENGINEERING**

**1. Notable Achievements**

**1.1 Faculty Members**

S.No	Name	Details of Prizes / Awards	Organization
1	Dr.C.Natarajan	ICI- Ultratech Endowment Award-2015 for “outstanding concrete structure of Trichy District”	ICI- Ultratech
2	Dr. K. Baskar	Keynote Paper Award	SEC2014, IIT Delhi
3	Dr.K.Muthukkumaran	Received Keynote Paper Award	GEOMATE, Japan
4	Dr.J.Karthikeyan	Young Faculty Award-2015 awarded on 5 <sup>th</sup> July 2015	Venus International Foundation, Chennai

**1.2 Students: Nil**

**2. Conference**

**2.1 Organised International**

Coordinator	Title	Period
Dr. G. Swaminathan Dr. R. Manjula Dr. S. Saravanan	International Conference on Disaster Mitigation Management and sustainable Development for Risk Reduction (ICDMSDR’16)	22-24, February 2016

**National: Nil**

**2.2 Papers presented by the Faculty / Students**

**International**

Author (s)	Details
M.R. Lokeswarn and C. Natarajan	Mechanical and microstructural properties of concrete madewith manufactured sand”, International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.)
R. BharathiMurugan and C. Natarajan	“Strength evaluation of rubberized concrete based on ultrasonic pulse velocity and rebound hammer tests”, International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.).

M. K. Haridharan and C. Natarajan	“Experimental study on thermo mechanically treated (TMT) rebar subjected to various thermal cycles”, International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.
R. BharathiMurugan, C. Natarajan and Shen-En Chen	“Material development for a sustainable precast concrete block pavement” Proceeding of the 9th International Committee on Pavement Technology (ICPT2015), August 9-13, at Dalian, Liaoning, China.
Padmavathy and P. A. Krishnan	“Numerical Analysis of Circular Hollow Sections with Cutouts”. International Conference on Recent Trends in Engineering and Material Science (ICEMS – 2016), March 17-19, Jaipur University . Page No : 88-89
<b>Baskar, K</b> and M. Velmurugan	Experimental Investigation on thin-walled circular CFT columns made using cold rolled steel plates, 11 <sup>th</sup> International Conference on Advances in Steel-Concrete Composite Structures, 3-5 December 2015, Beijing, China, pp315-321
Sharasiby, <b>S. T. Ramesh</b>	Evaluation of the photocatalytic activity of TiO <sub>2</sub> catalyst for the degradation of organic pollutants under UV-A irradiation, International Conference on Natural resource restoration technologies, Department of Biotechnology, PSG college of technology, 17-18, April 2015.
Archana P Abraham, <b>S. T. Ramesh,</b>	Performance analysis of electrolysis integrated tidal flow constructed wetland system for nutrient removal, International Conference on Natural resource restoration technologies, Department of Biotechnology, PSG college of technology, 17-18, April 2015.
BandaruHemanth, Jammi Ashok and <b>S. T. Ramesh,</b>	Improvement of existing water distribution system of new avenue of NIT Trichy using EPANET – A case study, 3dr international conference on modeling and simulation in

	Civil Engineering, National Institute of Technology, Calicut, 09-11 December 2015.
Muthukkumaran, K., Murugan, M and Natarajan, C	FRP Strengthened Reinforced Concrete Piles under Static Lateral Loads – A Field Study” Proceedings of the 5 <sup>th</sup> International Conference on Geotechnique, Construction Materials and Environment, (GEOMATE-2015) Osaka, Japan, Nov. 16-18, 2015, ISBN: 978-4-9905958-4-5 C3051. pp, 25-32.
DeendayalRathod, <b>K. Muthukkumaran</b> and T.G. Sitharam	Dynamic Response of Single Pile Located in Soft Clay underlay by Sand” Proceedings of the 5 <sup>th</sup> International Conference on Geotechnique, Construction Materials and Environment, (GEOMATE-2015) Osaka, Japan, Nov. 16-18, 2015, ISBN: 978-4-9905958-4-5 C3051. pp, 471-474.
A. R. Prakash, <b>K. Muthukkumaran</b>	Effect of free standing height on rock socketed pile under lateral load” Proceedings of the Deep Foundation Institute on Deep Foundations Technologies for Infrastructure Development in India 2015 29 <sup>th</sup> -30 <sup>th</sup> , September. pp 26.
S. KeerthiRaaj, <b>K. Muthukkumaran</b>	Numerical and Theoretical Analysis of Consolidation of Soft Clay Installed With PVD at Nagapattinam - A Case Study” Proceedings of the Deep Foundation Institute on Deep Foundations Technologies for Infrastructure Development in India 2015, 29 <sup>th</sup> -30 <sup>th</sup> September. pp 29
Karthikeyan.J, ShaheerAli.K and Chittibabu.K	“Durability Aspects in High Performance Metakaolin Concrete” CD Proceedings on the 1 <sup>st</sup> International Conference on Clay and Calcinated clays for Sustainable concrete, June23–25, 2015, Lausanne, Switzerland.
Ananthi. A and J. Karthikeyan	Influence of polypropylene fibres on the mechanical and durability properties of high performance concrete CD Proceedings of International Conference on Fibre Concrete 2015, 10-11 September 2015,

	Prague, Czech Republic.
Ramya N, Saravanan S and <b>Manjula R,</b>	Investigating Ground water Contamination using Vertical Electrical Sounding around Ariyamangalam Municipal Soldwaste Dumpsite, Tiruchrappalli, TamilNadu India, Internatinal Conference on Sustainable Engery and Build Environment held on 12-13 March 2015 at VIT University.

**National**

<b>Author (s)</b>	<b>Details</b>
M. Thejasvi, R. BharathiMurugan, Dr. C. Natarajan	“Mechanical Properties of Geopolymer Concrete Paver Block”, National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
M.R. Lokeswarn and C. Natarajan	“Experimental Investigation On The Effect Of Manufactured Sand In Concrete”, National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
N.Ganesh, Dr. C. Natarajan	“Mechanical Properties of High Performance Glass Fibre Reinforced Concrete with Superplasticizer”, National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
Barkavi T and Dr.C.Natarajan	“Damage Assessment in Reinforced Concrete Structures”, National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
K.C. Baba Fakruddin, Dr.C.Natarajan	“Experimental Study on the Effects of Hair Fibre Waste in Concrete”, National Conference on Advances in Construction

	Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
K.Ramachandrudu,Dr. C. Natarajan	“Mechanical Properties of Concrete by Partial Replacement of Cement with Paper waste”, National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
Barkavi T and Dr.C.Natarajan	“Assessment of Damage in Structures”, National Conference on Forensic Structural Engineering (11-12 March 2016), VIT-Chennai Campus, Chennai, India.
Virupaksha K.S and Prof R.Jayasankar	“The study on Properties of concrete with cement partially replaced by corn-cob ash” ,National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India
Venkata Subbaiah and P.A.Krishnan	“Shear Strengthening of RCC Beam – Column Joints Using CFRP Sheets”. National Conference on Innovations In Civil Engineering, 12 <sup>th</sup> March, 2016, Karpagam Academy of Higher Education, Coimbatore. Page : 2
AniketWakure and P.A.Krishnan	“Structural Performance of Ferrocement Composite Panels Using Fibres”, National Conference on Innovations In Civil Engineering, 12th March, 2016, Karpagam Academy of Higher Education, Coimbatore. Page : 3
Satish Kumar Amara and P.A.Krishnan	“Analysis of Functionally Graded open Cylindrical Shell Structure”, National Conference on Innovations In Civil Engineering, 12th March, 2016, Karpagam Academy of Higher Education, Coimbatore. Page : 7
Hitesh Agarwal and P.A.Krishnan	“Seismic Performance of Bracing System Made of Shape Memory Alloy”, National

	Conference on Innovations In Civil Engineering, 12 <sup>th</sup> March, 2016, Karpagam Academy of Higher Education, Coimbatore. Page : 17
Rashid P.K and P.A.Krishnan	“Buckling Analysis of Circular Plate With SMA Subjected to Temperature Load Using ABAQUS” , National Conference on Innovations In Civil Engineering, 12 <sup>th</sup> March, 2016, Karpagam Academy of Higher Education, Coimbatore. Page : 18
Archana Abraham, <b>S. T. Ramesh</b>	Preliminary study on nutrient removal using a novel electrolyte integrated tidal flow constructed wetland, Proc. National conference on Quest for advancement in Civil Engineering, SRM University, March 18-20, 2015.
DhawalTailang, <b>S. T. Ramesh</b>	Effect of salinity on Nitrate, Phosphate and Sulphate uptake by Blue Green algae strain <i>Oscillatoria sp.</i> BDU30602 and Cyanobacterial growth, Sustainable Civil Engineering Practices, SCEP-2015, Department of Civil Engineering, PSG College of Technology, Coimbatore, 14 <sup>th</sup> May 2015
ChithiraVenu, <b>S. T. Ramesh</b>	Effects of Operational Parameters on Phosphorous Removal using PEC Reactor, Sustainable Civil Engineering Practices, SCEP-2015, Department of Civil Engineering, PSG College of Technology, Coimbatore, 14 <sup>th</sup> May 2015
Keerthi K.G., <b>S. T. Ramesh</b>	Biodecolorization of synthetic dye solution of Reactive Blue 25 using Yeast cells, Sustainable Civil Engineering Practices, SCEP-2015, Department of Civil Engineering, PSG College of Technology, Coimbatore, 14 <sup>th</sup> May 2015
DhawalTailang, <b>S. T. Ramesh</b>	Effect of Initial Nitrate Concentration on Nitrogen, Phosphorous and COD Removal by Cyanobacteria <i>Oscillatoria sp.</i> BDU30602 from Dairy Wastewater, Environmental Challenges towards Sustainability-2015, Department of

	Environmental Engineering, Government College of Technology, Coimbatore, 15 <sup>th</sup> May 2015
Chithira Venu, <b>S. T. Ramesh</b>	Effects of Operational Parameters on phosphorous removal using Ferrous and Aluminium salts: A preface to PEC Reactor Study, Environmental Challenges towards Sustainability-2015, Department of Environmental Engineering, Government College of Technology, Coimbatore, 15 <sup>th</sup> May 2015
Keerthi K.G., <b>S. T. Ramesh</b>	Decolorization of synthetic dye solution of Reactive Blue 25 using Yeast cells, , Environmental Challenges towards Sustainability-2015, Department of Environmental Engineering, Government College of Technology, Coimbatore, 15 <sup>th</sup> May 2015.
A. R. Prakash, <b>K. Muthukkumaran</b>	Lateral response of socketed pile in Cohesionless soil” Proceedings of Indian Geotechnical Conference (IGC-2015), 17th-19th December 2015, Pune, India. pp 68
V. Anusudha, <b>K. Muthukkumaran</b>	Utilization of copper slag for stabilization of clay soil” Proceedings of Indian Geotechnical Conference (IGC-2015), 17th-19th December 2015, Pune, India. pp 398
S. KeerthiRaaj, <b>K. Muthukkumaran</b>	Effective use of PVD in railway embankment construction at Nagapattaman- A Case study” Proceedings of Indian Geotechnical Conference (IGC-2015), 17th-19th December 2015, Pune, India. pp399.
Sakthivel G, Lakshmanan R, Arthur James, <b>Manjula R</b> and Saravanan S.	Assessment of microbial pollution and land use land cover changes in Cuddalore coastal Region, Tamilnadu, NCAACE’15, National Conference held on 4 <sup>th</sup> April 2015 at Saveetha University.
Rajesh R, Saravanan S and <b>Manjula R,</b>	Assessment of artificial recharge on ground water quality and table- A case study at NIT Trichy, National Conference held on 4 <sup>th</sup> April 2015 at Saveetha University.

### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
<b>Dr. S. T. Ramesh</b>	Two week ISTE STTP Course on <b>“Environmental Studies”</b> organized by Indian Institute of Technology Bombay under the National Mission on Education through ICT (MHRD, Govt. of India)	2- 12 June, 2015
<b>Dr. G. Swaminathan</b> <b>Dr. R. Manjula</b> <b>Dr. S. Saravanan</b>	One day workshop on “Introduction to Quantum GIS”	7 <sup>th</sup> August 2015
Dr. K. Baskar Dr. J. Karthikeyan	Two Days Short Course on Advancement in Concrete Technology”, 27 <sup>th</sup> & 28 <sup>th</sup> March 2015, at NIT Trichy, Self supported course.	27 <sup>th</sup> & 28 <sup>th</sup> March 2015,
Dr. K. Baskar Dr. J. Karthikeyan	<b>Two Days Short Course on Introduction to Finite Element Method and its Applications”</b> , 23 <sup>rd</sup> & 24 <sup>th</sup> January 2015, at NIT Trichy. Self Supported Course in Association with Indian Association for Computational Mechanics (IndACM).	23 <sup>rd</sup> & 24 <sup>th</sup> January 2015
Dr.K.Muthukkumaran Dr.S.Jayalekshmi Mr. Deendayal	Short term course on subsurface investigations for pavements and buildings	10 <sup>th</sup> – 12 <sup>th</sup> March 2016
R. Jayasankar and J. Karthikeyan	“Concrete Mix Proportioning” Department of Civil Engineering, NIT-Trichy and jointly organized with Ultratech Cement Ltd.	<b>29.02.2016</b>

#### 3.2 Attended

Faculty	Details
Dr. S. T. Ramesh	One week ISTE STTP for Coordinators on <b>“Environmental Studies”</b> organized by Indian Institute of Technology Bombay under the National Mission on Education through ICT (MHRD, Govt. of India) from 23--27 March, 2015.
Dr. S. T. Ramesh	One week TEQIP Summer course on <b>“Water and Wastewater Treatment: Recent Advances”</b> Conducted by Department of Civil Engineering, Indian Institute of Technology Roorkee from 21 - 25 July, 2015.

Dr. S. T. Ramesh	To develop model curricula for all disciplines of engineering at UG level, National Institute of Technology Delhi, 8 <sup>th</sup> February 2016.
Dr.K.Muthukkumaran	Second Japan-India Workshop in Geotechnical Engineering - Geotechnics for Resilient Infrastructure, 14th November 2015 at Fukuoka University, Japan

<b>Students</b>	<b>Details</b>
M.R. Lokeswarn	International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.)
R. BharathiMurugan	International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.)
M. K. Haridharan	International Conference on Recent Trends in Engineering and Material Sciences (17-19 March 2016), Jaipur National University, Jaipur, India.)
R. BharathiMurugan	9th International Committee on Pavement Technology (ICPT2015), August 9-13, at Dalian, Liaoning, China.
M. Thejasvi	National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
M.R. Lokeswarn	National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
N.Ganesh	National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
Barkavi T	National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
K.C. Baba Fakruddin	National Conference on Advances in Construction Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
K.Ramachandrudu	National Conference on Advances in Construction

	Technology and Management (19-20 February 2016), Visvesvaraya National Institute of Technology, Nagpur, India.
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#### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.C.Natarajan	Delivered College Day address	College Day address	SreeSowdambika College of Engineering, Chettikurichi, Aruppukottai on 26 <sup>th</sup> March, 2016.
	Condition Assessment of buildings	National Seminar	Kongu Engineering College, Perundurai, 5 March, 2016.
	Prefabrication-special lecture	UGC sponsored program	Anna University Campus, Dindigul on 6 March, 2015.
Dr. K. Baskar	Modern Trends in Steel Structures	One day workshop	Annai College of Engineering, Kumabakonam, 22 <sup>nd</sup> September 2015.
Dr. K. Baskar	Opportunities in Civil Engineering	Inaugural Address	Ponnaiyah Ramajam College of Engineering and Technology, Tanjore, 4 <sup>th</sup> September 2015.
Dr. K. Baskar	IS code provisions on Precast Construction	One day workshop on Pre-stressed Concrete Structures	CARE School of Engineering
Dr. K. Baskar	Introduction of Offshore Structures	One day workshop	Kongunad College of Engineering and Technology
Dr. S. T. Ramesh	Enhanced bioremediation of lubricant oil contaminated soil by biostimulation using compost and compost tea and by bioaugmentation	Key note lecture, International Conference on Natural resource restoration technologies,	Department of Biotechnology, PSG college of technology, 17-18, April 2015.
Dr. S. T. Ramesh	Bioremediation of soil contaminated with lubricating oil	Key note lecture, National Conference on Innovations in Civil	Department of Civil Engineering, Coimbatore Institute of

	hydrocarbons by compost and compost tea	Engineering systems for sustainable construction	technology, 22 <sup>nd</sup> April 2015.
Dr. S. T. Ramesh	Overview of Accreditation and Administrative system for implementation of OBE	Workshop on “Outcome based accreditation process and parameters for undergraduate engineering programme”	SVS College of Engineering, Coimbatore, 27 <sup>th</sup> June 2015.
Dr. S. T. Ramesh	Wastewater Management and Treatment	Tiruchirappalli city workshop for sanitation in urban areas	Tiruchirappalli city Corporation, Tamilnadu Urban Sanitation support programme Breeze Residency, 03.12.2015
Dr. S. T. Ramesh	Technologies for removal and recovery of phosphorous from wastewater	DAE-BRNS Sponsored national Seminar on Recent Advancement in Wastewater Treatment for Sustainable Development (RAWTSD 2016)	Department of Chemistry Kongu Engineering College, Erode, 29h January, 2016
Dr. S. T. Ramesh	Enhanced bioremediation of lubricant oil contaminated soil by biostimulation	Science Academics lecture workshop on “Biotechnology tools and techniques in solving environmental problems”	Department of biotechnology K. S. Rangasamy College of Technology, Tiruchengode. 17 <sup>th</sup> February, 2016.
Dr. S. T. Ramesh	Smart City	National Conference on Infrastructure Advances and Research (ITS’16)	Department of Civil Engineering K. Ramakrishnan College of Technology, Trichy. 2 <sup>nd</sup> March, 2016.
Dr. S. T. Ramesh	Conceptual framework for research design: essential points for developing a project	Workshop on ‘Research based project in Civil Engineering’	Department of Civil Engineering Kalasalingam University, Krishnankoil 5 <sup>th</sup> March, 2016.
Dr. S. T. Ramesh	Removal and recovery of phosphorous from wastewater	Two days Lecture Workshop on Chemistry For Sustainable Green Environment (CHES	Department of chemistry, Bharathidasan Institute of Technology, Anna

		GREEN'16)	university Tiruchirappalli 11 <sup>th</sup> March 2015.
Dr. S. T. Ramesh	Infrastructure development in India	Workshop on 'Infrastructure development in India'	Department of Civil Engineering Mahendra Engineering College, Namakkal 15 <sup>th</sup> March, 2016.
Dr.K.Muthukkumaran	Concreting in Pile Foundation	One Day Workshop on Advances in Concrete technology and Structures	Peace Social Welfare Mission, Nagercoil <b>(24<sup>th</sup> October 2015)</b>
Dr.K.Muthukkumaran	Behaviour of laterally loaded rock socketed pile in multi-layered soil-rock profile	Second Japan-India Workshop in Geotechnical Engineering - Geotechnics for Resilient Infrastructure	Fukuoka University, Japan <b>(14<sup>th</sup> November 2015)</b>
Dr.K.Muthukkumaran	FRP Strengthened Reinforced Concrete Piles under Static Lateral Loads – A Field Study – <b>Keynote lecture</b>	Fifth International Conference on Geotechnique, Construction Materials and Environment	GEOMATE, Osaka, Japan <b>(16 to 18 November 2015)</b>
Dr.K.Muthukkumaran	Soil Mechanics- Soil Classification and shear strength	Faculty Development Programme	Ramco Institute of Technology, Rajapalayam <b>(2<sup>nd</sup> December 2015)</b>
Dr.K.Muthukkumaran	Evaluation of interface shear strength of composite liner system and stability analysis for a landfill lining system	One day workshop on Environmental Geotechnology	SASTRA University, Thanjavur <b>(27<sup>th</sup> February 2016)</b>
Dr.J.Karthikeyan	Flexural Members- Working stress method	5 days FDP	Knowledge Institute of Technology, Salem. 23.05.2015
Dr.J.Karthikeyan	Concrete Mix Proportioning	National conference on Innovations in Construction materials	Care Group of Institutions, Trichy. 2 <sup>nd</sup> March 2016

Dr. R. Manjula	Role of Civil Engineering in Globalisation	National Level Symposium	King College of Technology, Nammakal(31 <sup>st</sup> August 2015)
Dr. R. Manjula	Significance of Research Methodology	2 days FDP	Parisutham Institute of Technology, Thanjavur 24 <sup>th</sup> September 2015
Dr. R. Manjula	Research Opportunities in Civil Engineering	2 days workshop	Nehru Institute of Technology, Coimbatore (11 <sup>th</sup> January 2016)

**5. Sponsored Projects undertaken.**

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr. K. Baskar	Design of deep girders with horizontal splicing for higher capacity boilers	BHEL Trichy	7.69 lakhs

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1	1) Horizontal Shake table with eccentric cam 2) Horizontal Shake table with cylindrical non harmonic base motion 3) Vertical Shake Table 4) 12 Experimental models	10,46,989
2	Shake table instrumentation	6,87,000
3	100Ton Capacity UTM	15lakhs
4	Integrated Equipment System	38lakhs

## 7. Research Papers Published in National / International Journals

### 7.1 Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Investigation of precast concrete paver block with waste tire crumb rubber”	BharathiMurugan and C.Natarajan	Road Materials and Pavement Design	2015/DOI:10.1080/14680629.2015.1119056.
2	An experimental investigation on the stresses distribution in reinforced concrete deep beams	V.Vengatasalpathy, R.Ilangovan, A.R.Santhakumar and C.Natarajan	International Journal of Applied Engineering Research	2015/10,(05),12825-12841
3	Behaviour and ultimate strength of reinforced concrete deep beams with openings under induced shear load	V.Vengatasalpathy. R.Ilangovan., A.R.Santhakumar and C.Natarajan	International Journal of Earth Sciences and Engineering	2015/8,(04),1927-1934
4	Durability Study on Concrete Incorporating Waste Tire Crumb Rubber as Fine Aggregate	R. BharathiMurugan and C.Natarajan	International Journal of Earth Sciences and Engineering	2015/8(3),1187-1190
5	Numerical Simulation of Damage in Reinforced Concrete Slab subjected to Elevated Temperature	M K Haridharan and C Natarajan	International Journal of Earth Sciences and Engineering	2015/08, No. 01, 129-135
6	Recycling of E-Plastic Waste as a Construction Material in	Kaliyavaradhan Senthil Kumar and Kaliyamoorthy	Journal of Material Cycles and Waste Management, Springer	Vol.17, No.4, pp718-724, 2015

	Developing Countries	Baskar	Publications	
7	Development of Ecofriendly Concrete Incorporating Recycled High-Impact Polystyrene from Hazardous Electronic Waste	Senthil Kumar, K. and Baskar, K.,	ASCE Jl. of Hazard. Toxic Radioactive Waste,	Vol.19 Issue 3, 04014042, July 2015
8	Shear Strength of Concrete with E-plastic (HIPS)	Senthil Kumar, K and Baskar, K.,	Proceedings of Institution of Civil Engineers – Construction Materials, UK,	Vol.168, Issue CM2, pp53-56, April 2015.
9.	Efficacy of A Novel Electrolysis Integrated Tidal Flow Constructed Wetland System in Nutrient Removal	Archana P Abraham, <b>S. T. Ramesh</b>	<i>International Journal of Emerging Technology and Advanced Engineering</i>	2015, 5(7), 152-158.
10	Removal of Heavy Metals From Acid Mine Drainage (AMD) Contaminated with High Concentrations of Fe, Zn, and Cu Using Electrocoagulation	R. Venkatasaravanan, <b>S. T. Ramesh</b> , and M. Gunasheela	Advanced Porous Materials,	2015, 3, 1–8.
11	Investigation on the working performance of partitionable space enhanced coagulation reactor, Separation Science and Technology	ChithiraVenu, <b>S. T. Ramesh</b> , R. Gandhimathi& P. V. Nidheesh	Separation Science and Technology	2015 / DOI: 10.1080/01496395.2016.1140207
11	Low Cost Biosorbent 'CyperusRotundus' for Removal of Cu(II) and Zn(II)	<b>S. T. Ramesh</b> , R. Gandhimathi, J. HamonethJoesun, and P. V.	Advanced Porous Materials,	2015, 3, 1–8.

	from Aqueous Solution with Acid and Alkali Treatments: Kinetic and Equilibrium Studies	Nidheesh		
12	Removal of Reactive Magenta-MB from aqueous solution by Persulphate Based Advanced Oxidation Process	K. Sarath, <b>R. Gandhimathi</b> , <b>S. T. Ramesh</b> and P. V. Nidheesh	<i>Desalination and Water Treatment</i> ,	<b>2015, 25</b> , 11872-11878.
13	Investigation of biobarrier for leachate containment through batch and continuous flow studies, Journal of Environmental Engineering	J. T. Krupa, <b>R. Gandhimathi</b> , <b>S. T. Ramesh</b> , P. V. Nidheesh and T. S. Anantha Singh	Journal of Environmental Engineering, ASCE	20.16 / doi: <a href="https://doi.org/10.1061/(ASCE)EE.1943-7870.0000978">10.1061/(ASCE)EE.1943-7870.0000978</a> , C4015006).
14	Effect of Solution pH on Leachate Treatment Mechanism of Peroxycogulation Process	Devika Venu, <b>R. Gandhimathi</b> , P.V. Nidheesh and <b>S.T. Ramesh</b>	<i>Journal of Hazardous, Toxic, and Radioactive Waste</i> , ASCE	2016 / (doi: 10.1061/(ASCE)HZ.2153-5515.0000315).
15	Removal of organics from bilge water by batch electrocoagulation process	P. Aswathy, <b>R. Gandhimathi</b> , <b>S. T. Ramesh</b> and P.V. Nidheesh	<i>Separation and Purification Technology</i>	<b>2016 / 159</b> , 108-115.
16	Response of laterally loaded pile in soft clay on sloping ground	Deendayal, R. <b>Muthukkumar an, K.</b> and Sitharam, T.G.	International Journal of Geotechnical Engineering	DOI: <a href="http://dx.doi.org/10.1179/1939787915Y.0000000013">http://dx.doi.org/10.1179/1939787915Y.0000000013</a> (2015)
17	Experimental Study on behaviour of piles in berthing structure	Premalatha, P.V. <b>Muthukkumar an, K</b> and Jayabalan, P.	Proceedings of the ICE - Maritime Engineering	DOI: 10.1680/jmaen.13.00012 (2015)

18	Effect of Horizontal Load on Socketed Pile	A. R. Prakash, <b>K. Muthukkumar an</b>	International Journal of Earth Science and Engineering	2015, 08(03), pp 1407-1410
19	Durability of microbially induced calcite precipitation (MICP) treated cohesionless soils	<b>Muthukkumar an, K.</b> and Shashank, B.S.	JGS-SP	2016, Vol. 2, No. 56, pp 1946-1949
20	Assessment of pile failures due to excessive settlement during pile load test	<b>Muthukkumar an, K.,</b> KeerthiRaaj S. and Vinoth Kumar, M.	JGS-SP	2016, Vol. 2, No. 73, pp 2520-2524
21	Dynamic Response of Single Pile Located in Soft Clay underlay by Sand	Deendayal, R. <b>Muthukkumar an, K.</b> and Sitharam, T.G.	International Journal of GEOMATE	2016, Vol. 11, Issue 26, pp. 2563-2567
22	Treatment of Stabilized Leachate by Ferrous Activated Persulfate Oxidative System	T. T. Asha, <b>R. Gandhimathi,</b> S. T. Ramesh and P.V. Nidheesh	Journal of Hazardous, Toxic, and Radioactive Waste, ASCE	Accepted
23	“Performance of polypropylene fibre in high-performance concrete”	<b>Ananthi. A and J. Karthikeyan</b>	<i>Proceedings of the ICE-Construction Materials, London</i>	Vol.168 (5), 2015
24	“Properties of Industrial Slag as Fine Aggregate in Concrete”	<b>Ananthi. A and J. Karthikeyan</b>	<i>International Journal of Engineering and Technology Innovation</i>	Vol-5, 2015, 132-140
25	“Mechanical	<b>Ananthi. A and</b>	<i>Institution of Civil</i>	2015, London.

.	properties of HPC with weld slag as fine aggregate”	<b>J. Karthikeyan</b>	<i>Engineering Journal, Waste and Resource Management,</i>	10.1680/jwarm.15.00002
26	“Influence of GGBFS on the Mechanical Properties of the Water Cured Fly Ash Aggregate-Based Geopolymer Concrete”	G.Venkata Suresh and J. Karthikeyan	<i>International Journal of Advanced Concrete Technology</i>	Vol. 1, No.2, 2015. (Pg.1-12)
27	Response of Slender Vertical Cylinder under breaking waves(doi: 10.1016 / j.proeng.2 015. 08. 335)	<b>Manjula R</b> and Sannasiraj S.A	Procedia Engineering,	Vol. 116, 2015, 631- 638.
28	Experimental Investigation of Response of Vertical Slender Cylinder under Breaking Wave Impact”. (doi:10.1016/j.aqpro.2015.02.031)	<b>Manjula R,</b> Sannasiraj S.A and Saravanan S	Aquatic Proceedia	Vol. 4, 2015, 227-233
29	Geomorphology Based Semi-distributed Approach for Rainfall-runoff Modeling Using GIS”, (doi:10.1016/j.aqpro.2015.02.114)	Saravanan S and <b>Manjula R</b>	Aquatic Proceedia	Vol. 4, 2015, 908-916.

**National Journal**

<b>S. No.</b>	<b>Title</b>	<b>Author(s)</b>	<b>Journal</b>	<b>Year Vol. (No) Page</b>
1	Investigation of the behavior of concrete containing waste tire crumb rubber	BharathiMurugan R. and C. Natarajan	Structural Engineering Convention (SEC-2014) ,IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1795-1802
2	Performance Studies on Geopolymer Based Solid Interlocking Masonry Blocks	M. Sudhakar, George M. Varghese and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1687-1701
3	Study on the Properties of Cement Concrete Using Manufactured Sand	M.R. Lokeswaran and C. Natarajan	Structural Engineering Convention (SEC-2014), IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1803-1809
4	Performance assessment of RC beams with CFRP and GFRP sheets	Ch. Venkateswarlu and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1987-2000
5	Behaviour of Two Way Reinforced Concrete Slab at Elevated Temperature	N. RaveendraBabu, M.K. Haridharan and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,2285-2298.

6	Interaction Study on Interlocking Masonry Wall Under Simultaneous In-Plane and Out-of-Plane Loading	M. Sudhakar, M.P. Raj and C. Natarajan	Structural Engineering Convention (SEC-2014), IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,2471- 2480
7	“Material Advantage: Small, Strong and Resistant”	<b>J. Karthikeyan</b>	<b>Construction World</b>	Vol. 17, No. 12, September 2015, (Pg. 94-96)
8	“A Review on the effect of Industrial waste in Concrete”	<b>Ananthi. A and J. Karthikeyan</b>	<i>Indian Concrete Journal</i>	89 (10), Nov’15, (73-80)
9	“Material Advantage: The Next Smart Building Material”	<b>J. Karthikeyan</b>	<b>Construction World</b>	Vol. 18, No. 6, March 2016, (Pg. 90-92)

## 7.2 Students

### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Investigation of precast concrete paver block with waste tire crumb rubber”	BharathiMurugan and C.Natarajan	Road Materials and Pavement Design	2015/DOI:10.1080/14680629.2015.1119056.
2	An experimental investigation on the stresses distribution in reinforced concrete deep beams	V.Vengatasalapathy, R.Ilangovan, A.R.Santhakumar and C.Natarajan	International Journal of Applied Engineering Research	2015/10,(05),12825-12841
3	Behaviour and ultimate strength of reinforced concrete deep beams with openings under induced shear load	V.Vengatasalapathy. R.Ilangovan., A.R.Santhakumar and C.Natarajan	International Journal of Earth Sciences and Engineering	2015/8,(04),1927-1934
4	Durability Study on Concrete Incorporating Waste Tire Crumb Rubber as	R. BharathiMurugan and C.Natarajan	International Journal of Earth Sciences and Engineering	2015/8(3),1187-1190

	Fine Aggregate			
5	Numerical Simulation of Damage in Reinforced Concrete Slab subjected to Elevated Temperature	M K Haridharan and C Natarajan	International Journal of Earth Sciences and Engineering	2015/08, No. 01, 129-135
6	Assessment of Artificial Recharge on Ground water table and quality – A case study at NIT Trichy”,	Rajesh R, Saravanan S, <b>Manjula R</b> , Antony Raj A and Ramya M	International Journal of Applied Engineering Research	Vol. 10(33), 241877-24192.

**National Journal**

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Investigation of the behavior of concrete containing waste tire crumb rubber	BharathiMurugan R. and C. Natarajan	Structural Engineering Convention (SEC-2014) ,IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1795-1802
2	Performance Studies on Geopolymer Based Solid Interlocking Masonry Blocks	M. Sudhakar, George M. Varghese and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1687-1701
3	Study on the Properties of Cement Concrete Using Manufactured Sand	M.R. Lokeswaran and C. Natarajan	Structural Engineering Convention (SEC-2014), IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,1803-1809
4	Performance assessment of RC beams with CFRP and GFRP sheets	Ch. Venkateswarlu and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances	2015/ Volume 03,1987-2000

			in Structural Engineering, Springer India	
5	Behaviour of Two Way Reinforced Concrete Slab at Elevated Temperature	N. RaveendraBabu, M.K. Haridharan and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,2285-2298.
6	Interaction Study on Interlocking Masonry Wall Under Simultaneous In-Plane and Out-of-Plane Loading	M. Sudhakar, M.P. Raj and C. Natarajan	Structural Engineering Convention (SEC-2014) , IIT Delhi, Advances in Structural Engineering, Springer India	2015/ Volume 03,2471-2480

**8. Ph.D Awarded: Nil**

**9. Details of Book any authored by faculty: Nil**

**10. Patent if any obtained by faculty: Nil**

**11. Other Important Points: Nil**

**12. Summary**

S.No	Details	Total nos			
1.	International Journals	<b>26</b>			
2.	National journals	<b>9</b>			
3.	International conference publications	<b>10</b>			
4.	National conference publications	<b>9</b>			
5.	Sponsored Project	<b>No's:</b>		<b>Amount:</b>	
6.	No of Ph.D produced				
7.	No of Patents obtained				
8.	No of books published				

## DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING

## 9. Notable Achievements

## a. Faculty Members: Nil

## b. Students

S.No	Name	Details of Prizes/Awards	Organization
1	KoppalaGuravaiah (Ph.D)	Best Paper Award	<i>Eleventh International Multi Conference on Information Processing, Bangalore.</i>
2	Amrith Rajagopal Setlur (3 <sup>rd</sup> year CSE)	Awarded President Gold Medal for best academic performance (Delhi Region) in 2015	
3	Abha Suman (3 <sup>rd</sup> year CSE)	WON THE OVER ALL CHAMPIONSHIP FOR KHO KHO	IIT KANPUR SPORTS FEST
4	Rishi rajashekar (3 <sup>rd</sup> year CSE)	Winner of Tata Crucible Business Quiz Trichy Round Winner of IIT Madras Shaastra Main Quiz	
5	Arun Sai K (4 <sup>th</sup> year CSE)	Admission to graduate school at the School of Computer Science, Carnegie Mellon University.  Awarded the Mitacs Globalink Research Fellowship.	
6	Vikash Kumar (M.Tech 2 <sup>nd</sup> year)	2 <sup>nd</sup> Prize in Linux Hackathon during OpenPower and trends in Hyperscale Datacenter Workshop	IBM ISDL
7.	Rajdeep Paul (M.Tech 2 <sup>nd</sup> year)	created an online test portal (mcqstreet.com) which was selected for mentoring phase of Ventura'15	NITT Entrepreneur Event
8.	Sabari Girish (M.Tech 2 <sup>nd</sup> year)	2 <sup>nd</sup> Prize won GPU Coding competition	

9.	Sagar Bhayani (M.Tech 2 <sup>nd</sup> year)	3 <sup>rd</sup> prize won GPU Coding competition	
10	Panigrahi smrutitilak dash (2 <sup>nd</sup> year CSE)	1st in paper presentation, 1st in code-e-philia in infrotek 2016 ,organised by acm organisation nit trichy. 3rd in ashwamedha 3.0 , national level algorithmic coding contest, held in thiruvananthapuram,kerela.	
11	Panigrahi smrutitilak dash, Arun Ramachandran, (2 <sup>nd</sup> year CSE)	3rd place, code-o-soccer event of kshitij - iit kharagpur techno-management fest	
12	Panigrahi Smrutitilak Dash, Arun Ramachandran, And Prajwal K. R. (2 <sup>nd</sup> year CSE)	3rd place, "three-is-a-crowd" event of pragyan 2016 ( 2nd place, "ospc", vortex 2016	
13	Harish Rithish S (2 <sup>nd</sup> year CSE)	Secured 2nd place in sangam, pragyan, for the project 'real-time human fall recognizer for elderly'	
14	Lakshmanaram (2 <sup>nd</sup> year CSE)	Simple yet imactful award - ingenius hackathon, pesit bangalore. Second place in shaastra circuit design challenge - shaastra, iit madras third place in reverse coding - shaastra iit madras and there was an article mentioning the working of my sangam project in the "new indian express" newspaper	

15	Jeyassri.B, (2 <sup>nd</sup> year CSE)	Won the first prize , for paper presentation event at digital india week workshop at nitt Paper presented on "the potential of big data analytics in rural healthcare and education in india" at digital india week workshop at nitt. Attended Digital India week workshop organized by NITT	
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**10. Conference**

**a. Organized**

**International: Nil**

**National: Nil**

**b. Papers presented by the Faculty/Students**

**International**

S.No	Author(s)	Details
1.	E.Sivasankar and S.Mahalakshmi	‘Cross Domain Sentiment Analysis using different Machine Learning Techniques’ in the Fifth International Conference on Fuzzy and Neuro Computing (FANCCO - 2015) organized by Institute for Development and Research in Banking Technology, Hyderabad
2.	Vollala, S., Varadhan, V. V., Geetha, K., & N. Ramasubramanian	Efficient modular multiplication algorithms for public key cryptography Advance Computing Conference (IACC), 2014 IEEE International, , Gurgaon, India
3.	Yadav, P. K., & Ramasubramanian, N	Power consumption of Android device using different video codecs: An analysis Advance Computing Conference (IACC), 2014 IEEE International, Gurgaon, India

4.	Tamizharasan, P. S., Praveen Kumar Yadav, N. Ramasubramanian, and K. Geetha	Performance enhancing factors for manycore architectures: State-of-the-art In Networks & Soft Computing (ICNSC), 2014 First International Conference ,Guntur, India
5.	B. C. Manjith , Praveen Kumar Yadav, R. Sangeetha and N. Ramasubramanian	A Survey of Hardware – Software Security Architectures to Cloud Server International Conference on Computer Communication Networks (ICCN 2014), Bangalore, India
6.	Praveen Kumar Yadav, and N. Ramasubramanian	Efficient Resource Utilization in Mobile Devices Using Bayesian Framework Based Saliency Mapping Bilingual International Conference, Information Technology : Yesterday, Today, and Tomorrow, Delhi, India
7.	Anand Prem Kumar, Vidya Thiagarajan and N. Ramasubramanian	A Survey of Packet Classification Tools and Techniques First International Conference on Computing, Communication, Control And Automation
8.	T. Vidya Thiagarajan and N. Ramasubramanian	Design of an Interconnect Topology For MultiCores And Scale-Out Workloads 3rd International Conference on Signal Processing, Communication and Networking (ICSCN), Anna University, Chennai
9.	Dr. S. Selvakumar Dr. Kanchana Rajaram	Achieving Excellence in Engineering Education through Improved Teaching-Learning Process, 2015 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE), 10-12 December 2015,

		United International College, Zhuhai, China
10.	Sachin Kumar and R. LeelaVelusamy	Latent Fingerprint Preprocessing: Orientation Field Correction using Region wise Dictionary <i>International Conference on Emerging Trends in Electrical, Electronics &amp; Sustainable Energy Systems (ICETEESES-16)</i> , IEEE, Sultanpur, India, Mar. 11-12, 2016
11.	M. Agrawal and R. L. Velusamy,	R-SALSA: A Spam Filtering Technique for Social Networking Sites” <i>3<sup>rd</sup> IEEE International Students’ Conference on Electrical, Electronics and Computer Science (SCEECS-2016)</i> , Bhopal, India, Mar. 05-06, 2016.
12.	M. Agrawal and R. L. Velusamy	Unsupervised Spam Detection in Hyves Using SALSA,” <i>4th International Conference on Frontier in Intelligent Computing: Theory and Applications (FICTA-2015)</i> , Durgapur, India, Nov. 16-18, 2015, pp. 517-526.
13.	KoppalaGuravaiah and R. LeelaVelusamy,	RFDMRP: River Formation Dynamics based Multi-Hop Routing Protocol for Data Collection in Wireless Sensor Networks in <i>Eleventh International Multi Conference on Information Processing, Elsevier Procedia-Computer Science</i> , Bangalore, India, Aug. 21-23, 2015, pp. 31-36.
14.	Sachin Kumar and R. LeelaVelusamy	Latent Fingerprint Preprocessing: Orientation Field Correction using Region Wise

		Dictionary, 4 <sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI-2015), IEEE, Kochi, Kerala, India, Aug. 10-13, 2015, pp.1238-1243
15.	Amedapu Srinivas and R. LeelaVelusamy	Identification of Influential Nodes from Social Networks based on Enhanced Degree Centrality Measure, the 5 <sup>th</sup> International Conference, 2015 IEEE International Advance Computing Conference ( <a href="#">IEEE IACC 2015</a> ), Bangalore, Karnataka, June 12-13, 2015, pp. 1179-1184.
16.	Arun Sai Krishnan, Xiping Hu, Jun-qi Deng, Renfei Wang, C. Zhu, M. Liang, Victor C.M Leung and Yu-kwong Kwok	A Novel Cloud-Based Crowd Sensing Approach to Context-Aware Music Mood-Mapping for Drivers. IEEE CloudCom 2015, Vancouver, Canada.  Towards In Time Music Mood-Mapping for Drivers: A Novel Approach. ACM MSWiM-DIVANet Symposium 2015, Cancun, Mexico.
17.	T. Raja Sree and Dr. S. Mary Saira Bhanu	“Identifying HTTP DDoS Attacks Using Self Organizing Map and Fuzzy Logic in Internet Based Environments” International Conference on Advanced Computing, Networking and Informatics (ICACNI-2015), organized by School of Computer Engineering, KIIT University, Odisha, India, 23-25 June 2015, pp 259-269.
18.	B.Shameedha Begum, N.	International conference on

	Ramasubramanian	'Computing & Network Communications' at Trivandrum by IIIT-K from December 16 <sup>th</sup> to December 19 <sup>th</sup> 2015. Title: A Comparative Study of Cache Performance for Embedded Applications
19.	B.Shameedha Begum, Sathyanarayana V, N. Ramasubramanian	International conference on 'Computing & Network Communications' at Trivandrum by IIIT-K from December 16 <sup>th</sup> to December 19 <sup>th</sup> 2015. Title: Hardware Design for Multiplicative Modular Inverse Based on Table Look Up Technique

**National: Nil**

## 11. Workshops/Seminars

### a. Organized

Coordinator	Title	Period
Dr. S. Selvakumar	Information Security and Risk Management (TCS)	29, Jan.'16, 30, Jan.'16
Dr. S. Selvakumar	Information Security and Risk Management	26, Feb.'16 27, Feb.'16
1. Dr. N.Ramasubramanian 2. B. Shameedha Begum	Two days Workshop on Advanced Embedded system design on Zynq using Vivado targeting Zed board	27th and 28 <sup>th</sup> , August 2015

### b. Attended

Faculty	Details
B. Shameedha Begum	Two Week ISTE STTP on "Design of Algorithms" 25th May - 30th May, 2015
R.Mohan	Two Week ISTE STTP on "Design of Algorithms" 25th May - 30th May, 2015

Students	Details
KoppalaGuravaiah	<p>Computer Science Conference of All NITs (C-SCAN'16) at NIT Calicut on 20<sup>th</sup> – 21<sup>st</sup> February 2016.</p> <p>IEEE medical IoT Workshop Organized by IEEE Bangalore Chapter at Department of Computer Science, Kristu Jayanti College, Bangalore on 16<sup>th</sup> -17<sup>th</sup> October 2015.</p> <p>Short term course on “Fundamental of Soft Computing and its applications” at Indian School of Mines, Dhanbad on 9<sup>th</sup> – 13<sup>th</sup> September 2015.</p> <p>5<sup>th</sup> workshop on “Simulation of wired and wireless networks (SWN-2015)” at Wireless Information Networking Group(WiNG), Dept. of CSE, NIT Surathkal, Karnataka on 8<sup>th</sup> -10<sup>th</sup> June 2015.</p>
Vikash Kumar, Rajdeep Paul, Anubhuti Agrawal, Aditya Agrawal, Apollo Doley, Revathi Uddaraju and Gajula Venkata Balakrishna	attended workshop on OpenPower and trends in Hyperscale Datacenter conducted by IBM India Systems Development Lab. (11 Mar, 2016).
Hemanthkumar S	workshop on PARALLEL COMPUTING WITH GPUs conducted by GPU Centre of Excellence (GCOE), IIT Bombay organized by NIT Trichy.(Mar 2016).
Prakash Borkar and Revathi Uddaraju	organized GPU Coding Workshop in Pragyan 2016
Vikash Kumar, Prakash Borkar, Sabari Girish, Anubhuti Agarawal, Sagar Bhayani, Sriram S, Atul Sharma, Revathi Uddaraju, Sangeetha Vikraman, Aditya Agrawal, HemanthKumar S	participated in workshop on Advanced Embedded System Design on Zynq using Vivado targeting Zed board (Apr 2015).
Sriram S	organized GPU Coding Workshop in Pragyan 2015 .

