VOLUME
4
ISSUE 2

Impulse

The Half Yearly Newsletter of ECE, January 2016

SSN

EDITORIAL BOARD

HIGHLIGHTS

WEAVING IT RIGHT

TEXTILE AND ELECTRONICS

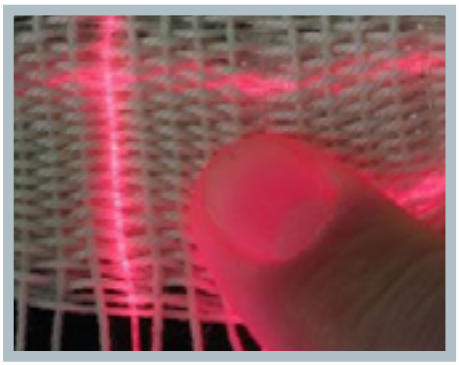
Dr. S. Esther Florence,
Associate Professor

Weavers, weaving at break of day,
Why do you weave a garment so gay?
Blue as the wing of halcyon wild
We weave the robes of a new-born child.

Weavers, weaving at fall of night,
Why do you weave a garment so bright?
Like the plumes of a peacock, purple and green
We weave the marriage veils of a queen
-Sarojini Naidu

Innumerable times my expedition for wondrous six-yard drapes have led me to Kancheepuram. And every single time, the intricate elegant beauty of the 'Kanchivaram silk sarees' never failed to fascinate the woman in me. My dad used to say that for us Indians, textile technology was an ancient branch of engineering. So enthralled was I at the marvel churned out by the dull 'thud thud' of the weaving loom, I was so sure that the giant of a machine working tirelessly through the day, can weave just anything under the sun. And I was right. Wasn't I?

With the mammoth evolution of technology, computers have become an integral part of our everyday lives. We have tailor-made this technology to perfectly suit us that it would be hard to imagine a life without it. Metaphorically taken, this makes perfect sense. And literally? Surely it can't make sense! Can we "tailor-make" technology? We can't literally weave technology, can we?



Yes we can! Thanks to the gargantuan strides being taken in wearables. We have small computers installed in everything nowadays. From the phones that have become "smart" to the watches that show more than time, everything has the ability to help us sophisticate our lifestyle.

When phones and watches can become smart, why not our clothes? This is the idea that fuelled the advancement of wearable technology. So the modern proverb goes like: a stitch in time not only saves nine but can also measure what else you save! Small as they come, they do their job to precision with high speed and high reliability, which makes them invaluable to the medical, military, industry and fashion business.
A small, sophisticated watch is capable of performing plenty of activities: calculating heart rate, sugar level, insulin level, body posture, sleep patterns etc. Performing physical exercise can never get better while using these little helpers.

Several products have risen to the fame in the recent years because of the outrageous use of technology to perform almost impossible tasks. One such product is the Nike+ which basically tracks how much a person runs and how many calories have been burnt and more. This is achieved by a special sensor that is embedded in the shoe.