Sagar Bhayani, Sabari Girish, Anubhuti Agrawal, Apurva Choudhary,Prakash Borkar	participated in this workshop GPU Coding competition
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**12. Invited/Guest Lectures delivered by the Faculty**

Faculty	Topic	Programme	Place & Date
K.V. Iyer	Approximation Algorithms	Workshop Sponsored By TEQIP-II.	October 2015, Thiagarajar College Of Engg, Madurai
Kunwar Singh	Guest Lecture On RECENT TRENDS IN CRYPTOGRAPHY', Tamilnadu.	I Day Seminar	November 2015, Department Of Computer Science And Engineering, Thiagarajar College Of Engineering, Madurai,
Kunwar Singh	Provable Secure Public Key Encryption Scheme And Provable Secure Signature Scheme.	Workshop On Formal Methods In Cryptography"	January 2015, National Engineering College, Kovilpatti - Tamilnadu, India.

**13. Sponsored Projects undertaken: Nil**

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

S.No.	Equipment	Amount (Rs. In Lakhs)
1.	Computer Systems (30 Nos.)	15.882

15. Research Papers Published in National/International Journals

**a. Faculty**

**International Journal**

S.No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	A dynamic intranet-based online-portal support for Computer Science teaching, Education and Information Technologies,	K.V.Iyer	Official journal of IFIP Technical Committee on Education	Dec. 2015.
2.	Channel Status based Sliding Contention Window (CS-SCW) algorithm: A Fuzzy Control Approach for Medium Access in Wireless Networks,	B. Nithya,C. Mala, E. Sivasankar	Soft Computing, ", DOI 10.1007/s00500-015-1894-z	Published online 29 Oct 2015.
3.	Hashing Based Distributed Backoff (HBDB) Mechanism for IEEE 802.11 Wireless Network.	M. Devipriya, B. Nithya, and C. Mala	Journal of Internet Services and Information Security (J	vol 5, no 3, August 2015, pp. 1-18.
4.	Multilevel threshold selection for image segmentation using soft computing techniques	C.Mala and M.Sridevi	Soft computing, Springer	pp 1-18. (Published online on May 2015)
5.	Performance	KoppalaGur	International	9(4), 22-33, 2015.

	Analysis of RFDMRP:River FormationDynamics based Multi-Hop Routing Protocol in WSNs	avaiah and R. LeelaVelusamy	Journal of Information Processing, IK International Publishing House Pvt. Ltd., New Delhi, India,	ISSN : 0973-8215
6.	Cooperative Routing In Mobile Ad Hoc Networks Using Fuzzy Logic	U.Venkanna and R. LeelaVelusamy,	<i>International Journal of Ad Hoc and Ubiquitous Computing (IAHUC), Inderscience,</i>	2015.
7.	A Cooperative Routing for MANET Based on Distributed Trust and Energy Management	U.Venkanna ,Jeh Krishna Agarwal, and R. LeelaVelusamy,	<i>Wireless personal communication, Springer, Netherlands</i>	Vol. 81, Issue 3, 2015, pp. 961-979.
8.	Intraclass and interclass correlation coefficient-based feature selection in NIDS dataset	Vasudevan, A. R. and S. Selvakumar	Security and Communication Networks", Wiley Publications.	May 2015, Vol 8 Issue 18
9.	LAWRA: A LAYered WRapper Feature Selection Approach for Network Attack Detection	Sangeeta Bhattacharya and S. Selvakumar	Security and Communication Networks, Wiley Publications.	May 2015, Vol 8 Issue 18
10.	Multi Measure Multi Weight Ranking Approach for Identification of the Network Features for the Detection of DoS and Probe Attacks	Sangeeta Bhattacharya and S. Selvakumar	The Computer Journal, Oxford Publications	DOI:10.1093/comjnl/bxv078

**National Journal: Nil**

**b. Students**

**International Journal: Nil**

**National Journal: Nil**

**16. Ph.D Awarded**

S. No.	Name of the Research Scholar	Guide/Supervisor	University/Institute	Date	Degree
1.	R. Mohan	Prof. N. P. Gopalan	NITT	Oct-14	Ph. D.
2.	M. Sridevi	Dr. C. Mala	NITT	Jul-15	
3.	B. Nithya	Dr. C. Mala	NITT	Jul-15	
4.	U.Venkanna	Dr. R.Leelavelusamy	NITT	Jul -15	
5.	UmaaMaheshwari	Dr. C. Mala	NITT	Jun-15	M.S.
6.	Suriender Singh	Dr. S. Selvakumar	NITT	Jun-15	
7.	Praveen Kumar Yadav	Dr. N. Ramasubramanian	NITT	Jul-15	
8.	Pravin Ranjan	Dr. R. LeelaVelusamy	NITT	Nov-15	
9.	B Mahesh babu	Dr. S. Mary SairaBhanu	NITT	Dec-15	
10.	KamaleshHingwe	Dr. S. Mary SairaBhanu	NITT	Mar-16	
11.	Vignesh Raja P	Dr. E. Siva Sankar	NITT	Mar-16	
12.	Sree Krishnan V	Dr. E. Siva Sankar	NITT	Apr-16	

Details of Books authored by Faculty; Nil

Patent if any obtained by faculty: Nil

Other Important Points: Nil

**Summary:**

S.No	Details	Total nos			
1.	International Journals	10			
2.	National journals	Nil			
3.	International conference publications	19			
4.	National conference publications	Nil			
5.	Sponsored Project	No's:	Nil	Amount:	Nil
6.	No of Ph.D produced	4			
7.	No. of MS produced	8			
8.	No of Patents obtained	Nil			
9.	No of books published	Nil			

**DEPARTMENT : COMPUTER APPLICATIONS**

**1. Notable Achievements**

**1.1 Faculty Members :**

S.No	Name	Details of Prizes / Awards	Organization
1.	Dr.N.Gopalan	National Level 'Eminent Engineer' Award	Computer Division by FEI (Feb 2016)

**1.2 Students: Nil**

**2. Conference**

**2.1 Organised**

**International**

S.No	Coordinator	Programme	Period
1.	Dr.P.J.A.Alphonse	FACT' 15	March 06 <sup>th</sup> and 07 <sup>th</sup> 2015
2..	Dr.P.J.A.Alphonse	FACT' 16	March 18 <sup>th</sup> and 19 <sup>th</sup> 2016

**National: Nil**

**2.2 Papers presented by the Faculty / Students**

**International**

Author (s)	Details
Sheba Selvam and B.Ramadoss and S. R. Balasundaram	A Combined Clustering Approach for Social Event Detection in Flickr, 2 <sup>nd</sup> International Conference on Data Engineering and Communication Systems ICDECS – 2015, Dec 28-29, 2015, RVS Institute of Technology, Bangalore
Arish Pitchai, AV Reddy, Nickolas Savarimuthu	Quantum walk based Genetic Algorithm for 0-1 Quadratic Knapsack Problem, Proceedings of the International Conference on Computing and Network Communications, IEEE, 2015.

**National**

Author (s)	Details
Dr.A.Vadivel	Present Day Views Significances and challenges in Big data Research in the National Conference on Big data and Sciences(BADS-2015)

**3. Workshops / Seminars**

**3.1 Organized**

Coordinator	Title	Period
Dr.A.Vadivel	openPower and trends in Hyperscale datacenter	11 <sup>th</sup> March 2016
	Video Analytics	27 <sup>th</sup> and 28 <sup>th</sup> Nov - 2015
	English for Writing Ph.D Thesis and Journal Papers	Jan 20 – 22, 2016
Dr.S.R.Balasundaram	Digital India Workshop sponsored by DeitY and NeGD	18/08/2015
Dr.S.Domnic, DR.B.Janet, Dr.S.Sangeetha	Tools and Techniques for Information Processing Research	Sep 11&12 2015
Dr. U. Srinivasulu Reddy	Two Weeks ISTE STTP Workshop on Introduction to Design of Algorithms( Conducted by IIT Kharagpur under NME through ICT(MHRD))	April 27th to 30 <sup>th</sup> May 2015
	Big Data Analytics: Tools & Techniques	8 <sup>th</sup> to 12 <sup>th</sup> , June 2015
Dr.B.Ramadoss and Dr.S.R.Balasundaram	Two Day Workshop on R Programming Language	16/10/2015 and 17/10/2015

**3.2 Attended**

Faculty	Details
Dr.A.Vadivel	Attended 2015 International conference on Communication and Information Processing(ICCIP) in Tokyo,Japan during Nov 5-6,2015
Dr.S.R.Balasundaram	4 <sup>th</sup> Annual NKN Workshop during January 21-22, 2016
R. Eswari	Attended a 2-day TEQIP-II sponsored workshop on “Conclave on Academic Reforms”, organized by National Institute of Technology, Tiruchirappalli, on 28 <sup>th</sup> & 29 <sup>th</sup> April, 2015  Participated in the two-week ISTE Short Term Training Programme on “Introduction to Design of Algorithms”, organized by Department of CSE, Indian Institute of Technology, Kharagpur, from April 27 to May 30, 2015
Dr. U. Srinivasulu Reddy	One - Week ISTE STTP on Introduction to Design of

	Algorithms to be held during 16th March 2015 - 20th March 2015. IIT Kharagpur.
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Students: Nil

**4. Invited / Guest Lectures Delivered by the Faculty**

Faculty	Topic	Programme	Place & Date
Dr.A.Vadivel	Research Trends and Challenges in IT	Two-Day National Seminar on Research Trends and Challenges in IT	Kongu Arts and Science College on 04-02-2016
	A fuzzy rule - based approach for characterization of mammogram masses into BI-RADS sheep categories	UGC-SAP Two Day Seminar on Medical Image Analysis	Periyar University, Salem on 30-10-2015
	Real Time Video Analytics	Workshop on Real Time Video Analytics	Anna University on 11 <sup>th</sup> – 12 <sup>th</sup> sep 2015
Dr.S.R.Balasundaram	Web Technologies and Next Levels	TEQIP II Sponsored One Week Workshop On “Advances in Mobile & Web Application Development”	Alagappa Chettiar College of Engineering and Technology On 27/02/2016
	Facing the Complexities of Technology Stack	Innovista 2016, Technical Symposium conducted by MATRIX Association, Dept. of Information Technology, Arunai Engineering College, Tiruvannamalai	Arunai Engineering College, Tiruvannamalai , 04/03/2016
	Personalised E-Learning	Higher Education in Knowledge Age : Techno-Pedagogical Perspectives and Innovations conducted by Dept. of Educational Technology, Bharathidasan University	St.Joseph’s College 24/02/2016

Dr.S.Nickolas	Big Data Analytics	National Conference on New Horizons in Computational Intelligence and Informations Systems	Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul, 18/12/2015
	Big Data Analytics	WCC International Conference on Viable Synergies in Mathematical and Natural Sciences	Women’s Christian College, Chennai, 7/1/2016
	Data Mining	2-day workshop on “Data Mining Tools and Techniques”	Anna University, BIT Campus, Trichy, 19/2/2016
Dr.S.Domnic	Mathematical Transforms for Image Analysis	Workshop on Image Analysis and Computer Vision	25, November-2015, CIT, Coimbatore, India
	Mathematical Transforms for Video Analysis	Workshop on Video Analytics	27, November-2015, NIT, Trichy, India
	Mathematical Transforms for Image Processing	M.Phil Scholars	Gandhigram Rural Institute-Deemed University, Gandhigram, Feb 29, 2016, India
Dr.S.Sangeetha	Text Data Processing using Python	Tools and Techniques for Information Processing Research	11-09-2015 & 12-09-2015
Dr. U. Srinivasulu Reddy	Particle Swarm optimization Vs Genetic Algorithm	Workshop on Genetic Algorithms	Sastra University & 27.09.2015.
	Introduction to Soft Computing techniques and their applications	Five day FDP on “Soft Computing Techniques”	Dept. of IT, Govt. Engineering College, Srikrishnapuram, kerala & 09-02-2016

**5. Sponsored Projects undertaken.**

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr.S.Domnic	Detection of pectoral muscle and mass in mammogram image for early diagnosis of breast cancer to increase the life span of women	DST, Disha division	3.256L

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1.	20 Desktop Computers for Department Laboratory	10

**7. Research Papers Published in National / International Journals****7.1 Faculty****International Journal**

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Indexing and Encoding based Image Feature Representation with Bin Overlapped Similarity Measure for CBIR Applications	Shaila S. G and A. Vadivel	Journal of Visual Communication and Image Representation, Elsevier Science,	2016, Vol. 36(1), pp. 40-55
2.	FOSIR: Fuzzy-Object-Shape for Image Retrieval Applications	Shanmuga Vadivu P, Sumathy P, Vadivel A	Nuero Computing, Elsevier Science	2016, Vol. 171(1), pp.719- 735
3.	TAG Term Weight based N gram Thesaurus Generation for Query Expansion in Information Retrieval Application	Shaila S. G and A. Vadivel	International Journal of Information Science, SAGE Publications	(2015), PP. 1-21, Print ISSN: 0165-5515, Online ISSN: 1741-6485, DOI: 10.1177/0165551510000000

4.	"Criminal Event Detection and Classification in Web Documents Using ANN Classifier"	J.Sheela and A. Vadivel,	International Journal of Signal Processing Systems	Vol.4 (5), pp.382-388, 2015.
5.	A, Effect of BIRADS Shape descriptors on Breast Cancer Analysis	Surendiran.B, Ramanathan P and Vadivel	International Journal of Medical Engineering and Informatics, Inderscience	(2015), Vol. 7, No. 1, pp.65-79.
6.	Cellular Automata-Based PSO Algorithm for Aligning Multiple Molecular Sequences	Jayapriya, J. and M. Arock	International Journal of Applied Evolutionary Computation (IGI-Global)	7(1), 1-15. 2016
7.	Enhanced Bio-Inspired Algorithm For Constructing Phylogenetic Tree, Journal of Soft Computing	Jayapriya, J. and M. Arock	Journal of Soft Computing (ICTACT	6(1), 1061-1069, 2016
8.	Individualised training sheet composition of math word problems for learners with reading difficulties using genetic algorithm	K. Nandhini; S.R. Balasundaram	International Journal of Technology Enhanced Learning, Inderscience Publishers	2015 Vol.7, No.2, pp.160 – 177
9.	A Graph Based Cloak Algorithm to Preserve Location Privacy in Location Based Services	Shanthi P., S.R.Balasundaram	International Journal of Information Privacy, Security and Integrity, Inderscience Publishers	Accepted for publication Vol. to be assigned
10.	Metaheuristic algorithms and probabilistic behaviour: a comprehensive analysis of Ant Colony Optimization and its variants	Anandkumar Prakasam, Nickolas Savarimuthu	Artificial Intelligence Review	2016, 45 (1), 97-130
11.	Fuzzy based Quantum Genetic Algorithm for Project Team Formation	Arish Pitchai, AV Reddy, Nickolas Savarimuthu	International Journal of Intelligent Information Technologies	2016, 12(1), 31-46
12.	Application based brokering algorithm for optimal resource provisioning in multiple heterogeneous clouds	Thiruselvan Subramanian, Nickolas Savarimuthu	Vietnam Journal of Computer Science	2016, 3(1), 57-70

13.	Cloud service evaluation and selection using fuzzy hybrid MCDM approach in marketplace	Thiruselvan Subramanian, Nickolas Savarimuthu	International Journal of Fuzzy System Applications	2016, 2(8)
14.	A hybrid discrete firefly algorithm for solving multi-objective flexible job shop scheduling problems	S Karthikeyan, P Asokan, S Nickolas, Tom Page	International Journal of Bio-Inspired Computation	2015, 7(6), 386-401
15.	Effective task scheduling for heterogeneous distributed systems using firefly algorithm	R. Eswari, S. Nickolas	International Journal of Computational Science and Engineering	2015,11(2), 132–142
16.	Modified Multi-Objective Firefly Algorithm for Task Scheduling Problem on Heterogeneous Systems	R. Eswari, S. Nickolas	International Journal of Bio-Inspired Computation	2016
17.	Quantum walk algorithm to compute subgame perfect equilibrium in finite two-player sequential games	Arish Pitchai, AV Reddy, Nickolas Savarimuthu	International Journal of Mathematical Sciences and Computing	2016
18.	A New Variable-length Integer Code for Integer Representation and Its Application to Text Compression,	J. Nelson Raja, P. Jaganathan and S. Domnic	, Indian Journal of Science and Technology	Vol 8(24), IPL0385, September 2015.
19.	Extended Rice Code and Its applications to R-Tree Compression,	S.Domnic and V.Glory	IETE Journal of Research	61(6) 2015.
20.	Walsh Hadamard Transform Kernel based Feature Vector for Shot Boundary Detection",	G.G.Lakshmi Priya and S.Domnic	IEEE Trans. on Image Processing	23(12), 5187-5196, 2014
21.	Shot based Keyframe Extraction for Ecological Video Indexing and Retrieval"	G.G.Lakshmi Priya and S.Domnic	International Journal of Ecological Informatics	23, 107-117, 2014
22.	Shot Boundary Detection Using Hilbert Transform based Features	G.G.Lakshmi Priya and S.Domnic	", ICTACT Journal On Image and Video Proc.,	Vol.5 (4), pp:1001-1009, 2015
23.	Compressing Inverted Index Using Optimal FastPFOR",	V. Glory, S. Domnic,	Journal of Information Processing	Vol.23(2), pp.1-7, 2015

24.	Modified Golomb Code for Integer Representation	J. Nelson Raja, P. Jaganathan and S. Domnic	International Journal for Scientific Research & Development	Vol. 3, Issue 10, 2015
25.	Effective Task Scheduling for Heterogeneous Distributed Systems using Firefly Algorithm	R.Eswari and S. Nickolas	International Journal of Computational Science and Engineering, Inderscience	Vol.11, No.2, pp.132-142, 2015

**National Journal: Nil**

**7.2 Students**

**International Journal: Nil**

**National Journal: Nil**

**8. Ph.D Awarded**

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	V.Glory	Dr.S.Domnic	NIT, Trichy
2	Shaila S G	Dr. A vadivel	NIT Trichy

**9. Details of Books authored by faculty.**

**10. Patent if any obtained by faculty: Nil**

**11. Other Important Points: Nil**

**12. Summary**

S.No	Details	Total nos			
1.	International Journals	25			
2.	National journals	-			
3.	International conference publications	9			
4.	National conference publications	2			
5.	Sponsored Project	<b>No's:</b>	1	<b>Amount:</b>	3.256L
6.	No of Ph.D produced	2			
7.	No of Patents obtained	-			
8.	No of books published	-			

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## 1. Notable Achievements

## 1.1. Faculty Members

S.No.	Name	Details of Prizes/Awards	Organization
1.	Dr. M. Venkata Kirthiga	“Distinguished Alumni Award – in the field of Academics”	Anjalai Ammal Mahalingam Engineering College, Kovilvenni, Thiruvarur.

## 1.2. Students

S.No.	Name	Details of Prizes/Awards	Organization
1.	Sanjay	pratibha award	CM chandrababu garu
2.	Dhedeepya	3rd prize trophy, 1st place in essay writing competition	CATC-II NCC Camp
3.	Krishna Kumar	Silver in 10K marathon	NITT sports fete
4.	Raj Krishnan	3rd prize in film spoof	aaveg
5.	Jagan	2nd prize in channel surfing	aaveg
6.	Dilruba N	Bronze in 6.6k marathon	NITT sports fete
7.	Venkatesh	3rd place in table tennis	NITT sports fete
		Design Internship in clozerr, connextech	Aaveg
8.	Veejay	3rd in Electrolution	pragyan INHOTT
9.	Suman raj	3rd place in Name the tune hindi	aaveg

		1st football	NITT sports fete
		2nd basketball	
		2nd volleyball	
		3rd basketball	
		Cricket men 1st	
		Cricket women 2nd	
		Tennis 1st	
		Table tennis 2nd	

**C. Conference / Seminars / Symposium / Special Lectures**

**2.1. Organised :**

<b>S.No</b>	<b>Coordinator</b>	<b>Programme</b>	<b>Period</b>
1.	Dr. M. Venkata Kirthiga	Current's 2016 Topic – “Awareness on Impact of Food Habits on Cancer at Young Age”	29th October, 2016
2.	Dr. M. Venkata Kirthiga	Current's 2016 Lecture on “Aspects of Education in Today's Scenario”	17 <sup>th</sup> February, 2016
3.	Dr. S. Arul Daniel	Special Lecture on “LT Spice Software”	June, 2015
4.	Dr. S. Arul Daniel	Special Lecture on “ “offshore wind farm development and challenges”	April, 2015

**2.2. Papers presented by the Faculty / Students**

Author(s)	Details
Kevin Ark Kumar, Kinattingal Sundareswaran, PR Venkateswaran, Sankaran Palani, Baiju R Naina	“ <u>Design, implementation and economic analysis of sustainable LED roadway lighting system in industrial environment</u> ” IEEE International Conference on Industrial Instrumentation and Control (ICIC), 2015/5/28, pp 77-82
M Meenalochani, S Sudha,	“ <u>Fuzzy based Estimation of Received Signal Strength in a Wireless Sensor Network</u> ” 2015/8/10, Proceedings of the Third International Symposium on Women in Computing and Informatics, pp.624-628
Shobhit Kumar Nagpal, S Sudha	” <u>Two-Level Fuzzy Based Fire Prediction Scheme Using Wireless Sensor Network</u> ” 2015/5/1, Advances in Computing and Communication Engineering (ICACCE), 2015 Second International Conference on, pp.57-62

**2.3. Attended by the Faculty / Students**

Faculty / Students	Details
Dr. Sishaj P Simon	Attended NPEC 2015 on the topic of “Presentation on Department activities” .at IIT Bombay. 20.12.2015 - 23.12.2015 IIT Bombay.

### 3.0. Summer School / Winter School / Workshops

#### 1.1. Organised

Co-ordinator	Title	Period
Dr. S. Senthilkumar, Dr. N. Kumaresan & Dr. N. Ammasai Gounden	Two Days Workshop on “Operation and Control of Wind -driven Generators”	15 - 16, April 2016
Dr. M. P. Selvan and Dr. S. Moorthi	Two Days Workshop on “Role of Power Electronics in Power Engineering” under TEQIP	4th – 5 <sup>th</sup> , March 2016
Dr. S. Sudha	Two Days Workshop on “Internet of Things”	13 <sup>th</sup> – 14 <sup>th</sup> November, 2015
Dr. S. Sudha	Simulation and Analysis of MANETs using Network Simulator (NS-2)	6th March, 2015
Dr. C. Nagamani, Dr. M. Jaya Bharata Reddy & Dr. G. Saravana Ilango	Application of Power Electronics to Renewable Energy Systems and Micro Grids	8th – 10th February, 2015

#### 3.2. Attended

Faculty / Students	Details
Dr. N. Ammasai Gounden	Attended TEQIP sponsored FDP at GCT, Coimbatore on the topic “Power Electronics renewable energy systems” at 25.05.2015 GCT, Coimbatore.
Dr. N. Kumaresan	Attended CAR 2015 at IIT Madras.
Dr. N. Kumaresan	Attended Jury for National level conference NCPI 2k 15 at K. Ramakrishnan college of Engineering, Trichy.
Dr. M. Jaya Bharata Reddy	International Workshop on Synchrophasor measurement for Smart Grid, EEE Dept., MVGR College of Engineering, Vizianagaram,

	Andhra Pradesh
Dr. G. Saravana Ilango	Attended NPEC 2015, 21.12.2015 – 22.12.2015 IIT, Mumbai
Dr. P.Raja	Attended international conference on Modeling and implementation of impedance based fault locator for medium transmission line, 10.12.2015 CPRI, Bangalore.
Dr. M. P. Selvan	Attended international conference on Power and Environment, 11.06.2015 – 14.16.2015 NIT, Meghalaya.
Dr. Sishaj P Simon	Attended 5 <sup>th</sup> University Industry Congress confederation of Indian Industry and Ministry of Higher education, 1.12.2015 -04.12.2015 New Delhi

#### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
P. R. Venkateshwaran, Senior Engineer, Welding Research Institute	EE405– Industrial Electronics	B.Tech.	National Institute of Technology, Trichy For one semester (2015-2016)
Dr. S. Dhamalingam General Manager Quality, BHEL, Trichy	EE008 – Electrical Safety (Global Elective)	B.Tech.	National Institute of Technology, Trichy For one semester (2015-2016)
Dr. S. Dhamalingam General Manager Quality, BHEL, Trichy	EE001 – Power Generation Systems	B.Tech.	National Institute of Technology, Trichy For one semester (2015-2016)

Ashok Kumar Natarajan Director of Engineering, Qualcomm	Making of SoC	B.Tech. and M.Tech.	NITT, A2 Hall, 9:30 A.M. to 10:30 A.M.
Arvinth Rajasekaran Staff Engineer, Manager, Qualcomm	Internet of Things	B.Tech. and M.Tech.	NITT, A2 Hall, 11.00 A.M. to 12.00
Anirban Chowdhury Frugal Labs Tech Solution Pvt Ltd	Basics of cloud computing, Wireless Sensor Networks and Arduino programming	Faculty and M.tech.	EEE Department, NITT, 13 <sup>th</sup> November , 2015
Abhay S Bharadwaj Frugal Labs Tech Solution Pvt Ltd	Wifi set up, Bluetooth Integration and Full IoT setup	Faculty and M.tech.	EEE Department, NITT, 14 <sup>th</sup> November , 2015
Dr. N. Ammasai Gounden	Power Electronics	Attended and handle courses at NIT, Uttarkhand.	03.10.2015 – 12.10.2015 NIT, Uttarkhand.
Dr. N. Kumaresan	Power Electronics and Networks and liner systems.	To handle courses at NIT, Uttarkhand.	03.10.2015-12.10.2015 NIT, Uttarkhand.
Dr. N. Kumaresan	Operation and control of wind driven stand alone DFIGS	To inaugurate AICTE sponsored FDP and delivered lecture at MepcoSchlenk Engineering College, Sivakasi.	11.05.2015 MepcoSchlenk Engineering College, Sivakasi.
Dr. N. Kumaresan	Operation and control of wind driven stand alone DFIGS with single inventor Battery systems.	Delivered lecture in SET conference at VIT, Vellore.	06.05.2015 VIT, Vellore.

Dr. M. Jaya Bharata Reddy	Synchrophasor Measurement Units (PMUs) Application in power system protection	Delivered lecture at GMRIT, Rajam, Srikakulam district, Andhra Pradesh.	EEE Dept., GMRIT, Rajam, Srikakulam district, Andhra Pradesh. 4th Feb 2016
Dr. M. Jaya Bharata Reddy	A guest lecture on Synchrophasor Measurement Units (PMUs) Application in smart grid	EEE Dept., Bapatla Engineering college, Bapatla, Guntur, Andhra Pradesh	19.09. 2015 Bapatla Engineering college, Bapatla, Guntur, Andhra Pradesh
Dr. M. Jaya Bharata Reddy	Real-time Applications of Micro- controllers & DSP	A Faculty Development Programme (Technically Sponsored by IEEE Vizag Bay Sub-Section)	EEE Dept., MVGR College of Engineering, Vizianagaram, Andhra Pradesh June 15th – 19th, 2015
Dr. V Sankaranarayanan	Control Systems	Delivered guest lecture at Mount Zion College of Engineering, Pudukottai	Mount Zion College of Engineering, Pudukottai 05.08.2015
Dr. G. Saravana Ilango	Research in Electrical Engineering (TREE'15)	Delivered guest lecture at Mepcoschlenk college of Engineering, Sivakasi	15.05.2015 Mepcoschlenk college of Engineering, Sivakasi
Dr. P. Raja	The rise of renewable: Integration challenges and opportunities.	Delivered guest lecture at GCT, Coimbatore	11.06.2015 GCT, Coimbatore.
Dr. S. Moorthi	Embedded system design	Delivered guest lecture on FDP sponsored by AICTE-QIP	27.11.2015 CIT, Coimbatore.
Dr. M. P. Selvan	Research in Electrical Engineering (TREE'15)	Delivered guest lecture at Mepcoschlenk college of Engineering, Sivakasi	19.05.2015 Mepcoschlenk college of Engineering, Sivakasi.

Dr. M. P. Selvan	Challenges in grid connected renewable energy systems CGRES.	Delivered guest lecture at Mepcoschlenk college of Engineering, Sivakasi	25.06.2015 , Mepcoschlenk college of Engineering, Sivakasi.
Dr. Sishaj P Simon	Soft computing optimization techniques and its implementation using MATLAB / SCILAB	Delivered guest lecture at Christian college of Engineering.	19.06.2015 Christian college of Engineering, Bhilai
Dr. Sishaj P Simon	Unit commitment in smart grid and deregulated Environment	Delivered guest lecture at T.K.M. College of Engineering	25.11.2015 T.K.M. College of Engineering, Kerala
Dr. Sishaj P Simon	Application of optimization Techniques to Electrical systems “(AOTES-2015)”	Delivered guest lecture at shri Vishnu Engineering College for women.	07.09.2015 shri Vishnu Engineering College for women, Bhimavaram
Dr. S. Senthil Kumar	Application of Power Electronics in renewable energy systems.	Resource person for FDP at Muthayammal Engineering college Namakkal	14.12.2015 Muthayammal Engineering college Namakkal
Dr. S. Senthil Kumar	Control of permanent magnet synchronous	Delivered guest lecture at VIT, vellore	03.11.2015 VIT, vellore
Dr. S. Senthil Kumar	Introduction to power electronics simulations using MATLAB/ SIMULINK	Delivered guest lecture at MAM college, trichy.	27.08.2015, MAM college, trichy.
Dr. M. Venkata Kirthiga	Introduction to Distributed generation and Micro – grid.	TEQIP-II Sponsored FDP on role of Renewable Energy in an Indian Power Sector(RREIPS 15)	21.09.2015- 27.09.2015 Anna University Chennai.
Dr. M. Venkata Kirthiga	AC Machines	Guest lecture programme for B.Tech. Students.	0.10.2015-11.10.2015 NITT, Uttarakhand

Dr. M. Venkata Kirthiga	Optimal Sitting and sizing of DGS and load flow studies in Micro – grids.	Delivered guest lecture at BSM college of Engineering	07.12.2015 BSM college of Engineering
Dr. M. Venkata Kirthiga	AC Machines Induction Machines	Delivered guest lecture at M.Kumarsamy college of Engineering Karur	29.02.2016 M.Kumarsamy college of Engineering Karur.

**5. Sponsored Projects undertaken.**

Sl.No.	Coordinator	Name of the Project	Sponsor	Amount (Rs. in Lakhs)
1.	Dr. N. Ammasai Gounden	Development of Micro grid controller integrated with multiple types of renewable sources and loads	Power Grid	14.95
2.	Dr. C. Nagamani, Dr. G. Saravana Ilango & Dr. S. Senthil Kumar	Dynamic loading of conveyor drive heads in mines	NLC	63.67
3.	Dr.G.Saravanallango	Design and Development of improved shunt active filter with enhanced signal processing with due consideration for distorted utility	DST	14.50
4.	Dr. G. Saravana Ilango	Electrical Design and Drawing for National Naval Academy, ( Phase II works ), Ezhimala, Kerala.	Mukesh & Associates consultants & Engineers Division 2,Salem	2.64

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

S.No	Equipment	Amount (Rs. In Lakhs)
1.	Solar Simulator	7.12

**7. Research Papers Published in National / International Journals**

**7.1. Faculty : NIL**

**7.2. Students & Faculty :**

Sl. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	A Single Sensor Based MPPT Controller for Wind-Driven Induction Generators Supplying DC Microgrid	V. Nayanar, N. Kumaresan and N. Ammasai Gounden	IEEE Trans. Power Electronics	Vol. 31, No. 2, pp. 161 – 172, 2016
2.	Speed sensor-less MPPT and constant output power operation of wind-driven WRIGs	K. Vijayakumar, N. Kumaresan and N. Ammasai Gounden	IET Power Electronics	Vol. 8, No. 1, pp. 33-46, 2015 (SCI – 1755-4535).
3.	Power Electronic Interface with MPPT using Line Commutated Inverter for Grid-connected Permanent Magnet Synchronous Generator	D. R. Binu Ben Jose, N. Ammasai Gounden and V. Rajesh	Electric Power Components and Systems	Vol. 43, No. 5, pp. 543 – 555, 2015 (SCI-1532-5008)
4.	An improved Power Electronic controller with unity power factor for single-stage grid tied PV systems	S.Krithiga , N.Ammasai Gounden	Arabian Journal of Science and Engineering (Springer)	Vol.39, No.10, pp.7173- 7182. (SCI-1319-8025)

5.	A versatile method for computation of power pulsations in DFIG under grid imperfections	MA Asha Rani, C Nagamani, G Saravana Ilango	Renewable Energy,	2016/4/30, pp 143-153, vol. 88.
6.	A Simple Copper Loss Minimization Control Algorithm for a Grid Connected Squirrel-Cage Induction Generator Through Indirect Flux Optimization	Venkata Rama Raju Rudraraju, Chilakapati Nagamani & Ganesan Saravana Ilango	Electric Power Components and Systems	Volume 44, Issue 3, 2016. DOI: 10.1080/15325008.2015.111467
7.	Control Scheme for a Bidirectional Converter in a Self-Sustaining Low-Voltage DC Nanogrid	Saravana Ilango Ganesan, Dinesh Pattabiraman, Ramesh Krishna Govindarajan, Manoj Rajan, Chilakapati Nagamani	IEEE Transactions on Industrial Electronics	2 Issue, 10 Pages, pp. 6317-6326.
8.	A control scheme for improving the efficiency of DFIG at low wind speeds with fractional rated converters	Venkata Rama Raju Rudraraju, Chilakapati Nagamani, G Saravana Ilango	International Journal of Electrical Power & Energy Systems	2015/9/30, Vol. 70, pp. 61-69
9.	A stator voltage switching strategy for efficient low speed operation of DFIG using fractional rated converters	Venkata Rama Raju Rudraraju, Nagamani Chilakapati, G Saravana Ilango	Renewable Energy	2015/9/30, pp – 81, pp - 389-399
10.	Comparative Performance of Squirrel Cage Motors on GTO and IGBT Drives for Electric Traction in India	C Nagamani, R Somanatham, U Kusuma Kumari, U Chaitanya Kumar	i-Manager's Journal on Electrical Engineering	2015/7/1, vol. 9, issue 1, pp. 1

11.	Positioning of PV panels for reduction in line losses and mismatch losses in PV array	Srinivasa Rao Potnuru, Dinesh Pattabiraman, Saravana Ilango Ganesan, Nagamani Chilakapati	Renewable Energy	2015/6/30, vol. 78, pp. 264-275
12.	A Control Strategy for Hybrid Autonomous Power System with a Battery Management Scheme	Chellachi Kathiresan Aravind, Ganesan Saravana Ilango, Chilakapati Nagamani, Maddikara Jaya Bharata Reddy	Electric Power Components and Systems	2015/6/15, vol. 43, issue 8-10, pp. 1159-1172
13.	Renewable Power Generation Indian Scenario: A Review	Chilakapati Nagamani, Ganesan Saravana Ilango, Maddikara Jaya Bharata Reddy, Mohan Anitha Asha Rani, Zachariah Varghese Lakaparampi	Electric Power Components and Systems	2015/6/15, vol. 43, issue 8-10, pp. 1205-1213
14.	Optimal Su-Do-Ku based interconnection scheme for increased power output from PV array under partial shading conditions	P Srinivasa Rao, P Dinesh, G Saravana Ilango, C Nagamani	Frontiers in Energy	2015/6/1, vol. 9, issue 2, pp. 199-210
15.	Power Quality Analysis of Smart Grid Pilot Project, Puducherry	Ramakrishna Kappagantu, S Arul Daniel, Ankit Yadav	Procedia Technology	2015/12/31, vol. 21, pp. 560-568
16.	Analysis of Rooftop Solar PV System Implementation Barrier in Puducherry Smart Grid Pilot Project	Ramakrishna Kappagantu, S Arul Daniel, M Venkatesh	Procedia Technology	2015/12/31, vol. 21, pp. 490-497

17.	Development of BLDC Motor Based Elevator System Suitable for DC Microgrid	N. Ammasai Gounden Dwijasish Das, N. Kumaresan, V. Nayanar, K. Navin Sam	IEEE/ASME TRANSACTIONS ON MECHATRONICS	Accepted in IEEE, 2016
18.	A Novel Regression based clustering technique for Wireless Sensor Networks	N. Hemavathi and S. Sudha	Wireless Personal Communications	Accepted for Springer, 2016
19.	Nonlinear control of mobile inverted pendulum	RM Brisilla, V Sankaranarayanan	Robotics and Autonomous Systems	2015/8/31, vol.70, pp.145-155
20.	Transmission line fault detection and localisation methodology using PMU measurements	P. Gopakumar, M. Jaya Bharata Reddy and D. K. Mohanta	IET Generation, Transmission & Distribution	Vol.9, Issue 11, pp. 1033-1042, Aug. 2015.
21.	A Novel Topological Genetic Algorithm Based PMU Placement and Scheduling Methodology for Enhanced State Estimation, International	P. Gopakumar, M. Jaya Bharata Reddy and D. K. Mohanta	Journal on Electric Power Components & Systems (Taylor & Francis Publications)	Vol.43, Issue 16, pp. 1843-1858, Aug. 2015
22.	Pragmatic Multi-Stage Simulated Annealing for Optimal Placement of Synchrophasor Measurement Units in Smart Power Grids	P. Gopakumar, M. Jaya Bharata Reddy and D. K. Mohanta	Frontiers in Energy (Springer publication)	Vol. 9, Issue 2, pp.148-161, June 2015
23.	An Efficient Clustering Algorithm for Predicting Diseases from Hemogram Blood Test Samples	S Vijayarani, S Sudha	Indian Journal of Science and Technology	2015/8/10, vol.8, Issue 17

24.	Design, Operation, and Control of S3 Inverter for Single-Phase Microgrid Applications	B Dastagiri Reddy, MP Selvan, S Moorthi	IEEE Transactions on Industrial Electronics	2015/9, IEEE Transactions on, vol.62, Issue.9, pp.5569-5577
25.	Embedded Control of n-Level DC-DC-AC Inverter	B Dastagiri Reddy, NK Anish, MP Selvan, S Moorthi	IEEE Transactions on Power Electronics	2015/7, vol.30, Issue.7, pp.3703-3711
26.	Effect of electrical parameters on morphology and in-vitro corrosion resistance of plasma electrolytic oxidized films formed on zirconium	M Sandhyarani, M Ashfaq, T Arunnellaiappan, MP Selvan, S Subramanian, N Rameshbabu	Surface and Coatings Technology	2015/5/15, vol.269, pp.286-294

**8. Ph.D. Awarded (April 2015- Tilldate)**

<b>S.No.</b>	<b>Name of the Research Scholar</b>	<b>Guide / Supervisor</b>	<b>University / Institute</b>
1.	Mr. Sankar Paddapati	Dr. K. Sundareswaran	National Institute of Technology, Trichy, 2015.
2.	Ms. K. Padmavathi	Dr. S. Arul Daniel	National Institute of Technology, Trichy, 2015.
3.	Mr. M. M. Rajan Singaravel	Dr. S. Arul Daniel	National Institute of Technology, Trichy, 2015.
4.	Mr. P. Gopakumar	Dr. M. Jaya Bharata Reddy	National Institute of Technology, Trichy, 2015.
5.	P. Srinivasa Rao	Dr. G. Saravana Ilango	National Institute of Technology, Trichy, 2015.
6.	C. K. Aravind	Dr. G. Saravana Ilango	National Institute of Technology, Trichy, 2015.

**9. Details of Book any authored by faculty**

- Dr. Simon P Sishaj , “Soft Computing With MATLAB Programming”, Oxford University Press, 2015

**10. Patent if any obtained by faculty**

Sl.No.	NAME	TOPIC	DETAILS
1.	Dr. S. Sudha, Mr. K. Rajbabu	Template processor using rule centric approach	Application No.2948/DEL/2015

**11. Other Important Points: NIL****12. Summary**

S.No	Details	Total nos			
9.	International Journals	<b>26</b>			
10.	National journals	-			
11.	International conference publications	<b>03</b>			
12.	National conference publications	-			
13.	Sponsored Project	No's:	<b>04</b>	Amount:	<b>95.76</b>
14.	No of Ph.D produced	<b>06</b>			
15.	No of Patents obtained	<b>01</b>			
16.	No of books published	<b>01</b>			

**DEPARTMENT : ELECTRONICS AND COMMUNICATION ENGINEERING**

**1. Notable Achievements**

**1.1 Faculty Members**

S.No	Name	Details of Prizes / Awards	Organization
1	Dr.S.Raghavan	Executive member, TSI Dec 6, 2015, Kolkatta	Telemedicine Society of India

**1.2 Students**

S.No	Name	Details of Prizes / Awards	Organization
1	Seema R Tirkey	Third prize for poster presentation	Telemedicine Congress 2015
2	Nitesh Jha	Third prize for poster presentation	Telemedicine Congress 2015

**2. Conference**

**2.1 Organised**

**International: Nil**

**National: Nil**

**2.2 Papers presented by the Faculty / Students**

**International**

S.No	Author (s)	Details
1	Challa Nageswara Rao, S.Raghavan	A U-Shaped Loop Antenna for In-Body Applications Int Conf on Micro-Electronics, Electromagnetics and Telecommunications, 2015
2	Challa Nageswara Rao, S.Raghavan	Design of Broadband Implantable Loop Antenna for Human Brain Applications, ICETETS- 2016
3	Challa Nageswara Rao, S.Raghavan	Design of Multiband Implantable Loop Antenna for Inbody Applications, PCCCTSG - 2015
4	V. Rajeshkumar, S. Raghavan	A Compact Split Ring Monopole Antenna (SRMA) for WLAN/WAVE/ITU Band Applications Communication and Energy Systems (SPICES), 2015
5	C.M. Cynthia and S. Raghavan,	A Flexible Conformal Loop Antenna for Intramuscular Implantable Myoelectric Sensors Global Conference on Communication Technologies 2015
6	S. Imaculate Rosaline, S. Raghavan,	Compact dual band antenna for GSM/WiMAX applications International IEEE Conference on Signal Processing, Communications and Networking
7	S. Imaculate Rosaline,S. Raghavan,	Metamaterial inspired patch antenna for WLAN application Signal Processing, Communication and Networking (ICSCN), 2015

8	C.Sudheer Reddy, S.Raghavan	Rhombic CSRR based dual band antenna for wireless applications (ICECS'15).2015
9	P.Chakrapani, S.Raghavan	Reconfigurable antenna for wireless communication bands (ICECS'15).2015
10	Gourav kumar Mehta, S.Raghavan	Design of Quadruple Meander slot to microstrip patch antenna for RF energy scavenging system IEEE International Conference on Electronics and Communication Engineering 2015 (ICECS'15).
11	Deepthi P, S Raghavan, Manju Mohan	PSoC based Ultra low frequency meter” IEEE International Conference on Circuit, Power and Computing Technologies, ICCPCT,2015
12	Divya Chaturvedi, Seema Tirkey, Raghavan	Consequences of Biological effects on Human health due to Non-Ionizing Radiation, Telemedicine Congress, 2015
13	Seema R Tirkey, Nitesh Jha, R. Pandeeswari, S.Raghavan.	“A brief study on Metamaterial inspired Bio-Implantable Antenna”, presented in 11 <sup>th</sup> International Congress of Telemedicine Society of India held on 27, 28, 29 November 2015 in Kolkata.
14	Nitesh Jha, Seema R Tirkey, R. Pandeeswari, S.Raghavan.	“A compact size microstrip triple band antenna loaded with SRR and CSRR for WCDMA, Wi-MAX and wireless applications”, presented in 3 <sup>rd</sup> International Conference on Electronics and Communication Systems held on 25 and 26 February 2016 in Coimbatore, Tamil Nadu.
15	Seema R Tirkey, Nitesh Jha, R. Pandeeswari, S.Raghavan.	“Design of Flexible Meandered Loop Antennas Loaded with CSRR and SRR for Implantable Applications” accepted in IEEE International Conference on Wireless Communications Signal Processing and Networking going to be held on 23 – 25 March 2016 in Chennai, Tamil Nadu.
16	Nitesh Jha, Seema R Tirkey, R. Pandeeswari, S.Raghavan.	“A Novel Patch Antenna with C Shaped Slots for GSM,WiMAX and Navigational Applications” accepted in IEEE International Conference on Wireless Communications Signal Processing and Networking going to be held on 23 – 25 March 2016 in Chennai, Tamil Nadu.
17	Nitesh Jha, Seema R Tirkey, R. Pandeeswari, S.Raghavan.	“A performance improved compact size microstrip antenna loaded with CSRR for GSM, WLAN /WiMAX and WAVE applications.” presented in International Conference on Emerging Trends in Engineering, Technology and Science held on 24, 25, 26 February 2016 in Thanjavur, Tamil Nadu.

18	Jim Godwin R S, Veena K, Sriram kumar D	Performance Analysis of CCMA OFDM Visible Light Communication System
19	Veena K, Jim Godwin R S, Sriram Kumar D	Multiband Photoconductive Antenna for THz Imaging System
20	Jim Godwin R S, Veena K, Sriram kumar D	Performance analysis of direct detection Flip-OFDM for VLC system
21	Jim Godwin R S, Veena K, Sriram kumar D	Performance evaluation of WDM Visible light communication
22	Srikanth, S.; Sriram, P.; Kumar, D.S.,	"Performance analysis of OFDM employing free space optical communication system,"
23	S. Anand, D. Sriram Kumar	Investigation of nano composites based antennas for GHz and THz Communications
24	S. Deivalakshmi, P. Palanisamy, S. Gireesh Kumar	Contrast Enhancement Technique for Dark Images using Dynamic Stochastic Resonance and Complex Daubechies Wavelet Transform, presented in 3rd IEEE international conference on Electronics and Communication Systems(ICECS 16) held at Coimbatore during 25th and 26th Feb 2016.
25	2. V.Sudha, M.S.Samatha and D. Sriramkumar,	3. A Low-Complexity Modified SLM with New Phase Sequences for PAPR Reduction in OFDM System.
26	4. V.Sudha, M.S.Samatha and D. Sriramkumar	5. PAPR Reduction in SLM-OFDM using Lehmer Random Number Generator.
27	Gautam, U., Malmathanraj, R., and Srivastav, C	Simulation for path planning of autonomous underwater vehicle using Flower Pollination Algorithm, Genetic Algorithm and Q-Learning, Cognitive Computing and Information Processing (CCIP), 2015 International Conference on, 3-4 March 2015, pp 1-5.
28	Malmathanraj R, P.Palanisamy, Logeswaran R, Easwar R, Utkarsh	Analysis of Fingerprint recognition systems using Local Binary Pattern its variants and BioHashing, Information Technology Yesterday, Today and Tomorrow-A Bilingual International Conference organized by DRDO, 19 February 2015
29	Sanjay Singh Yadav, S. Hariharan, P. Muthuchidambaranathan	Centralized Cooperative-MIMO Spectrum Sensing over $\kappa$ - $\mu$ Shadow-Faded Reporting Channel. International Conference on Microwave, Optical and Communication Engineering (ICMOCE-2015), School of Electrical Sciences, IIT Bhubaneswar, Odisha, India.

30	Sanjay Singh Yadav, S. Hariharan, P. Muthuchidambaranathan	Generalized Average Detection Probability of Centralized Cooperative-MIMO Cognitive Radio Network over $\eta$ - $\mu$ Faded Reporting Channel. International Conference on Microelectronics, Computing and Communication (MicroCom 2016), Department of ECE, NIT Durgapur, India
31	Sudheesh P G, Chiranjeevi Manda, P Muthuchidambaranathan	On frequency domain channel estimation using WARP v3 Hardware platform, 3rd International Conference on Electronics and Communication Systems (ICECS, 2016), 25th and 26th FEB, pp. 950-952
32	P.Viswa Chaitanya Reddy, B.Malarkodi	An Energy Efficient Transmission Scheme For OFDM Systems With Improved BER Performance
33	Anusree A and R.K. Jeyachitra	“Performance Analysis of a MIMO VLC (Visible Light Communication) Using Different Equalizers” accepted for presentation in IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET 2016), Chennai, 2016.
34	Sagar K, M. S., P Palanisamy	Optimal Pilot- Aided Semi Blind Channel Estimation for MIMO-OFDM System, 2015 IEEE Global conference on Communication Technologies, April, 2015.
35	Bakthavatsalam, B, Malarkodi	Analysis of network infrastructure threats using sonic wall analyser, ICDCS’ 16 IEEE conference
36	Viswa chaithanya, B. Malarkodi	An Energy efficient transmission scheme for OFDM systems with improved BER performance, ICECS’ 16 IEEE conference

**National: Nil**

### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
Dr.S.Raghavan Dr.P.Muthuchidambaranathan Dr.D.Sriram Kumar Dr.R.Pandeeswari	Microwaves through Software	Nov 6,7-2015
Dr.P.Muthuchidambaranathan	Design, Simulation and Research Application of Advanced wireless standards Using EEsof	July 23, 24 & 25, 2015

### 3.2 Attended

Faculty	Details
Dr.S.Raghavan	“Dielectric Resonator Antenna – Analysis and Design”, IIT Kharagpur, 17-21 November 2015
R.Thilagavathy	“Internet of Things & Smart Home”, Department of EEE, NIT Trichy and Frugal Labs Tech Solutions Pvt Ltd on 13 <sup>th</sup> & 14 <sup>th</sup> November 2015

Students	Details
Arvind Kumar Divya Chaturvedi Ananya Parameswaran	Workshop on key EM concepts, SSN Engineering College, 20-22 January 2016
Seema R Tirkey	Microwaves Through Software, NIT Trichy from November 6 – 7 2015
Veena k	One day seminar on THz Technology: Current Scenario and Future Trends, ISRO , Trivandrum
Nitesh Jha	Microwaves Through Software,NIT Trichy from November 6 – 7 2015.
Jim Godwin R S	THz Technology: Current Scenario and Future Trends
Samatha Mahesula	Key Industry/Societal Trends in the Future of Smart Grid for India
Samatha Mahesula	Role of Communication Technologies in making Digital India

### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.S.Raghavan	Planar Transmission Lines for Satellite Communication	B.E.S Expo	New Delhi
Dr.D.Sriramkumar	Digital India	Pondicherry University	Pondicherry
Dr.D.Sriramkumar	Terahertz Antenna	Gitam University	Visakapatnam
Dr.D.Sriramkumar	Issues in Mobile Communication	M.Kumarasamy College of Engineering	Karur

**5. Sponsored Projects undertaken: Nil****6. Major Equipment / Software Purchased (more than Rs. 5.00 lakh.)**

S. No.	Equipment	Amount (Rs. In Lakhs)
1	Antenna Prototyping Machine	8.50

**7. Research Papers Published in National / International Journals****7.1 Faculty****International Journal**

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
1	A compact metamaterial inspired triple band antenna for reconfigurable WLAN/WiMAX applications	Rajeshkumar, V and S Raghavan,	AEU-International Journal of Electronics and Communications	69, 2015
2	A Compact asymmetric monopole antenna with electrically coupled SRR for WiMAX/WLAN/UWB applications	Rajeshkumar, V and S Raghavan,	Microwave and Optical Technology Letters	57, 2015
3	SRR-based polygon ring penta-band fractal antenna for GSM/WLAN/WiMAX/IT U band applications	Rajeshkumar, V and S Raghavan,	Microwave and Optical Technology Letters	57,2015
4	A Compact Frequency Reconfigurable Split Ring Monopole Antenna for WLAN/WAVE Applications.	Rajeshkumar, V and S Raghavan,	Applied Computational Electromagnetics Society Journal	30,2015
5	A compact dual band antenna with an ENG SRR cover for SAR reduction	S. Imaculate Rosaline, S. Raghavan	Microwave and Optical Technology Letters	57,2015
6	Design and analysis of a SRR superstrate for SAR reduction	S. Imaculate Rosaline, S. Raghavan	Journal of Electromag waves and appl.,	Vol.29, No. 17, 2330-2338, 2015.
7	Split ring loaded broadband monopole with	S. Imaculate Rosaline, S.	Microwave and Optical Technology	Vol. 58, No.1, 158-162, 2016

	SAR reduction	Raghavan		
8	Dual Band Patch Antenna Using Slots	B. Anandhimeena, P. Thiruvalar Selvan, S.Raghavan, S. Suganthi, P. Suganya	International Journal of Applied Engineering Research	10,2015
9	Effect Of Ground Plane Structure In Metamaterial Inspired Monopole Antennae	B. Anandhimeena, P. Thiruvalar Selvan, S.Raghavan, S. Suganthi, S. Sindhiya	International Journal of Applied Engineering Research	10,2015
10	Review On Metamaterial Radome In Gain Enhancement Techniques of Planar Antenna	B. Anandhimeena, P. Thiruvalar Selvan, S.Raghavan, S. Suganthi, P. Archana, M.Pavithra	International Journal of Applied Engineering Research	10,2015
11	Microstrip Antenna with Complementary Split Ring Resonator Loaded Ground Plane for Gain Enhancement	R.Pandeeswari, S.Raghavan	Microwave and Optical Technology Letters	57,2015
12	Polarization shift keying based relay-assisted free space optical communication over strong turbulence with misalignment	Prabu, K., and D. Sriram Kumar	Optics & Laser Technology	76 (2016): 58-63.
13	Investigations on Titanium-Doped Indium Oxide Based Optically Transparent Terahertz U-Shaped Patch Antenna	Anand.S.,Sudesh D.M., D. Sriram Kumar	Journal of Computational and Theoretical Nanoscience,	Volume 12, Number 4, April 2015, pp. 660-664(5).
14	Analysis of Titanium-Doped Indium Oxide Based Optically Transparent Patch Antenna for Terahertz Communications,	Anand S., Sudesh D. M., Kumar D. Sriram; Murthy, C.	Journal of Computational and Theoretical Nanoscience,	Volume 12, Number 3, March 2015, pp. 341-344(4)
15	MIMO free-space optical communication employing coherent BPOLSK modulation in atmospheric optical	Prabu, K., and D. Sriram Kumar	Optics Communications	343 (2015): 188-194

	turbulence channel with pointing errors.			
<b>16</b>	Spectrum analysis of radio over free space optical communications systems through different channel models.	Prabu, K., Rajeswar Rajendran, and D. Sriram Kumar.	Optik-International Journal for Light and Electron Optics	126.11 (2015): 1142-1145
<b>17</b>	Analysis of graphene based optically transparent patch antenna for terahertz communications	S. Anand, Mayur Sudesh Darak, and D. Sriram Kumar,	Physica E: Low-dimensional Systems and Nanostructures, Elsevier, 2014	66 (2015): 67-73
<b>18</b>	BER Analysis for BPSK Based SIM-FSO Communication System Over Strong Atmospheric Turbulence with Spatial Diversity and Pointing Errors	K. Prabu, D. Sriram Kumar	Wireless Personal Communications, Springer, 2015	81.3 (2015): 1143-1157
<b>19</b>	Performance Analysis and Comparison of ITO and FTO Based Optically Transparent Terahertz U-shaped Patch Antennas	S. Anand, and D. Sriram Kumar	Physica E: Low-dimensional Systems and Nanostructures, Elsevier, 2014.	66 (2015): 52-58
<b>20</b>	Analysis on Effect of Low Dielectric Permittivity on Indium-doped Tin Oxide based Optically Transparent Terahertz Patch Antenna,	S. Anand, Mayur Sudesh Darak, and D. Sriram Kumar,	Physica E: Low-dimensional Systems and Nanostructures, Elsevier, 2014	In Press
<b>21</b>	Performance of a subcarrier intensity modulated differential phase-shift keying over generalized turbulence channel	Jagadeesh VK, P. Muthuchidambarana than, FM Bui and Vineeth P	AEU - International Journal of Electronics and Communications,	Nov 2015 69(11) 1569-1573
<b>22</b>	Free space optical communication using subcarrier intensity modulation through generalized turbulence channel with pointing error.	Jagadeesh VK, Vineeth P ,P. Muthuchidambarana than, and FM Bui	Wiley, Microwave and Optical Technology Letters	Aug 2015 57(8), 1958-1961
<b>23</b>	BER Performance of NLOS Underwater	Jagadeesh VK, Naveen KV and P.	WASET - International Journal	May 2015 9(2)

	Wireless Optical Communication with Multiple Scattering	Muthuchidambarana than	of Computer, Electrical, Automation, Control and Information Engineering	563-566
24	Performance analysis of multiple relay cooperative communication over generalized $\kappa$ - $\mu$ and $\eta$ - $\mu$ fading channels	Surendar, M., K. Chaitanya and P. Muthuchidambarana than	Elsevier, AEU - International Journal of Electronics and Communications,	Sep 2015 69(9) 1220-1225
25	Low complexity and high diversity gain non-linear constellation precoded MIMO-OFDM system with subcarrier grouping	Surendar, M., and P. Muthuchidambarana than	Elsevier, AEU - International Journal of Electronics and Communications	Mar 2016 70(3) 265-271
26	Wood species classification based on local edge distribution	M.Sundaram, J.Abitha, R.Malmathanraj, K.Ramar	International Journal for Light and Electron Optics	Volume 126, Issue 21, November 2015, Pages 2884-2890
27	Simulation for path planning of SLOCUM Glider in near bottom ocean currents using heuristic algorithms and Q learning	Utkarsh Gautam, Malmathanraj Ramanathan	Defence Science Journal	Vol 65, No 3, May 2015, pp 220-225
28	Low Complexity Peak-to-Average Power Ratio Reduction in Orthogonal Frequency Division Multiplexing System by Simultaneously Applying Partial Transmit Sequence and Clipping Algorithms	Sudha, V., Kumar, D.	WASET- International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering,	2015, 9(4), 465 - 471.
29	Enhancement and Bias Removal of Multiframe Optical Coherence Tomography Images: an Iterative Approach via Adaptive Bilateral Filtering	P.V. Sudeep, P. Palanisamy	Computers in Biology and Medicine	Vol.71, April 2016, pp. 97-107
30	Varun P. Gopi, P. Palanisamy, Khan A. Wahid, Paul Babyn,	Iterative Computed Tomography Reconstruction from	Journal of Medical Imaging and Health Informatics	Vol.6(1), 2016, 34-46.

	David Cooper	Sparse-View Data		
<b>31</b>	Sudeep P.V., P.Palanisamy, Chandrasekharan KEsavadas and Jeny Rajan	Nonlocal linear minimum mean square error methods for denoising MRI	Journal of Biomedical Signal Processing and Control	Vol.20 (2015), pp.125-134.
<b>32</b>	A Cpw-Fed Triple Band Ocsr Embedded Monopole Antenna With Modified Ground For Wlan And Wimax Applications	R. Pandeewari And S. Raghavan	Microwave And Optical Technology Letters /	Vol. 57, No. 10, October 2015

**National Journal: Nil**

### **7.2 Students**

**International Journal: Nil**

**National Journal: Nil**

### **8. Ph.D Awarded**

<b>S. No.</b>	<b>Name of the Research Scholar</b>	<b>Guide / Supervisor</b>	<b>University / Institute</b>
1	Rajesh Kumar V	Dr.S.Raghavan	National Institute of Technology, Trichy
2	K Prabu	Dr.D.Sriramkumar	National Institute of Technology, Trichy
3	S. Anand	Dr.D.Sriramkumar	National Institute of Technology, Trichy
4	S. Hariharan	Dr.P.Muthuchidambaranathan	National Institute of Technology, Trichy

**9. Details of Book any authored by faculty: Nil**

**10. Patent if any obtained by faculty: Nil**

**11. Other Important Points: Nil**

**12. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>			
9.	International Journals	<b>32</b>			
10.	National journals	<b>NIL</b>			
11.	International conference publications	<b>36</b>			
12.	National conference publications	<b>NIL</b>			
13.	Sponsored Project	<b>No's:</b>	<b>NIL</b>	<b>Amount:</b>	<b>NIL</b>
14.	No of Ph.D produced	<b>04</b>			
15.	No of Patents obtained	<b>NIL</b>			
16.	No of books published	<b>NIL</b>			

## DEPARTMENT : HUMANITIES

## 1. Notable Achievements (Nil)

## 1.1 Faculty Members: Nil

## 1.2 Students: Nil

## 2. Conference

## 2.1 Organized : Nil

## International: Nil

## National: Nil

## 2.2 Paper Presented by the Faculty/Students

## International

Author(s)	Details
<b>Dr. Vinod Balakrishnan</b>	<p>1. "Spirituality of Action: Reading O V Vijayan's Gurusagaram through William James 'Concept of Religion'". International Conference on Pragmatism and Spirituality and Gandhi and Sri Aurobindo, Indus Business Academy, Bangalore. Feb 8-11,2016</p> <p>2. "Purusarthas through Satire in O V Vijayan's Dharmapuram: A Pragmatic Reading". Workshop on Yoga and Purushartha for Integral Development. IBA Academy, Noida. 17 July 2015</p> <p>3. "Hagiography and History in Kudumba Charithram". International Conference on History Theory Writing. S.B.College., Changanacherry. 12 January 2016</p>
<b>Dr. Sathyaraj V</b>	<p>1. "Horrors of Food: Eating Disorders, Gender Politics and Graphic Medicine." International Conference on The Culture of Food: Literature and Society. M.E.S. College of Arts and Commerce, Goa. 25 to 27 February, 2016.</p> <p>2. "Public and Private Spaces of Care in Stan Mack's <i>Janet and Me: An Illustrated Story of Love and Loss</i> and Angelo Merendino's <i>The Battle We Didn't</i></p>

	<p><i>Choose.” International Conference on Exploring Moral Interfaces: Private Worlds and Public Systems, The English and Foreign Languages University (EFLU), 07-09 October 2015. (with Raghavi Ravi Kasthuri)</i></p>
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**National : Nil**

**Papers Presented by Students  
International**

<b>Author(s)</b>	<b>Details</b>
<p><b>Raghavi Ravi Kasthuri and Satyaraj Venkatesan</b></p>	<p>1. “Superheroes in Graphic Cancerland”. <i>International Comics Conference on “Comics as Visual Culture.</i> Dr.MGR University, Chennai.2-4 Sep.2015.</p>
<p><b>Pushpanathan S</b></p>	<p>1. “Ethics of Surrogacy”. <i>International Conference on International Conference on Exploring Moral Interfaces: Private Worlds and Public Systems, The English and Foreign Languages University (EFLU) 07-09 October 2015.</i></p> <p>2.”The Challenges of Care giving as depicted in Graphic Memoir-Tangles”. <i>International Comics Conference on Comics as Visual Culture.</i> Dr.MGR University. Chennai.2-9 Sep 2015.</p>
<p><b>Anu Mary Peter and Satyaraj Venkatesan</b></p>	<p>1. “A Game of Luck and Skill”: Visual Metaphors in Brian Fies’ Mom’s Cancer. <i>International Conference on Exploring Moral Interfaces: Private Worlds and Public Systems, The English and Foreign Languages University (EFLU), 07-09 October 2015.</i></p> <p>2. “The Infallible, Invincible and the Insensitive: A Graphic Exposition of the Figure of Doctors”. <i>International Comics Conference on “Comics as Visual Culture.</i> Dr.MGR University, Chennai.2-4 Sep.2015.</p>

**National**

Author(s)	Details
<b>Shintu Dennis</b> and Vinod Balakrishnan	1. “James’ Irresolute truth in O V Vijayan’s Khasakkinte Ithihasam and its translation”. <i>National Conference on Researchers at Work</i> . University of Hyderabad. 9-11 September 2015
<b>Parvathy Das</b> and Vinod Balakrishnan	1. “The Desire for History: Family History confronts Life Writing”. <i>National Conference on Researchers at Work</i> . University of Hyderabad. 10 September 2015.
<b>Raghavi Ravi Kasthuri</b>	1. “Picturing Cancer: Representation of Vulnerability in Stan Mack's <i>Janet and Me: An Illustrated Story of Love and Loss</i> ”. <i>National Conference on Graduate Research Meet '15</i> . The Indian Institute of Technology, Gauhati. 28-30 October 2015.
<b>Anu Mary Peter</b>	1. “The Bad Doctor”: The Image of Doctor, A Graphic Exposition. <i>National Conference on Graduate Research Meet '15</i> . The Indian Institute of Technology, Gauhati. 28-30 October 2015.
<b>Sweetha Saji</b> and Satyaraj Venkatesan	1. “Circuits of Power: The Role of Graphic Pathographies in Erasing Medical Hierarchies”. <i>National Conference on Power</i> . KAHM Unity Women’s College, Manjeri, Malappuram. 12-14 Jan. 2016.  2. “Metaphors of Diseased Bodies: A Critical Study of Select Graphic Pathographies”. <i>National Young Researchers’ Conference 2016 on The Return of the Body: Revisiting cultures of the Body</i> . Jawaharlal Nehru University, New Delhi. 4-5 Feb. 2016

### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
Dr .R. Murugesan	“Time Series and Panel Data Analysis using Eviews & Stata”	25-30,Jan,2016
Dr .R. Murugesan & Dr .Vinod Balakrishnan	“Workshop on English for writing Ph.D Thesis and Journal Papers”	20-22,Jan,2016

#### 3.2 Attended : Nil

#### 4. Invited /Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place / Date
Dr.S.Mekala	English for Employability Skills	A Two Day National Seminar on New Vistas in ELT: Empowering Engineers for Employment.	PSNA College of Engineering and Technology, Dindigul. 18 <sup>th</sup> April, 2015.
Dr.S.Mekala	Teacher Education & Life Skills Development	Faculty Development Programme on “Empowering Educators in English Language Teaching (EEELT’15)”	Anna university: Chennai BIT Campus, Trichy. 10 <sup>th</sup> June,2015
Dr.S.Mekala	-----	Faculty Appraisal Programme	Sri Krishna Institutions, Centre for Professional Development and Training, Coimbatore. 5 <sup>th</sup> to 7 <sup>th</sup> February, 2016
Dr.S.Mekala	The Significance of Life Skills in Self Assessment	A Two Day workshop on An Assay to Self Discovery(AASD’16)	Anna university: Chennai BIT Campus, Trichy. 17 <sup>th</sup> March, 2016

**5. Sponsored Project Undertaken:**

Coordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr.R.Murugesan	R & D (2013-2017)	MHRD	28

**6. Major Equipment / Software Purchased (more than Rs. 5.00 lakhs): Nil****7. Research Papers Published in National / International Journals****7.1 Faculty****International Journal**

S.No	Title	Author(s)	Journal	Year Vol. No of page
01	Analysis of factors determining the inward FDI in top seven Indian states from top seven source countries using gravity model	<b>R. Murugesan</b>	Paper accepted and to be published in <i>International Journal of Economics and Business Research</i>	Forthcoming Issue
02	Testing the Impact of Entrepreneurship Education on Business, Engineering, and Arts& Science Students using the Theory of Planned Behavior: A Comparative Study	<b>R. Murugesan</b>	<i>Journal of Entrepreneurship in Emerging Economies</i>	September , 2015 7 (3).
03	Symbolic Interactionism in O V Vijayan's Khasakkinte Ithihasam	<b>Dr. V. Vinod Balakrishnan</b>	<i>Indian Journal of Post Colonial Literatures..</i>	14.2(2015)
04	Role of Cognitive Strategy use in Second Language Writing	M.P.Shabitha and <b>S. Mekala</b>	Paper accepted and to be published in <i>The Global Journal</i>	April 2016, Vol.No.II, Issue:1
	An Analysis of Concord	M.Ponmani and		April 2016,

05	Errors in ESL Learners' Writing	<b>S.Mekala</b>	<i>of English Studies</i>	Vol.No.II, Issue:1
06	Employers' Perception on Communication Skills at Workplace	C.Shanmugapriya and <b>S.Mekala</b>	Paper accepted and to be published in <i>The Global Journal of English Studies</i>	April 2016, Vol.No.II, Issue:1
07	The Role of Thinking in Soft Skills	P.G.Immaculate Sherine and <b>S.Mekala</b>	Paper accepted and to be published in <i>The Global Journal of English Studies</i>	April 2016, Vol.No.II, Issue:1
08	Need for Teacher Education and Training in Higher Education: Some Challenges and Constraints	K.Manjula Bashini and <b>S.Mekala</b>	Paper accepted and to be published in <i>The Global Journal of English Studies</i>	ISSN 2278-0742, Vol.No. IV, Issue:3, October 2015
09	The Role of Semantic functions in Learning English Prepositions	M.Ponmani and <b>S.Mekala</b>		ISSN 2229-6557, Issue:31, July2015
10	Pleasure Reading Cures Readicide and Facilitates Academic Reading	J. Mary Jennifer and <b>Joseph Ponniah, R.J.</b>	Fortell	Oct-Dec 2015, Vol. No. 5, Issue 4 (1-4)
11	"Life is a Game: Visual Metaphors in Brain Fies's "Mom's Cancer."	<b>Dr. Sathyaraj V</b>	I-manager's Journal on English Language Teaching	2015(online)
12	"The Spectale of AIDS: Mapping Indian Queer Cinema, 1985-2010."	<b>Dr. Sathyaraj V</b>	Hektoen International: A Journal of Medical Humanities.	2015(369-378)
			The London Film and Media Reader 3.	

**National Journal: Nil**

**7.2 Students International Journal: Nil**

**7.3 National Journal (Nil)**

**8. Ph.D Awarded**

<b>S.No</b>	<b>Name of the Research Scholar</b>	<b>Guide / Supervisor</b>	<b>University / Institute</b>
01	M.P.Shabitha	<b>Dr.S.Mekala</b>	NIT, Trichy August, 2015

**9. Details of Books Authored by faculty: Nil**

**10. Patent if any obtained by faculty:**

**Dr.R.Murugesan obtained Patent from MHRD**

**11. Other Important Points: Nil**

**12. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>
1.	International Journal	<b>12</b>
2.	National Journal	<b>Nil</b>
3.	International Conference Publications	<b>10</b>
4.	National Conference Publications	<b>6</b>
5.	Sponsored Projects	<b>No's: 1      Amount: 28</b>
6.	No of Ph.D Produced	<b>1</b>
7.	No of Patents Obtained	<b>1</b>
8.	No of Books Published	<b>Nil</b>
9.	No of Workshop Organized	<b>2</b>
10.	Invited Guest Lectures	<b>4</b>

## Department: INSTRUMENTATION AND CONTROL ENGINEERING

## 1. Notable Achievements

## 1.1 Students

S.No	Name	Details of Prizes / Awards/Internships	Organization/Society
1.	Gopinath G (10111029) Satya Ravi Teja (110111077) Avinit (110111011) Rajeev Verma (110111065) Gaurav Prakash (110111030) <i>Guided by:</i> <i>Dr. K. Dhanalakshmi</i>	Best Student Project awards organized for the “Design and Development of Quad copter Drone for ariel video feed” by	Sonata Software
<b>IV YEAR</b>			
2.	K.R.Lakshmi	Internship in TIFR (Tata Institute of Fundamental Research) - Laser based spectrometer and detection system	TIFR
		Summer Internship at DOW Chemicals	DOW chemicals
		Winter Internship program in NSIT Delhi	Texas Instruments TI
		Summer Internship at IIT Madras - design and fabricate an Automated AC Susceptometer	IIT Madras
3.	Mr. Hariharan Ramshankar	RGBD SLAM system for navigation of mobile telepresence robot.	IIT Hyderabad

		Implementation of Cache Coherency Protocols for a multicore processor in Bluespec System Verilog(BSV)	IIT Madras
		Analysis of alternator design and instrumentation use in automobile electrical systems	Lucas-TVS
4.	Ms. Priyanka Swami	Second runner up team in Inter NIT volley ball competition	NITT
5.	K.R.Lakshmi	Cargill global scholarship	Cargill
		Won 2nd place in Chess in Colosseum,13-National Level Sports Fest of Sastra University.	Sastra University.
<b>III YEAR</b>			
6.	Mr. A.Senthil Hariharan(110113082)	Research Intern Summer 2016	Mitacs
		Summer intern(2015)	Rockwell automation
		Winter intern ( Dec 2015)	Healthcare technology innovation center
7.	Mr.Sachin Chaurasia (110113077)	Summer project	GAIL Inda Ltd,Delhi
		Summer Internship	Reliance,Pune
8.	Ms.A.Anjana Gayathri(110113009)	Research Intern Summer(2016)	Mitacs
		Summer intern(2015)	Indian academy of science
9.	Mr.Sudharsan	Research Intern Summer 2016	Mitacs and

	Suresh(110113086)		DAAD
		Selected for Cargill Global Scholars Program	
		Intern	IISc,Bangalore
10.	Mr.S.Narendar (110113073)	Research Intern on 'transfer learning with neural networks' ( 2015)	ISI Kolkata
11.	Mr.Pragyaditya (110113062)	Summer Intern 2016	Flowserve India Controls,Banalore
12.	Mr.B.Prakash (110113063)	Project on Image processing using Matlab	Uniq Technologies
		Research Intern Summer 2016 on Control Systems	IIT Madras
		Project on algorithms for quadcopter to control mobile robots (2015)	IIT Madras
13.	Ms.Lavanya Kumaran (110113042)	Internship	CAE & Telinstra,UAE
			ELMEC,Abu Dhabi
14.	Ms.Viswaroopa (110113098)	Inplant Training on remote telemetry units (RTUs) design,	Control and Applications Emirates
15.	Mr.C.Anuudh (110113017)	Project on VLSI technology	ECIL,Hyderabad
16.	Ms.Y S.Medhasri (110113099)	Project on Practical SCADA for industries	GAIL (India),Vizag,AP
17.	Mr.Sameer Raashid (110113079)	Summer Project Trainee	Technip India Ltd (May-July 2015) Yokogawa India

			Ltd (Nov-Dec 2015)
18.	Mr.Lalith Nani (110113041)	Project on Data Analysis	IIM Bangalore
		Inplant training on Industrial Instrumentation	BHEL,Hyderabad
19.	Ms.Kargavalli.G. (110113034)	Inplant training	Salem steel plant and Tuticorin thermal power station
20.	Ms.Sushma Shivampet(110113088)	Project on VLSI technology	ECIL,Hyderabad
		1 <sup>st</sup> place in kho-kho, Udgosh'15. 3 <sup>rd</sup> place in 4*400 relay in IIT Kanpur sportsfete. Completed NCC B and C certificate. Represented Tamil Nadu in national level integration NCC camp in Noida	
21.	Mr.Vasu Mahatma (110113095)	Summer intern(2016)	Sandisk
22.	Mr.T.S.V.Krishna Sai (110113089)	Summer Intern(2016)	IIT, Hyderabad
23.	Mr.N.Vamshi	Project on VLSI technology	ECIL,Hyderabad
24.	Mr.Lokesh Kumar.A. (110113043)	Summer intern(2015)	Hacklab innovations, Banglore
25.	Mr.V.Aravind (110113090)	Summer intern	IIT, Madras
26.	Mr.Ram Chander.B. (110113015)	Intern	BHEL,Ltd

27.	N.Akhil (110113053)	Intern	RINL, Visakhapatnam
28.	Mr.Naga Prasad (110113049)	Project on VLSI technology	ECIL,Hyderabad
29.	Mr.Jephin Joy (110113028)	Intern (dec 2015)	Irey Mackenzie Engineering Services, Dubai
		Won gold medal in weight lifting-Sportsfete	
30.	Mr.Abhik Sarkar (110113081)	Summer intern(2016)	Sandisk
31.	Ms.Nori spandana	Internship	RINL,Visakhapatnam
32.	Mr.Prakash.V. (110113064)	Summer intern	IIT, Madras
		Won second prize in sangam'16	
33.	Ms.Nithya.L. (110113054)	Inplant training	Ordnance factory, Trichy
34.	Ms.Arthi (110113030)	Software internship	Practo,Bangalore
35.	Ms.Divyanshi.G. (1101103024)	Software internship (2016)	Fidelity
36.	Mr.Apuroop Mandala (110113044)	Software internship (2016)	Fidelity
37.	Mr.Divyansh (110113022)	Software internship (2016)	Fidelity
38.	Ms.Monica (110113019)	Software internship (2016)	Fidelity
39.	Ms.Ria (110113072)	Software internship (2016)	Fidelity
40.	Mr.Abhishek Patjoshi (110113005)	Software internship (2016)	Fidelity
41.	Mr.A.Akhilesh (110113004)	Project on VLSI technology	ECIL,Hyderabad

		Won first prize in currents'16 IOT challenge	
42.	Ms.Dharani.T. (110113021)	Internship (Dec-Jan 2015)	Yokogawa, Abu Dhabi
43.	Mr.Mudawath Srinivas (110113047)	Summer internship	IIM, Bangalore
		Project on VLSI technology	ECIL,Hyderabad
		Completed NCC B and C certificate. Represented Tamil Nadu in national level integration NCC camp in Noida	
44.	Ms.Mavuri.N.V.S.L.Hanisha (110113045)	Summer reaesrch internship (May 2015)	IIT, Hyderabad
		Won second prize in L&T ideation contest, pragyan(2016)	
45.	Narender S (110113073) Pragyaditya Days (110113062) Ankit Grover (110113010) Priyal Jaiswal (110113066) S.Sriharish(110113076) Krishna Sai(110113089) Mavuri NVSL Hanisha (110113045) Radhila S (110113074) Ram Chander BHaskara (110113015) Chebolu Sowmaya (110113018)	Summer internship	Reliance

	Sachin haurasia (110113077) Lakshminarayanana (110113040)		
46.	Prateek Agarwal (110113065) Spandaana Nori (110113055) Jatin Sandilya (110113001)	Summer internship	Royal Bank of Scotland (company)
<b>II YEAR</b>			
47.	Ms Shankar Pandian Jayasri	Internshala VTC Young Achiever Scholarship	2016
48.	Ms.Sundaravalli A (110114087)	Won 1 <sup>st</sup> Place in Circuital Category in Sangam (Innovation Challenge Contest) Pragyan'16	NIT Trichy
49.	Mr. Akilan GK (110114010)	2nd runner up in Inter NIT volleyball tournament 2016	SVNIT,Surat
50.	Ms. Akshaya P (110114011)	-Winners of kho kho tournament held in iit kanpur as a part of udgosh 2016  -Won three gold medals and two silver medals during the sports fête conducted in nit trichy  Gold-200m,4×100m relay, 4×400m relay  Silver - 100m, kho kho	NIT Trichy
		Attended inplant training in zf wind power coimbatore Ltd	Coimbatore
51.	Mr.Prateek Vishal (110114064)	Won 4th Prize in Shaastra SCDC	IIT Madaras
		Won 1st prize in the Fundamentals event during Pragyan	NIT Trichy

52.	Mr. Rahul.N (110114070)	Ingenius hackathon Special Award (Simple with highest impact) Intern at SportsCafe (Android Intern)	Sportscafe, Bangalore
53.	Ms.Shrinidhi V(110114079)	Best Cadet silver medalist CATC, NCC, 2013	NIT Trichy
54.	Ms. SP Jayasri (110114077)	Secured second position in Rush hour, an event of PRAGYAN 2016.	NIT Trichy
55.	Mr. J Dinesh (110114024)	Won silver medal in cricket in Nitt sportsfete.	NIT Trichy
56.	Mr.S.S.Farhad Nawaz (110114073)	Internship training GSM based temperature alert system.	UNIQ technologies,Che nnai (December 2015)
		Summer Research Intern	IIT Kanpur
57.	Mr.Mohamed Naveed G (110114053)	project 'SLAT Hex' Sound source localizing All Terrain Hexapod Happy won 3rd place in Sangam.	NIT Trichy
		Got selected in Indian Academy of Sciences Summer Research Fellowship Programme	IISc Bangalore
58.	Mr.Narayana Aaditya G (110114056)	1st - Electrolution Inter hostel tech tournament, Pragyan'15 2nd - Fundamental, Pragyan'16 Special mention, Following'15 Finalist, Sangam- Pragyan'16  2nd, Horizons'15 Ice Dept.	NIT Trichy

		1st - Battle of bands - Aaveg'15 1st - Battle of scraps, Horizons15 1st - short film (background score)Horizons'15	
59.	Mr.Baladhurgesh B P (110114016)	SLAT-HEX (Sound Source Localising All Terrain Hexapod), won 3rd place in Sangam( Innovation Challenge Competition ) in Pragyan Technical Festival of our College  Won 1st place in Line follower competition during my first year  Won 1st place in Collage Making in Horizons 15  Won 3rd place in Mask Making in Horizons 15	NIT Trichy
		Summer Research Intern	IIT Bombay

## 2. Conference

### 2.1 Organised

#### International

S.No	Coordinator	Programme	Period
1.	Dr.A.Ramakalyan - General Chair	ACODS-2016 IFAC Sponsored International Conference	1 <sup>st</sup> - 5 <sup>th</sup> February, 2016
2.	Dr. N.Sivakumaran - Local Arrangement Chair		
3.	Dr. K. Srinivasan - Finance Chair		

### 5-day International Conference IFAC - ACODS 2016 organized by ICED,NIT-T Feb 1-5, 2016 - A Report

For a long time there was an acute need felt for providing high-quality, yet easily accessible, education and research in India in the broad field of control systems. During 2011 we have registered the society - **AUTOMATIC CONTROL & DYNAMIC OPTIMIZATION SOCIETY (ACDOS)**, and during the same year we obtained the National Member Organization (NMO) status with the International Federation of Automatic Control (**IFAC**). Dr. Ramakalyan was the founder General Secretary of this society, and currently he is the Vice-President & President Elect. This formation of society has, ever since, triggered several activities and IFAC

events in the country, along with the steady growth in the society's membership. Currently we have about 150 professional members (largely, faculty from various institutes and universities in India) and 50 honorary members (from all over the world who have made rich contributions to the field). The flagship event for the society is the biennial International conference - **ADVANCES IN CONTROL & OPTIMIZATION OF DYNAMICAL SYSTEMS (ACODS)**. Previously, this conference was held at IISc Bangalore (2007, 2012) and IIT Kanpur (2014). Further, it has been decided by the society that during Feb 1-5, 2016 the conference would be held at the **NATIONAL INSTITUTE OF TECHNOLOGY @ TIRUCHIRAPPALLI** as a part of its on-going golden jubilee celebrations.

For ACODS-2016 Dr. Ramakalyan Ayyagari, Associate Professor of the ICED is the General Chair, and Prof. Anuradha Annaswamy from MIT, USA is the Co-Chair. Dr. Radhakant Padhi, IISc Bangalore is the Program Chair, Dr.T.K.Radhakrishnan, Professor, Dept. of Chemical Engineering, NIT-T is the Registration Chair, Dr.N.Sivakumaran, Associate Professor and Head of the ICED is the Local Arrangement Chair and Dr.K.Srinivasan, Assistant Professor of the ICED is the Finance Chair. We have received major funding from NIT Trichy through the TEQIP II programme of the Government of India. We have also received funding from DRDO, BRAHMOS Pvt Ltd., COREeL Technologies, and ABB Global. The IFAC was the technical co-sponsor. We have received around 240 manuscripts from all over the country and from US, UK, France, Italy, Russia, and Singapore. Of these about 160 papers have been accepted after a rigorous peer review.

The Conference was inaugurated on February 1, 2016 by Shri S. Gopinath, Executive Director, BHEL Trichy, in the presence of Prof. D. Deivamoney Selvam, Director-in-charge, NITT. This was followed by the inaugural address by Prof. Ian Petersen of the Univ. of New South Wales, Australia. A total of 145 papers have been presented during the conference over 3 days (February 2-4) in 25 sessions. All these papers would be made available free of cost through IFAC's conference paper archive: [www.ifac-papersonline.net](http://www.ifac-papersonline.net). The papers of ACODS 2014 held at IITK are available here. In addition to this, we had a 3 tutorials in parallel on February 1, and a visit to the Industry and sight-seeing on February 5, 2016. There were 6 plenary talks and 6 semi-plenary talks, with 9 speakers from abroad. One of the plenary speakers was Dr. G. Satheesh Reddy, Scientific Advisor to Raksha Manthri, Govt. of India. Thus, this is a full 5-day truly international conference organized by the ICED. On February 3, in the evening there was a grand banquet with best-paper award ceremony and a cultural programme showcasing the dance forms of South India.



- **SENSORS 2016 - National Technical Symposium held on March 11-13 ,2016**
- Sensors 2016, the annual symposium of the Instrumentation and Control Engineering department of NIT,Trichy was organised between March 11-13 ,2016. **Sensors has a long and distinguished history dating back to 1997 when the staff and the students felt the need for a forum where the academicians and industry can converge to discuss the latest trends in the field of Instrumentation and Control. From its humble beginnings, Sensors has indeed come a long way. The Sensors 2016,the 20<sup>th</sup> edition was inaugurated by S.N.Banerjee, Additional General Manager of C&I systems, Instrumentation limited Baroda, followed by his guest lecture. Dr. Srinivasan Sundarrajan, Director, NIT Trichy, as well the HoD of the ICE department, Dr. N. Sivakumaran were present as well along with faculty of the ICE department and its students. Dr. N. Sivakumaran spoke about the progress that the department has made in the past year. Students of ICED were awarded with DAAD and Mitacs Scholarships. He stressed on the importance of students involving themselves in lots of activities so that they get the exposure that they need when they face life after college. After this the Director addressed the gathering and discussed the importance of instrumentation and control. He spoke about his days in DRDO and explained how instrumentation was and still is a very important aspect for the proper functioning of missiles. The Director also explained that with the Make in India campaign, product designers are much in demand and thus praised the ICE department for having included the subject in their course curriculum.**
- This year we had six workshops and events. The workshops team headed by S.Deepak of final year conducted the following workshops-brain wave robotics gesture controlled robotic manipulator, Data science and business analytics, Machine Learning using Python, Design workshop, Music Production.
- **The essence of Sensors is to transcend classrooms and facilitate learning through informative guest lectures from eminent personalities, hands-on workshops to give students a feel for the subjects and innovative and challenging events that pit some of the brightest minds in the country against one another. It also serves as an ideal platform for students to keep abreast of the latest technology changes and for the industry to tune into the latest research being carried out. The Events team headed by K.R.Lakshmi of final year organized a variety of interdisciplinary events. Moore's**

labyrinth, Encipher, sensors design, robotics events, tech quiz, Paper Presentation were the highlight events. The pre-Sensor robotics event in which first years from NIT Trichy participated was a huge success as well.

Another aspect of this prestigious event is that all the students of the department come forward enthusiastically to organize the event thus fostering teamwork, creativity and management skills in the technocrats of tomorrow. Sensors 2016 saw a footfall of nearly a 1000 people. The publicity team headed by Gurunamashivayam visited almost 80 colleges in various cities.

The valedictory address was delivered by Dr.K.Balasubramanian MS (Ortho),FRCS MCh (Ortho), FRCS Ortho (UK),Consultant Trauma,Orthopaedic and Spine Surgery,Apollo Hospital,Trichy.

With a theme “SENSE-CONTROL-ACTUATE”, the students sought out to do just that. A variety of new events were introduced and a plethora of workshops and guest lectures were organized under the leadership of Renuka, The treasurer and Monish, the overall coordinator and the Chairman, Hani Abdul Gaffor.



**Inaguration**



**Validation**

**First Alumni meet of ICED held on February 21,2016**

The first edition of Alumni meet of Instrumentation and Control Engineering Department was conducted on February 21,2016. The aim of this meet was to enable current batches to meet the passed out batches, and learn from their invaluable experience. During the event, extensive student-alumni-faculty interactions took place.

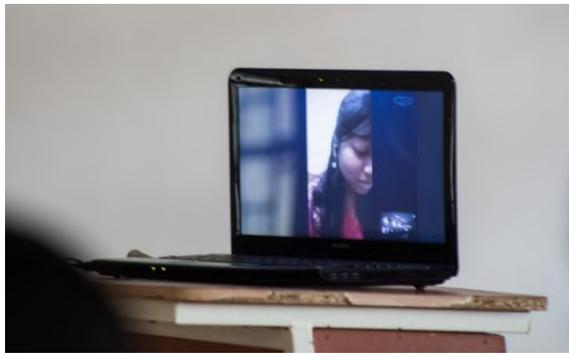
The Alumni Talk Series, included an informal talk by four distinguished alumni of ICE Department on different opportunities in CORE, electronics, software and management fields and their experience. The first speaker was Venkatesh Narayanan from 1998 Batch, Senior SDE at Microsoft.Having 15 years of experience in corporate world, he gave different perspectives and opportunities in various fields highlighting life in software industry.

The second speaker was Vignesh from 2011 Batch. He is currently pursuing MBA from IIM Trichy ,The current General Secretary and next Student President of IIM Trichy ,Student council and Overall Coordinator of Pragyan 2011.He gave an insight about the current insights about the jobs, higher studies and entrepreneurship.

Rahul srivatsava was from 2015 Batch Currently working as Design Engineer at Texas Instruments and Topper of ICE department and GATE rank 24. He shared his experiences on

various exams and how to handle the interviews and guided on what all fields students should concentrate and lastly the scope of various projects and internships.

The last Speaker was Ashmitha, working in ONGC. She explained the importance of the staying in core field and why to work for passion rather than pay. The concluding speech was given by Professor Bennet and HOD ,Dr.N.Sivakumaran. The event was a huge success and it is planned to have one alumni meet every year, so that the batches can meet their seniors, to share the success stories with the present batches and have career counselling sessions to the students who are yet to plan their career path.



## 2.2 Papers presented by the Faculty / Students

### International

Author (s)	Details
<i>Students paper presentation</i>	
Vignesh Ramachandran; Hariharan Ramshankar International	<i>Remotely Operated Advanced Reconnaissance Robot</i> Shortlisted among 30 most innovative engineering ideas in Asia Pacific zone by Lab-X Foundation and IEEE. Poster Presentation given to IEEE president Dr. Peter Staecker at IEEE R10 Congress.

Prajval Kumar; Hariharan Ramshankar; Shreyas Prakash	<i>Credit based solar powered plastic recycling bin</i> Presented project “Credit based solar powered plastic recycling bin” at the International Conference on Advanced Computing and Communications (ADCOM 2014) held in Bangalore, India.
John Mathai, Gobi Ramasamy, Sathya Purusothaman, Kirubakaran Ezra	<i>Location Based Mobile Advertising framework for Commuters</i> International Conference on Computing and Network Communications 2015
<b><i>Faculty paper Presentation</i></b>	
S.M.A.K. Azad. & K. Srinivasan,	Delay Analysis of Control Net and Device Net in Distributed Control System. International Conference on Communication, Control, Instrumentation & Computational Technologies, IC3ICT-2015, R.L. Jalappa Institute of Technology, Bangalore, 17th to 19th December 2015 .
S.M.A.K. Azad & K. Srinivasan,	Implementation of Open Communication Protocol through Wireless Medium for Process Automation. International Conference on Internet of Things and Applications, IOTA-2016, Maharashtra Institute of Technology, Pune, 22nd to 24th January 2016.
Devi C. Arati, S.Narayanan	Dynamic decoupling design for a class of linear multivariable system, IEEE International Conference on Computer Communication and Control (IC4-2015), Indore.
Devi Arati, S Narayanan and N Sivakumaran,	Complete decoupling of multivariable systems by means of dynamic state feedback, ICSTM, 06-08, May 2015, Chennai.
Devi C. Arati, S.Narayanan	Decoupling of linear multivariable system using PD output feedback, Indian control Conference (ICC2016), January 2016, Hyderabad.

Devi C. Arati, S.Narayanan,	Centralized controller design using state space approach, accepted for presentation in international conference in System Structure and Control(SSSC-2016), Turkey, 2016.
Devi C. Arati, S. Narayanan	Row by Row Decoupling Problem, National conference on RTIC2016, March2016. Chennai.
Bhabani Sankar Padhy , D. Ezhilarasi,	“Detection and Stiffness Analysis of Inclined Height Crack in Cantilever Beam using Strain Energy Analysis”, Proceedings of the International Conference on Advanced in Dynamics, Vibration and Control, ICADVC-201 6, February 25-27, NIT Durgapur, India.
Bhabani Sankar Padhy , D. Ezhilarasi,	“Detection of Inclined Edge Crack in Cantilever Beam is using Modal Analysis”, Proceedings of the International Conference on Materials, Design and Manufacturing Process, ICMDM '16, February 17-19, 2016, Anna University (CEG), Chennai, INDIA
Bhabani Sankar Padhy , Laji C A, D. Ezhilarasi,	“Detection Of Longitudinal Cracks In Beam Structures Using Electromechanical Impedance And Frequency Analysis”, ISSS National Conference on MEMS Smart Materials, Structures and Systems, September 23-25, 2015, CUSAT, Kochi, India
Minu A Pillai, Ezhilarasi D,	"Improved Acoustic Energy Harvester using Tapered neck Helmholtz Resonator and Piezoelectric Cantilever undergoing concurrent bending and twisting", Proceedings of 12th International Conference on Vibration Problems (ICOVP 2015), Dec 14-17, 2015, IIT Guwahati, India.
M. Ganesan, D. Ezhilarasi,	"Design of Nonlinear Model reference Adaptive Controller for Automatically Driven Indian High speed Trains", Proceeding of 3rd International Conference

	of Transportation research Group of India (CTRG 2015), 17-20 Dec 2015, Kolkata, India.
Revathi S, Sivakumaran N	Fuzzy Based Temperature Control of Greenhouse, 4th International Conference on Advances in Control and Optimization of Dynamical Systems Feb. 2016. NIT Tiruchirappalli,
Sankaranarayanan S, Sivakumaran N, Swaminathan G	Lump assessment of leak by Virtual Orifice Plate Methodology for a closed water distribution network, International Conference on Disaster Mitigation and Management for Sustainable Development and Risk Education, Feb. 2016
V.Kirubakaran, Chinmay Sahu, TK Radhakrishnan, N. Sivakumaran	Fuzzy aggregation based multiple models explicit multi parametric MPC Design for a quadruple tank process 4th International Conference on Advances in Control and Optimization of Dynamical Systems Feb. 2016. NIT Tiruchirappalli,
Rajendra Singh Thakur, Sathish E, Sivakumaran N	Machine Learning Based Categorization of fruits for big basket grocery store, 2 <sup>nd</sup> International Conference on Human Computer Interactions, Mar. 2013

**National**

<b>Author (s)</b>	<b>Details</b>
Mr.Pragyaditya (110113062)	Working model on car safety system at Pragyan 2016.
Rajendra Singh Thakur and Sivakumaran N	Identification of Rice Quality Using Fuzzy Logic Conference on Instrumentation Systems, Measurement and Automation (CISMA-2015), Jan. 2016.

**3. Workshops / Seminars**

**3.1 Organized**

<b>Coordinator</b>	<b>Title</b>	<b>Period</b>
Dr. K. Srinivasan and Dr. N. Sivakumaran	Advanced Control Engineering (ACE-2015)	October, 9-10, 2015
Dr. N. Sivakumaran and Dr. K. Srinivasan	Industrial Automation (IA-2015)	August, 17 to 19, 2015

**Attended by students**

<b>Students</b>	<b>Details</b>
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K.R.Lakshmi	Global Leadership Seminar conducted by Cargill & IIE (Institute of International Education)
Minu A Pillai	Seventh ISSS national conference on MEMS, Smart materials, Structures and Systems, CUSAT, Kochi Sep 2015

#### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. K Srinivasan	Industrial Automation	CISMA -2015, TEQIP sponsored National conference on Instrumentation systems and Automation	7 <sup>th</sup> -8 <sup>th</sup> January 2016, Dept. of Electronics & Instrumentation Engg., Pondicherry Engineering College

#### 5. Sponsored Projects undertaken.

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr. Ramakalyan Ayyagiri	De-congesting India's transportation networks using mobile devices	Information Technology Research Academy (ITRA) under the focus area Mobile Computing, Networking & Applications, to IIT Madras, IIM Bangalore, IMSc Chennai, NIT Tiruchirappalli and Univ. of Calcutta.	Rs 290.56
	Model Driven Engineering for Integration of Industrial Automation Systems with Application to Water Networks	ABB Global Industries and Services Ltd.	Rs 25

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1.	Desktop Computers	Rs 2622880

## 7. Research Papers Published in National / International Journals

### 7.1 Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Design and modelling of a resonant pressure sensor.	Y. Sujan, G. Uma, M. Umapathy,	Journal of Microsystem Technologies	DOI: 10.1007/s00542-016-2824-4, Published online 08 <sup>th</sup> 2016.
2.	Cantilever piezoelectric energy harvester with multiple cavities.	S. Srinivasulu Raju, M. Umapathy, G. Uma.	Journal of Smart Materials and Structures.	DOI:10.1088/0964-1726/24/11/115023,2015.
3.	Performance enhanced piezo actuated resonant liquid pumping system with two degree of freedom (2-DOF) resonators.	S. Sathiya, M. Umapathy, B. Vasuki	Sensors and Actuators A: Physical	236,44–56, 2015.
4.	Piezoelectric energy harvester with shape memory alloy actuator using solar energy .	A. Rami Reddy, M. Umapathy, D. Ezhilarasi, G. Uma.	IEEE Transactions on Sustainable Energy. Published online	DOI:10.1109/TSTE.2015.2442758, 2015.
5.	Design enhancement of a chevron electrothermally actuated microgripper for improved gripping performance.	Pankaj Shivhare, G. Uma, M.	Journal of Microsystem Technologies, Published online	DOI:10.1007/00542-015-2561-0, 2015.
6.	Simple liquid pumping system using piezoelectric actuated cantilever beam.	S. Sathiya, M. Umapathy, B. Vasuki, G. Uma.	Journal of Instruments and Experimental Techniques,	2015 (Accepted)
7.	Cantilever Beam with Trapezoidal	A. Rami Reddy, M. Umapathy, D.	International Journal of	16(8),1875-1881,2015.

	Cavityfor Improved Energy Harvesting.	Ezhilarasi, G. Uma.	Precision Engineering and Manufacturing,	
8.	Modelling and Experimental investigations on stepped beam with cavity for energy harvesting.	A. Rami Reddy, M. Umopathy, D. Ezhilarasi, G.Uma	Journal of Smart Structures and Systems	16(4),2015.
9.	Sliding Mode Control of SMA Actuated Structures for Vibration Control.	K. Dhanalakshmi, M. Umopathy and D Ezhilarasi,.	International Journal of Modelling, Identification and Control,	23(3),2015.
10.	Development of Mathematical Model for Signal Dependent Linear Adaptive Level Based Sampling.	Abhinav Srivastava and K.Srinivasan	International journal of circuit theory and applications. John Wiley and Sons publications.	DOI: 10.1002/cta.2128, 2015.
11.	Design of RTDA controller for industrial process using SOPDT model with minimum or non-minimum zero.	Anbarasan K and K. Srinivasan	ISATransactions, (Elsevier Publications)	57, 231-244, 2015.
12.	Grey Wolf Optimization based parameter selection for Support Vector Machines	E.Sathish, N.Sivakumaran, S.Sankaranarayanan	International Journal for Computation and Mathematics in Electrical and Electronic Engineering	(2016) Accepted
13.	Genetic Algorithm based Feature Selection for Classification of Focal and Non-focal Intracranial Electroencephalographic Signals	E.Sathish, N.Sivakumaran, Sishaj P Simon and S. Raghavan	Journal of Scientific and Industrial Research	(2016) Accepted

14.	Explicit model predictive control of split-type air conditioning system	Chinmay Sahu ,V. Kirubakaran TK, Radhakrishnan, N. Sivakumaran	Transactions of the Institute of Measurement and Control	DOI: 10.1177/0142331215619976 Sage Publication
15.	Energy efficient model based algorithm for control of building HVAC systems	V.Kirubakaran ,Chinmay Sahu ,TK Radhakrishnan, N. Sivakumaran	Ecotoxicology and Environmental Safety	121,236243, 2015.
16.	Shape memory alloy with bi-functionality in master system to control a slave	Josephine Selvarani Ruth D. and Dhanalakshmi K.	<i>Sensors and Actuators A: Physical</i>	238, 351-360,2016.
17.	Fuzzy based sliding surface for shape memory alloy wire actuated classical super-articulated control system	S.Sunjai Nakshatharan, Dhanalakshmi K. and D. Josephine Selvarani Ruth	<i>Applied Soft Computing</i>	32, 580-589, 2015.

### 8. Ph.D/MS Awarded

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
<b>Ph D Awarded</b>			
1.	Dr. J. Sivaraman	Dr.G Uma	NIT Tiruchirappalli
2.	Dr. K. Anbarasan	Dr. K. Srinivasan	
3.	D.Josephine Selvarani Ruth	Dr.K Dhanalakshmi	
<b>MS Awarded</b>			
1.	Mr. Abhinav Srivastava	Dr. K. Srinivasan	NIT Tiruchirappalli
2.	Mr. Pankaj Shivhare	Dr. M. Umapathy	

### 9. Other Important Points

#### 9.1 Guest Lectures Delivered

Faculty	Topic	Program	Date
<b>Dr.P.Ramesh Babu</b> Professor and Head Dept. of Electronics and Instrumentation Engg. Pondicherry Engineering	Transform domain representation of signals and systems	M.Tech. and Research Scholars	October 18, 2015

College, Puduchery.			
<b>Prof. Biswas</b> Professor, Dept. of Electrical Engineering, IIT Delhi	Image Processing	B.Tech.	Sep 23, 2015
<b>Dr. K. Radhakrishnan</b> Former Director SCTIMST, Trivandrum Currently Professor & Head, Department of Neurology, MIT, Manipal	Instrumentation System for EEG studies	B.Tech., M.Tech and Research Scholars	Jan 20, 2016
<b>Mr. VSN. Murthy Arikapalli</b> , Scientist G, Project Director BRAHMOS, DRDL Hyderabad	Fire Control Systems in Defence Applications	B.Tech., M.Tech and Research Scholars	Jan 26, 2016
<b>Dr. Liuping Wang</b> RMIT University, Melbourne, Australia	Model Predictive Control: Design and Implementation	B.Tech., III and IV year.	Feb. 2, 2016
<b>Dr. Visakan Kadiramanathan</b> Director, Rolls-Royce University Technology Centre in Control and Monitoring Systems Engineering Department of Automatic Control and Systems Engineering University of Sheffield, Sheffield, U.K.	Case Studies in Healthcare Engineering	B.Tech., III and IV year.	Feb. 2, 2016
<b>Dr. Kamesh Subbarao</b> Associate Professor Department of Mechanical and Aerospace Engineering The University of Texas at Arlington, Arlington, USA	Introduction to Reinforcement Learning based Adaptive Optimal Control and System Identification	B.Tech., III and IV year.	Feb. 2, 2016
<b>Dr. Arun Kumar Paul</b> Research Head, Electronic Devices Ltd., Mumbai	Sliding Mode Control and its Applications	PhD, MS and M.Tech.	Feb. 2 and 3, 2016
<b>Professor Xiaohua Xia</b> Director: Centre of New Energy Systems Director: National Hub for Energy Efficiency & DSM Department of Electrical, Electronic and Computer Engineering University of Pretoria, Pretoria, South Africa	Model Predictive Control for Industrial Applications	B.Tech., III and IV year.	Feb. 4, 2016

<b>Dr.P.R.Venkateswaran</b> Sr Development Engineer,C&I,WRI,BHEL,Trichy	Metal Temperature measurement using Thermocouple	B.Tech.,II year.	March 10,2016
<b>Mr.SN Banerjee</b> Additional General Manager (Retd),Design and Engineering department, C&I Systems Instrumentation Limited (A Government of India PSU-Under Ministry of Heavy Industries),Vadodara	Control Valve - Design and Implementation in Process Industries.  Issues affecting performance of Pressure transmitters.	B.Tech., M.Tech and Research Scholars.	March 11 and 12,2016
<b>Mrs.N.Kavitha</b> Director,STEPS Knowledge Services	Transmitters and Electronics circuit design for Thermocouple and RTD.	B.Tech.,II year.	March 15,2016
<b>Mr. A. Gowthaman,</b> Senior Engineer, Maintenance Dept., CPCL, Chennai	Instrumentation in Petrochemical Industry	B.Tech., M.Tech and Research Scholars.	March 31, 2016
<b>Mr.K.Ponnuswamy,</b> GM-Control System Seshayee paper mill Ltd.,Erode	Instrumentation and Control in Paper Industry	B.Tech., M.Tech and Research Scholars.	April 1,2016
<b>Dr.Ravindra D Gudi</b> Professor,Dept of Chemical Engg.,IIT Bombay	Design of Model Predictive control	B.Tech., M.Tech and Research Scholars.	April 1,2016
<b>Dr.J Prakash</b> Professor and Head Dept of Electronics and Instrumentation Engg,MIT Chennai,Anna University	Overview on Kalman Filters	B.Tech., M.Tech and Research Scholars.	April 1,2016
<b>Mr.Kota Srinivas</b> Chief Scientist CSIO,Chennai	Research Facilities at CSIO	B.Tech., M.Tech and Research Scholars.	April 1,2016



**Guest Lecture by Dr. Liuping Wang, RMIT University, Melbourne, Australia.**



**Guest Lecture by Dr. Visakan Kadiramanathan, Director, Rolls-Royce University Technology Centre in Control and Monitoring Systems Engineering Department of Automatic Control and Systems Engineering University of Sheffield, Sheffield, U.K.**



**Guest Lecture by Professor Xiaohua Xia**, Director: Centre of New Energy Systems, Director: National Hub for Energy Efficiency & DSM, Department of Electrical, Electronic and Computer Engineering University of Pretoria, Pretoria, South Africa.



**Guest Lecture by Mr.SN Banerjee**, AGM (Retd), Design and Engineering department, C&I Systems, Instrumentation Limited, Vadodara

### 9.2 Board of Studies Meeting Held

Sl.No.	Program	Date and Time
1.	B.Tech. (ICE)	April 6, 2015 at 9.30 a.m.
2.	M.Tech. (PCI)	April 6, 2015 at 2.00 p.m.
3.	B.Tech. (ICE) - Flexible Curriculum	April 1, 2016 at 9.30 a.m.

### 9.3 Industrial Visits Organised

Faculty Coordinator	Organization	Venue & Date	Offered To
Dr.K.Srinivasan	Seshasayee paper boards Limited, Erode and India Cements,Sankari	Solar and Sankari November 5, 2015 (Thursday)	M.Tech - First year / 1 <sup>st</sup> semester (2015-17) Batch
Dr.N.Sivakumaran	Ponni Sugars,Erode Seshasayee paper boards Limited, Erode and India Cements,Sankari	Solar and Sankari March 9,2016 (Wednesday)	B.Tech - Third year / 6 <sup>th</sup> semester (2013-17) Batch
Prof.G.R.Bennet	Trichy District Cooperative Milk Producers Union Limited,Kottapattu,Trichy	Trichy April 6,2016 (Wednesday)	B.Tech - Second year / 4 <sup>th</sup> semester (2014-18) Batch
Prof.G.R.Bennet	TNPL,Karur	Trichy April 15,2016 (Friday)	B.Tech - Second year / 4 <sup>th</sup> semester (2014-18) Batch

### 9.4 Visiting Faculty members

S.No.	Name of Faculty	Courses Handled
1.	Dr.S.Dharmalingam	IC 452 Power Plant Instrumentation and Control IC 673 Real-Time and Embedded Systems IC 604 Industrial Instrumentation
2.	Dr.N.Mathivanan	IC 021 Embedded System IC 673 Real-Time and Embedded Systems
3.	Mr. Aswini Kumar Panda,Deputy Manager (C&I) Bharat Heavy Electricals Limited	IC 206 Analog Electronic Circuits

### 9.5 Support staff training

S.No.	Name of Staff	Details of Training
1.	Mr.M.Viswanathan,Assistant Engineer	Continuing Professional Development Programme on Industrial Instrumentation and Modern Control System from Jan 05-08,2016,Hyderabad.
2.	Mr.A.Sahayam,Senior Technician	Continuing Professional Development Programme on Industrial Instrumentation and Modern Control System from Jan 05-08,2016,Hyderabad.
3.	Mr.C.Ilango,Junior Assistant	Special Course for Administrative officers,Goa April 6-12,2016.

**10. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>			
2	International Journals	17			
3	National journals	NIL			
4	International conference publications	19			
5	National conference publications	2			
6	Sponsored Project	No's:	2	Amount:	Rs 315.56 Lakhs
7	No of Ph.D produced	3			
8	No of Patents obtained	NIL			
9	No of books published	NIL			

**DEPARTMENT : MANAGEMENT STUDIES****1. Notable Achievements****1.1 Faculty Members**

Dr. G. Kannabiran received Commonwealth Professional Fellowship to stay at Edinburgh Napier University, UK during April-July 2015 on the theme Building competencies for enabling entrepreneurship development through business incubation support in Higher Educational Institutions for best practices sharing through a collaborative work. Visited 18 UK universities and attended conferences in the area of entrepreneurship development.

Dr. G. Kannabiran selected as a National Expert by Asian Productivity Organization, Tokyo for a multi-country project on Measuring Productivity in Higher Education. Experts from Eight Asian countries are working together for a year to bring out best practices in this domain.

Dr. G. Kannabiran won the Emerald Indian Management Research Fund Award 2016 for a Research proposal on Determinants of Effective Strategic Positioning of University Business Incubators in India. The proposal co-authored by Dr. Sally Smith, Dean, Edinburgh Napier University, UK won a fund of £2,000.

**1.2 Students**

<b>S.No</b>	<b>Name</b>	<b>Details of Prizes / Awards</b>	<b>Organization</b>
<b>1</b>	<b>Chandan Raj, Shriya</b>	<b>First place among several B-Schools like, IIM Bangalore, IIM Trichy, BIM</b>	<b>Akshaya Patra Case Study Akshaya Patra Foundation(One of the leading NGOs)</b>
<b>2</b>	<b>Divya Batra</b>	<b>Best Dress Award</b>	<b>IIM, Trichy</b>

**2. Conference****2.1 Organised****International: Nil****National: Nil**

**2.2 Papers presented by the Faculty / Students  
International**

Author (s)	Details
N.Arun, Shashank, Pankaj, Vijay Krishna (II Year M.B.A students)	Developing an agile based supply chain model for Indian Agro based products
Dr.R.Gayathri & Dr.L.Philo Daisy Rani	“Make in India” Selvam College of technology 11 March

**National**

Author (s)	Details
Dr. K.Nigama	"Up scaling Local Creative Artisan ARCH Cluster – Case of Metalware Cluster in South India” presented at the National Seminar on Empowering Small and Medium Enterprises (SMEs) for Global Competitiveness organized by Department of International Business, Pondicherry University ,February 2015
Dr.L.Philo Daisy Rani	Talent Management Dr.AGP Arts and science 18 Feb 2016
Dr.R.Gayathri	NABARD an Innovative Institution in Rural development Dr.AGP Arts and science 18 Feb 2016

**3. Workshops / Seminars**

**3.1 Organized**

Coordinator	Title	Period
Dr.G.Kannabiran	1. <b>Emerging Management Concepts and practices</b> for 75 Junior Executives of <b>Tamilnadu Newaprints and Papers Limites</b> (in-house), 2. Programmes on <b>Knowledge Management</b> for 100 Middle-Level executives of <b>Neyveli Lignite Corporation(NLC)</b> , March-September 2015.	<b>Three 5 days programme</b>  <b>March – September 2015.</b>
Dr.G.Muruganantham	3. Skill enhancement program	<b>9-10 Oct 2015</b>

**3.2 Attended**

**Faculty: Nil**

**Student: Nil**

**4. Invited / Guest Lectures Delivered by the Faculty**

Faculty	Topic	Programme	Place & Date
Dr. M. Punniyamoorthy	Central Excise and Service Tax	Central Excise Day	Customs and Central Excise
Dr. M. Punniyamoorthy	Research Methodology	Faculty Development Programme	Gnanam School of Business, Thanjavur
Dr. M. Punniyamoorthy	Business Analytics	Orientation Program	IIM Trichy
Dr. M. Punniyamoorthy	Data Analytics	FDP	B.S. Abdur Rahman University
Dr. M. Punniyamoorthy	Time Series Analysis	Workshop	NIT Trichy
Dr. M. Punniyamoorthy	Basic Data Analytics	FDP	MAM College of Engineering, Trichy
Mr.P.Murugan	Mediation Moderation analysis	FDP on Academic Research at EBEIT, Erode	Erode 5&6 - 2016
Dr.L.Philo Daisy Rani	Smart solution for entrepreneur	Selvem College of Technology	Namakkal 18 to 20 Feb 2016
Dr.R.Gayathri	Budget -2016 analysis	AVVM Sri Pushpam College Thanjavur	Thanjavur 1 March 2016

**10. Sponsored Projects undertaken.**

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr. M. Punniyamoorthy	Deciphering the Dynamic Architecture Design from Music and developing the application software	MHRD, Govt. of India Under Under SCSP/TSP/PWD	38,24,400
Dr. M. Punniyamoorthy	Cognitive Based Curriculum Development Tool For Emerging Areas Of Computer Engineering And Management Studies For Improving Teaching Learning Process	University Grants Commission (UGC) Under Obama Singh 21st Century Knowledge Initiative Grant, Govt. of India	60,00,000
Dr. M. Punniyamoorthy	Empower Dalit Women Graduates through Entrepreneurship	MHRD, Govt. of India Under SCSP/TSP/ Sub plan	28,16,352
Dr. M. Punniyamoorthy	Data Mining – Opinion Mining	Department of Electronics & IT (DeiTy)	
Dr.g.Muruganantham	Social cause Advertisement	ICSSR - Delhi	3

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

**7. Research Papers Published in National / International Journals**

**7.1 Faculty**

**International Journal**

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Identification of a standard AI based technique for Credit Risk Analysis	1. Dr. M.Punniyamoorthy D. Mrs. P. Sridevi	Benchmarking-International Journal	2016 Vol 23, Issue 7
2	Evaluation of FCM based FSVM classifier using Fuzzy Index	1. Dr. M.Punniyamoorthy 13. Mrs.P.Sridevi	International Journal of Enterprise Network Management	Accepted
3	A Conglomerate model for identification of the interaction between job satisfaction and job performance in a service institution - a context bound approach	1. Dr. M Punniyamoorthy 1. Mrs . V. Lavanya	International Journal of Higher Education and sustainability	2015 Vol 1 Issue 1 Pg 66-87
4	Brand Resonance Score for CBBE Model-An Application in Financial Services	1. Dr. M. Punniyamoorthy 1. Dr. N. Thamaraiselvan 2. Mr. Ande Raja Ambedkar	Benchmarking-International Journal	Accepted
5	A test of Green Haus and Allen model on WFB	1. P.Murugan&Jayanth Jacab	Current Psychology	2015
6	Employees attitude towards health and safty mesures	2. Dr.L.Philo Daisy Rani	International Journal of recent research in commerce, economics and management	2016 Vol. 3, Issue 1, pp: (1-6)
7	WRS & WFI as a predictor of SWH-SR	3. S.M.Soundria & P.David Jawahar	Universal journal of Psychology	2015

**National Journal**

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	A methodology to prioritize the constructs in supplier selection – an Application in an Engineering Industry	1. G . Lakshmi 2. Dr. S Chandra mohan 3. Dr. M .Punniyamoorthy	Global Journal for Research Analysis	2015 Vol 4, Issue 5, ISSN 2277-8160
2	A methodology for identifying significant factors in supplier selection – A context based approach	1. G . Lakshmi 4. Dr. S Chandra mohan 5. Dr. M .Punniyamoorthy	International Journal of Logistics and Supply Chain Management	2015 Vol 4 Issue20 , pp. 1661-1667

**7.2 Students****International Journal: Nil****National Journal: Nil****8. Ph.D Awarded**

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	Dr.P.Sridevi	M.Punniamoorthy	National Institute of Technology
2	Dr.V.Lavanya	M.Punniamoorthy	National Institute of Technology

**9. Details of Books authored by faculty: Nil****10. Patent if any obtained by faculty: Nil****11. Other Important Points: Nil****12. Summary**

S.No	Details	Total nos			
1.	International Journals	7			
2.	National journals	2			
3.	International conference publications	8			
4.	National conference publications	3			
5.	Sponsored Project	No's:	5	Amount:	12640755
6.	No of Ph.D produced	2			
7.	No of Patents obtained	-			
8.	No of books published	-			

## DEPARTMENT: MATHEMATICS

## 1. Notable Achievements

## 1.1 Faculty Members

S.No	Name	Details of Prizes / Awards	Organization
1	Dr. R. Ponalagusamy	Editorial Board Member, Maejo International J. Sci. Technol.	(SCIE; SCOPUS)
2	Dr. K. Murugesan Professor and Head NITT	Tamilnadu scientist award (TANSA)	Tamilnadu Govt.

## 1.2 Students: Nil

## 2. Conference

## 2.1 Organised

International: Nil

## National

S.No	Coordinator	Programme	Period
	Dr. R. Ponalagusamy	Chairman, Organizing National Conference on Frontiers in APPLIED SCIENCES AND COMPUTER TECHNOLOGY (FACT'16), Department of Mathematics and Department of Computer Applications, National Institute of Technology, Tiruchirappalli-620 015	18-19, March, 2016

## 2.2 Papers presented by the Faculty / Students

## International

Author (s)	Details
R. Chandra Guru Sekar & Dr. K. Murugesan	“STWS approach for Hammerstein system of non-linear Volterra integral equations of the second kind” in INTERNATIONAL CONFERENCE ON NONLINEAR DYNAMICAL SYSTEMS (ICNDS-2016), March 24-26, 2016, Bharathiar university - Coimbatore

M. Ganapathirao, <b>R. Ravindran</b>	Non-uniform slot suction/injection into mixed convective MHD flow over a vertical wedge with chemical reaction, International Conference on Computational Heat and Mass Transfer (ICCHMT-2015), Nov 30th-Dec 2nd, 2015 at National Institute of Technology, Warangal.
. N. Samyuktha, <b>R. Ravindran</b>	Thermal Radiation Effect on Mixed Convection Flow over a Vertical Stretching Sheet Embedded in a Porous Medium with Suction (Injection), International Conference on Computational Heat and Mass Transfer (ICCHMT-2015), Nov 30th-Dec 2nd, 2015 at National Institute of Technology, Warangal.
M. Ganapathirao, <b>R. Ravindran</b>	Soret and Dufour effects on unsteady mixed convection flow over a vertical cone in porous medium with non-uniform slot suction/injection, International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016), March 17-19, 2016 at Jaipur National University, Jaipur.

**National: Nil**

### **3. Workshops / Seminars**

**3.1 Organized: Nil**

**3.2 Attended**

**Faculty: Nil**

**Students:**

Students	Details
Dhanasekaran. P	Annual Foundation School-II held at IISER Tiruvandrum, 11th May-6th Jul, 2015.
Jeevaraj. S	Annual Foundation School-III held at HRI Allahabad, 29th Jun-25th Jul, 2015.
R. Chandra Guru Sekar	1. Participated in “National Conference in Control & Inverse Problems”, CUTN-Thiruvapur, Thiruvapur (26-27 February 2016) 2. “Analysis and Differential equations”, TIFR-CAM,

	<p>Bangalore (07-19 December 2015).</p> <p>3. “Integral Equations-Solvability Analysis and Applications”, Jaypee University of Information Technology, Himachal Pradesh (19-25 October 2015).</p> <p>4. “Mathematical Methods for Scientists and Engineers(MMSE-2015)”, SVNIT-Surat, (29 June - 10 July 2015).</p> <p>5. “National Seminar on Interdisciplinary and Transdisciplinary Approach in Research(ITAR-2015)”, DDGD Vaishnav College, Chennai, (13-14 March 2015).</p> <p>6. “Analysis and Geometry”, CUTN-Thiruvapur, Thiruvapur, (13-14 February 2015).</p> <p>7. “Best Practices for Effective Usage of Online E-Resources for promoting Research and development”, NIT-Tiruchirappalli, Tiruchirappalli, (26-27 September 2014).</p>
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**4. Invited / Guest Lectures Delivered by the Faculty**

<b>Faculty</b>	<b>Topic</b>	<b>Programme</b>	<b>Place &amp; Date</b>
Dr. K. Murugesan	Application of Mathematics	Ramanujan’s birthday celebration	Jamal Mohamed College, Trichy: 25 <sup>th</sup> December 2015.
Dr. K. Murugesan	Application of Differential equations	National Conference on “Recent Developments in Differential equations and their Applications”	PSGR Krishnammal College for Women, Coimbatore: 5 <sup>th</sup> March 2016.
Dr. K. Murugesan	Application of Mathematics	National Conference on New Frontiers in Mathematics and its Applications(NFMA'16)	PSG College of Arts and Science, Coimbatore: 11 <sup>th</sup> March 2016
Dr. V.Lakshmana Gomathi Nayagam	Fuzzy Graphs	Resource Person, ADMA Pre-Conference Workshop on Fuzzy Graphs.	June 7-9, 2015, B.S.Abdur Rahman University, Chennai.
	Mathematics	Resource Person, One Day State Level Workshop ‘MEGA-2015’.	28.08.2015, Sri Sarada Niketan College for Women, Karaikudi.
	Applied Mathematics	Resource Person, National Conference on Applied Mathematics and Computer Simulation-Recent Trends-2015.	08.10.2015, T.B.M.L College, Porayar, Nagapattinam.

Discrete Mathematics	Resource Person, Three Day National Seminar on Discrete Mathematics and the Annual Conference of Kerala Mathematical Association.	10.10.2015, Sahrdaya College of Advanced Studies, Kodakara, Kerala.
Fuzzy Topology	Resource Person, Guest Lecture on Fuzzy Topology.	12.10.2015, V.V.Vanniaperumal College For Women, Virudhunagar.
Mathematics	Resource Person, Mathematical Popularization and Communication.	November 5-7,2015, Kings College of Engineering, Chennai.
Mathematics	Resource Person, Refresher Course in Mathematics “Advances in Analysis, Algebra and Differential Equations”	11.12.2015, Madurai Kamaraj University, Madurai.
Mathematics	Chair Person of the Session: Mathematics & Statistics	26.12.2015, Karpagam Academy of Higher Education Premises, Coimbatore-21.
Fuzzy Logic	Resource Person, National Conference on Recent Trends in Fuzzy Logic	17.02.2016, P.K.R Arts College For Women, Gobichettipalayam, Erode.
Fuzzy Logic	Resource Person, Two Days workshop	18.02.2016, Holy Cross College (Autonomous), Tiruchirappalli.
Fuzzy Graphs	Resource Person, ADMA Pre-Conference Workshop on Fuzzy Graphs.	June 7-9, 2015, B.S.Abdur Rahman University, Chennai.
Mathematics	Resource Person, One Day State Level Workshop ‘MEGA-2015’.	28.08.2015, Sri Sarada Niketan College for Women, Karaikudi.
Applied Mathematics	Resource Person, National Conference on Applied Mathematics and Computer Simulation-Recent Trends-2015.	08.10.2015, T.B.M.L College, Porayar, Nagapattinam.
Discrete	Resource Person, Three	10.10.2015, Sahrdaya

	Mathematics	Day National Seminar on Discrete Mathematics and the Annual Conference of Kerala Mathematical Association.	College of Advanced Studies, Kodakara, Kerala.
	Fuzzy Topology	Resource Person, Guest Lecture on Fuzzy Topology.	12.10.2015, V.V.Vanniaperumal College For Women, Virudhunagar.
	Mathematics	Resource Person, Mathematical Popularization and Communication.	November 5-7,2015, Kings College of Engineering, Chennai.

### 5. Sponsored Projects undertaken.

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
<b>Principle Investigator, Dr.V.Lakshman a Gomathi Nayagam</b>	Decision Support System for Incomplete Interval Information	MHRD	19,65,000/-
<b>Dr. V. Shanthi</b>	<b>Numerical methods for singularly perturbed two parameter problems</b>	DST-FAST TRAC	<b>Rs. 12,00,000</b>

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1	Desktop computers Dell Model 9020 MT 12 nos	6,47,652.00

### 7. Research Papers Published in National / International Journals

#### 7.1 Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	“Role of Hybrid Reinforcement on Microstructural Observation, Characterization and Consolidation Behavior of AA 6061 Nanocomposite”	D. Jeyasimman, R. Narayanasamy and R. Ponalagusamy,	Advanced Powder Technology.	26(2015), pp. 1171-1182

2	“Two-Fluid Model for Blood Flow through a Tapered Arterial Stenosis: Effect of Non-zero Couple Stress Boundary Condition at the Interface”	R. Ponalagusamy	Int. J. Appl. Comput. Math.	(Online, 2016)
3	System of linear second order Volterra integro-differential equations using Single Term Walsh Series technique.	R. Chandra Guru Sekar & Dr. K. Murugesan	Applied Mathematics and Computation	2016 (Vol.273) Page: 484-492
4	Method of Solving Linear System of Volterra Integro-Differential Equations Using the Single Term Walsh Series.	R. Chandra Guru Sekar, Dr. V. Balakumar & Dr. K. Murugesan	International Journal of Applied and Computational Mathematics	2015(Vol. 1) page: 1-11
5	Numerical Solutions of Volterra-Integral-Algebraic equations using Block- Pulse functions	Dr. V. Balakumar & Dr. K. Murugesan	Applied Mathematics and Computation	2015 (Vol. 263), Page: 165-170
6	Total Ordering Defined on the set of Intuitionistic Fuzzy Numbers	Lakshmana Gomathi Nayagam. V, Jeevaraj. S, Geetha Sivaraman	Journal of Intelligent & Fuzzy Systems	2016(30)
6	A Complete Ranking of Incomplete Trapezoidal Information	Lakshmana Gomathi Nayagam. V, Dhanasekaran. P, Jeevaraj. S	Journal of Intelligent & Fuzzy Systems	DOI: 10.3233/IFS-152064
8	A Hybrid Difference Scheme for A Second Order Singularly Perturbed Reaction-Diffusion Problem with Non-Smooth Data	M. Chandru, T. Prabha, V. Shanthi	International Journal of Applied and Computational Mathematics – Springer,	Volume 1, Issue 1, pp 87-100, 2015.DOI: 10.1007/s40819-014-0004-8
9	Fitted Mesh Method for Singularly Perturbed Robin Type Boundary Value Problem with Discontinuous Source Term	M. Chandru, V. Shanthi	International Journal of Applied and Computational Mathematics – Springer,	Volume 1, Issue 3, pp 491-501, 2015.DOI: 10.1007/s40819-015-0030-1
10	A uniformly convergent	P.M.Basha, and	American Journal	2015, Vol. 3, No.

	scheme for a system of two coupled singularly perturbed reaction-diffusion Robin type boundary value problems with discontinuous source term	V.Shanthi	of Numerical Analysis,	2, 39-48.
11	A numerical method for singularly perturbed second order coupled system of convection-diffusion Robin type boundary value problems with discontinuous source term	P. M. Basha, and V.Shanthi	International Journal of Applied and Computational Mathematics (Springer),	2015, Vol. 1, Issue 3, pp.381–397

**National Journal: Nil**

## 7.2 Students

### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Total Ordering Defined on the set of Intuitionistic Fuzzy Numbers	Lakshmana Gomathi Nayagam. V, Jeevaraj. S, Geetha Sivaraman	Journal of Intelligent & Fuzzy Systems	2016 (30)
2	A Complete Ranking of Incomplete Trapezoidal Information	Lakshmana Gomathi Nayagam. V, Dhanasekaran. P, Jeevaraj. S	Journal of Intelligent & Fuzzy Systems	DOI: 10.3233/IF S-152064

**National Journal: Nil**

## 8. Ph.D Awarded

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	V. Balakumar	Dr. K. Murugesan	National Institute of Technology, Trichy-15

**9. Details of Books authored by faculty. Nil**

**10. Patent if any obtained by faculty: Nil**

**11. Other Important Points; Dr. R. Ponalagusamy  
International Member of Program and Organising committee for  
Conferences:**

**Program Committee Member**, 7<sup>th</sup> International Conference on Bio-science and bio-Technology(**BSBT 2014**), 20-23 December, 2014, [Hainan University](#), Hainan China.

**Program Committee Member**, 3<sup>rd</sup> Annual International Conference on Computational Mathematics, Computational Geometry and Statistics (CMCGS 2014), April 03- 04, 2014, Hotel Fort Canning, Singapore.

**Program Committee Member**, 10<sup>th</sup> International Conference on Computer Vision Theory and Applications (**VISAPP 2015**), 11-14 March, 2015, Berlin, Germany.

**International Organizing Committee Member**, The 3<sup>rd</sup> Science One International Conference on Information Technology (ICIT 2015), Dubai, UAE, January 21-23, 2015.

**Program Committee Member**, 4<sup>th</sup> Annual International Conference on Computational Mathematics, Computational Geometry and Statistics (CMCGS 2015), January 26 - 27, 2015, Hotel Fort Canning, Singapore.

The 16<sup>th</sup> International Conference on Bioinformatics and Computational Biology (BIOCOMP'15), U.S.A.

The 13<sup>th</sup> International Conference on Scientific Computing (CSC'15), U.S.A.

The 13<sup>th</sup> International Conference on Embedded Systems and Applications (ESA'15), U.S.A.

The 19<sup>th</sup> International Conference on Image Processing, Computer Vision, & Pattern Recognition (IPCV'15), U.S.A.

The 11<sup>th</sup> International Conference on Modeling, Simulation and Visualization Methods (MSV'15), U.S.A.

The 21<sup>st</sup> International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'15), U.S.A.

The 13<sup>th</sup> International Conference on Software Engineering Research and Practice (SERP'15) , U.S.A.

**Subject Expert in Faculty Selection Committee:**

Member of Selection Committee (Subject Expert) for faculty recruitment in the Department of Mathematics, National Institute of Technology, Warangal – 506 021, 17<sup>th</sup> July 2015.

**Member in Board of Studies:**

Member, Board of Studies in Applied Mathematics (UD), Bharathiyar University, Coimbatore, Tamil Nadu State, for the period from 01-01-2015 to 31-12-2017.

**12. Summary**

S.No	Details	Total nos			
1.	International Journals	<b>6+3</b>			
2.	National journals				
3.	International conference publications	<b>1</b>			
4.	National conference publications				
5.	Sponsored Project	No's:	<b>1</b>	Amou nt	<b>Rs.19,65,000</b>
6.	No of Ph.D produced	<b>1</b>			
7.	No of Patents obtained				
8.	No of books published	<b>1</b>			

R. Ponalagusamy, “Biological Study on Pulsatile Flow of Herschel-Bulkley Fluid in Tapered Blood Vessels”, in: Quocnam Tam Hamid Arbnia (Eds.), Emerging Trends in Computational Biology, Bioinformatics, and Systems Biology-Algorithms and Software Tools (ISBN: 978-0-12-802508-6), Elsevier Publishers, Boston, USA, 2015, pp. 39-51.

## DEPARTMENT: MECHANICAL ENGINEERING

## 1. Notable Achievements

## 1.1. Faculty Members

Sl.No	Name	Details of Prizes/Awards	Organization
1.	Prof S.S.Arulappan	International Best Research Paper Award in Oct 2015 & Jan 2016	TJPRC

## 1.2. Students: Nil

## 2. Conference

## 2.1. Organised: Nil

## 2.2. Papers presented by the Faculty / Students

Sl.No	Author(s)	Details
1	K V S Dheeraj, M V B Manoj Kumar, Mahendrakar Rithvik, <b>Dr.T Ramesh</b>	Numerical Simulation of Optimization of Process Parameters of Micro Wire EDM of Al-SiC Alloys Using COMSOL. Excerpt from the Proceedings of the 2015 COMSOL Conference in Pune
2	Sudarssan. N, <b>Venkatachalapathy. S,</b> Elankovan.R	"Thermal and fluid dynamic design of gas runners for heat recovery steam generators" - First International Conference on Materials, Design and Manufacturing Processes, Organised by Anna University, Chennai, Feb. 17-19, 2016.

## 3. Workshops/Seminars

## 3.1. Organised: Nil

## 3.2. Attended

Sl.No	Faculty / Students	Details
1.	Dr.T Ramesh	Summer and Winter Term on Orthopaedic Biomechanics at IIT Kharagpur, 30.11.2015 – 11.12.2015

<b>2.</b>	Dr.T Ramesh	Two-Day Workshop on “Explosive Detection Technologies and Pattern Recognition Approaches for Electronic nose applications”, IIT-Bombay, Feb 22-23, 2016.
<b>3.</b>	Dr.T Ramesh	FDP on 3D Printing Experience, NIT Warangal, May 5 -9, 2015.

#### 4. Invited / Guest Lectures Delivered by the Faculty

Sl.No	Faculty	Topic	Programme	Place & Date
<b>1.</b>	S. Venkatachalapathy	Electronic cooling and heat pipes	Faculty development program on "Green Nanotechnology in Materials Engg. & Energy Applications"	College of Engineering, Adoor, Kerala. 15- 12- 2015

#### 5. Sponsored Projects undertaken: Nil

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

S.No	Equipment	Amount (Rs. in Lakhs)
<b>1.</b>	Micro Plasma Welding system	6.8
<b>2.</b>	Pool Boiling Heat Transfer with Instrumentation	10.46
<b>3.</b>	Radiation Errors in Temperature Measurement Unit	9.6
<b>4.</b>	Unsteady Heat Transfer Measurement Unit	8.18

#### 7. Research Papers Published in National / International Journals

##### 7.1. Faculty

Sl.No.	TITLE	Author(s)	Journal	Year Vol. (No) Page
<b>1.</b>	Some studies on mechanical properties and microstructural characterization of automated TIG welding of thin commercially pure titanium sheets	A Karpagaraj, N Siva shanmugam, K Sankaranarayananasamy	The International Journal of Materials Science and Engineering: A	2015 Vol. (640), pp. 180-189

2.	Some studies on temperature field during plasma arc welding of thin titanium alloy sheets using parabolic Gaussian heat source model	V Dhinakaran, <b>N Siva Shanmugam,</b> <b>K Sankaranarayananasamy</b>	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science	2015
3.	Experimental investigations on the SiO <sub>2</sub> flux-assisted GTA welding of super-austenitic stainless steels	K Devendranath Ramkumar, Jelli Lakshmi Narasimha Varma, Gangineni Chaitanya, S Logesh, Madhav Krishnan, N Arivazhagan, <b>N Siva Shanmugam</b>	The International Journal of Advanced Manufacturing Technology	2015
4.	Influence of filler metals in the control of deleterious phases during the multi-pass welding of Inconel 718 plates	K, Devendranath Ramkumar, Jagat Sai, Sridhar Gundla, Santhosh Reddy, P. Prabakaran, N, Arivazhagan and <b>N. Siva Shanmugam</b>	Acta Metallurgica Sinica	2015 Vol. (28), pp 196-207
5.	Investigations on the parametric effects of cold metal transfer process on the microstructural aspects in AA6061	Nalajam Pavan Kumar, S Arungalai Vendan, <b>N. Siva Shanmugam</b>	The International Journal of Alloys and Compounds	2016 Vol. (658), pp. 255-264
6.	Steady state analysis of regular hollow pyramidal radiating fin with triangular cross-section	Vijaikrishnan Venkataramanan, Ramakrishnan Madhavanewaran, <b>N. Siva Shanmugam</b>	Thermal Science	2016 Vol. (19) pp. 59-68
7.	Studies on Mechanical behavior And Microstructural Analysis of Tailor Welded Blanks of Ti-6Al-4V Titanium Alloy Sheet	Karpagaraj, A; <b>N. Siva Shanmugam,</b> Nallathambi; <b>Sankaranarayananasamy. K</b>	Journal of Materials Research	2016
8.	Numerical, Experimental and Analytical Investigation for Higher Wind Turbine Efficiency,	<b>S.S.Arulappan</b>	International Journal of Mechanical and Production	August 2015

			Engineering Research and Development	
9.	'Experimental and CFD Investigations Analogy for Wind Turbine Efficiency Using Commercial Small Fan Blades'	<b>S.S.Arulappan</b>	International Journal of Mechanical and Production Engineering Research and Development	August 2015
10.	A Review of Similar and Dissimilar Micro-joining of Nitinol	T. Deepan Bharathi Kannan, <b>T. Ramesh</b> , P. Sathiya	The Minerals, Metals & Materials Society	2016 February, pp 1-19
11.	Synthesis, stability, transport properties, and surface wettability of reduced graphene oxide/water nanofluids	R. Kamatchi, <b>S. Venkatachalapathy</b> , B. Abhinaya Srinivas	International Journal of Thermal Sciences	2015, Vol (97) 17-25.
12.	Experimental investigation and mechanism of critical heat flux enhancement in pool boiling heat transfer with nanofluids	R. Kamatchi, <b>S. Venkatachalapathy</b> C. Nithya	Journal of Heat Mass Transfer	2015, Vol (12)
13.	Shrinkage characteristics studies on conventional sintered zirconia toughened alumina using computed tomography imaging technique	S. Renold Elsen, <b>T. Ramesh</b>	International Journal of Refractory Metals and Hard Materials	2016 Vol (54) pp. 383–394
14.	Optimization to develop multiple response hardness and compressive strength of zirconia reinforced alumina by using RSM and GRA	S. Renold Elsen, <b>T. Ramesh</b>	International Journal of Refractory Metals and Hard Materials	2015 Vol (52), September, pp. 159–164
15.	The Elevated Temperature Wear Analysis of Laser Surface–Hardened EN25 Steel Using Response Surface Methodology	P. Dinesh Babu, G. Buvanashakaran and <b>K. R. Balasubramanian</b>	International Journal of Tribology, Transactions	2015, Vol.58:4, pp. 602-615
16.	Assessment of plastic loads of critical throughwall circumferentially cracked pipe bends with structural	Sumesh S, <b>AR. Veerappan</b> and S. Shanmugam	Thin-Walled Structures	2016 Vol. (104), pp. 144–151

	distortions under in-plane bending			
17.	Influence of Structural Distortions on Type 304 Stainless Steel 90° Pipe Bends with Critical Circumferential Throughwall Cracks under Bending Moment and Internal Pressure	Sumesh S, <b>AR. Veerappan</b> and S. Shanmugam	International Journal of Applied Engineering Research	2015 Vol. (10) No.24, pp. 21200 – 21204.
18.	Finite Element Analysis of Shape-Imperfect Pipe Bends under In-Plane Closing Moment	T. Christo Michael, <b>AR. Veerappan</b> , S. Shanmugam	International Journal of Applied Engineering Research	2015 Vol. 10 No.24,
19.	Numerical Modeling of Year-Round Performance of a Solar Parabolic Dish Thermoelectric Generator	G. Muthu, S. Shanmugam, <b>AR. Veerappan</b>	Journal of Electronic Materials	2015 Vol. (44) No. 8, pp. 2631 – 2637
20.	Mathematical Modeling of Thermoelectric Generator with Solar Parabolic Dish	G. Muthu, S. Shanmugam, <b>AR. Veerappan</b>	Applied Mechanics and Materials	2015 Vol. (669) , pp. 558 – 563

**7.2. Students: Nil**

**8. Ph.D Awarded: Nil**

**9. Details of Book any authored by faculty: Nil**

**10. Patent if any obtained by faculty: Nil**

**11. Other Important Points**

## 12. Summary

S. NO	Details	Total no's	
1	International journals	11	
2	National journals	9	
3	International conference publications		
4	National conference publications		
5	Sponsored projects	Amount	
6	No of Ph.d produced		
7	No of patents obtained		
8	No of books published		

**DEPARTMENT : METALLURGICAL AND MATERIALS ENGINEERING****1. Notable Achievements****1.1 Faculty Members**

S.No	Name	Details of Prizes / Awards	Organization
1.	Prof. S.Natarajan	Certificate of Award for Outstanding Contribution in Reviewing for the International Journal of Materials and Manufacturing Processes.	Taylor & Francis Group, Philadelphia, USA
2.	Dr.V.Muthupandi	First prize in the Metallographic contest in the category of 'Light microscope', conducted by Indian Institute of Metals during NMD-ATM 2015, Nov13-16, 2015, Coimbatore.	IIM

**1.2 Students**

S.No	Name	Details of Prizes / Awards	Organization
Final Year(2015-2016)			
1	Ms.Vrinda Somjit	Received Admission & Scholarship for Integrated MS Ph.D Material Science	M.I.T, USA
2	Ms.Somya V	Received Admission & awaiting for scholarship for Masters in Computer Science	University of Chicago,USA
3	Mr.Ananth Natarajan	Received Admission & awaiting for scholarship for Masters in Computer Science	University of Texas & Newyork State University, USA
4	Mr.Siddarth R	Received Admission & awaiting for scholarship for Masters in Material Science & Engineering,Technology management innovation – Dual degree	Carnege Melon University,USA
		Received Admission & awaiting for scholarship for Masters in Material Science	University of Illionis & University of Florida,USA
		Received Admission & awaiting for scholarship for Masters in Aerospace Engineering	TU Delft
5	Mr.Saikiran G	Received Admission & awaiting for scholarship for Masters in Material Science	Arizona State University,USA

		Received Admission & awaiting for scholarship for Masters in Aerospace Engineering	TU Delft
6	Mr.Adithya Vijay R	Received Admission & awaiting for scholarship for Masters in Material Science	University of Florida,USA TU Delft
III Year			
1	Ms.Haripriya	DAAD Scholarship , Summer 2016	Germany
2.	Ms.Yashvi Singh	S.N.Bose fellowship,Summer2016	USA
Implant training & Internship at IITM,IITB,NIIST,Trivandrum,SAIL, CSIR & IGCAR ,Kalpakkam			
II Year			
1.	Ms.Stutee Nandha	TRA-ERF Scholarship	
2.	Mr.Mughilan		
Implant training & Internship at DRDL,Hyderabad,BHEL,Hyderabad,MIDHANI,Hyderabad & IISc.,Bangalore			
<b>SPORTS</b>			
1.	Ms.Supriya, II year	Gold Medal- Womens Kho-Kho, IIT,Kanpur,2015	

## 2. Conference

### 2.1 Organized International

S.No	Coordinator	Programme	Period
1.	Dr. S. Kumaran, Dr. S. Muthukumaran and Prof. S. Raman Sankaranarayanan	AMMA 2015 (Advances in Materials, Manufacturing and Applications)	9-11 <sup>th</sup> April 2015 at NIT, Tiruchirappalli

**National: Nil**

### 2.2 Papers presented by the Faculty / Students

#### International

Author (s)	Details
S.Prakash,Nishanth,R.John Kumar,S.Jerome	Felix Study on Cold Metal Transfer Welding of AA2014 International Conference --ICAME-2015 Anna university-Villuppuram ,Oct15 <sup>th</sup> – 16 <sup>th</sup> , 2015
G.Reddy, Sekar R.John	Felix Study on the effect of deformation on AA5052 alloy of

Kumar,S.Jerome	TIG weldments - International Conference –NCAMP-2016, NIT-Wrangal, Jan 4-6 ,2016
P.Muthukumar,Mebin,R.JohnFelixKumar, S.Jerome	Improved Surface Properties of Al2024 Based Surface Hybrid Composites By Friction Stir Processing Anna university- Chennai, Feb17th- 19th, 2016
S.Natarajan, Kousik Polley, Edward Anand.E ,S.P Kumaresh Babu	Study on Corrosion behavior of 4A and 5A cast duplex stainless steel in different heat treatment conditions CORCON2015,19-21 November,at Chennai
S.Natarajan, Y.M.Priyanka, S.Muthukumaran, Edward Anand.E	Hot corrosion study on friction welded joint of Ti tube to 304L Stainless steel tube plate with copper interlayer using an external tool CORCON2015,19-21 November,at Chennai
Roshan Jacob, S.P Kumaresh Babu, S.Natarajan	Effect of post – surface re-melting of thermally sprayed duplex stainless steel coating over Fe 410 grade carbon steel on its corrosion behavior CORCON2015,19-21 November,at Chennai

**National**

<b>Author (s)</b>	<b>Details</b>
G Venkatesan, Mohamed Najlan, V Muthupandi	Effect of NiO, Fe <sub>2</sub> O <sub>3</sub> and 87% SiO <sub>2</sub> + 13% TiO <sub>2</sub> fluxes on bead profile in A-TIG welding of AISI 409 ferritic stainless steel NMD-ATM 2015, Nov13-16, 2015, Coimbatore
P Rajesh Kannan, V Muthupandi, K Devakumaran -	Study on metallurgical and mechanical properties of super 304HCu stainless steel welds NMD-ATM 2015, Nov13-16, 2015, Coimbatore
Ilayaraja, L. John Berchmans and Sankara Raman Sankaranarayanan (2015),	Preparation of Rare Earth –Transition Metal alloy by Calciothermic reduction-diffusion process (CRD), 69 <sup>th</sup> Annual Technical Meeting of the Indian Institute of Metals, IIM - NMD ATM 2015, Coimbatore, November 2015.
Y. G. Bala, Sankara Raman Sankaranarayanan and K. S. Pandey	“Relevance of Different Heat Treatment Schedules to Improve Physico - Mechanical Properties of Powder Preform Forged Steel”,

	69 <sup>th</sup> Annual Technical Meeting of the Indian Institute of Metals, IIM – NMD ATM 2015, Coimbatore, November 2015.
Moorthyram and Sankara Raman Sankaranarayanan	Slag Steel Reactions during continuous casting of steels, 69 <sup>th</sup> Annual Technical Meeting of the Indian Institute of Metals, IIM - NMD ATM 2015, Coimbatore, November 2015.
Chandrasekar K, Subramanyam Adabala, B.Ravisankar and S.Kumaran	Characterisation of Mechanically alloyed Al 5083 alloy and Composite Processed by Equal Channel Angular Pressing” in 53 <sup>rd</sup> NMD and 69 <sup>th</sup> ATM held during 13-16 November 2015 at Coimbatore PP 169
Kondiah. G, B.Ravisankar, S.Kumaran and S.Ramesh Kumar	Characterisation of Mechanically alloyed Al 5083 alloy Processed by Equal Channel Angular Pressing” in 53 <sup>rd</sup> NMD and 69 <sup>th</sup> ATM held during 13-16 November 2015 at Coimbatore PP 169
Suresh Kumar and B.Ravisankar	Evaluation of Quality of Dissimilar Diffusion Bonding by Ultrasonic method” in 53 <sup>rd</sup> NMD and 69 <sup>th</sup> ATM held during 13-16 November 2015 at Coimbatore PP 65

### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
1) Dr.S.Muthukumaran	“ Advancements in Welding Technology 2015”	15/11/2015
2) Dr.S.Jerome	Advancements in Welding Technology(AWT)	Dec 11,2015
3) Dr.S.P.Kumaresh Babu, Prof. S. Raman Sankaranarayanan and Dr. S. Muthukumaran	THERMO-CALC Software Training	Feb23-25,2016
4)Dr.S.Muthukumaran	Dr. G. Ravichandran Delivered a Lecture on “ Welding Symbols” to B.Tech (MME) students	09/03/2016
5)Dr.S.Muthukumaran	Prof. A. Vengatraman delivered a lecture on	09/03/2016

	“Research Methodology” on 09/03/2016, for PG and Ph.D scholars.	
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### 3.2 Attended

Faculty	Details
Dr.V.Muthupandi	QIP short term course on ‘Advanced aerospace materials, processing, characterization and applications’ conducted at IIT, Roorkee during 1-5 June, 2015
Dr.S.P.Kumaresh babu, Dr.S.Natarajan, Dr.S.Muthukumaran, Dr.S.Jerome, Prof.S. Raman Sankaranarayanan, Dr.N.Ramesh Babu, Dr.S.Kumaran ,Dr.V.Muthupandhi, Dr.K.Sivaprasad	Participated in the TEQIP-II sponsored course on “Conclave on Academic Reforms (CAR 2015) on 28-29, April 2015 held at National Institute of Technology, Tiruchirappalli-620 015
Dr.S.Muthukumaran, Dr.S.Jerome, Prof. S. Raman Sankaranarayanan,Dr.N.Ramesh Babu,Dr.S.Kumaran,Dr.V.Muthupandhi,Dr.K.Sivaprasad	Participated in 53 <sup>rd</sup> NMD and 69 <sup>th</sup> ATM held at Hotel Le Meridien, Coimbatore organised by IIM, Coimbatore, Tiruchirappalli, Chennai, Kalpakkam and Jamshedpur chapters in association with Department of Metallurgical Engineering, PSG College of Technology, Coimbatore and R&D Centre for Iron and Steel, Steel Authorities of India Limited, Ranchi during 13-16, November 2015

**Students: Nil**

### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr.V.Muthupandi	'Materials characterisation by X-ray diffraction'	TEQIP-II sponsored Faculty Development Programme on Research Methodology	Department of Mechanical Engineering, College of Engineering Adoor, Pathanamthitta District, Kerala 17.11.2015

	‘Characterisation of nanomaterials’	TEQIP-II sponsored Faculty Development Programme on "Green nanotechnology in Materials Engineering and Energy Application"	Department of Mechanical Engineering , College of Engineering Adoor, Pathanamthitta District, Kerala 16.12.2015
	“Micro Arc Oxidation”	NAMS 2015 ,The Society of Aerospace Manufacturing Engineers on the theme "Make in India: the Aerospace scenario"	Tiruvananthapuram, 28.11.2015.
Dr.K.Sivaprasad	"CNT reinforced high entropy alloys" in "National Workshop on High Entropy Alloys",	Dept of Metallurgical & Materials Engg., IIT Madras, Chennai, India,	"29-30, March, 2015
	“Advanced Materials Through Simple Processing Methods”	TEQIP funded National Workshop on Advanced Materials and Processes	College of Engineering, Andhra University, Visakhapatnam during July, 2015
	“Oxide Dispersion Strengthened Alloys & Characterization”,	TEQIP sponsored workshop on High Temperature Materials Characterization	University College of Engineering, Anna University, BIT Campus, Tiruchirappalli, during 08-09 March, 2016.
Dr.B.Ravisankar	Formability tests	TEQIP sponsored one week workshop on “Testing and Characterization of Materials	July 21-27, 2015, at Govt. College of Engineering, Salem.
	A step ahead in Equal Channel Angular Pressing (ECAP)	53 <sup>rd</sup> NMD and 69 <sup>th</sup> ATM	13-16 November 2015 at Coimbatore.
	Non Ferrous Alloys	FDP	November 26 <sup>th</sup> , 2015 at PSNA College of Engineering and Technology, Dindugal.

	Advanced materials for automobile bodies	Two Day Workshop on “Automotive Materials” (AUTOMAT’16)	18 <sup>th</sup> to 19 <sup>th</sup> February 2016 organised by Anna University, Tiruchirappalli.
Prof. S.Natarajan	Challenges and Opportunities in Corrosion Control and Surface Engineering with some highlights on Recent Trends in Mining Scenario	National Conference on Metallurgical Industries: Sustainability and Value Addition – Organised by IIM Bangalore Chapter & ASM Bangalore Chapter.	International Exhibition Centre, Bangalore, December 3, 2015
Prof. S.Natarajan	Corrosion in Gas Turbine Technology	Interaction Programme for GTRE Scientists	GTRE, Bangalore, December 4, 2015
Prof. S.Natarajan	Inaugurated National Conference on Global Advances in Materials for Energy, Engineering and Environmental Sciences (GAME <sup>3</sup> S-16) and delivered a Plenary Lecture.	National Conference on Global Advances in Materials for Energy, Engineering and Environmental Sciences (GAME <sup>3</sup> S-16)	M.Kumarasamy College of Engineering, Karur March 4, 2016
Prof. S.Natarajan	Emerging Trends in Thermal Spray Coatings for Mining and Gas - Turbine Applications: with a focus on Recent R&D Efforts at NIT, Tiruchirappalli	National Convention of Electrochemists (NCE-19)	NIT, Tiruchirappalli March 28 – 29, 2016
Dr.S.P.Kumaresh Babu - As a CECASE Expert member	Corrosion and Surface Engineering	Work shop on Corrosion & Surface Engineering	Neyveli Lignite Corporation, Neyveli, Tamil Nadu Dec,29-30,2015 & Feb14-15,2016

**5. Sponsored Projects undertaken.**

<b>Co-ordinator</b>	<b>Name of the project</b>	<b>Sponsor</b>	<b>Amount (Rs. In Lakhs)</b>
Dr.S.Kumaran	Nanomission Sponsored Project on Development Nano-structured Magnesium Silicide Thermo-electric materials by Spark Plasma Sintering and Evaluation of Electric Power Generation from Thermal Systems.	DST	25
	Mechano-chemical Synthesis of Nanostructured Magnesium Silicide Thermo-electric Materials by SPS.	CSIR	16
	Development of Nano-Oxide Dispersion Strengthened Ferritic / Martensitic Steels by Spark Plasma Sintering and Study their High Temperature Properties	DST	35
Dr.S.Muthukumaran	Friction stir welding of aluminium alloys for aero space applications	VSSC/ISRO	21.93
Dr.S.P.Kumaresh babu & Dr.S.Muthukumaran	Development of Black Zinc Nickel coatings as a replacement to cadmium coatings used in Aerospace and Defence applications	DST	18.5
Dr.S.Muthukumaran	Application of multi-scale modelling for dissimilar welding and improving graduate employability in India through eLearning	Royal Academy, London, United Kingdom	50

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1.	THERMO-CALC technical software	49.5

**7. Research Papers Published in National / International Journals****7.1 Faculty****International Journal**

S. No	Title	Author(s)	Journal	Year Vol. (No) Page
1	Optimization of pulsed current GTAW process parameters for sintered hot forged AISI 4135 P/M steel welds by simulated annealing and genetic algorithm	Joby Joseph & S. Muthukumaran	Journal of Mechanical Science and Technology	2016 (30) pp 145-155
2	Numerical Simulation and Artificial Neural Network Modeling for Predicting Welding-Induced Distortion in Butt-Welded 304L Stainless Steel Plates	VV Narayanareddy, N Chandrasekhar, M Vasudevan, S Muthukumaran, P Vasantharaja	Metallurgical and Materials Transactions B	2016(47)702-713
3	An investigation on SA 213-Tube to SA 387-Tube plate using friction welding process	S Pandia Rajan, S Senthil Kumaran, LA Kumaraswamidhas, S Muthukumaran	Journal of Mechanical Science and Technology	2016(30)337-344
4	Weldability Characteristics of Sintered Hot-Forged AISI 4135 Steel Produced through P/M Route by Using Pulsed Current Gas Tungsten Arc Welding	Joby Joseph, S Muthukumaran, KS Pandey	High Temperature Materials and Processes	2016(35)9-19
5	Simulation of laser butt welding of AISI 316L	Jazeel Rahman Chukkan, M	Journal of Materials	2015(219 )48-59

	stainless steel sheet using various heat sources and experimental validation	Vasudevan, S Muthukumaran, R Ravi Kumar, N Chandrasekhar	Processing Technology	
6	Study of sub-shoulder tool wear on friction stir welded steel plates using two modes of metal transfer phenomenon	A Pradeep, S Muthukumaran	The International Journal of Advanced Manufacturing Technology	2015,1-10
7	Optimization of activated TIG welding parameters for improving weld joint strength of AISI 4135 PM steel by genetic algorithm and simulated annealing	Joby Joseph, S Muthukumaran	The International Journal of Advanced Manufacturing Technology	2015,1-12
8	Effect of Cerium addition on Corrosion behavior of AZ61+XCe under salt spray test	Manivannan, S.P.Kumaresh babu	AEJ	October, 2015
9.	Degradation Through Erosion: Mechanistic Studies on IN 718 Superalloy under Hot Air Jet Conditions	K.G.Thirugnanasa mbantham & S.Natarajan	Journal of Materials Engineering and Performance, ASM International	Vol: 24(7), July 2015 – 2605.
10	Sliding wear behaviour and its mechanisms of carbonitrided AISI 8620 steel at 100°C under unlubricated conditions	R. Sankaran, D.Rajamani, S.Natarajan & K.G.Thirugnanasa mbantham	Surface Engineering, Maney Publications	DOI:10.1179/ 1743294415Y. 0000000090  Online: March2, 2016
11	Selection and characterisation of HVOF cermet coatings for volutes of high capacity pumps of opencast lignite mines	M. Kumarasamy & S.Natarajan	Surface Engineering, Maney Publications	Volume 32, Issue 3, 2016, pp: 229-237
12	Strengthening Mechanisms in Multiwalled Carbon Nanotubes Reinforced Co–W Pulse Electrodeposited Coatings	E. Edward Anand & S. Natarajan	Materials and Manufacturing Processes, Taylor & Francis	Volume 31, Issue 1, Jan 2016, pp: 48-52
13	Effect of graphite	Akhilesh K.,	Materials	10.1016/

	addition on the Microstructure, Hardness and Abrasive Wear behavior of Plasma sprayed NiCrBSi coatings	Ananya Rajagopal, Preethi Nambiyar, S.Natarajan, E.Edward Anand	Chemistry and Physics, Elsevier	j.matchemphys. 2016.02.076
14	Thermochemical Surface Engineering of Steels – Book Review	S.Natarajan	Surface Engineering, Maney Publications	Vol: 31(11), 2015, pp: 875-878
15	Biomimetic, Bioresponsive and Bioactive Materials – Book Review	S.Natarajan	Materials and Manufacturing Processes, Taylor & Francis	DoI: 10.1080 / 10426914.2015. 1059095
16	Role of electrolyte additives on in-vitro corrosion behavior of DC plasma electrolytic oxidization coatings formed on Cp-Ti	S Hariprasad, M Ashfaq, T Arunnellaiappan, M Harilal, N Rameshbabu	Surface and Coatings Technology	(In print, available online)
17	An investigation on pulsed DC plasma electrolytic oxidation of Cp–Ti and its corrosion behaviour in simulated body fluid	S Gowtham, T Arunnellaiappan, N Rameshbabu	Surface and Coatings Technology	(In print, available online)
18	T Arunnellaiappan, NK Babu, LR Krishna, N Rameshbabu	Influence of frequency and duty cycle on microstructure of plasma electrolytic oxidized AA7075 and the correlation to its corrosion behavior	Surface and Coatings Technology	(In print, available online)
19	S Sampath, M Shestakova, P Maydannik, T Ivanova, T Homola, N Rameshbabu	Photoelectrocatalytic activity of ZnO coated nano-porous silicon by atomic layer deposition	RSC Advances	6 (30), 25173-25178
20	T Arunnellaiappan, M	Fabrication of	Ceramics	Volume 42, Issue 5,

	Ashfaq, LR Krishna, N Rameshbabu	corrosion-resistant Al <sub>2</sub> O <sub>3</sub> -CeO <sub>2</sub> composite coating on AA7075 via plasma electrolytic oxidation coupled with electrophoretic deposition	International	April 2016, Pages 5897-5905
21	C.H. Muralimohan, M. Ashfaq, Rouholah Ashiri, V. Muthupandi, and K. Sivaprasad	Analysis and Characterization of the Role of Ni Interlayer in the Friction Welding of Titanium and 304 Austenitic Stainless Steel.	Metall and Mat Trans A (2016)	V 47, (1), p347-359
22	Venkateswari Ayyavu and Kumaran Sinnaeruvadi	Does aluminum and niobium substitution for nickel actually improve the electrochemical performance of Mg <sub>2</sub> Ni?	Mater. Express,	Vol. 5, 2015
23	A. Venkateswari, S. Kumaran, C. Nithya	"Can the Degree of Crystallinity of Ball Milled Mg <sub>2</sub> Ni Intermetallic Compound Decide its Electrochemical Characteristics?"	Journal of Nano Research	Vol. 33, pp. 137-149, Jun. 2015
24	S.Vigneshwaran, P.Venkatachalam, P. Rajesh, S. Kumaran and B. Ravisankar	Densification of machined CP Al chips by Equal Channel Angular Pressing (ECAP)"	International Journal of Applied Engineering Research	ISSN 0973-4562 Volume 10, Number 8 (2015) 6006-6010

25	G.Kondaiah, K.Chandra Sekhar, B.Chaitanyakrushna, B.Ravisankar and S.Kumaran	“Characterization of Mechanically Alloyed Al5083 Alloy and Composite and Consolidation by Equal Channel Angular Pressing”	Applied Mechanics and Materials	Vols 764-765 (2015) pp 23-27.
26	G.Kondaiah, K.Chandra Sekhar, B.Chaitanyakrushna, B.Ravisankar and S.Kumaran	Densification of Al 5083 Mechanically Alloyed Powder by Equal Channel Angular Pressing	Transactions of the Indian Institute of Metals,	Published on line ; DOI 10.1007/s12666-015-0557
27	Kondaiah Gudimetla, Ganesh Varma Jampana, S Ramesh Kumar,B Ravisankar and S Kumaran	Effect of Equal Channel Angular Pressing on Densification Behavior of Al 5083 Alloy Powder	Materials Science Forum	Vols. 830-831 (2015) pp 63-66
28	Vinoadh Kumar K, Kumaran S,	Rapid Synthesis of V-4Cr-4Ti Alloy/Composite by Field Assisted Sintering Technique,	<u>International Journal of Refractory Metals and Hard Materials</u> , 2016	
29	N. Naga Krishna, M. Ashfaq, P. Susila, K. Sivaprasad, K. Venkateswarlu,	“Mechanical Anisotropy and Microstructural Changes During Cryorolling of Al-Mg-Si Alloy”	MATERIALS CHARACTERIZATION,	107, 2015, 302-308
30	S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, M. Saravanan	“Effect of coarse grain matrix content on the mechanical behavior of trimodaled AA	INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY,	78, 2015, 385-394.

		6061-TiO <sub>2</sub> nanocomposite prepared by mechanical alloying”,		
31	K.S.V.B.R.Krishna, K.Chandra Sekhar, R.Tejas, N.Naga Krishna, K.Sivaprasad, R.Narayanasamy, K.Venkateswarlu,	“Effect of Cryorolling on the Mechanical Properties of AA5083 alloy and the Portevin-Le Chatelier Phenomenon”,	MATERIALS AND DESIGN	67, 2015, 107-117. (SCIE) ISSN: 0261-3069
32	Jazeel Rahman Chukkan, M Vasudevan, S Muthukumar, KC Ganesh, Ravi Kumar, S Murugan, V Maduraimuth, ,	Numerical Simulation of Pulsed Nd-YAG Laser Butt Welding of AISI 304L Stainless Steel Sheet and Experimental Validation,	Applied Mechanics and Materials	592, 565-570.
33	V.V Narayanareddy, M Vasudevan, S Muthukumar, KC Ganesh, N Chandrasekhar, P Vasantaraja,	Finite Element Modeling of TIG Welding of Aisi 304l Stainless Steel and Experimental Validation	Applied Mechanics and Materials	(2015) 592, 368-373.
34	S Senthil Kumaran, S Muthukumar,	Effect of projection on joint properties of friction welding of tube-to-tube plate using an external tool.	The International Journal of Advanced Manufacturing Technology	(in press)
35	VV Narayanareddy, N Chandrasekhar, M Vasudevan, S Muthukumar	“Numerical Simulation and Artificial Neural Network Modeling for Predicting Welding-Induced	Metallurgical and Materials Transactions	B, 1-12

		Distortion in Butt-Welded 304L Stainless Steel Plates”		
36	JR Chukkan, M Vasudevan, S Muthukumar, RR Kumar	“Simulation of laser butt welding of AISI 316L stainless steel sheet using various heat sources and experimental validation”	Journal of Materials Processing Technology	219, 48-59.
37	A Pradeep, S Muthukumar,	Study of sub-shoulder tool wear on friction stir welded steel plates using two modes of metal transfer phenomenon	The International Journal of Advanced Manufacturing Technology	(in press)
38	J Joseph, S Muthukumar	“Optimization of activated TIG welding parameters for improving weld joint strength of AISI 4135 PM steel by genetic algorithm and simulated annealing”	The International Journal of Advanced Manufacturing Technology	(in press)
39	VV Narayanareddy, N Chandrasekhar, M Vasudevan, S Muthukumar	“Numerical Simulation and Artificial Neural Network Modeling for Predicting Welding-Induced Distortion in Butt-Welded 304L Stainless Steel Plates”	Metallurgical and Materials Transactions	B, (2015) 1-12

40	M. Mahadevasamy, S Muthukumaran, K. Kiran	“Two step friction stir spot welding between aluminium and carbon steel sheets”	Science and Technology of Welding and Joining	(Accepted)
41	Marimuthu Ilayaraja, L. John Berchmans and Sankara Raman Sankaranarayanan	Synthesis of Y-Ni alloy by Calciothermic reduction diffusion process.	Metallurgical and Materials Engineering,	21(2) 65-72.
42	Bala, Y.G., Sankara Raman Sankaranarayanan and K.S. Pandey	“Experimental Aspects Of Densification And Arc Radius Of Barreling Considering Circular Arc in Sintered P/M AISI 8640 Steel During Hot Upset Powder Preform Forging”,	International Journal of Metallurgical & Materials Science and Engineering (IJMMSE),	Vol. 5, Issue 1, Feb 2015, pp. 39-52.
43	Bala, Y.G., Sankara Raman Sankaranarayanan and K.S. Pandey,.	“Assessment of Densification and Mechanical Property of AISI 8630 Steel Composition on different Heat Treatments Produced Through Hot Upsetting Powder Preform Forging”,	Metals and Materials International (MMI-Springer)	Vol. 21, No.6 (2015), pp. 1044-1053.
44	Bala, Y. G., Sankara Raman Sankaranarayanan and K. S. Pandey	“Diverse Cooling Schedules to Improved Physico - Mechanical	Kovove Materialy - Metallic Materials	(article accepted, in press),

		Properties of Hot Upset Forged AISI 8620 P/M Steel Bars”,		
45	M. Selvakumar, P. Chandrasekar, M. Mohanraj, B. Ravisankar , J.N. Balaraju	Role of powder metallurgical processing and TiB reinforcement on mechanical response of Ti–TiB composites	Materials Letters	144 (2015) 58–61 144 (2015) 58–61
46	S.Vigneshwaran, P.Venkatachalam, P. Rajesh, S. Kumaran and B. Ravisankar	Densification of machined CP Al chips by Equal Channel Angular Pressing (ECAP)	International Journal of Applied Engineering Research	Volume 10, Number 8 (2015) 6006-6010
47	G.Kondaiah, K.Chandra Sekhar, B.Chaitanyakrushna, B.Ravisankar and S.Kumaran	Characterization of Mechanically Alloyed Al5083 Alloy and Composite and Consolidation by Equal Channel Angular Pressing	Applied Mechanics and Materials	Vols 764-765 (2015) pp 23-27
48	Kondaiah Gudimetla, Ganesh Varma Jampana, S Ramesh Kumar, B.Ravisankar and S Kumaran	Effect of Equal Channel Angular Pressing on Densification Behavior of Al 5083 Alloy Powder	Materials Science Forum	Vols. 830-831 (2015) pp 63-66
49	Balaraju J N, Abhinav, vinodkumar Lokre, Kumar and B.Ravisankar	Hardness and Wear Behavior of Electroless Ni-B Coatings Materials Science and Technology		
50	Chandra Sekhar Kondaveeti ,Sai Prakash	Metallurgical and Mechanical Properties of Mild	Trans IIM	

Sunkavalli, Durgarao Undi, L.V.Hanuma kumar, Kondaiah Gudimetla, Balasubramanian Ravisankar	steel processed by Equal Channel Angular Pressing (ECAP)		
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**National Journal: Nil**

### 7.2 Students

**International Journal: Nil**

**National Journal: Nil**

### 8. Ph.D Awarded

S. No.	Name of the Research Scholar	Guide / Supervisor	Thesis title	University / Institute
1	Mr.Sajith babu	Dr.K.Sivaprasad	<i>“Studies on Structural Aspects and Corrosion Behaviour of Nanocrystalline High Entropy Alloys”</i>	N.I.T. Tiruchirappalli
2	Mr. E.Edward Anand	Prof. S.Natarajan	Corrosion & Tribological Studies on Electrodeposited Cobalt based Coatings reinforced with Carbon Nano tubes	N.I.T. Tiruchirappalli
3	Mr. M.Kumarasamy	Prof. S.Natarajan	Evaluation & prevention of Erosion & Corrosion in pumps under Mining Environment	N.I.T. Tiruchirappalli
4	Mr.S.Manivannan	Dr.S.P.Kumaresh Babu & Dr.S.Sundarrajan	Studies on Microstructure, Mechanical and Corrosion properties of cast Mg-6Al-Zn alloy by Calcium, cerium and Yttrium additions	N.I.T. Tiruchirappalli
<b>M.S.</b>				
1	Mr. Vallimananalan	Dr.S.P.Kumaresh babu	Studies on the effect of Basalt addition to Nickel based Thermal spray	N.I.T. Tiruchirappalli

			coatings on Fe410grade Steels	
2	Mr.RoshanJacob	Dr.S.P.Kumaresh babu	Synthesis & Characterization of twin arc sprayed Duplex Stain less steel over different Steels	N.I.T. Tiruchirappalli

### 9. Details of Book any authored by faculty.

Contributed a chapter on Equal Channel Angular Pressing (ECAP) to the “Handbook of Mechanical Nanostructuring” Edited by Mahmood Aliofkhazraei, Wiley-VCH Verlag GmbH & Co, Germany PP 277- 296, 2015

Patent number :  
 Date of patent filing :  
 Title of the Innovation :  
 Inventors of Patent :

### 11. Other Important Points

#### 11.1) Honors

Dr.K.Sivaprasad

1. Review Panel Member, National Science Center (Narodowe Centrum Nauki – NCN), Krakow, Poland. (<http://www.ncn.gov.pl>), since 2015.
2. Session Coordinator, Forming and Casting, NMD-ATM 2015, Coimbatore
3. Member, Technical Programme Committee, The 2<sup>nd</sup> International Conference on Advance Materials Research and Applications (AMRA2015), December 18-21, 2015, Shenzhen, China
4. Member, Publications Committee, The Indian Institute of Metals, Kolkata 2015 onwards
5. Member, Board of Studies (BoS), Jawaharlal Nehru Technical University (JNTU), Kakinada, Andhra Pradesh, since 2016
6. Member, Board of Studies (BoS), College of Engineering, Andhra University, Visakhapatnam, Andhra Pradesh, since 2015
7. Session Chair, “Metal Matrix Composite Materials”, International Conference on Advanced Materials, Manufacturing and Applications (AMMA2015), 9—11 April, 2015, Dept of Metallurgical & Materials Engg., NIT Trichy, India

#### 11.2) Interaction with Industry:

Dr.S.Raman Sankara Narayanan

- a. Continued the interaction with CSIR – CECRI, in the context of electro pyro metallurgy, working on rare earths

- b. Having interaction with CSIR – NAL, in the context of a PhD (external) work on advanced composite materials
- c. Having interaction with Tata Steel, Jamshedpur, in the context of M.Tech work in the area of process metallurgy

11.3) DAA-Distinguished Alumni Award:

Dr.T.SrinivasaRao, Director,NIT Warangal,Andhra Pradesh,India

11.4) DYA:Distinguished Young Alumini Award:

Mr.Ram Prabu,CSIR laboratory,India

**12. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>			
<b>1.</b>	International Journals	<b>50</b>			
<b>2.</b>	National journals	<b>-</b>			
<b>3.</b>	International conference publications	<b>07</b>			
<b>4.</b>	National conference publications	<b>08</b>			
<b>5.</b>	Sponsored Project	<b>No's:</b>	<b>4</b>	<b>Amount:</b>	<b>Rs.116.43Lakhs</b>
<b>6.</b>	No of PhD/MS produced	<b>PhD – 4 /MS -2</b>			
<b>7.</b>	No of Patents obtained				
<b>8.</b>	No of books published				

## DEPARTMENT: PHYSICS

## 5. Notable Achievements :

## a. Faculty Member

S.No	Name	Details of prizes/Awards	Organization
1.	Dr.A. Chandrabose	Fellow Academy of Science, Chennai -2015	Tamil Nadu Academy of Sciences

## b. Students

S.No	Name	Details of prizes/Awards	Organization
1.	Radhalayam Dhanalakshmi	Best Poster Award	International Conference on Science, Technology and Applications of Rare earths (STAR 2015), 23-25 April 2015, Trivandrum
2.	Radhalayam Dhanalakshmi	Best Poster Award	4 <sup>th</sup> International Conference on Nanoscience and Technology (COCHIN NANO-2016), 20-23 February 2016, CUSAT Cochin, Kerala, India
3.	Rashid T P	Best Oral Presentation	UGC – DAE Consortium for Scientific (CSR) Indore

## 6. Conference

## a. Organized

International : Nil

National: Nil

## b. Papers presented by the Faculty/Students

International Conference:

Sl.No	Author (s)	Details
1.	Bhuvaneshwari.S and N.Gopalakrishnan.	Room Temperature Ammonia and VOC Sensing Properties of CuONanorods. 60 <sup>th</sup> DAE-SSPS 2016, Noida, UP, India
2.	S. Thirunavukkarasu, B.P.C. Rao, Manu Joseph, N.Gopalakrishnan, C.K. Mukhopadhyay and T.Jayakumar	Parametric Sizing of Tube Wall Thickness from Multi-Frequency Remote Field Eddy Current Signals. The 20th International Workshop on Electromagnetic NonDestructive Evaluation (ENDE2015).Sept.21-23, Sendai, Japan.

3.	Selvalakshmi T, S.Sellaiyan, A. Uedono and A. Chandra Bose	Photoluminescence and positron lifetime study on $Gd_2O_3:Eu^{3+}$ (ICLA-2015), Bangalore
4.	Dhanabal R, Velmathi S and Chandra Bose A	Synthesis, Characterization and Photocatalytic activity of $g_3PO_4$ .ICRAMCS-2015,GRI-DU, Gandhigram.
5.	Juliet Christina mary A and Chandra Bose A	Electrochemical Performance of $ZnCo_2O_4$ anode material in the $Na_2SO_4$ electrolyte medium, ICRAMCS-2015, GRI-DU, Gandhigram
6.	S.Divya, J.Hemalatha	Preparation and Characterisation of PVP-PVA –ZnO Blend Polymer Nano Composite Films, DAE 2015, Amity University, Noida, December 21-25 2015
7.	Anu.K, J.Hemalatha	Viscosity Studies of Water based Magnetite nanofluids, DAE 2015, Amity University, Noida, December 21-25 2015
8.	P.Durgaprasad, J.Hemalatha	Synthesis and Characterisation of PVDF polymer fibres, Cochin Nano 2016, CUSAT, Cochin, February 20-23 2016
9.	X.Helen flora, Hasina, J.Hemalatha	Synthesis and characterization of PMMA $ZrO_2$ polymer nanocomposite films for optical applications, Cochin Nano 2016, CUSAT, Cochin, February 20-23 2016
10.	14. T. Srinivasa Reddy and M.C. Santhosh Kumar	Effect of Substrate temperature on the properties of co- evaporated $Cu_2SnS_3$ thin film, 10th Mid-Year CRSI Symposium in Chemistry, 23-25 July 2015, NIT, Trichy
11.	15. Saheer Cheemadan, M.C. Santhosh Kumar	16. The Effect Substrate Temperature on the properties of CdO Thin Film by RF Magnetron Sputtering, 10th Mid-Year CRSI Symposium in Chemistry, 23-25 July 2015, NIT, Trichy
12.	Edwin Jose, T. Srinivasa Reddy and M.C. Santhosh Kumar	Deposition of Cu-Zn-S thin films by SILAR technique for photovoltaic applications, 10th Mid-Year CRSI Symposium in Chemistry, 23-25 July 2015, NIT, Trichy
13.	R. Amiruddin, SaheerChemadan, M.C. Santhosh Kumar	Fabrication and characterization of p-ZnO:(P,N)/n-ZnO:Alhomojunction Ultra-Violet (UV) Light Emitting Diodes, SPIE NanoScience + Engineering, 9-13, August, Sandiago, California, USA
14.	17. Saheer Chemadan, R. Amiruddin, M.C. Santhosh	18. Realization of highly transparent conducting CdO thin films by R.F.

	Kumar	Magnetron sputtering for optoelectronic applications, SPIE Nano Science Engineering, 9-13, August, Sandiago, California, USA
15.	Edwin Jose, T. Srinivasa Reddy and M.C. Santhosh Kumar	Investigation on structural, morphological, optical and electrical properties of SILAR deposited CuZnS Nanostructured thin films, 4 <sup>th</sup> International Conference on Frontiers in Nanoscience and Technology, Cochin nano-2016, 20-23 February 2016
16.	19. R. Amiruddin and M.C. Santhosh Kumar	20. Facile synthesis of free standing and conducting Al:ZnO Nanowires with visible luminescence characteristics, 4 <sup>th</sup> International Conference on Frontiers in Nanoscience and Technology, Cochin nano-2016, 20-23 February 2016.
17.	Neena Prasad, Hariharan S., B. Karthikeyan 21.	Optical and vibrational study of PVA/ZnS composite films, COCHIN NANO Conference 2016, Feb 20-23
18.	Anoop Sunny, Neena Prasad, Hariharan S., B. Karthikeyan 22.	Synthesis and characterization of Hematite nanoparticles for fiber optic gas sensing applications, COCHIN NANO Conference 2016, Feb 20-23
19.	Radhalayam Dhanalakshmi, M. Muneeswaran, Pradeep Reddy Vanga, M. Ashok, N.V. Giridharan	Photocatalytic activity of La modified BiFeO <sub>3</sub> nanoparticles & effect of La on photocatalysis International Conference on Science, Technology and Applications of Rare earths (STAR 2015), 23-25 April 2015, Trivandrum
20.	Muneeswaran Muniyandi and N. V. Giridharan	Structural and Magnetic properties of Rare-earth modified BFO multiferroic materials. 8th IEEE Magnetism Society Summer School, University of Minnesota, Minneapolis, USA on June 14-19, 2015.
21.	<u>Radhalayam Dhanalakshmi</u> , N.V. Giridharan	Enhanced Visible Light Photocatalytic Activity Of Nd Modified BiFeO <sub>3</sub> Nanoparticles For Phenol Red Degradation 4 <sup>th</sup> International Conference on Nanoscience and Technology (COCHIN NANO-2016), 20-23 February 2016, CUSAT Cochin, Kerala, India
22.	K. Prakash and R. Justin Joseyphus	<i>Interparticle interaction effects in ordered Co-Pt nanoparticles</i> , Cochin Nano 2016, Feb 20- 23, 2016, CUSAT, Cochin

23.	R. Nagalakshmi, Rashid T P Nallamuthu S, Arun K Marian Reiffers, Ivan Curlik Sergej Ilkovic, Sekar M	Presented a paper in the International Conference on ACCGE-20 held in Big Sky, Montana, USA during 2-7, August 2015
24.	Sudharsana N, Srinivasan P Nagalakshmi R	Presented a poster in the International Conference on ACCGE-20 held in Big Sky, Montana, USA during 2-7, August 2015
25.	<u>L.R. Shobin</u> , <u>M.Nivedha</u> and S. Manivannan	Poster presentation entitled “Fabrication of Silver nanowire transparent conducting electrodes by spin coating for optoelectronics”, “International Conference on Frontiers in Nanoscience & Nanotechnology”, February 26 - 28, 2016, SASTRA University, Thanjavur, Tamil Nadu, India.
26.	<u>T.Kavinkumar</u> and <u>S.Manivannan</u>	Oral presentation on “Dielectric and ammonia vapor sensing properties of partially reduced graphene oxide-multiwall carbon nanotube composite”, “International Conference on Recent Advances in Material and chemical Sciences”, December 14-15, 2015, Gandhigram Rural Institute, Gandhigram, Tamil Nadu, India.
27.	<u>V.Mydhili</u> and S.Manivannan	Poster presentation entitled “Dielectric and Optical studies on Poly(vinyl alcohol)/ Poly(3,4-ethylenedioxythiophene) doped with Poly(styrenesulfonate) transparent freestanding films, ”, “International Conference on Recent Advances in Material and chemical Sciences”, December 14-15, 2015, Gandhigram Rural Institute, Gandhigram, Tamil Nadu, India.
28.	<u>N.Ambikeswari</u> and <u>S.Manivannan</u>	Poster presentation entitled “Rapid synthesis of reduced graphene oxide-cobalt hydroxide composites and their dielectric properties”, “International Conference on Recent Advances in Material and chemical Sciences”, December 14-15, 2015, Gandhigram Rural Institute, Gandhigram, Tamil Nadu, India.

**National Conference**

Sl.No	Author (s)	Details
1.	Prahant singh, Kalayanvalli V and D.Sastikumar.	Modeling of Infrared Thermography for delamination detection in basalt reinforced composite materials.Proceedings of NDE Conference 2015, Hyderabad. Page 69.
2.	Azad Chandra Shekar, Kalayanavalli, V, Giridhwaran,N.V and D.Sastikumar	Thermal characterization of basal fiber composite using pulse Thermography. Proceedings of NDE Conference 2015, Hyderabad. Page 69.
3.	Abishek Priyadarshi, Kalayanvalli V and D.Sastikumar.	To study and evaluate adhesive bonding in composite materials by Pulse Thermography NDT Techniques. Proceedings of NDE Conference 2015, Hyderabad. Page 69.
4.	A.Acharya, M.Ashok and N.Gopalakrishnan	Study of defects in friction stir welded dissimilar Aluminium sample by using ultrasonic C scan. <i>National seminar and International exhibition on NDE-2015, 26-28 Nov.2015, Hyderabad.</i>
5.	A.K.Tiwari, M.Ashok and N.Gopalakrishnan	Defect detection and Quantification with Advanced Ultrasonics. <i>National seminar and International exhibition on NDE-2015, 26-28 Nov.2015, Hyderabad.</i>
6.	Manu Joseph, S.Thirunavukkarasu and N.Gopalakrishnan.	Multi frequency approach for accurate thickness measurement of steam generator tubes at grooves using remote field eddy current techniques. <i>National seminar and International exhibition on NDE-2015, 26-28 Nov.2015, Hyderabad.</i>
7.	Selvalakshi T and Chandra Bose A	Photoluminescence and Energy Transfer Process in $Gd_2O_3:Eu^{3+}$ , $Tb^{3+}$ ,60th DAE SSPS, Amity

		University Noida
8.	Muhammed Shafi P and Chandra Bose A	Structure evolution of tetragonal MnO <sub>2</sub> and its electrochemical behavior, 60th DAE SSPS, Amity University Noida
9.	Chidambararaj A and Chandra Bose A	Synthesis and characterization of MoO <sub>3</sub> nanocrystals: A new finding on visible light driven photocatalysis, 60th DAE SSPS, Amity University Noida
10.	23. Sandeep Kumar, M.C Santhosh Kumar	24. Automatic Detection of Defects And Pattern Recognition In TOFD Signal/Image of A Thin Weldment, National seminar and International exhibition on Non-Destructive Evaluation, NDE-2015,Hyderabad during 26-28 November 2015
11.	RupamBaruah, M.C Santhosh Kumar	Automatic Detection And Characterization Of Defects In Radiographic Images Using Artificial Neural Network, National seminar and International exhibition on Non-Destructive Evaluation, NDE-2015,Hyderabad during 26-28 November 2015
12.	V.M.M.Saipavitra, S.Arunkumar, Neena Prasad, S.Hariharan, B.Kathikeyan	Synthesis and Characterization of ZnO:Cu <sup>2+</sup> National Conference on Advanced Functional Materials (NCAFM), 8th and 9th May 2015
13.	R. Nagalakshmi Rashid T P, Nallamuthu S Arun K, Marian Reiffers Ivan Curlik Sergej Ilkovic Sekar M	Presented an oral paper in the UGC sponsored two days national eminar held in Department of Physics, St. John's College, Anchal, Kollam, Kerala during October 15-16, 2015
14.	R. Nagalakshmi, Rashid T P Nallamuthu S, Arun K Marian Reiffers,Ivan Curlik Sergej Ilkovic	Presented an oral paper in the CRS Users Research Scholars Workshop, Indore on 18th and 19th December 2015
15.	Azad Chandrashekhar, Kalyanavalli.V, Giridharan N.V. and Sastikumar	Thermal Characterisation of Basalt fiber composite using pulse Thermography, NDE-2015, 25th

		National Seminar & International Exhibition on "NDE" - 2015, Hyderabad, November 26 to 28, 2015
16.	Radhalayam Dhanalakshmi, M. Muneswaran, and N.V. Giridharan	Effect Of Synthesis Conditions on The Photocatalytic Property Of Multiferroic BiFeO <sub>3</sub> Towards The Degradation Of Phenol Red, 60 <sup>th</sup> DAE-Solid State Physics Symposium (DAE-SSPS 2015), Amity University, Noida, Uttar Pradesh, December 21-25, 2015.

## 7. Workshops/Seminars

### 3.1 Organized

S.No	Coordinator	Title	Period
1.	Dr. A. Chandrabose	INPHYNIT-T'16	23 <sup>rd</sup> February, 2016

### 3.2 Attended

Sl.No.	Faculty	Details
1.	Dr. D. Sasti Kumar	Administrative Vigilance (investigation, Inquiry, and Case Law) including prevention of sexual harassment of women at workplace, organized at Manali, 18-21, March 2015, conducted by Society for Economic Research & Training, New Delhi.
2.	Dr. N. Gopalakrishnan	National seminar and International exhibition on NDE-2015, 26-28 Nov. 2015, Hyderabad.
3.	Dr. A. Chandrabose	25 <sup>th</sup> National seminar and International Exhibition on Non-destructive Evaluation – 2015, Hyderabad, November, 26 -28, 2015
4.	Dr. J. Hemalatha	Training on advanced modes of Atomic Force Microscope in Parks Systems, South Korea
5.	Dr. M. Ashok	25 <sup>th</sup> National Seminar and Exhibition on Nondestructive evaluation 2015, 26 <sup>th</sup> November to 28 <sup>th</sup> November 2015, Hyderabad
6.	Dr. M.C. Santhosh Kumar	4 <sup>th</sup> International Conference on Frontiers in Nanoscience and Technology, Cochin nano-2016, 20-23 February 2016.
7.	Dr. M.C. Santhosh Kumar	Short Term Training Programme on Recent

		Advances in Applied Physics, School of Engineering, CUSAT, Kochi, Kerala, from 11 <sup>th</sup> to 15 <sup>th</sup> January 2016.
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### 3.3 Attended Student

Sl.No.	Students	Details
1.	P. Durga Prasad	English for writing Ph.D thesis & Journal papers, Dept. of Humanities & Computer applications, NIT Trichy, January 20-22 2016.
2.	Pradeep	3rd INUP Familiarization Workshop, May 27-29, 2015 - IIT Bombay
3.	Hijas	Attended National seminar on advances in photonics, department of optoelectronics, kerala university. December 9-11, 2015
4.	Hijas	Attended IEEE workshop on recent advances in photonics, IISc Bangalore, December 16-17,2015

### 8. Invited/Guest Lectures delivered by the faculty

Sl.No	Faculty	Topic	Programme	Place&Date
1.	Dr. D. SastiKumar	Lasers and Applications	Innovative trends in Physics	Shunmuaga Industries Arts and Science College, Tiruvannamalai. 10. 03.2016.
2.	Dr. N. Gopalakrishnan	Nanostructures for Gas sensing	Physics Association	Holy Cross college,Trichy. Jan.2016
3.	Dr. A. Chandrabose	Nanomaterials: Synthesis, characterization and applications	TEQIP-II sponsored Faculty Development Programme on Advanced Research in Materials for Engineering and Technological Applications	Department of Physics, Anna University, Trichy, July 27, 2015

			(ARMETA-2015)	
4.	Dr. A. Chandrabose	Nanomaterials: Synthesis, characterization and applications	UGC Sponsored National Conference on "Thinfilms and Nanotechnology	ANJA College Sivakasi, February 26, 2016.
5.	Dr. B. Karthikeyan	An Introduction to MEMS	Advanced Research in Materials for Engineering and Technological Applications	Anna University Bharathidasan Institute of Technology, Tiruchirappalli 17 <sup>th</sup> to 30 <sup>th</sup> July 2015,
6.	R. Sankaranarayanan	Polarization and Maxwell	Refresher course in Physics for college and university teachers,	Bharathidasan University, Trichy 22.02.2016
7.	Dr. J. Hemalatha	The Amazing World of Nanotechnology	Invited Lecture	Vanniaperumal College for Women (Autonomous), Virudhunagar, 19.9.2015
8.	Dr. J. Hemalatha	High performance Magnetic nanostructures	Invited Lecture	Ajou University, Suwon South Korea, 26-11-2015
9.	Dr. J. Hemalatha	Recent Trends in Applied Physics	Short term training programme on Recent trends in Applied Physics	CUSAT, Cochin, 11.01.2016
10.	Dr.M.Ashok	Ion Beam Analysis	Two day FDP on ARMETA-2015 17-30 <sup>th</sup> July 2015	Anna Univeristy, Trichy 29-07-2015
11.	Dr.M.Ashok	Ultrasonic	Invited talk	M. Kumarasamy College of Engineering, Karur
12.	Dr. R. Nagalakshmi	Interesting Aspects of Rare Earth	Refresher Course	Bharathidasan University, Trichy on March

		Intermetallics		1 <sup>st</sup> 2016
13.	Dr. N.V. Giridharan	Multiferroics	National level workshop on functional materials	VELTECH HIGHTECH, Chennai & 24/04/2015
14.	Dr. N.V. Giridharan	Thinfilms and multiferroics	Summer research training programme-2015	Department of physics, Bishop Heber College, Trichy & 13/05/2015
15.	Dr. N.V. Giridharan	Ferroelectrics and Multiferroics	FDP on Advanced research for engineering and technological applications	Department of Physics, Bharathidasan Institute of Technology campus, Anna Univeristy, Trichy & 21/07/2015
16.	Dr. R. Justin Joseyphus	Magnetic nanoparticles	summer training programme in Physics	Bishop Heber College, Trichy during May 2015
17.	Dr. R. Justin Joseyphus	Magnetic nanoparticles and its applications	summer training programme in Physics	Academy of Sciences, Chennai, 13 June 2015.
18.	Dr. R. Justin Joseyphus	Magnetic nanoparticles and its applications	FDP programme	Anna University Trichy on 25 <sup>th</sup> July 2015.
19.	Dr. R. Justin Joseyphus	Fundamentals and applications of magnetic nanoparticles,	Physics association inauguration	Jamal Mohamed College, Tiruchirappalli on 17 <sup>th</sup> Dec 2015.
20.	Dr. R. Justin Joseyphus	magnetic nanoparticles and its applications in	TEQIP programme	School of Engineering, CUSAT, Cochin on 14 <sup>th</sup> Jan 2016
21.	Dr. M.C. Santhosh Kumar	An Introduction to MEMS	Advanced Research in Materials for Engineering and Technological Applications	Anna University Bharathidasan Institute of Technology, Tiruchirappalli 17 <sup>th</sup> to 30 <sup>th</sup> July

				2015,
22.	Dr. M.C. Santhosh Kumar	Metal oxide nanostructures for optoelectronics and Mechanical applications.	Modern trends in physics research (MTPR-2015)	St. Stephen's College Pathanapuram, Kollam, Kerala, 6 <sup>th</sup> November 2015
23.	Dr. M.C. Santhosh Kumar	Evolution of Light Sources	TEQIP-II sponsored expert talk	College of Engineering, Adoor, Kerala, 17 <sup>th</sup> November 2015
24.	Dr. M.C. Santhosh Kumar	Metal oxide nanostructures for optoelectronic and mechanical applications	Invited talk in National Seminar	Devamatha college, Kuravilangad, Kerala
25.	Dr. M.C. Santhosh Kumar	Thin Film nanostructures and applications	FDP on Green nanotechnology in materials engineering and energy applications	College of Engineering, Adoor, Kerala 19 <sup>th</sup> December 2015
26.	Dr. M.C. Santhosh Kumar	Evolution of Light Sources	STTP on Recent Advances in Applied Physics,	SOE, CUSAT, Kochi-22, 11 <sup>th</sup> January 2016
27.	Dr. M.C. Santhosh Kumar	Thin Film Technology and its applications	STTP on Recent Advances in Applied Physics	SOE, CUSAT, Kochi-22, 15 <sup>th</sup> January 2016
28.	Dr. M.C. Santhosh Kumar	Metal oxide nanostructures for optoelectronics and Mechanical applications.	National level conference on Technologies Behind Nanoscience : Fabrication, diagnostics and applications	MA College, Kothamangalam, 23 <sup>rd</sup> January 2016

## 9. Sponsored projects undertaken.

Sl. No	Coordinator	Name of the project	Sponsor	Amount (in Lakhs)
1.	Dr. M.C. Santhosh Kumar	Deposition of earth abundant ternary CuZnS thin films and Fabrication of Cadmium free solar cells	DST CERI - 2015	32.67 Lakhs

## 10. Major equipment/software purchased (more than 5.00 lakhs): Nil

## 11. Research papers published in National/International Journals

a. Faculty:International Journal

S.No	Title	Author(s)	Journal	Year/vol/page
1.	Gd <sub>2</sub> O <sub>3</sub> :RE <sup>3+</sup> + Gd AlO <sub>3</sub> :RE <sup>3+</sup> (RE=E u,Dy) Phosphor : Synthesis,Characterization and Bio Imaging Application.	<b>T.Selvalakshmi and A.Chandra Bose</b>	<i>Journal of Nanoscience and Nanotechnology</i>	2015
2.	Effect of reaction medium on porosity and electrochemical properties of MnO <sub>2</sub> nanoparticles,	<b>P.Muhammed Shafi and A.Chandra Bose</b>	<i>Advanced Porous Materials</i>	2015
3.	Investigation on photoluminescence, electrical and positron lifetime of Eu <sup>3+</sup> ; activated Gd <sub>2</sub> O <sub>3</sub> phosphors. Visible light driven degradation of methylene blue dye using Ag <sub>3</sub> PO <sub>4</sub>	T. Selvalakshmi, S. Selvakumar; A. Chandra Bose R. Dhanabal, A. Chithambararaj, S. Velmathi, .	Mater. Chem. Phy <i>Journal of Environmental Chemical Engineering</i>	2015

4.	Impact of crystalline defects and size on X-ray line broadening: A phenomenological approach for tetragonal SnO <sub>2</sub> nanocrystals	P. Muhammed Shafi and A. Chandra Bose	AIP Advances	5, (2015) 057137
5.	Structural evolution and phase transition of [NH <sub>4</sub> ] <sub>6</sub> Mo <sub>7</sub> O <sub>24.4</sub> ·H <sub>2</sub> O to 2D layered MoO <sub>3</sub> .	A. Chithambararaj, D, BhagyaMathi, N,Rajeswari Yogamalar A. Chandra Bose	<i>Mater. Res. Express</i>	2 2015
6.	Influence of Al <sup>3+</sup> on the cross relaxation process and electrical properties of Dy <sup>3+</sup> activated Gd <sub>2</sub> O <sub>3</sub> phosphor for white LED application,	T. Selvalakshmi, A. Chandra Bose, and S.Velmathi.	<i>Ceramics International</i>	41 (7) 2015, 8801-8808
7.	Quantum confined CdS inclusion in graphene oxide for improved electrical conductivity and facile charge transfer in hetero-junction solar cell,	Rajeswai Yogamalar ,R. Jayavel, A. Chandra Bose	RSC Adv.	2015, 5, 16856–16869
8.	Effect of Eu <sup>3+</sup> and Al <sup>3+</sup> concentrations on photoluminescence of Gd <sub>2</sub> O <sub>3</sub> :Eu <sup>3+</sup>	T.Selvalakshmi, A. Chandra Bose, and S.Velmathi	Journal of Nanoscience and Nanotechnology	15 (8) (2015) 5760-5767.

9.	Band gap tuning of h-MoO <sub>3</sub> nanocrystals for efficient visible light photocatalytic activity against MB dye	A. Chithambararaj, B. Winston, N. S. Sanjini, S. Velmathi and A. Chandra Bose	<i>Journal of Nanoscience and Nanotechnology</i>	15(7), (2015) 4913-4919.
10.	Density Functional Study of Structural Distortion in Doped LuMnO <sub>3</sub> .	Baskaran Natesan	The Journal of Physical Chemistry B	2016 (in press)
11.	Stabilization of E-type antiferromagnetic ordering in La and Y substituted orthorhombic LuMnO <sub>3</sub> : A First Principle study.	Baskaran Natesan	Physics Letters A	2016 (in press)
12.	Structural, magnetic and photocatalytic properties of La and alkaline co-doped BiFeO <sub>3</sub> nanoparticles.	Reddy Vanga, P., R.V. Mangalaraja and M. Ashok	<i>Material Science in Semiconductor Processing</i>	2015/40/796-802
13.	Effect of (Nd, Ni) co-doped on the multiferroic and photocatalytic properties of BiFeO <sub>3</sub> .	Vanga, P.R., R.V. Mangalaraja and M. Ashok	<i>Materials Research Bulletin</i>	2015/72/ 299-305
14.	Effect of co-doping on the optical, magnetic and photocatalytic properties of the Gd modified	Vanga, P.R., R.V. Mangalaraja and M. Ashok	<i>Journal of Material Science: Materials in electronics</i>	2016/ DOI10.1007/s10854-016-4481-x

	BiFeO <sub>3</sub> .			
15.	Enhanced photocatalytic activity of hydrothermally grown BiFeO <sub>3</sub> nanostructures and role of catalyst recyclability in photocatalysis based on magnetic framework.	Dhanalakshmi, R., M. Muneeswaran, P. R. Vanga, M. Ashok and N.V. Giridharan	<i>Applied Physics A</i>	2015/122, 1-14
16.	Investigation on P-N dual acceptor doped p-type ZnO thin films and subsequent growth of pencil-like nanowires	R. Amiruddin, SebinDevasia, K. Mohammedali, M. C. Santhosh Kumar	Semicond. Sci. Technol	(2015) 30, 035009
17.	Welding fumes reduction by coating of nano-TiO <sub>2</sub> on electrodes,	Sreejith Mohan, S.P. Sivapirakasam, M.C. Santhosh Kumar, M. Surianarayanan	Journal of Materials Processing Technology	2015, 219, 237
18.	Application of Taguchi Method in the Optimization of Process Sreejith Mohan, S.P. Sivapirakasam,	Sreejith Mohan, S.P. Sivapirakasam, M.C. Santhosh Kumar, M. urianarayanan,	Journal of Materials: Design and Applications	2015
19.	Growth and characterization of near white light emitting Al-Ga:ZnO nanowires	R. Amiruddin, M.C. Santhosh Kumar,	Mater. Res. Express	2015,2,075004
20.	Deposition and Characterization	T. Srinivasa Reddy, R. Amiruddin, M.C.	Solar Energy Materials and	2015,143,128

	of Cu <sub>2</sub> SnS <sub>3</sub> Thin Films by Co-evapoartion for photovoltaic application,	Santhosh Kumar	solar cells,	
21.	Effect of Post-Annealing on the Properties of Eu Doped ZnO Nano Thin Films, ,	R. Swapna, T. Srinivasa Reddy, K.Venkateswaralau, M. C. Santhosh Kumar	Procedia Materials Science	2015, 10, 723
22.	Heat Treatment Impact on the Properties of Na and N Dual Doped ZnO Thin Flms by Spray Pyrolysis,	R. Swapna, K. Venkateswaralau, M. C. Santhosh Kumar	Procedia Materials Science	2015,10, 714
23.	Welding Fume Reduction by Nano-Alumina Coating on Electrodes – Towards Green Welding Process,	Sreejith Mohan, S.P. Sivapirakasam, M.C. Santhosh Kumar, M. Surianarayanan,	Journal of Cleaner Production	2015,108,131
24.	Effect of surfactant addition on hydrophilicity of ZnO-Al <sub>2</sub> O <sub>3</sub> composite and enhancement of flow boiling heat transfer,	C.S. Sujith Kumar, S. Suresh, A.S. Praveen, M.C. Santhosh Kumar, VishakhGopi,	Experimental Thermal and Fluid Science,	2016,70,325
25.	Highly transparent conducting CdO thin films by R.F. Magnetron sputtering for Optoelectronic applications,	SaheerCheemadan, R. Amiruddin, M.C. Santhosh Kumar,	Journal of Nanophotonics	2016, in press
26.	Wet chemical synthesis of diameter tuned	B.Karthikeyan, T. Pandiyarajan, S.	CrystEngComm	2016, <b>18</b> , 601 - 607

	NiOmicrorods: microstructural, optical and optical power limiting applications	Hariharan Muhamed Shafi Ollakkan		
27.	Enhanced blue light emission in transparent ZnO:PVA nanocomposite freestanding polymer films	B. Karthikeyan, T. Pandiyarajan, R.V. Mangalaraja	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	DOI: 2016/152/485-490
28.	Prussian blue modified FePt nanoparticles for the electrochemical reduction of H <sub>2</sub> O <sub>2</sub>	T Arun and R Justin Joseyphus	<i>Ionic</i> s	(2015) 1-7.
29.	Magnetic properties of interacting CoPt nanoparticles prepared through polyol process	K. Prakash and R. Justin Joseyphus	<i>Mater. Chem. Phys.</i>	154 (2015) 53.
30.	Effect of samarium doping on the structural, optical and magnetic properties of sol-gel processed BiFeO <sub>3</sub> thin films	C. Anthony Raj, M. Muneeswaran, S. Gokul Raj, <b>N. V. Giridharan</b> V. Sivakumar, G. Senguttuvan	Journal of Materials Science: Materials in Electronics	26, 49-58 (2015)
31.	Enhanced piezoelectric constant and remnant polarisation in K-compensated sodium potassium	M VeeraGajendraBabu, SM Abdul Kader, M Muneeswaran, <b>NV Giridharan</b> , D PathinettamPadiyan, B Sundarakannan.	Materials Letters	146, 81-83 (2015)

	bismuth titanate			
32.	Structural, vibrational, electrical and magnetic properties of $\text{Bi}_{1-x}\text{Pr}_x\text{FeO}_3$	M. Muneeswaran, RadhalayamDhanala kshmi and <b>N. V. Giridharan</b>	Ceramics International.	41, 8511-8519 (2015)
33.	Effect of Tb substitution on Structural, optical, electrical and magnetic properties of $\text{BiFeO}_3$ .	M. Muneeswaran, RadhalayamDhanala kshmi and <b>N. V. Giridharan</b>	Journal of Materials Science: Materials in Electronics	26, 3827-3839 (2015)
34.	Substitutional effect of Bismuth ferrite on the electrical properties of sodium bismuth titanate ceramics	D. E. Jain Ruth, S.M. Abdul Kader, M. Muneeswaran, <b>N.V. Giridharan</b> D. PathinettamPadiyan and B. Sundarakannan	Journal of Materials Science: Materials in Electronics	27(1), 407-413(2016)
35.	Structural and electrical properties of $(1-x)(\text{Na}_{0.5}\text{Bi}_{0.5})\text{TiO}_3-x\text{Bi}(\text{Mg}_{0.5}\text{Zr}_{0.5})\text{O}_3$ lead-free piezoelectric ceramics	D. E. Jain Ruth, S.M. Abdul Kader, M. Muneeswaran, <b>N.V. Giridharan</b> D. PathinettamPadiyan and B. Sundarakannan	Ceramic International	42, 3330-3337 (2016)
36.	Enhanced photocatalytic activity of La-substituted $\text{BiFeO}_3$ nanostructures on the degradation of phenol red	RadhalayamDhanala kshmi, M. Muneeswaran, K. Shalini and <b>N. V. Giridharan</b>	Materials letters	165, 205-209 (2016)
37.	Enhanced photocatalytic activity of hydrothermally grown $\text{BiFeO}_3$ nanostructures	RadhalayamDhanala kshmi, M. Muneeswaran, P. Reddy, Ashok and <b>N. V. Giridharan</b>	Applied Physics A	122(1), 1-14 (2016)

	and role of catalyst recyclability in photocatalysis based on magnetic framework			
38.	Photocatalytic activity of BiFeO <sub>3</sub> nanoparticles synthesized through Hydrothermal method	RadhalayamDhanalakshmi, M. Muneeswaran, Pradeep Reddy Vanga, M. Ashok, and <b>N.V. Giridharan</b>	American Institute of Physics Conference Series	1665, 130014 (2015)
39.	Structural, electrical and magnetic properties of multiferroic Bi <sub>1-x</sub> Gd <sub>x</sub> FeO <sub>3</sub> (x = 0.00 and 0.15)	R. Rathnaprabha, M. Muneeswaran, R.Dhanalakshmi, <b>N.V. Giridharan</b>	American Institute of Physics Conference Series	1665, 140036 (2015)

**National Journal: Nil**

## 7.2 Students

### International Journal

S.No	Title	Author(s)	Journal	Year/vol/page
1.	Enhanced fluorescence, Raman scattering and higher order Raman modes in ZnO:Agnanorods	R.Udayabhaskar, R. V. Mangalaraja, B. Karthikeyan	Plasmonics	DOI 10.1007/s11468-015-9877-6
2.	Synthesis, characterization and gas sensing properties of graphene oxide-multi walled carbon	Kavinkumar T and S.Manivannan	Journal of Materials Science and Technology	In Press

	nanotube composite”			
3.	“Uniform decoration of silver nanoparticle on exfoliated graphene oxide sheets and its ammonia gas detection”	T. Kavinkumar and S. Manivannan	Ceramics International	2016/42/1769-1776
4.	“Optically Transparent, Electrically Conducting Single Walled Carbon anotubes Random Networks for Room Temperature Ammonia Vapor Sensing.”	<u>L.R.Shobin,</u> and S. Manivannan	Materials Science in Semiconduct or Processing	2015/40/931-938
5.	“Carbon nanotubes on paper: Flexible and Disposable Chemiresistors”	<u>L.R.Shobin,</u> and S. Manivannan	Sensors and Actuators B: Chemical	2015/220/1178–1185
6.	“Effect of functional groups on dielectric, optical gas sensing properties of graphene oxide	T. Kavinkumar, D. Sastikumar and S. Manivannan	RSC Advances	2015/5/10816-25

	and reduced graphene oxide at room temperature”			
7.	Enhanced multi-phonon Raman scattering and nonlinear optical power limiting in ZnO: Au nanostructures	R. Udayabhaskar, B. Karthikeyan, P. Sreekanth, Reji Philip	RSC Advances	RSC Adv., 2015, 5, 13590–13597
8.	Enhanced fluorescence and local vibrational mode in near-white light emitting ZnO:Mg nanorods system	R. Udayabhaskar, B. Karthikeyan	Journal American Ceramic Society	DOI: 10.1111/jace.13516
9.	Enhanced ultraviolet fluorescence in surface modified ZnO nanostructures: Effect of PANI	T. Pandiyarajan, R. V. Mangalaraja, B. Karthikeyan	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	DOI 10.1016/j.saa.2015.02.088
10.	UV-A light induced photodegradation of Acid Blue 113 in the presence of Sm doped ZnO nanostructures	T. Pandiyarajan, R. V. Mangalaraja, B. Karthikeyan	Applied Physics A	DOI 10.1007/s00339-015-9102-7
11.	Colloidal	R. Udayabhaskar, B.	Journal	DOI:

	synthesis and electrical behaviour of n-ZnGdO/p-Si heterojunction diodes	Karthikeyan	American Ceramic Society	10.1111/jace.13516
12.	Morphology controlled synthesis of Sm doped ZnO nanostructures for photodegradation studies of Acid Blue 113 under UV-A light	T. Pandiyarajan, R. V. Mangalaraja, B. Karthikeyan	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	DOI: 10.1016/j.saa.2015.02.088
13.	Single-step, size-controlled synthesis of colloidal silver nanoparticles stabilized by octadecylamine	Gururaj M. Neelgund B. Karthikeyan, S.A. Shivashankar Aderemi Oki	Applied Surface Science	DOI: 10.1016/j.apsusc.2015.07.209
14.	Microstructure, vibrational and visible emission properties of low frequency ultrasound (42 kHz) assisted ZnO nanostructures	Thangaraj Pandiyarajan, Ramalinga Viswanathan Mangalaraja, Balasubramanian Karthikeyan, Selene Sepulveda-Guzman, Hector D. Mansilla, David Contreras, Nestor Escalona, M.A. Gracia-Pinilla	RSC Advances	DOI: 10.1039/C5RA27147A
15.	Surfactant assisted control on optical, fluorescence and phonon lifetime in	S. Hariharan, R. Udayabaskar, T.R. Ravindran, B. Karthikeyan	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	Just accepted 2016

	<math>\alpha</math>-Bi <sub>2</sub> O <sub>3</sub> micro rods.			
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**National Journal: Nil**

### 8. Ph.D Awarded

S.No	Name of the research scholar	Guide/Supervisor	Institute
1.	Dr.A. Chitambararajan	Dr. A. Chandrabose	NIT Trichy
2.	Dr.A. Udayabaskar Ratnam	Dr. B. Karthikeyan	NIT Trichy
3.	Dr. M. Muneeswaran	Dr. N.V. Giridharan	NIT Trichy
4.	Dr. K. Prakash	Dr. R. Justin Joseyphus	NIT Trichy
5.	Dr. T. Arun	Dr. R. Justin Joseyphus	NIT Trichy
6.	Dr. L.R. Shobin	Dr. N. Manivannan	NIT Trichy

**9. Details of books authored by faculty: Nil**

**10. Patents if any obtained by faculty: Nil**

**11. Other important Points: Nil**

### 12. Summary

S.No	Details	Total Nos			
1.	International Journals	54			
2.	National Journals	NIL			
3.	International conference publications	28			
4.	National conference publications	16			
5.	Sponsored projects	Nos:	1	Amount:	32.64 lakhs
6.	No of Ph.D produced	6			
7.	No of patents obtained	NIL			
8.	No of books published	NIL			

**DEPARTMENT : PRODUCTION ENGINEERING****1. Notable Achievements****1.1 Faculty Members**

S.No	Name	Details of Prizes / Awards	Organization
1	Dr.P.Sathiya	Certificate of Reviewer Contribution - December 2015	International Journal of Precision Engineering and Manufacturing

**1.2 Students**

S.No	Name	Details of Prizes / Awards	Organization
1	Sai Arvind, Karthik Sundaram & SP Kannan	Wise scholarship	DAAD
2	Rinitha, Ashish Krishna & Sabari Natarajan	Mitac scholarship	MITACS
3	Rinitha	Basketball team member/ Winners/ Inter NIT Sports meet	NIT-Surat
4	Hardik Dubal	Desmod/ 3 <sup>rd</sup> place/ SHASTRA' 15	IIT-Madras
5	Mariah F	Team member/1 <sup>st</sup> place/ kho-kho(Gold medal)/ UDGOSH' 15	IIT-Kanpur
6	Varun Vimal	Team member/Football/ 3 <sup>rd</sup> / Sports fete	NIT-Trichy
7	Hafeez P.	Weightlifting/ 1 <sup>st</sup> place/Sports Fete	NIT-Trichy
8	Hari Anand	Volleyball Team member /3 <sup>rd</sup> place/ Inter-NIT	NIT-Surat

**2. Conference****2.1 Organised****International:** Nil**National:** Nil**2.2 Papers presented by the Faculty / Students****International**

Author (s)	Details
Muthukannan Duraiselvam et al.	“Mechanical and metallurgical characterization of laser metal deposited aero-engine blade materials”, 28 <sup>th</sup> International Conference on Surface Modification Technologies, SMT 28, 16 - 18 June 2014, Tampere University of

	Technology, Tempere, Finland
V.Anandakrishnan, S.Sathish, S.Baskaran, S.Ramesh Kumar, C Chellappan	“Effect of machining parameters on surface roughness in AA7075-TiB <sub>2</sub> -ZrB <sub>2</sub> metal matrix composite” National Conference on Recent Advances in Materials and Manufacturing (RAMM’15), 19 <sup>th</sup> December 2015, PP 102- 105
B. Singaravel & T. Selvaraj	Application of Taguchi method for the selection of optimum process parameters in turning operation”, International conference on advances in production and industrial engineering (INCAPIE-2015) held on Feb 20-21 2015, at NIT Trichy, Tamilnadu, India.
D.Lenin Singaravelu, Vijay R, Rahul Ragh M	33rd Annual SAE Brake Colloquium and Exhibition, Charleston, South Carolina, USA during Oct 4-7, 2015. Paper Title: Influence of crab shell on Tribological characterization of eco-friendly products based non-asbestos brake friction materials
Rahul Ragh M, Vijay R, Arvind Venkatramani, D.Lenin Singaravelu	Malaysian International Tribology Conference MITC2015), held on 16-17 November 2015 at Penang, Malaysia. Paper title “Effect of lubricant and thermal resistance filler on the pressure and speed sensitivity characteristics of non-asbestos low metallic disc brake pad formulation”
K Shunmugesh, K Panneerselvam	Grey Relational Analysis Based Optimization of Multiple Responses in Drilling of Carbon Fiber- Epoxy Composites- 5th International Conference of Materials Processing and Characterization (ICMPC 2016) on 12&13 March 2015, GRIET, Telangana
K Shunmugesh, K Panneerselvam	Multi-Performance Optimization of Drilling Carbon Fiber Reinforced Polymer using Taguchi – Membership Function- International Conference on Civil, Mechanical and Environmental Engineering Technologies On 26 & 27 February 2016

<p>K Shunmugesh, K Panneerselvam</p>	<p>Optimization of machining process parameters in drilling of CFRP using Multi-Objective Taguchi technique, TOPSIS, RSA technique. International conference on technological advancements in materials and manufacturing for industrial environment. 4th and 5th march 2016</p>
<p>K. Kamal Babu, K. Panneerselvam, P. Sathiya , A. Noorul Haq, S. Sundarrajan, Mastanaiah P, C.V. Srinivasa Murthy</p>	<p>Effects of mechanical, metallurgical and corrosion properties of cryorolled AA2219-T87 aluminium alloy-5th International Conference of Materials Processing and Characterization (ICMPC 2016) on 12&amp;13 March 2015, GRIET, Telangana</p>
<p>k. Panneerselvam , k. Lokesh, T N S Ramakrishna, D. Chandresh</p>	<p>Mechanical and tribological behaviour of glass fiber and aluminium honeycomb core reinforced with nylon 6 hybrid composite. International conference on technological advancements in materials and manufacturing for industrial environment. 4th and 5th march 2016</p>
<p>Jafrey Daniel D and K. Panneerselvam</p>	<p>Manufacturing Issues of Polypropylene Nanocomposite by Melt Intercalation Process-5th International Conference of Materials Processing and Characterization (ICMPC 2016) on 12&amp;13 March 2015, GRIET, Telangana</p>
<p>Sudhir kumar and K. Panneerselvam</p>	<p>Dry Sliding Wear Characteristics of Pure and Glass Fiber Reinforced Nylon 6 against AISI D2 Steel Disc.-Proceeding of International Conference on Advances in Materials, Manufacturing and Applications (AMMA), NIT Trichy, India, April 2015.</p>
<p>Ben Ruben, S Vinodh, P. Asokan</p>	<p>Application of ISM for analysis of barriers in an integrated lean sustainable manufacturing environment. International Conference on Industrial Engineering, Sardar Vallabhbhai National Institute of Technology, Surat, Nov 2015.</p>
<p>S.Vinodh, Vishal A Wankhede</p>	<p>‘Multi-grade fuzzy assessment of cloud manufacturing performance’, International Conference on Industrial Engineering at Sardar Vallabhbhai National Institute of Technology, Surat, November 26 - 28, ICIE 2015, pp. 534-537.</p>

Manjunatheshwara, K.J., and S.Vinodh	'Application of Interpretative Structural Modelling for analysis of factors influencing sustainable development of tablet devices', International Conference on e-Business and Supply Chain Competitiveness (EBSCC 2016) to be held at IIT, Kharagpur, West Bengal during February12-14, 2016
P.M.Ajith, P.Sathiya, S.Aravindan and S.Arunkumar	2nd International conference on Advances in cutting, welding & surfacing, held at CIT, Coimbatore, August 5-7, 2015
Arun Kumar Srirangan, Sathiya Paulraj	17th ISME Conference on Advances in Mechanical Engineering, held at IIT Delhi, October 3-4, 2015
Sridhar.SP, Arun Kumar Srirangan, P. Sathiya	17th ISME Conference on Advances in Mechanical Engineering, held at IIT Delhi, October 3-4, 2015

### National

Author (s)	Details
Jafrey Daniel D and K. Panneerselvam	Mechanical Investigation of Friction Stir Welded Polymeric Nano composites Joints” Proceedings of the 17th ISME Conference, IIT Delhi, October 3-4, 2015
Sudhir kumar and K. Panneerselvam	Multi Objective Optimization of Tribological Property of Nylon 6 Composites using Hybrid Taguchi Grey Relational Analysis and Cuckoo Search Algorithm. Proceedings of the 17th ISME Proceedings of the 17th ISME Conference, IIT Delhi, October 3-4, 2015

### 3. Workshops / Seminars

#### 3.1 Organized

Coordinator	Title	Period
Dr.-Ing. M.Duraiselvam, Dr. V. Anandkrishnan	Workshop on Siemens Centre of Excellence in Manufacturing for South Tamil Nadu at NIT, Trichy	20 <sup>th</sup> February 2016
Dr.D.Lenin Singaravelu and Dr.P.Asokan	DST-SERB Sponsored Two days National Workshop on “ Brake Friction Materials: Past, Present and Future”	5 <sup>th</sup> & 6 <sup>th</sup> November 2015
Dr.S.Vinodh and Dr.P.Senthil	Short Term Course on Responsive and Sustainable Product Development Strategies	27 <sup>th</sup> & 28 <sup>th</sup> March 2015

### 3.2 Attended

Faculty	Details
P. Senthil	Thermal Engineering Applications for Sustainable Improvement (TEASI) 15 <sup>th</sup> June 2015 to 28 <sup>th</sup> June 2015. Anna University, Bharathidasan Institute of Technology, Tiruchirappalli.

Students	Details
Aashish Bohra	Conference and Training Programme on 3D Printing  Organised by the National Productivity Council, Government of India at the Ambedkar Institute of Productivity, Chennai from July 20 to 24, 2015. Dr. Ian Gibson, Professor of Engineering Design, Deakin University and Dr. Y. Ravikumar, Professor of Mechanical Engineering, chaired and conducted the programme
Vijay R	National Workshop entitled Thermal & Elemental Analysis of Solids, 21 <sup>st</sup> December 2015, organized by DEE, NIT Trichy
Vijay R	National workshop entitled Spectroscopic Analysis of Solid and Liquid Samples on 22 <sup>nd</sup> December 2015 organized by DEE, NIT Trichy

### 4. Invited / Guest Lectures Delivered by the Faculty

Faculty	Topic	Programme	Place & Date
Dr. M. Duraiselvam	Laser Induced Periodic Surface Structures	Conference on Application of Lasers in Manufacturing 2015	Pragati Maidan, New Delhi, 9 – 10 September 2015
Dr. M. Duraiselvam	Laser Surface Engineering	Laser Surface Engineering	Madurai Institute of Engineering and Technology, Sivagangai, 13.04.2015
Dr. V. Anandkrishnan	Kinematics of Machinery	Guest Lecture	M. Kumarasamy College of Engineering, Karur on 3 <sup>rd</sup> February 2015
Dr. V. Anandkrishnan	Powder Metallurgy	National Conference	Star Lion Engineering College, Thanjavur on 4 <sup>th</sup> March 2015.

Dr.V.Anandakrishnan	Lean Manufacturing	Guest Lecture	EGS Pillai Engineering College, Nagapattinam on 7 <sup>th</sup> March 2015.
Dr.V.Anandakrishnan	Balancing of Masses	Guest Lecture	Vellammal Engineering College, Chennai on 13 <sup>th</sup> March 2015.
Dr.V.Anandakrishnan	Composite Materials	One day Workshop	Kings Engineering College, Punalkulam, Thanjavur 21 <sup>st</sup> May 2015
Dr.V.Anandakrishnan	Failure mechanisms, fractography and worn surface analysis using macro/micrographs	Guest Lecture	M.Kumarasamy College of Engineering, Karur on 10 <sup>th</sup> July 2015.
Dr.V.Anandakrishnan	Dynamics of Machines	Guest Lecture	M.Kumarasamy College of Engineering, Karur on 10 <sup>th</sup> July 2015.
Dr.V.Anandakrishnan	Advances in casting	Guest Lecture	Vellammal Engineering College, Chennai on 17 <sup>th</sup> July 2015.
Dr.V.Anandakrishnan	Dynamics of Machinery	Guest Lecture	Haji Sheik Ismail Engineering College, Esanoor, Nagapattinam on 16 <sup>th</sup> September 2015
Dr.V.Anandakrishnan	Metal Matrix Composites	One day workshop	M.Kumarasamy College of Engineering, Karur-639 113 on 10 <sup>th</sup> February 2016
Dr.V.Anandakrishnan	Recent Developments in Engineering Materials	Guest Lecture	Dhanalakshmi Srinivasan Institute of Technology, Tiruchirappalli on 11 <sup>th</sup> February 2016.
Dr.V.Anandakrishnan	Advances in manufacturing technology	Guest Lecture	Vellammal Engineering College, Chennai on 13 <sup>th</sup> February 2016.

Dr.V.Anandkrishnan	Manufacturing Technology for Mechatronics Engineers	Guest Lecture	Paavai Engineering College, Namakkal on 24 <sup>th</sup> February 2016.
Dr. D. Lenin Singaravelu	Development and Characterization of Brake Friction Materials	National Conference on “Recent Trends in Efficiency Management in Industries (RTEMI-2K15)	Saveetha school of Engineering, Saveetha University, Chennai-602105 & April 10, 2015
Dr.D.Lenin Singaravelu	Development and Characterization of NAO and Fe Based friction pads for Braking Application	DST-SERB Sponsored Two days National Workshop on “ Brake Friction Materials: Past, Present and Future”	National Institute of Technology, Trichy & November 6,2015
Dr. V.Senthilkumar	Advanced manufacturing processes	Guest lecture	MIET, Trichy 31-08-2015
Dr. V.Senthilkumar	Environment conscious manufacturing	Guest lecture	PMU, Tanjore 29-09-2015
Dr S Vinodh	Swatch Bharat and Sundar Bharat through Lean and Sustainable Manufacturing	Foundation day celebration of IIIE	BHEL,Trichy January 27, 2016
Dr S Vinodh	Agile Manufacturing	Faculty Development Programme (FDP) on Engg. Optimization techniques & modern manufacturing concepts	GCE Salem March 11, 2016
Dr.P.Sathiya	Advancement in Welding Process	National conference on metallurgy and materials application	Nadar Saraswati College of Engineering & Tech., Theni, 31/03/2016

#### 5. Sponsored Projects undertaken.

Co-ordinator	Name of the project	Sponsor	Amount (Rs. In Lakhs)
Dr.M. Duraiselvam	Development of modified surface for ID fan blades to improve their service life	BHEL	8.01
Dr.M. Duraiselvam	Explorating studies on	GTRE,	9.45

	Laser surface patterning for high temperature protective coatings on Nickel based superalloy	Bangalore	
Dr.P.Sathiya	A comparative study on the weldability of high strength aluminium-magnesium alloy (AA 5083)	DST-SERB	49.09
Dr S.Vinodh and Dr.P.Asokan	Exploration of lean tools/techniques enabling sustainability in automotive organizations	Science and Engineering Research Board, New Delhi	15.42
Dr. V.Anandakrishnan Dr.-Ing. M. Duraiselvam	Investigation on the Properties of Direct Metal Laser Fabricated Material and its Brazing Compatibility with Nickel Based Casing	GTRE, Bangalore	9.90
Dr.S.PrasannaVenkatesan	Investigation on e-waste flow assessment and collection strategies for a sustainable and economic e-waste value chain design in India	SERB	16.36

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

S. No.	Equipment	Amount (Rs. In Lakhs)
1	3D Printer – Rapid Prototyping Machine (Dept. DST-FIST scheme)	15.77 (USD 23793)

#### 7. Research Papers Published in National / International Journals

##### 7.1 Faculty

##### International Journal

S.No	Title	Author(s)	Journal	Year Vol. (No) Page
1	“Surface nano-texturing of silicon by picosecond laser irradiation through TiO <sub>2</sub> nanotube arrays”	Muthukannan Duraiselvam et al.	Applied Surface Science	353 (2015) 1112 – 1116

2	“Microstructural and mechanical characterization of Ti6Al4V refurbished parts obtained by laser metal deposition”	Muthukannan Duraiselvam et al.	Materials Science and Engineering	643 (2015) 64-71
3	Optimisation of electrochemical drilling process using Taguchi method and regression analysis	S. Kumanan et al.	International Journal of Machining and Machinability of materials	Accepted
4	Optimization of powder metallurgy parameters to attain maximum strength coefficient in Al-10 wt% MoO <sub>3</sub> composite	Manickam Ravichandran and Veeramani Anandakrishnan	Journal of Materials Research	Volume 30 ,2380-2387,2015
5	Synthesis and forming characteristics of Al-TiO <sub>2</sub> powder metallurgy composites during cold upsetting under plane stress state conditions	M.Ravichandran, A. Naveen Sait, and VAnandakrishnan	Journal of Sandwich Structures and Materials	Volume 17 no. 3,278-294,2015
6	Effect of Particulate Reinforced Aluminium Metal Matrix Composite– A Review	C. Saravanan, K. Subramanian, V. Ananda Krishnan, and R. Sankara Narayanan	Mechanics and Mechanical Engineering	Volume 19, no. 1,23-30,2015
7	Study of characteristics of Al + 5 wt.% TiO <sub>2</sub> + 6 wt.% Gr hybrid P/M composite powders prepared by ball milling process	M. Ravichandran, VS. Vidhya, V. Anandakrishnan	Physicochemical Mechanics of Materials	Volume 4,136-143,2015

8	Optimization of welding parameters to attain maximum strength in friction stir welded AA7075 joints	Manickam Ravichandran, Mokkaiya Thirunavukkara su, Shanmugam Sathish and Veeramani Anandakrishnan	Materials Testing	Volume 58, No.3,206-210,2016
9	Application of Desirability Function Analysis and Utility Concept for Selection of Optimum Cutting Parameters in Turning Operation	B. Singaravel and T. Selvaraj	Journal of Advanced Manufacturing systems	2016, Vol. 15, No. 1, pp. 1-11.
10	Experimental investigation on cutting forces, specific cutting pressure, co-efficient of friction and shear energy in turning of HSLA steel	B. Singaravel and T. Selvaraj	Management and Production and Review	2016, Vol.7 No. (1), pp. 71-76
11	A review of micro hardness measurement in turning operation	B. Singaravel and T. Selvaraj	Applied mechanics and materials	2015, Vol. 813-814, pp.274-278.
12	Optimization of machining parameters in turning operation using combined TOPSIS and AHP method	B. Singaravel and T. Selvaraj	Tehnicki Vjesnik : Technical Gazette,	2015, Vol. 22/No. 6, 1475-1480
13	Experimental investigation to study the effect of process parameters on chip analysis in turning operation	B. Singaravel and T. Selvaraj	International Journal of Applied Engineering Research	2015, Vol. 10 No.50, pp.896-899.
14	Multi criteria optimization using Analytic Hierarchy	B. Singaravel and T. Selvaraj	International Journal of Machining	(In press) (Just-accept)

	Process in turning operation		and Machinability of Materials	
15	An Intelligent Process Planning System for Micro Turn- Mill Parts	S.P.Leo Kumar, J.Jerald, S.Kumanan	International Journal of Production Research,	Vol.52,No.40:6052-6075
16	Process Parameters Optimization for Micro End Milling Operation for CAPP Applications	S.P.Leo Kumar, J.Jerald, S.Kumanan, Aniket Nargundkar	Neural Computing and Applications	Vol.25, No.7-8:1941-1950
17	Feature Based Modeling and Process Parameters Selection in a CAPP system for Prismatic Micro Parts	S.P.Leo Kumar, J.Jerald, S.Kumanan	International Journal of Computer Integrated Manufacturing	DOI:10.1080/0951192X.20140953586 (Published Online)
18	Optimization of process parameters to improve form and orientation tolerances in EDM of MoSi <sub>2</sub> -SiC composites.	Selvarajan, L., Sathiya Narayanan, C. and Jeyapaul, R.	Materials and Manufacturing Processes	2015, 30(8), 954-960.
19	Optimization of EDM Hole Drilling Parameters in Machining of MoSi <sub>2</sub> -SiC Intermetallic/Composites for Improving Geometrical Tolerances.	Selvarajan, L., Sathiya Narayanan, C. and Jeyapaul, R.	Journal of Advanced Manufacturing Systems	2015,14(04), 259-272.
20	FLD and Fractography Analysis of Multiple Sheet Single Point Incremental Forming.	Raju, C. and Sathiya Narayanan, C.	Transactions of the Indian Institute of Metals	2015, 1-7.
21	Optimization of EDM Parameters on Machining Si <sub>3</sub> N <sub>4</sub> -TiN Composite for	Selvarajan, L., Sathiya Narayanan, C. and Jeyapaul, R.	Materials and Manufacturing Processes	2016, 31(4), 405-412.

	Improving Circularity, Cylindricity, and Perpendicularity.			
22	Application of a hybrid optimization technique in a multiple sheet single point incremental forming process	Raju, C. and Sathiya Narayanan, C.	Measurement	2016,78, 296-308.
23	Influence of Crab Shell on Tribological Characterization of Eco-Friendly Products Based Non Asbestos Brake Friction Materials.	D.Lenin Singaravelu, Vijay R, Rahul Ragh M	SAE Technical Paper	2015, Paper No. 2015-01-2676.
24	Influence of thermal conductivity and thermal stability on the fade and recovery characteristics of non-asbestos semi-metallic disc brake pad	V.Thiyagarajan, K.Kalaichelvan, Vijay R, & D.Lenin Singaravelu	Journal of the Brazilian Society of Mechanical Sciences and Engineering	2015, Pages 1-13
25	Effect of Micro-Textured Tools on Machining of Ti-6Al-4V alloy: An Experimental and Numerical Approach	D.Arulkirubakaran, V.Senthilkumar, Vijay Kumawat	International Journal of Refractory Metals and Hard Materials	2016-165-177 vol54
26	Effect of cryogenic cooling on machinability and surface quality of bio-degradable ZK60 Mg alloy	S. Dinesh V. Senthilkumar P. Asokan D.Arulkirubakaran	Materials and Design	2015-1030-1036 vol-87
27	Low temperature diffusion bonding of Ti-6Al-4V and duplex stainless steel	C. Velmurugan, V. Senthilkumar, S. Sarala, J. Arivarasan	Journal of material processing technology	Accepted

28	Research on Tribological Behaviors of Pure and Glass Fiber Reinforced Nylon 6 Composites against Polymer Disc.	Sudhir kumar and K. Panneerselvam	Journal of Material Science and Mechanical Engineering	2(6), 24- 28.
29	Multi Objective Optimization of Friction and Wear of Pure and Glass Fiber Reinforced Nylon 6 Composites using Taguchi based Grey Relational Technique.	Sudhir kumar and K. Panneerselvam	Journal of Material Science and Mechanical Engineering,	2(10), 7-11.
30	Modeling of tensile properties, dispersion studies, and hardness evaluation of Cloisite 30B in polypropylene with Elvaloy AC 3427 as compatibilizer	Jafrey Daniel D and K. Panneerselvam	Journal of composite materials	DOI: 10.1177/0021998315616176
31	A hybrid discrete firefly algorithm for solving multi-objective flexible job shop scheduling problems	Karthikeyan S, Asokan P, Nickolas S, Page T	International Journal of Bio-Inspired Computation	2015, 7(6), 386-401
32	Effect of cryogenic cooling on machinability and surface quality of bio-degradable ZK60 Mg alloy	Dinesh S, V Senthilkumar, P. Asokan, D. Arulkirubakaran	Materials & Design	2015, 87, 1030-1036
33	Life cycle assessment integrated value stream mapping framework to ensure sustainable	Vinodh, S., R. Ben Ruben, and P. Asokan	Clean Technologies and Environmental Policy	2015, 1-17

	manufacturing: a case study			
34	Application of fuzzy logic for leanness assessment in SMEs: a case study	R Vidyadhar, R Sudeep Kumar, S Vinodh, J Antony	Journal of Engineering, Design and Technology	2016, 14 (1), 78-103
35	Application of interpretive structural modelling and structural equation modelling for analysis of sustainable manufacturing factors in Indian automotive component sector	RM Thirupathi, S Vinodh	International Journal of Production Research	2016, 1-22
36	Lean Six Sigma project selection using hybrid approach based on fuzzy DEMATEL–ANP–TOPSIS	S Vinodh, V Swarnakar	International Journal of Lean Six Sigma	2015, 6 (4), 313-338
37	Development of value stream map for an Indian automotive components manufacturing organization	S Vinodh, T Selvaraj, SK Chintha, Vimal KEK	Journal of Engineering, Design and Technology	2015, 13 (3), 380-399
38	Modelling, assessment and deployment of strategies for ensuring sustainable shielded metal arc welding process—a case study	KEK Vimal, S Vinodh, A Raja	Journal of Cleaner Production	2015, 93, 364-377
39	ANP based sustainable concept selection	Vimal KEK, S Vinodh	Journal of Modelling in Management	2015, 10 (1), 118-136
40	Benchmarking	S Vinodh,	Benchmarkin	2015, 22 (1), 2-17

	agility assessment approaches: a case study	S Aravindraj	g: An International Journal	
41	A hybrid MCDM approach for agile concept selection using fuzzy DEMATEL, fuzzy ANP and fuzzy TOPSIS	S Vinodh, T S Sai Balagi, A Patil	The International Journal of Advanced Manufacturing Technology	2015, 1-9
42	Development of a methodology to evaluate lean remanufacturing characteristics in a manufacturing organisation	S Vinodh, CV Kumar, KJ Manjunatheshwara	International Journal of Services and Operations Management	2015, 21 (2), 187-199
43	12. The effect of aging on machinability of 15Cr-5Ni precipitation hardened stainless steel.	P. Senthil, D. Palanisamy.	Archives of Civil and Mechanical Engineering	2016, 16, 53 – 63
44	13. Machinability Study of Laser Surface Treated 15-5 PH Stainless Steel.	P. Senthil, D. Palanisamy.	Materials and Manufacturing Processes	DOI: 10.1080/10426914.2015.1103871
45	Microstructural studies on laser dissimilar welded Ni & steel alloys for aeronautical turbine applications	Duraiselvam et al.	Lasers in Engineering	Vol. 0, pp. 1-14
46	Enhanced ablation resistance through laser glazing of plasma sprayed LaTi <sub>2</sub> Al <sub>9</sub> O <sub>19</sub> based functionally graded thermal barrier coating	Duraiselvam et al.	Ceramics International	42 (2016) pp. 10184-10190

47	Effect of temperature and strain rate on compressive response of extruded magnesium nano-composite	Narayanasamy et al.	Journal of Magnesium and Alloys	3(3), pp.224-230
48	Role of hybrid reinforcement on microstructural observation, characterization and consolidation behavior of AA 6061 nanocomposite	Narayanasamy et al.	Advanced Powder Technology	26(4), pp.1171-1182
49	Effect of cryorolling on the mechanical properties of AA5083 alloy and the Portevin–Le Chatelier phenomenon	Narayanasamy et al.	Materials & Design	67, pp.107-117
50	The impact of heat input on the strength, toughness, microhardness, microstructure and corrosion aspects of friction welded duplex stainless steel joints,	M. Mohammed Asif, Kulkarni Anup Shrikrishna, P.Sathiya and Sunkulp Goel	Journal of Manufacturing Processes,	18 (2015) 92–106
51	Experimental investigation on A-TIG welding process of Incoloy 800H	Srirangan Arun Kumar , Paulraj Sathiya	International Journal of Materials and Manufacturing Processes	Accepted for Publication
52	Artificial neural network modeling studies to predict the friction welding process parameters of Incoloy 800H joints	K. Anand, Birendra Kumar Barik, K.Tamilmannan and P.Sathiya	Engineering Science and Technology: An International Journal (Elsevier)	18 (2015) 394-407
53	A Comparative	K. Anand,	Acta	2015, 28(7), 892–902

	Study of Artificial Neural Network and Response Surface Methodology for Optimization of friction welding of Incoloy 800 H	Rishabh Shrivastava, K.Tamilmannan, P. Sathiya	Metallurgica Sinica (English Letters)	
54	Multiobjective optimization of friction welding of UNS S32205 duplex stainless steel	P.M.Ajith, Birendra Kumar Barik, P. Sathiya and S.Aravindan	Journal of Defence Technology (Elsevier)	<u>11(2)</u> , 2015, 157–165
55	Characterisation of transient out-of-plane distortion of nipple welding with header component	R. Vetri Selvan, P.Sathiya, G.Ravichandran	Journal of Manufacturing Processes (Elsevier)	19 (2015) 67-72
56	Optimization of Friction Welding in dissimilar materials through Taguchi based Grey Relational Analysis	Shanjeevi.C, Satish Kumar.S, Sathiya.P, Santonu Gorai	International Journal of Applied Engineering Research	10, (8) (2015), 5990-5995
57	Optimization of Friction Welding in dissimilar materials through Taguchi based Grey Relational Analysis,	Shanjeevi.C, Satish Kumar.S, Sathiya.P, Jose Paul,	Applied Mechanics and Materials Vol.	766-767 (2015) pp 884-889
58	Studies on impact toughness and fracture analysis of austenitic stainless steel and copper joints by friction welding	Shanjeevi C, Satish Kumar S and Sathiya P	Journal of Manufacturing Engineering,.	2014, Vol. 9, Issue. 2, pp 105-109
59	Optimisation of process parameters for laser welding on Incoloy 800HT using TOPSIS	Arun Kumar Srirangan, SathiyaPaulraj, Rishabh Shrivastava	International Journal of Applied Engineering Research	Vol. 10 No.24 (2015).
60	Finite element modelling and characterization of	Mohammed Asif.M, Kulkarni Anup	Engineering Science and Technology:	18 (2015) 704-712.

	friction welding on UNS S31803 duplex stainless steel joints	Shrikrishana, P.Sathiya	An International Journal (Elsevier)	
61	Effects of post weld heat treatment on friction welded duplex stainless steel joints,	Mohammed Asif.M, Kulkarni Anup Shrikrishna, P.Sathiya,	Journal of Manufacturing Processes (Elsevier) -	21, 2016, Pages 196–200
62	Multi-response optimization of process parameters for TIG welding of incoloy 800 HT by Taguchi grey relational analysis	Arun Kumar Srirangan, Sathiya Paulraj	Engineering Science and Technology: An International Journal (Elsevier)	Accepted for Publication.
63	Optimization of Process Parameters of Friction Welding of UNS S31803 Duplex Stainless Steels Joints	Mohammed Asif. M, Anup Shrikrishna Kulkarni, Sathiya.P	International Journal of Advances in Manufacturing (Springer)	Accepted for Publication.
64	Effect of flux on microstructure and mechanical properties of super martensitic stainless steel using activated tungsten inert gas welding process	M.Chellappan, K.Lingadurai and P.Sathiya	International Journal of Applied Engineering Research,	10, Number 22 (2015) pp 43097-43102
65	Metallurgical and corrosion characterization of post weld heat treated duplex stainless steel (UNS S31803) joints by friction welding process	Mohammed Asif.M, Kulkarni Anup Shrikrishna, P.Sathiya	International Journal of Surface Review and Letters-	Accepted for Publication
66	A review of similar and dissimilar micro joining of nitinol,	Deepan Bharathi Kannan.T, Ramesh.T, Sathiya.P	The Journal of The Minerals, Metals & Materials	Accepted for Publication

			Society (TMS))-	
67	Metallurgical characterizations and mechanical properties on friction welding of Incoloy 800 H joints	K.Anand, S.Arun Kumar, K.Tamilmannan, P.Sathiya and B.Arivazhagan	Journal of Materials Research (Cambridge University Press),	Accepted for Publication-
68	Effect of heat input on mechanical and metallurgical properties of gas tungsten arc welded lean super martensitic stainless steel	Chellappan. M, Lingadurai. K, Sathiya. P, Devakumaran. K and Raja. K	Journal of Materials Research (Ibero-american journal of materials)	Accepted for Publication

### National Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1	Multi response optimization of electrochemical drilling of titanium Ti6Al4V alloy using Taguchi based grey relational analysis	S.Kumanan et al.	International Journal of Material & Sciences	Vol.22, (2015) pp.153-160
2	A study on the spatter generated in various types of gas metal arc welding power sources	K. Devakumaran, K. Gokulnath, D. Lenin Singaravelu and K. Sivaprasad	Journal of Welding Research Institute	Vol. 36 No. 1, Jan-Mar 2015, pp 5-9
3	Physical simulation studies on laser weld heat affected zone of P92 material	B.Shanmugarajan, Ramavath Bheekya Naik, G.Vimalan, P.Sathiya, G.Buvanashakaran,	Journal of the Welding Research Institute	Vol. 36 No. 2, April-June 2015, pp 16-23

### 7.2 Students

**International Journal: Nil**

**National Journal: Nil**

### 8. Ph.D. Awarded

S. No.	Name of the Research Scholar	Guide / Supervisor	University / Institute
1	Karthikeyan S	Dr.P. Asokan	NIT,Trichy

2	R.Ramesh	Dr.M. Duraiselvam	NIT,Trichy
3	I.Arun	Dr.M. Duraiselvam	NIT,Trichy
4	P.M.Ajith	Dr.P.Sathiya	NIT,Trichy
5	S.Baskaran	Dr.V.Anandakrishnan	NIT,Trichy
6	Vimal K E K	Dr S Vinodh	NIT,Trichy

**9. Details of Books authored by faculty.****10. Patent if any obtained by faculty****11. Other Important Points****12. Summary**

S.No.	Details	Total no.s			
9.	International Journals	<b>68</b>			
10.	National Journals	<b>03</b>			
11.	International conference publications	<b>18</b>			
12.	National conference publications	<b>02</b>			
13.	Sponsored Project	No.'s:	<b>6</b>	Amount:	<b>108.23</b>
14.	No of Ph.D. produced	<b>06</b>			
15.	No of Patents obtained	<b>-</b>			
16.	No of books published	<b>03</b>			

## DEPARTMENT: ENERGY AND ENVIRONMENT

## 1. Notable Achievements

## 1.1. Faculty Members

S.No	Name	Details of Prizes/ Awards	Organization
1.	Dr. M.Premalatha	International Women's Day Awards 2016 by Ponsiva Research and Innovation Trust in collaboration with the Innovation Incubator (i2) of Nehru Memorial College organised International Women's Day.	Nehru Memorial college & Ponsiva research Innovation trust

## 1.2 Students

S.No	Name	Details of Prizes/ Awards	Organization
1.	Amol Mande Balu	First Prize in Photography	Akshay Urja Magazine, Govt of India
2	Ramakant Pandey	First Prize (Gold Medal), Javelin throw	NITT Sports 2016
3	P. Dhamodharan	Third Prize in "Kavithai Competition" in Vidhai	NITT Tamil Mandram
4	S. Kavitha (Staff)	Second Prize in "Kavithai Competition" in Vidhai	NITT Tamil Mandram

## 2. Conferences

## 2.1 Organized - International : Nil

## Organized - National : Nil

## 2.2 Papers presented by the Faculty / Students

## International

Author (s)	Details
Neelam Choudhary, Nithiya E.M and Dr. M. Premalatha	"Comparison of two marine species for CO <sub>2</sub> uptake" International conference on new frontiers in Chemical, Energy and Environmental engineering (INCEEE-2015), National Institute of Technology, Warangal.
R. Kiruthiga, S. Gopukumar, C. Nithya	Does Cu Dopant Improve the Electrochemical Performance of NiO for Sodium Ion Batteries? International Conference on Electrochemical Science & Technology (ICONEST- 2014) held at Indian Institute of Science, Bangalore during August 7-9, 2014

**National**

Author (s)	Details
R. Kiruthiga, S. Nivedita, S. Gopukumar, C. Nithya	Mn <sub>3</sub> O <sub>4</sub> : An Anode Host Material for Sodium Ion Storage, 10 <sup>th</sup> Mid-Year Chemical Research Society of India (CRSI) Symposium in Chemistry held at National Institute of Technology, Trichy from July 23 to 25, 2015.

**3. Workshops / Seminars****3.1 Organized**

Co-ordinator	Title	Period
Head, Faculty and Students	Workshop on Thermal & Elemental Analysis of Solids	December 21st 2015
Head, Faculty and Students	Workshop on Spectroscopic analysis of solids & liquids samples	December 22nd 2015
Head, Faculty and Students	A one day demonstration of Calibration Instruments for Industries	February 25th 2016
Head, Faculty and students	Workshop on CFD applications	October 1st & 2nd 2015
Head, Faculty and students	One week Workshop on Modeling and simulation using Solidworks.	10 <sup>th</sup> – 16 <sup>th</sup> Dec. 2015
Head, Faculty and students	Seminar on “Introduction to MATLAB & Simulink”	6 <sup>th</sup> Jan 2016
Head, Faculty and students	Seminar on “Design and simulation of Shell and Tube heat Exchanger”	8 <sup>th</sup> March 2016

**3.2 Attended**

Faculty	Details
Mr.S.Dinesh Kumar	Hands-on practical training in Energy Efficiency National Productivity Council Centre of excellence for training in Energy Efficiency, Chennai. 11-15 May 2015
	Two-Week ISTE STTP on Environmental Studies Under the National Mission on Education through ICT, MHRD, New Delhi. National Institute of Technology, Tiruchirappalli June 2nd, 2015 to June 12th, 2015

<b>Student (s)</b>	<b>Details</b>	<b>Period</b>
Mr. Ramakant Pandey	One day workshop on “Modeling Rotating Compressible Flows in Gas Turbine Internal Cooling Design: One-Dimensional CFD Methodology”.	18 <sup>th</sup> Jan 2016
	One day workshop on “Modeling Secondary Air Systems in Gas Turbine Design: One-Dimensional CFD Methodology”.	20 <sup>th</sup> Jan 2016
	One day workshop on “High-Performance Aerodynamic Design of a Gas Turbine Exhaust Diffuser: CFD Technology Application”.	22 <sup>th</sup> Jan 2016
	Five day’s National Workshop On “Computational Fluid Dynamics with Hands on”.	15 <sup>th</sup> - 19 <sup>th</sup> Feb, 2016
	One day workshop on "Introduction to COMSOL Multiphysics"	11th march 2016
Mr. P. Dhamodharan	One day awareness program on Energy Conservation Building Code	February 18th 2016
	Calibration Workshop, Fluke Corporation	September 30th 2015
	Specialized Training Program on ECBC	March 5th 2016
Shruthi Kulkarni Anil, Ashok U, Ragavendra Tarun Kumar, Aniket ambekar, Chandrakala Bandaru, Anuj Nivsarkar, Pranav Bontadkar, Sravya Vallu	Hands-on practical training in Energy Efficiency National Productivity Council Centre of excellence for training in Energy Efficiency, Chennai.	11-15 May 2015

<b>S.No</b>	<b>Workshop/Conference/Seminar Delivered</b>	<b>By</b>
1	Workshop on “Introduction to CFD” in Alchemy 2015	Ramakant Pandey
2	Workshop on “Basic concepts of CFD” in Energeia 2015	Ramakant Pandey

**4. Invited / Guest Lectures Delivered by the Faculty**

Faculty	Topic	Programme	Place & Date
Dr.M.Premalatha	Energy generation from distillery solid waste	Indo UK Scientific Seminar on Solid Waste Management	Jadavpur University, February 12-14, 2015.
Dr.M.Premalatha	General guidelines for Research & activities of CEESAT	Women's Day Programme	Nehru Memorial College

**5. Sponsored Projects undertaken: Nil****6. Major Equipment / Software Purchased (more than Rs. 5 Lakhs)**

S. No	Equipment	Amount (Rs. In Lakhs)
1	Ansys Software	12

**7. Research Papers Published in National / International Journals****7.1 Faculty****International Journal**

S. No	Title	Authors	Journal	Year Vol (No) Pages
1	Impact of blend ratio on the co-firing of post-methanated distillery effluent solid waste and low-rank Indian coal via analysis of oxidation kinetics through TGA	C. Naveen, M. Premalatha	<i>RSC Advance.</i> ,	2016,6, 26121-26129
2	Bacterial Assisted treatment of distillery wastewater	Sankaran K, Lakshmi Pisharody, Surya Narayanan G, Premalatha M	<i>RSC Advances</i>	2016, 5, 70977 - 70984
3	Optimization of growth parameters for biomass productivity using response surface methodology in marine microalgal species	E.M .Nithiya, Neelam Choudhary, M.Premalatha,	International Journal of Advanced Research in Biology, Engineering, Science and Technology (IARBEST),	Volume 2, Special issue 8 - February 2016, pp.11.

4	“Studies on light intensity distribution inside an open pond photo-bioreactor”.	Ramakant Pandey, Akhilesh Sahu Vasumathi Krishnan Manickam Premalatha	Bioprocess and Biosystems Engineering	38(8) 2015
4	Sodium Ion Batteries: A Newer Electrochemical Storage	C. Nithya, S. Gopukumar	WIRES: Energy and Environment	4 (2015) 253-278 (ISSN: 1942-4795).
5	Bi <sub>2</sub> O <sub>3</sub> @Reduced Graphene Oxide Nanocomposite: An Anode Material for Sodium-Ion Storage	C. Nithya,	Chem Plus Chem	80 (2015) 1000-1006 (ISSN: 2192-6506).
6	Can the Degree of Crystallinity of Ball Milled Mg <sub>2</sub> Ni Intermetallic Compound Decide Its Electrochemical Characteristics? –	A. Venkateshwari, C. Nithya, S. Kumaran	Particulate Science and Technology: An International Journal	2015, DOI: 10.1080/02726351.2015.1054969 (ISSN: 0272-6351).
7	High performance Na <sub>x</sub> CoO <sub>2</sub> as a cathode material for rechargeable sodium batteries –	B. Venkata Rami Reddy, R. Ravikumar, C. Nithya, S. Gopukumar, J. Mater.	Chem. A.	3 (2015) 18059-18063 (ISSN: 0959-9428).
8	Experimental investigation and mechanism of critical heat flux enhancement in pool boiling heat transfer with nanofluids	R. Kamatchi, S. Venkatachalapathy, C. Nithya	Heat Mass Transfer	2016, DOI: DOI 10.1007/s00231-015-1749-2 (ISSN: 0947-7411).
9	Impact of Point Source Contamination on Eutrophicated Water Bodies using Streeter Phelps Oxygen Sag - Reaeration Model	S.Dinesh Kumar Dr. S.SenthilVel Dr.A.Bharani	International Journal of Innovations in Engineering and Technology (IJET)	ISSN: 2319 – 1058 Volume 6 Issue 2 December 2015
10	Fibrils of phenylalanine adsorbed to Langmuir-Blodgett films: Role of Lipids	Kamatchi Sankaranarayanan	Soft Materials,	Vol. 13, 2015, 219.

11	Does L to D-amino acid substitution trigger helix→sheet conformations in collagen like peptides adsorbed to surfaces?	V. Punitha, J. R. Rao, Kamatchi Sankaranarayanan , Aruna Dhathathreyan	Materials Science and Engineering C	Vol. 57, 2015, 249.
12	Role of viscogens on the macromolecular assemblies of Fibrinogen at liquid/air and solid/air interfaces	Kamatchi Sankaranarayanan	Biointerphases	Vol.10, 2015, 021009.
13	Propensities to ATP binding sites in Myosin II domains	Gargi Rastogi, N. Meenakshisundaram, Kamatchi Sankaranarayanan	Research Journal of Biotechnology	Vol. 10, 2015, 78.
14	Studies on pH controlled transition of Myoglobin capsules from hollow to multilayered structures	Kamatchi Sankaranarayanan	Adsorption Science and Technology,	Vol. 33, 2015, 759.

**National Journal : Nil**

## 7.2 Students

### International Journal

S. No	Title	Authors	Journal	Year Vol (No) Pages
1	Process Intensification-An Insight	Raghu Krishna Moorthy, Sangeeta Bakshi, Soumitra Biswas,	<i>Chemical Engineering World</i>	February 2016 Edition, 41-47. ISBN: A100007403
2	Impact of blend ratio on the co-firing of post-methanated distillery effluent solid waste and low-rank Indian coal via analysis of oxidation kinetics through TGA	C. Naveen, M. Premalatha	<i>RSC Advance.,</i>	2016,6, 26121-26129
3	Bacterial Assisted treatment of distillery wastewater	Sankaran K, Lakshmi Pisharody, Surya Narayanan G, Premalatha M	<i>RSC Advances</i>	2016, 5, 70977 - 70984
4	Optimization of growth parameters for biomass	E.M .Nithiya, Neelam Choudhary, M.Premalatha,	International Journal of Advanced	Volume 2, Special issue 8 - February 2016, pp.11.

	productivity using response surface methodology in marine microalgal species		Research in Biology, Engineering, Science and Technology (IARBEST),	
5	“Studies on light intensity distribution inside an open pond photo-bioreactor”.	Ramakant Pandey, Akhilesh Sahu Vasumathi Krishnan Manickam Premalatha	Bioprocess and Biosystems Engineering	38(8) 2015

**National Journal : Nil**

**8. Ph.D awarded : Nil**

**9. Details of Books authored by Faculty**

C.Nithya - "High Performing cathode materials for lithium ion Batteries " LAP - LAMBERT Academic Publishing, Germany, January 2016, ISBN: 978-3-659-82537-8.

**10 Patent if any obtained by Faculty**

5. Process for the preparation of high voltage nano composite cathode (4.9 V) for lithium ion batteries – S.Gopukumar, **C.Nithya**, R.Thirunakaran and A.Sivashanmugam – **JP 2016 - 5765644**.
6. Cathode Material and Lithium Ion Battery Therefrom – S.Gopukumar, **C.Nithya**, R.Thirunakaran and A.Sivashanmugam – **JP 2016-5707499**

**11. Other Important points**

-

**12. Summary**

S. No	Details	Total Nos
1.	International Journals	14
2.	National Journals	-
3.	International conference publications	2
4.	National conference publications	1
5.	Sponsored project	-
6.	No of Ph.d produced	-
7	No of Patents obtained	2
8	No of Books published	1

**DEPARTMENT: CENTRE OF EXCELLENCE IN CORROSION AND SURFACE  
ENGINEERING**

**1. Notable Achievements**

**1.1 Faculty Members**

S.No	Name	Details of Prizes / Awards	Organization
1.	Prof. S.Natarajan	Certificate of Award for Outstanding Contribution in Reviewing for the International Journal of Materials and Manufacturing Processes.	Taylor & Francis Group, Philadelphia, USA

**3. Workshops:**

**3.1 Organized**

S.No.	Coordinator	Title	Period
1.	Prof. S.Natarajan Chairman, CECASE	Recent trends in Corrosion Control and Tribological scenario in mining industries,  Conducted at NLC, Neyveli  Speakers: Prof. S.Natarajan, Dr.S.P.Kumaresh Babu, Dr.M.Duraiselvam & Dr.R.Karvembu	December 29 – 30, 2015
2.	Prof. S.Natarajan Chairman, CECASE	Emerging Trends in High Temperature Corrosion and Erosion Control in Thermal Power Plants,  Conducted at NLC, Neyveli  Speakers: Prof. S.Natarajan, Dr.S.P.Kumaresh Babu, Dr.M.Duraiselvam & Dr.R.Karvembu	February 15-16, 2016

**4. Invited Lectures Delivered by the Faculty**

Faculty	Topic	Programme	Place & Date
Prof. S.Natarajan Chairman, CECASE	Challenges and Opportunities in Corrosion Control and Surface Engineering with some highlights on Recent Trends in Mining Scenario	National Conference on Metallurgical Industries: Sustainability and Value Addition – Organised by IIM Bangalore Chapter & ASM Bangalore Chapter.	International Exhibition Centre, Bangalore, December 3, 2015

Prof. S.Natarajan Chairman, CECASE	Corrosion in Gas Turbine Technology	Interaction Programme for GTRE Scientists	GTRE, Bangalore, December 4, 2015
Prof. S.Natarajan Chairman, CECASE	Inaugurated National Conference on Global Advances in Materials for Energy, Engineering and Environmental Sciences (GAME <sup>3</sup> S-16) and delivered a Plenary Lecture.	National Conference on Global Advances in Materials for Energy, Engineering and Environmental Sciences (GAME <sup>3</sup> S-16)	M.Kuarasamy College of Engineering, Karur March 4, 2016

## 7. Research Papers Published in National / International Journals

### 7.1 Faculty

#### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Degradation Through Erosion: Mechanistic Studies on IN 718 Superalloy under Hot Air Jet Conditions	K.G.Thirugnanasambantham & S.Natarajan	Journal of Materials Engineering and Performance, ASM International	Vol: 24(7), July 2015 – 2605.
2.	Sliding wear behaviour and its mechanisms of carbonitrided AISI 8620 steel at 100°C under unlubricated conditions	R. Sankaran, D.Rajamani, S.Natarajan & K.G.Thirugnanasambantham	Surface Engineering, Maney Publications	DOI:10.1179/ 1743294415Y. 0000000090  Online: March2, 2016
3.	Selection and characterisation of HVOF cermet coatings for volutes of high capacity pumps of opencast lignite mines	M. Kumarasamy & S.Natarajan	Surface Engineering, Maney Publications	Volume 32, Issue 3, 2016, pp: 229-237
4.	Strengthening Mechanisms in Multiwalled Carbon Nanotubes Reinforced Co-W Pulse	E. Edward Anand & S. Natarajan	Materials and Manufacturing Processes, Taylor & Francis	Volume 31, Issue 1, Jan 2016, pp: 48-52

	Electrodeposited Coatings			
5.	Effect of graphite addition on the Microstructure, Hardness and Abrasive Wear behavior of Plasma sprayed NiCrBSi coatings	Akhilesh K., Ananya Rajagopal, Preethi Nambiyar, S.Natarajan, E.Edward Anand	Materials Chemistry and Physics, Elsevier	10.1016/j.matchemphys.2016.02.076
5.	Thermochemical Surface Engineering of Steels – <b>Book Review</b>	S.Natarajan	Surface Engineering, Maney Publications	Vol: 31(11), 2015, pp: 875-878
6.	Biomimetic, Bioresponsive and Bioactive Materials – <b>Book Review</b>	S.Natarajan	Materials and Manufacturing Processes, Taylor & Francis	DoI: 10.1080 / 10426914.2015.1059095

## 7.2 Students

### International Journal

S. No.	Title	Author(s)	Journal	Year Vol. (No) Page
1.	Sliding wear behaviour and its mechanisms of carbonitrided AISI 8620 steel at 100°C under unlubricated conditions	<b>R. Sankaran</b> , D.Rajamani, S.Natarajan & K.G.Thirugnanasambantham	Surface Engineering, Maney Publications	DOI:10.1179/1743294415Y.0000000090  Online: March2, 2016

### 8. Ph.D / M.S. Awarded

S. No.	Name of the M.S. Research Scholar	Guide / Supervisor	University / Institute
1.	Mr. R.Sankaran	Prof. S.Natarjan	NITT

**12. Summary**

<b>S.No</b>	<b>Details</b>	<b>Total nos</b>
1.	International Journals	<b>6</b>
2.	National journals	-
3.	International conference publications	-
4.	National conference publications	-
5.	Sponsored Project	-
6.	No of Ph.D. / M.S. produced	<b>1 (M.S.) – under CECASE</b>
7.	No of Patents obtained	-
8.	No of books published	-

**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, Audio Visual Educational Cassettes and back volumes of journals. The library subscribes to 164 periodicals (print) plus 7000+ e-Journals and 700+ e-books besides a holding of 17690 back volumes of journals. The library also contains 16,750 books in the Book Bank scheme.

Digital Knowledge Centre has been established with 70 Computer systems provided with DVD-RW Drive. Wi-Fi facility has been provided for laptop users. CCTV Web cameras have been fixed in the Central Library and the entire building is under camera surveillance. RFID Technology of Document Identification and Library Security System have been implemented for the library functions and services from 29<sup>th</sup> March 2013.

**VISION**

To provide comprehensive Resources and Services in support of the Research, Teaching, and learning needs of the Institute community

**MISSION**

1. To build collections by networking with leading Libraries for providing relevant information and create tools to support research, teaching, and learning
2. To facilitate seamless access to robust and distinctive collections to the stakeholders
3. To ensure the preservation and long-lasting availability of library collections and resources

**Conference / Seminars / Symposium / Special Lectures conducted:**

<b>S.No.</b>	<b>CO-ORDINATOR</b>	<b>PROGRAMME</b>	<b>PERIOD</b>
1.	Dr. THAMARAISELVI Librarian (S.G.)	Conducted User Orientation Program on “Access to E-Resources” for all the Research Scholars of NITT	18.03.2015
2.	Dr. THAMARAISELVI Librarian (S.G.)	Conducted User Orientation Program on “CENTRAL LIBRARY: Facilities & services” for the fresher of M.Tech./M.Sc. students of NITT	31.07.2015
3.	Dr. THAMARAISELVI Librarian (S.G.)	Conducted User Orientation Program on “CENTRAL LIBRARY: Facilities &	03 – 07 August 2015

		services” for the fresher of I year B.Tech./B.Arch. students of NITT	
4.	Dr. THAMARAISELVI Librarian (S.G.)	Conducted User Orientation Program on “CENTRAL LIBRARY: Facilities & services” for the newly joined of I year B.Tech./B.Arch. students of NITT	29.08.2015
5.	Dr. THAMARAISELVI Librarian (S.G.)	Conducted User Orientation Program on “How to access Grammarly Software for promoting research ” for the faculty and research scholars.	05.10.2015

**Papers presented by the Faculty/Library Staff:**

Authors	Details
Dr. G. THAMARAISELVI Librarian (S.G.)	Presented a paper on “Availability of e-resources at NIT, Tiruchirappalli Central Library” at NIT, Kurukshetra at the 2 <sup>nd</sup> meeting and Workshop of NIT Libraries Consortium held during 15-16, July 2015
Dr. G. THAMARAISELVI Librarian (S.G.) & Dr. G. THAMIZHAVEL, ASST.(S.G)	Presented a paper on “Sangakala Noolaka kattida muraigalum, noolaga paadukaappu vazhimuraigalum” at Tamil Sangam, Madurai in the National Conference on “Sangatthamizharin Kattidakkalai held on 10 <sup>th</sup> oct. 2015

**Research articles published in International Journals:**

Faculty	Title	Journal details	year
Dr. G. THAMARAISELVI, Librarian (S.G.)	Dissemination of Information through Cloud Computing services in Academic Libraries	IASET: International Journal of Library & Educational Science	V.1, Issue 1, Jun-July 2015, p. 81-92

### TRAINING AND PLACEMENT

During the year under report (2015-16), the students' placement record continues to be maintained at higher percentages despite global sluggishness. The overall percentage of placements as on 21.04.2016 for under graduate programme is **93.5%** and Post Graduate Programme is **72.2%**. The placement process is still in progress. Details are given below:

Campus Placements: Under Graduates

Sl. No.	UG Branch	Total Placed	As Percentage of Registered Students
01.	Civil	53	81.5
02.	C.S.E.	82	97.6
03.	E.E.E.	71	97.3
04.	E.C.E.	83	97.6
05.	Mech.	73	97.3
06.	MME	35	89.7
07.	Prod.	62	84.9
08.	I.C.E.	73	97.3
09.	Chem.	42	93.3

Campus Placements : Post Graduates

Sl. No.	PG Branch	Total Placed	As Percentage of Registered Students
01.	M.B.A.	53	92.9
02.	M.C.A.	62	92.5
03.	M.Tech. Comp. Science & Engineering	22	91.6
04.	M.Tech. Thermal Power Engineering	15	88.2
05.	M.Tech. Industrial Safety Engineering	25	92.0
06.	M.Tech. Manufacturing Technology	11	73.3
07.	M.Tech. Power Systems	13	56.5
08.	M.Tech. Power Electronics	10	43.5
09.	M.Tech. Material Science	3	33.3
10.	M.Tech. Transportation Engg. & Management	10	66.6
11.	M.Tech. Welding Engineering	10	52.6
12.	M.Tech. Communication Systems	20	95.2
13.	M.Tech. VLSI Systems	15	86.1
14.	M.Tech. Industrial Engineering	7	43.7
15.	M.Tech. Industrial Metallurgy	5	41.6
16.	M.Tech. Structural Engineering	10	45.5
17.	M.Tech. Environmental Engineering	8	44.4
18.	M.Tech. Plant Design (Chemical Engineering)	12	63.1
19.	M.Tech. Non-Destructive Testing.	18	78.3
20.	M.Tech. Energy Engineering	10	58.9
21.	M.Tech. Process Control & Instrumentation	8	53.3

## Notable Achievement : (As on 25.04.2016)

No. of Companies Visited	No. of Students Placed	Percentage	Double offer (UG & PG)
222	UG : 574 PG : 347	UG : 93.5 PG : 72.2	UG : 14 PG : 09

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

Significant Institute level contribution during the year 2015 - 16

1. The department coordinated and functioned as the secretariat for the Distinguished Alumnus Award 2016. Hon'ble Governor of Andhra Pradesh and Telegana was the Chief Guest for the DAA function. This year for the first time, Young Alumni Achievers were also recognized and awarded. In all 30 DAAs and 5 YAAs received the awards.
2. Coordinated and inducted large students force for active contribution to the TN flood relief. 3 Loads of relief materials donated by the campus inmates were dispatched to Cuddalore and one bus load of relief materials was distributed personally by students in a flood affected village called Kattur in Ponneri Taluk, near Chennai.
3. As the Nodal Officer for the MHRD scheme - Rashtriya Avishkar Abhiyan (RAA), adopted and conducted outreach programme for the children of neighboring village schools.
4. The Institute received the prestigious FICCI - Higher Education Summit '15 award under the category "Social Excellence".

## **COMPUTER SUPPORT GROUP (CSG)**

The CSG, currently headed by Dr. Ramakalyan Ayyagari, consists of a team of Hardware, CAD/CAM, Software, Network Engineers, Technical Officers, Data Entry Operators, Computer Operators, and ad-hoc System Trainees. These professionals are qualified, skilled, and experienced in managing the systems and network.

### **Significant Activities of the CSG during the Academic Year 2015-16**

- Internet Bandwidth upgraded to 150 Mbps (1:1) through STPI.
- Operating Pearson/GMAC's authorized online testing center for the GMAT examination for the benefit of the students from NIT-T as well as students from Trichy and nearby places. So far, 5 students have appeared for the GMAT examination through this center.
- Recruited 8 support trainees to impart training in Software, Hardware, Networking, Web, and Email.
- Hosted a new Helpdesk website URL:[http://ruby.nitt.edu/nitt\\_helpdesk/](http://ruby.nitt.edu/nitt_helpdesk/) for registering complaints from the users (faculty, staff, students) and attending to them in a more efficient and organized manner.
- Problems with Wi-Fi in the Hostel zone have been addressed to.
- Initiated recycling of one-side printed papers into notebooks for the benefit of students.

### **Future plans**

Very shortly Annexure II is getting ready for the CSG to house at least 650 additional computers to take care of the campus population. Proposals have been finalized for the expansion of high speed backbone network to hostels using latest wireless technologies, and to move to new internetworking technology IPv6 from the existing IPV4. Other plans include Business Continuity and Disaster Recovery (BCDR) strategy, ISO9000 certification, parallel computing, and Cloud computing.

**National Cadet Corps (Air wing)  
Activities during April 2015- March 2016**

1. “A” flight has started regular parades from August 6, 2015 with total strength 50. Thirty five parades each of duration 2 hours 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.
2. NCC Cadets performed the National Salute, delivered speeches and sang patriotic songs on Independence Day (Aug 15, 2015) as well as on the Republic Day (Jan 26, 2016).
3. Thirty of NITT NCC cadets have attended Combined Annual Training Camp (CATC) during 24<sup>th</sup> Feb -4<sup>th</sup> March 2016 at PMU, Vallam, Thanjavur organized by 3 (TN) AIR SQN (TECH) NCC,Trichy. In CATC, NITT cadets performed excellently and won many awards in CATC 2015-16. Six of NITT NCC cadets have attended NCC National Integration Camp-I at Noida(UP), from 20<sup>th</sup> Jan 2016 to 31<sup>st</sup> Jan 2016.
4. A-Flight, 3(TN) Air Sqn (Tech) NCC of NIT-Trichy have organized a blood donation camp in NITT along with Mahatma Gandhi Government Hospital attached to K.A.P. Viswanatham Govt. Medical Collge, Trichy on 1<sup>st</sup> Nov'2015. The camp witnessed an overwhelming turnout. One hundred and twenty eight volunteers from students and faculty of the college donated blood in this camp.
5. NCC organized Tree Plantation Camp at NITT to create awareness about the deteriorating environmental condition and to make our very own campus greener on 7<sup>th</sup> Nov 2015. NCC cadets planted 36 saplings in different strategic locations throughout the NIT Trichy campus on 7 th November 2015.
6. 'A' Flight, NCC organized three days event Lakshya: a defense and civil services symposium during March 12th to 13th 2016.
7. Twenty Four cadets appeared ‘B’ certificate examination on 12th & 13th March, 2016 and Seven cadets appeared for “C” Certificate examination on 26th March 2016, conducted by NCC directorate.
8. Flying Officer P. Saikrishnan relieved from the post Associate NCC officer on 31<sup>st</sup> Dec 2015 and Dr. V.M. Biju, Assistant Professor, Department of chemistry taken in-charge of NCC at NITT on 1<sup>st</sup> Jan 2016.



**BLOOD DONATION CAMP IN NIT CONDUCTED BY NCC CADETS**



**TREE PLANTATION INITIATIVE CONDUCTED BY NCC CADETS IN NIT**

**PHYSICAL EDUCATION ACHIEVEMENTS-2015-2016**

**Notable achievements like prizes, awards won by our students for the year 2015-16.**

<i>Sl.No</i>	<i>Game</i>	<i>Award</i>	<i>Name of the Tournament</i>
1.	Basket Ball (Women)	Winners	<b>UDGOSH'15, Conducted by I.I.T KANPUR from 01.10.15 to 04.10.15</b>
2.	Kho Kho (Women)	Winners	
3.	Table Tennis (Men)	Winners	
4.	Table Tennis (Women)	Runners	
5.	Tennis(Women)	Winners	
6.	Tennis(Men)	Runners	
7.	Chess	Runners	
	<b>Athletics (Men)</b> Bharat Ram                      Triple Jump	<b>Bronze</b>	
	<b>Athletics(Women)</b> Abha Suman                      Long Jump	<b>Silver</b>	
	Jai chakma Sushma Alamelu Abha Suman                      } 4X100M Relay	<b>Bronze</b>	
	Jai chakma Sushma Ankita Abha Suman                      } 4X400M Relay	<b>Bronze</b>	

<i>Sl.No</i>	<i>Game</i>	<i>Award</i>	<i>Name of the Tournament</i>
<b>1.</b>	<b>Swimming (Men)</b> <b>I. Athip.T</b> 1. 50m Freestyle 2. 100m Freestyle 3. 200m Back Stroke 4. 200m IM 5. 4x50m Freestyle 6. 4x50m Medley	<b>Gold</b> <b>Gold</b> <b>Gold</b> <b>Silver</b> <b>Silver</b> <b>Silver</b>	

<p><b>II. Kunal Pathak</b>            1. 50m Backstroke            2. 4x50m Freestyle            3. 4x50m Medley</p> <p><b>III. Varun Vimal</b>            1. 50m Breaststroke            2. 200m Freestyle            3. 4x50m Freestyle            4. 4x50m medley</p> <p><b>IV Aravind.MK</b>            1. 200m. Breastsrtoke            2. 4x50m Freestyle            3. 4x50m Medley</p> <p><b>V Somasundaram.A</b>            1. 100m Breaststroke</p>	<p><b>Bronze</b>  <b>Silver</b>  <b>Silver</b></p> <p><b>Silver</b>  <b>Bronze</b>  <b>Silver</b>  <b>Silver</b></p> <p><b>Bronze</b>  <b>Silver</b>  <b>Silver</b></p> <p><b>Bronze</b></p>	<p><b>BOSM'15 Sports Meet At BITS            Pilani from 18<sup>th</sup> Sep To 22<sup>nd</sup> Sep            2015</b></p>
<p><b>Swimming (Women)</b></p> <p><b>I. Akhila challa</b>            1. 50m Backstroke            2. 100m Freestyle            3. 100m Backstroke            4. 200m Freestyle            5. 4x25m Medley</p> <p><b>II. Nevedita</b>            1. 100m Freestyle            2. 100m Breaststroke            3. 200m Freestyle            4. 4x25m Medley</p> <p><b>III. Dhakshaayani.K</b>            1. 100m Backstroke            2. 100m IM            3. 100m Breaststroke            4. 4x25m Medley</p> <p><b>IV. Ramayapally Trisha Reddy</b>            1. 50M Backstroke            2. 50m Freestyle            3. 50m Breaststroke</p> <p><b>V. S.N.Laasya</b>            1. 4x25m Medley</p>		

<i>Sl.No</i>	<i>Game</i>	<i>Award</i>	<i>Name of the Tournament</i>
1.	Badminton (women)	Winners	“COLOSSEUM” Conducted by SASTRA University. Jan-2016
2.	Badminton (Men)	Third Place	
3.	Basket Ball (Women )	Third Place	
1.	<u>Power Lifting</u> Aman Bakolia	Third Place	All India Inter NIT Sports Meet 2016 At MNIT Jaipur from 26 <sup>th</sup> to 28 <sup>th</sup> Feb.
1.	Shuttle Badminton (Men)	Runners	All India Inter NIT Sports Meet 2016 At NIT Surat, from 11 <sup>th</sup> to 13 <sup>th</sup> Feb.
2.	Shuttle Badminton (Women)	Winners	
3.	Tennis(Men)	Winners	
4.	Hand Ball	Third Place	
5.	Volley Ball (Men)	Third Place	
1.	Basket Ball (Women)	Third Place	Tournament conducted by Vellore Institute of Technology
Sports Fete-2016 – All the Events are Completed - From 04.03.16 to 09.03.16			

## **STUDENTS ACTIVITIES**

### **REPORT ON PRAGYAN'16**

The 12<sup>th</sup> edition of the largest techno management fest in the country, Pragyan 2016 took place between the 25<sup>th</sup> and 28<sup>th</sup> of February 2016. Principally sponsored by Larsen and Toubro and presented by National Instruments in association with Honeywell, Pragyan 2016 began on the evening of the 25<sup>th</sup> of February with the inauguration. Present at the inauguration were Chief Guest Commander KS Nathan of the Defense Shipbuilding Strategic Business Unit, L&T; Guest of Honor Mr. Solaikutty Dhanabal of National Instruments; and Special Guest Mr. Krishnamachari Srikanth, former captain of the Indian Cricket Team. The Chairman, Keerthi Vasani, presented the Pragyan report- a brief on the activities of Pragyan during the rest of the year, leading up to Pragyan. These included the Youth Business Summit at the Hilton, Chennai; a Hackathon at Bangalore in association with Microsoft and the Square One outreach events at Kochi and Chennai. The Director of NIT Trichy, Dr. Srinivasan Sundarrajan was also present on stage and stated his pride and happiness at the grand success that had been the Pre-Pragyan events and wished the Pragyan team well. The Overall Coordinator, Srinimalan gave the vote of thanks.

This was followed by the Star Night event, in which the online entertainment channel The Viral Fever interviewed the Special Guest Krishnamachari Srikanth on stage. From TVF, the members present were Vipul Goyal, Jitendra Kumar and Manvi Gagroo. The interview was followed by an Infotainment show by the Spanish Troupe Girasomis. The performance consisted of a mystical fusion of dance, music and video art and enthralled the audience.

The next day of Pragyan, Day 1, saw the much awaited guest Lectures of Ravi Nawal, author of the bestseller, “India Can”; Ralph Leighton, the author of two definitive works on the life of Dr. Richard Feynman; and Peter Schultz, co-inventor of the fiber optics. The day also saw several interesting events including Circuitrix, Junkyard Wars and Hover One. Several workshops also began on Day 1, including the Texas Instruments TM4C4uC. The Day ended with an infotainment show by the celebrated illusionist JC Sum, who engaged the audience with mind-reading, card tricks and coin acts as well as the patented i-frame technology.

Day 2 of Pragyan also saw some powerful guest lectures such as those by Varun Agarwal, Rene Reinsberg, the vice-president of emerging products at GoDaddy; Gianni Di Caro,

the Swiss AI Lab senior researcher; and Sudhir Kumar Mishra, the CEO of BrahMOS Aerospace. Flagship events of Pragyan were also seen on Day 2: Nitro, Rush Hour, Quad Combat, the Internet of Things Challenge and Marketing Hub. These events represent the variety of technology and management that Pragyan routinely covers during the course of its four days. The highlight event of the day was Crossfire – Panel Discussion. The crossfire event is unique to Pragyan and brings together eminent people in political, social and industrial parts of life to debate on socially relevant topics. The panelists were Dr. P. Chellapandi, Ms. Bahar Dutt, Mr. Anoop Poonia, Dr. A. Ravindra and Mr. Nawshir Mirza; the moderation was done by Mr. Abhinandan Sekhri. The topic for the crossfire was “Development sustains pollution: Must we defile to go the extra mile?” The event was an extremely thought provoking one and truly brought out the tough choice between development and the environment. The day ended with a true blend of technology and entertainment: a performance by Illuminati. They are the only black-light troupe in India with proprietary technology. They performed several LED and TRON acts as a part of their performance.



The guest lectures for Day 3 were by Mr. Abhas Mitra, the Indian astrophysicist and Dr. Archana Sharma, the only Indian Scientist at the LHC project in CERN. Flagship event during the day were FundaMENTAL, a fringe science conference of sorts; and NFS Aqua, an RC Boat event. Another highlight occurrence today was the alumni crossfire in which NIT alma maters were called together in an on-stage debate on “Life at NIT Trichy: Then and Now”. The members called were Admiral Krishnan, Dr. Mahendra Mohan, Bhuvan Gupta, MS, Rachana Ramchand, Mr. Anurag Saxena and Mr. Bhuvan Gupta. They debated on whether it was the

REC of the 70s, 80s, 90s or the NIT of the 2000s which gave us the best experience. This is another initiative pioneered at Pragyan. The valediction ceremony was held in the evening and was attended by Dr. Archana Sharma as the Guest of Honor, the Director, Staff Advisor, Registrar, the technical Secretary Padmeya Indurkar and the treasurer, Ajay Immanuel. The highlights of Pragyan were mentioned and the teams thanked. The overall marketing report was also presented. The Day, and Pragyan, ended with the stand-up comedy performances of Sorabh Pant, founder of East India Comedy group; and Aravind SA, member of Evam Standup Tamasha.



A unique element of Pragyan, the Sangam and Exhibitions were held on all 4 days. Sangam is an exclusive intra-NITT initiative of Pragyan which saw participation from 33 teams. The exhibition provided a platform to help the brightest minds of implement their innovative ideas and earn recognition for the same from other participants, academicians, technocrats and industrialists. The Exhibitions consisted of such exhibits as i-bots, Locks, ISRO, HAPP, HEB and OFT.

In all, the four day fest was a grand success and raised the bar for its successor higher than ever before.

## **REPORT ON FESTEMBER'15**

The 41<sup>st</sup> edition of Festember'15 was undoubtedly one of the best of its kind. The fest successfully matched up to the expectations from the previous editions. In addition to this, the publicity and the sponsorships this year were unparalleled. This edition, the fest hosted 63 events, 7 workshops and numerous fun-filled informal events. This culminated into an incredible footfall of over 5000 participants from various colleges across the country. Further, the pro shows and the guest lecture series enhanced the glamour quotient of this 4-day extravaganza.

This edition of Festember received massive publicity. The fest was widely publicized in numerous acclaimed national-level newspapers and magazines. The fest's poster was also shared from Kamal Hassan's official page. The innumerable outreach events received an amazing response, with a great multitude of registrations. One among these was the Rolling Reels International Film Festival held at Hyderabad. The judges of this contest included renowned actors, directors and writers. The total prize awarded summed up to a whopping 70000 INR. Another outreach event that took place was the prelims of Gigahertz, the rock band competition at Bangalore and Chennai.



Festember Social Responsibility helped clean up the tiny village of Vaazhavanthaankotai, abutting NIT Trichy's compound; conducted social activities for school children and also helped supply a library to the nearby REC school.

With the uniquely artistic theme of “Les Automatistes”, Festember'15 kicked off on the 24<sup>th</sup> of September 2015. The fest was inaugurated by Mr. Muthu Ramalingam, CEO of

Dextrasys Technologies. Every night, Festember had a great line up of pro shows to offer. These included performances by the eminent dancer, Ms. Rukmini Vijayakumar, famed musical bands like Mushroom Lake, Black Letters and Skrat and the EDM night by the celebrated Alvar and Milles. Apart from these, a myriad of artists, comedians and musicians like Kavita Maria Thomas, Max Godman, The Family Cheese, Acapella and Acoustics and the Pundits graced this fest.

The workshops and informal events conducted this Festember included interesting and intriguing ones like Ventriloquism, Freestyle Football, Fencing, Caricature, Lyrical Hip Hop, Salsa, Crime Scene Investigation, Mechanical Bull, Casino, Oculus Rift, PS3 and MSI Gaming and Human Foosball.

Several other highlights of this fest also included the Bike Stunt Show, the Dance Face-off, the exhibitions and the art gallery; which appropriately complimented Festember's theme. A number of influential personalities like Prashanth Bhushan, Harish Iyer and Anita Ratnam, graced Festember with their esteemed presence.



This edition also saw its inception into the Guinness World Record, with 1000 coke bottles opened precisely at the same time. The final night of Festember witnessed the mystique of Bollywood songs as Trichy danced to the tunes of celebrated artists like Pritam Chakraborty, Abhijeet Sawant, Aditi Singh Sharma, Antara Mitra and Nakash Aziz. Certainly, Festember'15 created a new dimension in the history of student run cultural festivals!

### **REPORT ON NITTFEST'15**

- NITTFEST 15, centred around the theme of vikings, the fierce warrior clans. Viking inspired design implemented across all NITTFEST related posters and brochures.
- Dedicated first year only Creative Concepts team was introduced.
- NITTFEST 15 was the first fest to associate with MYNTRA. They gave about 1 lakh vouchers.
- Honda gave three trophies for three flagship events - qawalinite, manoranjan and battle of bands.
- Revamped Food Coupon distribution system was implemented.
- Point distribution was completely revamped and standardized, making the fest more competitive and unpredictable.
- Total of 60+ events spread across all genres.
- New genres like Informals and Impromptu Events were introduced; 10 new events were introduced.
- Professional judges from across the country were brought in. Much acclaimed 5<sup>th</sup> Element judged ChoreoNite.
- Ambience team implemented Viking aura with stage designed as a huge ship and Viking lanterns.



## **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.

The following are office bearers involved in the TEQIP-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.A.Arunagiri	Nodal Officer - MIS

### Status of TEQIP – II

#### 4. PG INFRASTRUCTURE ENHANCEMENT ACTIVITIES

- Procured equipments - Amount: **Rs. 5.67 Crore**
- Purchase of Equipments worth Rs. 2.25 Crore is in progress.

#### 5. ACADEMIC RELATED ACTIVITIES

- **Student research activities:**

- 33 PhD students are given TEQIP-II fellowship and contingency for pursuing their doctoral programme.
- 7 Research scholars completed their Ph.D. degree under TEQIP-II.

142 Research scholars were deputed for training in industries/workshop/conferences.

Research scholars are allowed to participate in the TEQIP-II workshops/seminars organized within the institute.

PG and Ph.D. students are allowed to reimburse money spent for their consumables such as components, fabrication assistance, publication related charges etc... to be met for their projects

8 Nos. Ph.D. students were benefitted under international travel scheme for networking/attending international conferences/chairing international conferences etc.

Industrial Visits are allowed for PG students to increase the industry institute interaction.

- **Faculty development activities:**

- 81 Workshops/Seminars are conducted till the end of March 2016 within the Institute. The duration of the workshops/seminars is from 1 to 5 days.
- 3 Industrial workshops, one academic Conclave and 6 International Conference were conducted.

- 150 teaching faculty had undergone training within India in industries/ research organizations/training centers etc.
  - 20 faculty members were benefitted under international travel scheme for networking/attending international conferences/chairing international conferences etc.
  - Eleven faculty with M.Tech qualification who are doing doctoral programmes are given contingency for their research work.
  - Faculties are given contingencies for their PG research projects for an amount up to Rs. 90,000/- per faculty. In this scheme 143 faculty members were benefitted till date.
  - Outbound trainings are conducted for group of faculty and non-teaching staff at various levels for team building and experiential learning for effective group dynamics.
  - 266 Non-teaching staff had undergone training within India
- **Quality updation/academic reforms**
- BoS (Board of Studies meeting) for curriculum development for all the B.Tech and M.Tech programmes are conducted under TEQIP-II
  - 6 UG programmes are NBA accredited under TEQIP-II.
  - NBA accreditation applied for all the 19 PG programmes under TEQIP-II.
  - Industrial workshops related to syllabus are conducted by industry personnel from reputed industries.
  - MIS (Management Information System) of TEQIP-II supports the institutional database.
- MoU between National Institute of Technology, Tiruchirappalli and Indian Institute of Crop Processing Technology (IICPT) is signed
- **Activities under III Cell**
8. Three industrial workshops (by reputed engineers from R&D industry) conducted for faculty and PG students
-

9. NIT Tiruchirappalli received Best Industry Linked Institute Award 2015 - AICTE-CII Survey of Industry –Linked Technical Institutes among NIT/IIT/IIIT conducted under TEQIP-II

Based on the performance, NIT Trichy was sanctioned an additional grant of Rs.5.00 crore out of which Rs. 2.50 Crore was released in December, 2015 as first installment.

An amount of Rs.2.25 Crore has been earmarked for the procurement of equipments/books/software to the TEQIP sponsored M.Tech programmes. It was decided in the TEQIP Review meeting at MHRD/NPIU that all procurement activities under TEQIP II must be completed by April, 2016.

**6. FUND UTILIZATION AND FINANCIAL STATUS (as on March 2016)**

Amount Sanctioned	₹ 17.50 Crore
Amount received till date	₹ 15.00 Crore
Total Expenditure	₹ 12.80 Crore

### **NATIONAL SERVICE SCHEME (NSS)**

- Total of 614 NSS Volunteers have been registered for the Year 2015-2016.
- On October 2, 2015 as a part of the Swachh Barat Campaign NITT –NSS joined hands to clean up our campus.
- The NSS (ECE Unit) cleaned up a dejected playground near Buhari Canteen. NSS members cleared paper, plastic, rubber, and glass waste lying on the floor and cleared out the weeds that had overgrown though out the park.



- NSS Production unit volunteers planned to clean the CEESAT ground post Festember.



- Mechanical NSS volunteers cleaned Garnet Hostel.
- NSS volunteers participated and assisted Steward Committee for the smooth conduct of Convocation 2015

- Tree plantation and poster making activities at REC middle school have been carried out by NSS ICE and Civil units.



- Awareness programme on health & hygiene and pollution control were conducted
- Pulse polio awareness programme was conducted
- Spoken English and computer classes were conducted for high school students

## INDUSTRY – INSTITUTE INTERACTION CELL

DETAILS OF GUEST LECTURES				
Sl.No.	DATE	DEPARTMENT	GUEST FACULTY	LECTURE TOPIC/AREA
1.	24.03.2016	Instrumentation and Control Engineering	Mr. A.Gowthaman, Sr. Engineer, Maintenance Department (Instrumentation), Chennai petroleum Corporation Limited, Chennai	Instrumentation in petrochemical Industry.
2.	20.03.2015 to 2.03.2015	Civil	Dr.J.Vasudevan, Associate Director, JACOBS-CES	Road Transport Management and Economics
3.	Jan 2015 to April 2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL	Lecture on Welding Processes and Welding Application Technology
4.	Jan 2015 to April 2015	MME	Dr.Raja, Retired AGM, WRI, BHEL	Lecture on Welding Processes and Welding Application Technology
5.	Jan 2015 to April 2015	MME	Dr. Ashok Kumar, AGM, WRI, Trichy	Lecture on Welding Processes and Welding Application Technology
6.	Jan 2015 to April 2015	MME	Dr. Devakumaran, Senior Enigneer	Lecture on Welding Processes and Welding Application Technology
7.	Jan 2015 to April 2015	MME	Mr. Krishnamoorthy, Former DGM, SAIL	Lecture on Welding Processes and Welding Application Technology
8.	Jan 2015 to April 2015	MME	Dr.A.Venkataram, Former Professor, Pondicherry Engineering College, Pondicherry	Lecture on Welding Processes and Welding Application Technology
9.	22.01.2015	Chemistry	Dr.A.Murugadoss, Experimental Research Officer, University of Birmingham, UK	Advanced nano structured materials with controlled atomic distribution: A new model system

				for catalysis
10.	15.04.2015	Instrumentation and Control Engineering	L.A.E.Fernandez, AFMS, Control and Instrumentation, BHEL, Trichy	Industrial Instrumentation
11.	16.04.2015	Mechanical Engineering	Benny Thomas, scientist 'F', GTRE, Gearbox Division, Bangalore	Industrial Instrumentation
12.	20.04.2015	Computer Application	Mr.M.Sekar, Senior Commercial Manager, BHEL, Trichy	Creativity, Problem Solving & Preparing for the Interview
13.	17.04.2015	Chemistry	Dr.Dinesh Jagadeesan, Scientist, NCL, Pune	Sustainable Nanocatalysis
14.	10.02.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
15.	18.04.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
16.	09.03.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
17.	24.02.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
18.	17.03.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
19.	14.02.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
20.	11.02.2015	MME	Dr.S.Suresh, Former GM, WRI, BHEL, Trichy	MT616 – Welding Application Technology
21.	08.04.2015	Electronics and Communication Engineering	V.Srikrishnan, Silicon Architecture Engineer, Intel Technology India Pvt. Ltd., Bangalore	EC678 – Electronic Packaging
22.	08.04.2015	Electronics and Communication Engineering	Dr.C.Arun, Silicon Architecture Engineer, Intel Tech India Pvt. Ltd.	EC678 – Electronic Packaging
23.	27.05.2015	MME	Dr.Vaideswaran, Former SM, Plant Lab, BHEL, Trichy	MT606 – Welding Processes - II

24.	18.04.2015	Civil Engineering	Dr.Kurian Joseph, Professor, CES, Anna University, Chennai	CE713 – Environmental Impact Assessment
25.	19.04.2015 & 20.04.2015	Civil Engineering	Dr.J.Vasudevan, Associate Director, JACOBS-CES	CE602 - Road Transport Management and Economics
26.	25.04.2015	Electrical and Electronics Engineering	K.Vinothkumar, Senior Scientist, ABB Global Industries & Service Ltd, Chennai	EE604 – High Voltage Dc Transmission
27.	25.03.2015	Mechanical Engineering	Dr.D.Santhosh Kumar, Senior Engineer, R&D Department, BHEL, Trichy	ME606 – Computational Fluid Dynamics
28.	19.03.2015 – 09.04.2015	Energy Engineering	N.Murugan, DGM/SS,BS,RPD&TR G/PR(FB), BHEL , Trichy	EN606 – Wind and Hydro energy Systems
29.	25.05.2015	Chemistry	Dr.Mandan Chidambaram, Scientist, Reliance Industries Limited, Vadodara, Gujarat.	Invited Lecture.
30.	25-8-2015 to 19-11-2015	Mechanical Engineering	Dr.Jayanthi Jayaram, DGM/OHS BHEL, Trichy	ME655 – Occupational Health and Hygiene
31.	25-8-2015 to 27-11-2015	Mechanical Engineering	Mr.Mahalingam, Sr. Manager, OHS(Retd)	ME655 – Occupational Health and Hygiene
32.	1.10.2015 to 23.11.2015	Mechanical Engineering	Mr.T.Bhaskar, AGM/HSE/BHEL, Trichy	ME659 – Regulation for Health Safety and Environment
33.	6.8.2015 to 22-11.2015	Mechanical Engineering	Dr.K.Muthukumar, Sr.DGM/Safety Management/ BHEL, Trichy	ME659 – Regulation for Health Safety and Environment
34.	13 sessions of 3 hours each Academic year 2015-16	Architecture	Ar.N.Bharathi, Practicing Architect, Trichy	AR112 – Basic & Architectural Design - II
35.	13 sessions of 3 hours each	Architecture	Ar. M.Dhanasekaran, Practicing Architect, Thanjavur	AR214 – Architectural Design - IV
36.	13 sessions of 3 hours each	Architecture	Ar.Muthuraman, Practicing Architect, Trichy	AR312– Architectural Design – VI

37.	13 sessions of 3 hours each	Architecture	Ar.Ramanathan, Practicing Architect, Trichy	AR414– Architectural Design – VII
38.	10 sessions of 3 hours each	Architecture	Ar.P.S.Gopal Practicing Architect, Thanjavur	AR352 – Advanced Computer Applications
39.	10 sessions of 3 hours each	Architecture	Er.Bhoopathy Srinivasan, Practicing Graphic Designer, Kumbakonam	AR354 – Interior Design
40.	10 sessions of 3 hours each	Architecture	Ar.G.Naveen, Practicing Civil Engineer	AR452 – Estimation & Specification
41.	30 sessions of 1 hours each	Architecture	Er.Arul Murugan, Practicing Civil Engineer	AR408 – Estimation & Specification
42.	30 sessions of 1 hours each	Architecture	Ar.R.Shobha, Architect, Chennai	AR504 – Construction Management
43.	12 sessions	Architecture	Ar.G.Naveen, Practicing Architect, Trichy	AR109 – Basic & Architectural Design – I (Section A)
44.	12 sessions	Architecture	Er.Bhoopathy Srinivasan, Practicing Graphic Designer, Kumbakonam	AR109 – Basic & Architectural Design – I (Section B)
45.	13 sessions	Architecture	Ar.S.Vidya Shankar, Practicing Architect, Kumbakonam	AR211 – Architectural Design – III (Section A)
46.	13 sessions	Architecture	Ar.M.Dhanasekaran, Practicing Architect, Thanjavur	AR211 – Architectural Design – III (Section B)
47.	10 sessions	Architecture	Ar.T.J.Eswaramoorthy, Practicing Architect, Thanjavur	AR311 - Architectural Design - V
48.	13 sessions	Architecture	Ar.A.Shanmugam, Practicing Architect, Trichy	AR505 - Architectural Design - VIII
49.	07 sessions	Architecture	Ar.S.Thangabaskar, Practicing Architect, Trichy	AR309 – Computer Applications in Architecture - II
50.	04 sessions	Architecture	Ar.P.S.Gopal, Practicing Architect, Thanjavur	AR309 – Computer Applications in Architecture - II
51.	06 sessions	Architecture	Ar.Bharathi Babu, Practicing Architect, Trichy	AR351 – Vernacular Architecture

52.	10 hours	Architecture	Ar.Kosalaraman, Practicing Architect, Chennai	AR501 – Professional Practice - I
53.	10 hours	Architecture	Ar.Kiriti Sahoo, TERI, Bangalore	AR551 – Energy Efficient Buildings
54.	09.09.2015 to 10.09.2015	EEE	Mr.V.Chandrasekar, Joint Director, Power Electronics Group, C- DAC, Thiruvanthapuram.	Design Techniques for SMPS
55.	13.08.2015	EEE	Mr.Samuthirapandi, Deputy General Manager, BHEL, Trichy	Deliver a speech
56.	04.09.2015 to 05.09.2015	Civil	Dr.M.S.Amarnath, Professor of Civil Engineering, Bangalore University.	CE613- Pavement Materials
57.	19.09.2015 to 21.09.2015	MME	Dr.P.Chakravarthy, Assistant Professor, Department of Aerospace Engineering, Indian Institute of Space Science and Technology, Trivandrum	MT094 – Aerospace Materials
58.	06.10.2015	Chemistry	Dr.P.Ramamurthy, Prof & Head, Director, NCUFP, Department of Inorganic Chemistry, University of Madras, Chennai	Delivering Invited lecture entitled “Acridinedione Dyes Fluorescence and Colorimetric Sensor”
59.	12.10.2015	Mechanical Engineering	M.Tharunkumar, HSE Engineer, Natinal Drilling Company, abu Dhabi, UAE	Safety in Engineering Industry.
60.	12.10. 2015	Civil Engineering	Dr.M.S.Amarnath, Professor, Bangalore University, Bangalore	CE613 – Pavement Materials
61.	01.10.2015	Instrumentation and Control Engineering	Dr.J.Arunshankar, Associate Professor, Department of Instrumentation and Control Systems Engineering, PSG College of Technology, Coimbatore	IC603 - Modern Control Engineering

62.	29.10.2015	Production Engineering	Dr.K.Muthukumar, DGM, Safety Management, BHEL, Trichy	Industrial Lecture
63.	27.10.2015 – 30.10.2015	Mechanical Engineering	Dr.K.Ramamurthi, Visiting Professor, Department of Mechanical Engineering, IIT, Madras	Fire Engineering and Explosion Control
64.	13.10.2015-14.10.2015	Mechanical Engineering	Dr.A.K.Ganguli, Occupational Health Center,(Redt), BHEL, Trichy	Occupational Health & Hygiene
65.	31.10.2015 & 01.11.2015	Electrical and Electronics Engineering	V.Chandrasekar, Joint Director, Power Electronics Group, C-DAC, Thiruvananthapuram	EE639 – Design Techniques for SMPS
66.	05.06.2015	Mechanical Engineering	Dr.M.Suriyanarayanan, Principal Scientist, CISRA, CLRI, Adyar, Chennai	ME653 – Safety Management
67.	27.11.2015	Chemistry	Dr.R.Raja Jeyaganthan, Alumni	Surface fictionalization for super hydrophobicity

**DETAILS OF GUEST LECTURES**

Sl.No.	DATE	DEPARTMENT	GUEST FACULTY	LECTURE TOPIC/AREA
1.	17.11.2015	Civil Engineering	Dr.A.Veeraragavan, Professor, Department of Civil Engineering, IIT Madras.	CE613 – Pavement Materials
2.	16.11.2015	Civil Engineering	Dr.K.Sitaramanjaneyulu, head, Pavement Division, CRRI, New Delhi	CE613 – Pavement Materials
3.	16.11.2015	Civil Engineering	Dr.J.Vasudevan, Consultant, JACOBS CES (I) Pvt. Ltd, Chennai	CE613 – Pavement Materials
4.	14.11.2015	EEE	V.Chandrasekar, Joint Director, Power Electronics Group, C-DAC, Thiruvananthapuram	EE639 – Design Techniques for SMPS

5.	29/1/15 to 9.4.2015(12 hrs)	Architecture	Mr.Arul Murugan, Practicing Civil Engineer, Karaikal	AR408 – Estimation and Specification
6.	22.12.2015	Energy & Environment Engineering	Dr.R.Murugesan, IIT, SAIF	Energy
7.	21.12.2015	Energy & Environment Engineering	Dr.Lawrence, Sr.Manager, R & D, BHEL, Trichy	Energy
8.	22.12.2015	Energy & Environment Engineering	Mrs. K.Uma Maheswari, Associate Dean	Spectral analysis
9.	21.12.2015	Energy & Environment Engineering	A.Simon Justin, Research Scholar, Gandhi gram rural institute, Dindugal	TGA and DSC analysis
10.	23.12.2015	Chemistry	Dr.Gurunath Ramanathan, Professor, Department of Chemistry, IIT Kanpur	Invited Lecture
11.	09.01.2016	Civil Engineering	Dr.Kuran Joseph, Professor, Center for Environmental Studies, Anna University, Chennai	CE713 – Environmental Engineering
12.	20.11.2015	Energy & Environment Engineering	P.Selvakumaran, 11, 1 <sup>st</sup> cross, IAS nagar, Thiruverumbur, Trichy	Power Generation Technologies
13.	22.01.2016	Chemistry	Dr.S.Muthusubramaniam, Chair Professor, Department of Organic Chemistry, Madurai Kamaraj University, Madurai	2D NMR spectroscopic techniques
14.	27.01.2016	ICE	VSN .Murthy Arikapalli, Scientist G, DRDL, Hyderabad	B.Tech (ICE), M.Tech (PCI)
15.	29.01.2016	Production Engineering	Ms.Santhakumari, Senior Deputy General Manager, Welding Research Institute, BHEL, Trichy	PR314 – Industry Lectures
16.	02.02.2016 & 03.02.2016	ICE	Dr. Arunkumar Paul, Research Head, Electronic Devices Pvt. Ltd, Mumbai	Sliding mode control and its applications
17.	04.02.2016	CSE	Dr. Jey Veerasamy, Director, Center for CS Education & Outreach university of Texas at	CS346 – Industrial Lecture

			Dallas	
18.	09.02.2016	Production Engineering	Mr.S.Ramani Balaji, Deputy Manager – Projects, Rane TRW Steering Systems, Viralimalai	PR314 – Industry Lectures
19.	26.11.2015	CSE	A.Raghunath, SDGM, BHEL, Trichy	Cloud Computing
20.	18.11.2015	Mechanical Engineering	Dr.P.R.Sudhakar, Sr. Regional Director Safety (Retd), Chennai	Technical presentation on “E-Powerment
21.	18.11.2015	Mechanical Engineering	P.Jeyajothiraj, Scientist/Engineer ‘G’, Vikram Sarbhai Space Centre, Thiruvananthapuram	Acoustics, Aero acoustics and their Role in launch vehicle design.
22.	20.11.2015	Mechanical Engineering	Dr.R.Jaganathan, Adjunct Faculty, 75/30, S.P.Sannadhi First Street, Royapettiah, Chennai-600014	Dimensional analysis for auto components
23.	20.11.2015	Mechanical Engineering	Dr.T.S.Balasubramanian, Scientist ‘G’ (Retd), C.V.R.D.E, Ex Dean (Research), Sareetha University	System Engineering – An Integrated approach to complex projects.
24.	20.11.2015	Mechanical Engineering	Savio Sebastian, 301 Navaratna Apartments, 3 <sup>rd</sup> Main Road, HAL 3 <sup>rd</sup> Street, Bangalore – 75	Measurement Uncertainty.
25.	19.11.2015	Mechanical Engineering	P.Jayakumar, #21, 8 <sup>th</sup> cross street, ISRO layouts, Bangalore.	Adjunct fealty, Machining of titanium alloy.
26.	19.11.2015	MME	Dr.M.Velan, Chief Manager, NLC	Metallurgical failure analysis of pressure parts of a lights fired.
27.	19.11.2015	MME	Dr.R.Vaideeswaran, Senior Manager (Retd), BHEL, Trichy	Effect on alloying elements in metals.
28.	19.11.2015	MME	Dr.K.Asok kumar, Asst.GM, BHEL (WTC&TE), Trichy	Fundamentals of solid phase welding.
29.	20.11.2015	MME	Mr.R.Srinivasan, Member Secretary, MTD, Burean of Indian Standards.	Expertise gained in the metallurgical field.

30.	20.11.2015	MME	Dr. Suresh Srinivasan, General Manager (Retd.), BHEL, Trichy	Metallurgical & Mechanical effects of welding.
31.	20.11.2015	MME	Dr. Gaya Prasad, GM SMS, Adhuniu Metallic Ltd. Bhilai steel, Dish Dury.	Corrosion in steel.
32.	19.11.2015	Production Engineering	Dr.A.Raja, No.12, Rohini Vasthugraman Road (west), Srirangam, Trichy	Advanced Technologies in Welding
33.	19.11.2015	Production Engineering	N.Jagadeesan, Flat No. 10, Sangeetha Apartments, No. 33, South Beach, T.Nagar, Chennai - 600017	POM – Change Management.
34.	16.11.2015	Chemistry	Dr.K.Natarajan, Former Emeritus Scientist (CSIR), Department of Chemistry, Bharthiar University, Coimbatore.	Special lecture
35.	18.11.2015	Chemistry	Dr.R.Balachandran, Deputy General Manager (Retd.), BHEL, Bangalore	Thermodynamics
36.	19.11.2015	Chemistry	Dr.Balasubramanian Gopalan, CSO, Executive Director, Orchid Chems Pharam Ltd	Medicinal Chemistry
37.	20.11.2015	Chemistry	Dr.Subramoney Narayana Moorthy, 18 B, Gowri Nagar, Pongumoodu Medical College Post, Trivandrum - 6950112	Starch Structure, Properties & Applications.
38.	20.11.2015	Chemistry	Dr.S.Kumaresan, H – 100, Thamirapathy colony, Thiyagayaraya Tirunelvel – 627001	Umpolung Synthesis.
39.	24.11.2015	Chemistry	Dr.P.Venuvanalingam, Emeritus Scientist School of Chemistry, Bharathudasan University, Trichy.	Computational Chemistry – An overview
40.	26.11.2015	Chemistry	Dr.M.Palaniandavar, Distinguished visiting professor, Department of Chemistry, IITB, Powai, Mumbai - 400076	Structure and Function of Metals

41.	24.11.2015	Chemistry	Dr.R.Nageswara Rao, Chief Scientist, CSIR – Indian Institute of Chemical Technology (IICT), Hyderabad.	Chromatographic Techniques in Chemical Research.
42.	20.11.2015	Chemical Engineering	Dr.P.Subramanian, Former Chief Scientist, CECRI, Karaikal	Cathodic protection to Prevent Corrosion in pipe line
43.	16.11.2015	ICE	Dr.N.M.Athivanan, Professor (Retd.), M.K. University Madurai, 5/707 Madurai	Visiting Faculty Interview
44.	16.11.2015	ICE	S.Dharmalingam, Former General Manager, BHEL, Trichy	Visiting Faculty Interview
45.	23.03.2015	Humanities	Dr.G.Murugan, 84F New Delhi	Sustainable Development
46.	01.12.2015	Civil Engineering	R.Shanmugam, Executive Engineer (Retd), 17 Marhasmankovil street, old saram, Puducherry	Irrigation Management
47.	14.12.2015	Civil Engineering	Dr.J.Vasudevan, Sreerag Apartments, Flat 2, AK110, 7 <sup>th</sup> Main Road, Anna Nagar, Chennai – 600040	National Road Safety Policy
48.	03.12.2015	Electronics and Communication Engineering	T.N.Ruckmangathan, Raman Research Institute, Bangalore	Signal Processing on Display Devices for 60 mins.
49.	16.12.2015	Electronics and Communication Engineering	Dr.S.Madivaanan, Chennai	Defense Electronic Systems.
50.	13.02.2016	Chemical Engineering	Mrs.Manimozhi, Senior Manager – Process, Petrofact India Pvt Ltd, Manapakkam, Chennai - 600089	Multi Complex Distribution
51.	13.02.2016	Chemical Engineering	Mr.A.Ramasubramanian, JGM, Chennai Process Head, Technip India Pvt Ltd, Chennai	Thermal Design of Shell and Tube Heat Exchangers
52.	09.02.2016	Computer Science and Engineering	Dr.A.Rgahunathan, SR- DGM, BHEL, Trichy	CS346 – Industrial Lecture

## INDUSTRY-CONSULTANCY AND SPONSORED RESEARCH

## 1. Details of Sponsored Projects (April 2015 – March 2016)

Sl. No	Principal Investigator	Dept	Project Title	Sanctioned Amount	Funding Agency	Duration	Status	Total Budget
1	Dr.S.Suresh	MECH	Experiment Heat Sink Coated with Vertically Aligned CNT and Metal Nanowires	3129000	DST_SE RB	3 YEARS	Ongoing	4512200
2	Dr.S.Suresh	MECH	Miniaturised compact solar concentrators for water desalination/purification	693000	DST_IN T_UK	3 YEARS	Ongoing	1386000
3	Dr.G.Swaminathan	CEESA T	Methodologies for Safe Disposal of Missile Canister after Firing	200000	DRDL	3 YEARS	Ongoing	500000
4	Dr..Sivaprasad	MME	Under graduate Steel Scholarships for 2nd and 3rd years	1800000	JPC		Ongoing	1800000
5	Dr.S.Anandan	CHY	Medium Band Gap Donor-Acceptor Conjugated Polymers towards fabrication of Bulk Heterojunction Solar cells	2600000	SERB	3 YEARS	Ongoing	4003200
6	Dr.S.Anandan	CHY	Experimental and Theoretical aspects of sonochemical effects in food emulsions	1034800	DST_IN T_RUS	3 YEARS	Ongoing	2069600
7	Dr.B.Venkataramani	ECE	Special Manpower Development Programme for Chips to System Design	150000	CEERI	3 YEARS	Ongoing	150000
8	Dr.S.Kumaran	MME	Development of Ultra Fine Grained Super High Strength Aluminium alloys (7XXX series) by Cryo Rolling	1390000	ISRO(RE SPOND)	3 YEARS	Ongoing	2000500

9	Ms.Sheela Priya	MBA	Stock price trend prediction: Comparative analysis in the classification of artificial neural network models based on Bayesian regularization with benchmark model arima	100000	ICSSR	2 YEARS	Ongoing	207000
10	Dr.S.Senthil Kumar	EEE	Dynamic Loadig of conveyor Drive Heads in Mines	418750	NLC		Ongoing	3098000
11	Dr.S.Muthukumaran	MME	Friction Stir Welding (FSW) of Aluminium alloys for Aerospace Applications	1050000	ISRO(RESPOND)	3 YEARS	Ongoing	2193000
12	Dr.S.Suresh	MECH	Experimental investigation on heat transfer characteristics of hybrid PCM in thermal storage system (TES) for solar applications	4259200	DST_TM_SERI	3 YEARS	Ongoing	6337600
13	Dr.Ramakalyan Ayyagari	ICE	De-congesting India's Transportation networks using mobile devices	2180000	DEITY-MLA	5 YEARS	Ongoing	
14	Dr.S.Kumaran	MME	Development nano-structured magnesium silicide thermo-electric materials by spark plasma sintering and evaluation of electric power generation from thermal systems	1200000	DST_NANO	3 YEARS	Ongoing	2538200
15	Dr.B.Venkataramani	ECE	Visvesvaraya PhD Scheme for Electronics and IT PHASE II	4062500	DEITY_MLA II	5 YEARS	Ongoing	8357500

16	Dr.R.Anand	MECH	Experimental Investigation on dual Fuel Engine using Compressed Natural Gas and Pyrolysis waste engine oil	3150000	SERB	4 YEARS	Ongoing	5034000
17	Dr.Ramkalyan Ayyagiri	ICE	Model Driven Engineering for Integration Industrial Automation Systems with Application to Water Networks [Scope ABB GISPL shall provide scholarship to a max. 2 Research Scholars]	495900	ABB_GLOBAL	5 YEARS	Ongoing	495900
18	Dr.Shima P Damodaran	CHY	Innovation in Science Pursuit for Inspired Research	1900000	DST-INSPIRE	5 YEARS	Ongoing	1900000
19	Dr. Seenuvasan Vedachalam	CHY	Innovation in Science Pursuit for Inspired Research	1900000	DST-INSPIRE	5 YEARS	Ongoing	1900000
20	Vikram Kumar Suresh Jain	MME	Inspire Fellowship	380000	DST-INSPIRE	5 YEARS	Ongoing	380000
21	K Shalini	PHY	Inspire Fellowship	380000	DST-INSPIRE	5 YEARS	Ongoing	380000
22	Dr.R.Anand	MECH	Production of Biodiesel from Non-Edible Aegle marmelos Correa oil and its Use in Diesel Engine	1672000	SERB-YSS	3 YEARS	Ongoing	2936000
23	Dr.S.Kumaran	MME	Mechano-chemical Synthesis of Nanostructured Magnesium Silicide Thermo-electric Materials by Spark Plasma Sintering	158000	CSIR	3 YEARS	Ongoing	-
24	Dr.P.Sathiya	PROD	A Comparative study on the weldability of high strength aluminium-magnesium alloy (AA-5083)	2870000	SERB	4 YEARS	Ongoing	4909080

25	Dr.S.P.Sivapirakasam & Dr.K.R.Balasubramanian	MECH	Experimental Investigation of Impact Initiation of Sound / Light Emitting Pyrotechnic Compositions	1904170	DRDO - ARM	3 YEARS	Ongoing	3218390	
26	Dr.S.Lakshmi Prabha	CA	NPDF - National Post Doctoral Fellowship	416000	DAE-NBHM	2 YEARS	Ongoing		
27	Dr.S.Prasanna Venkatesan	PROD	Investigation on E-waste flow assessment and collection strategies for a Sustainable and Economic e-waste value chain Design in India	820000	SERB	3 YEARS	Ongoing	1636000	
28	Dr.S.Kumaran	SERB	Development of Nano-oxide dispersion strengthened ferritic / martenitic steels by spark plasma sintering and study their high temperature properties	1490000	SERB	4 YEARS	Ongoing	3544200	
								<b>Total Fund Released in Year</b>	<b>41803320</b>

**2. MoU (Memorandum of Understandings) during 2015-2016**

Sl. No	Name of the Partner	Initiating Faculty	Scope of Activities	Effect Date	Status	End Date	Remarks
1.	Sri Kavery Medical Centre, Trichy		Long term and short term exchanges of faculty students and staff for purpose of teaching and research.	15.04.2015	Active	15.04.2019	MoU
2.	Central Coir Research Institute, Kalavoor (*Revised)	Dr.Samson Mathew		01.04.2015	Active	01.04.2017	MoU

3.	Bharat Heavy Electricals Limited	Dr.G.Kan nabiran, Professor	KM Process Benchmarking and Strategy formulation for values.	30.09.2015	Active		MoU
4.	Pepsico	The Director, NIT-T	Guest lectures, Research projects, Internships, Placements	15.10.2015	Active		MoU
5.	ABB Global Industries Private Limited, Bangalore	Dr.Ramk alyan Ayyagiri,	To provide scholarships for research scholars.	21.05.2015	Active	21.05.2020	Agree ment
6.	Robert Bosch Engineering and Business Solution Private Limited (RBEI), Bangalore	Dr.Ramk alyan Ayyagiri,	Algorithms development in Robotics application	28.10.2015	Active	28.10.2020	Non DisclosureA greement
7.	Tata Consultancy Services		Exploring the areas of cooperation, benefiting both NIT and TCS	08.08.2016	Active	08.08.2018	MoU
8.	D'GIPRO SYSTEMS PRIVATE LTD & CENTRE FOR LAND WARFARE STUDIES & I-Scholar Education Services Pvt ltd, Bangalore		Collaboration for conduct of training programme short term certificate program in defence acquisition and technology utilisation management.	08.08.2016	Active	08.08.2018	MoU

**3. Details of Consultancy Works during 2015-2016**

Sl. No	Proj. No	Year	Project	Funding Agency	Project Investigator	Dept	Designation	Amount Sanctioned	Status
1	C001	2015-16	Vetting of Structural Design Parameter Detailed Design Calculations and Drawing for the Infrastructure and Facilities at Indian Naval Academy (Phase-II) Ezhimala, Kerala	INA	Dr.K.Baskar	CIV	Associate Professor	513000	Ongoing
2	C002	2015-16	Soil Investigation Work for the proposed School Buildings at BHEL Township and Sri Paramahansa BHEL Nursery & Primary School at Kattur, Trichy	BHEL	Dr.K.Muthukumaran	CIV	Associate Professor	529200	Ongoing
3	C003	2015-16	Study on carbon sequestration capability of various microalgal species in the actual flue gas	BHEL	Dr.M.Prema latha	CEES AT	Associate Professor	475283	Ongoing
4	C008	2015-16	Development of Surface Modification Technique to Improve the life of ID fan Blades	BHEL	Dr.M.Durai Selvam	PRO	Associate Professor	320670	Ongoing
5	C009	2015-16	KM Process benchmarking and strategy	BHEL	Dr.G.Kannabiran	MBA	Professor	207000	Ongoing

6	C0010	2015-16	Soil investigation works at GAIL Adaikamangalam site	GAIL	Dr.K.Muthukumaran	CIV	Associate Professor	70000	Ongoing
7	C0011	2015-16	Development of Thermal Interface Material (TIM) for Thermoelectric Generator (TEG) System	BHEL	Dr.M.Durai Selvam	PRO	Associate Professor	1504447	Ongoing

## CENTRE FOR ENTREPRENEURSHIP DEVELOPMENT AND INCUBATION (CEDI)

### 1. Awards for the Institute :

NITT won national level **High Impact Entrepreneurship Campus** award for the institution in March 2015. The award was conferred by National Entrepreneurship Network in collaboration with Ministry of Skills Development and Entrepreneurship, Government of India.



### 2. Industry Funding For CEDI:



CEDI NIT Trichy and Sonata Software in April 2015 announced a partnership to promote student innovation and entrepreneurship. This event focuses on continuing Sonata's support for innovation and fostering close link between industry and academia. In addition to technical and managerial support, Sonata has committed significant funding to the extent of Rs 105 Lakhs for three years beginning 2014-15 to CEDI NIT Trichy to support technology business incubation and promotion of innovation and entrepreneurship.

### 3. Major Project Completed:



**The Asia Foundation**

**Business and Management Capacity Development of Rural Women Entrepreneurs of India and Sri Lanka** funded (US \$ 55,000) by **The Asia Foundation** with support from the U.S.

Department of State. The project is being implemented in partnership with **University of Jaffna** and **South Eastern University of Sri Lanka**. These are achieved in collaboration with the networking partner, **Women Entrepreneurs' Association of Tamil Nadu**. The project focused on a **10-month long mentoring programme** for 60 select rural women entrepreneurs in India areas including Marketing, financial management, quality management, distribution, etc. It is envisaged that the mentoring programme would help these women to move to next level of growth.

### 4. Collaboration with EDI Ahmedabad



Established a meaningful collaboration with **Entrepreneurship Development Institute, Ahmedabad**. I have led the efforts to conduct **EDP** for potential graduates by CEDI. CEDI is also the **Nodal centre for EDI's PG Diploma in Entrepreneurship & Business management**.

### 5. Conference Organized

Conference on **Women Entrepreneurship Ecosystem - Present & Future** was organized on 27.10.2015 at Trichy. More than 100 Women entrepreneurs, Development professionals, renowned Faculty members of prestigious institutions from India and Sri Lanka, Policy makers participated in the conference. The Vice Chancellor of **University of Jaffna** was the Chief Guest. Vice chancellor of **South Eastern university of Sri Lanka, National Entrepreneurship Network** were special invitees who attended the conference. The mentors identified for each group of women entrepreneurs mentored under the mentoring programme made presentation on each of the activities completed in the mentoring programme and future prospects.

**Architecture**  
**Chemical**  
**Civil**  
**Computer Science and Engineering**  
**Electrical and Electronics**  
**Electronics and Communitation**  
**Instrumentation and Control**  
**Mechanical**  
**Metallurgical and Materials**  
**Production**  
**Chemistry**  
**Computer Applications**  
**Energy and Environment**  
**Humanities**  
**Management Studies**  
**Mathematics**  
**Physics**

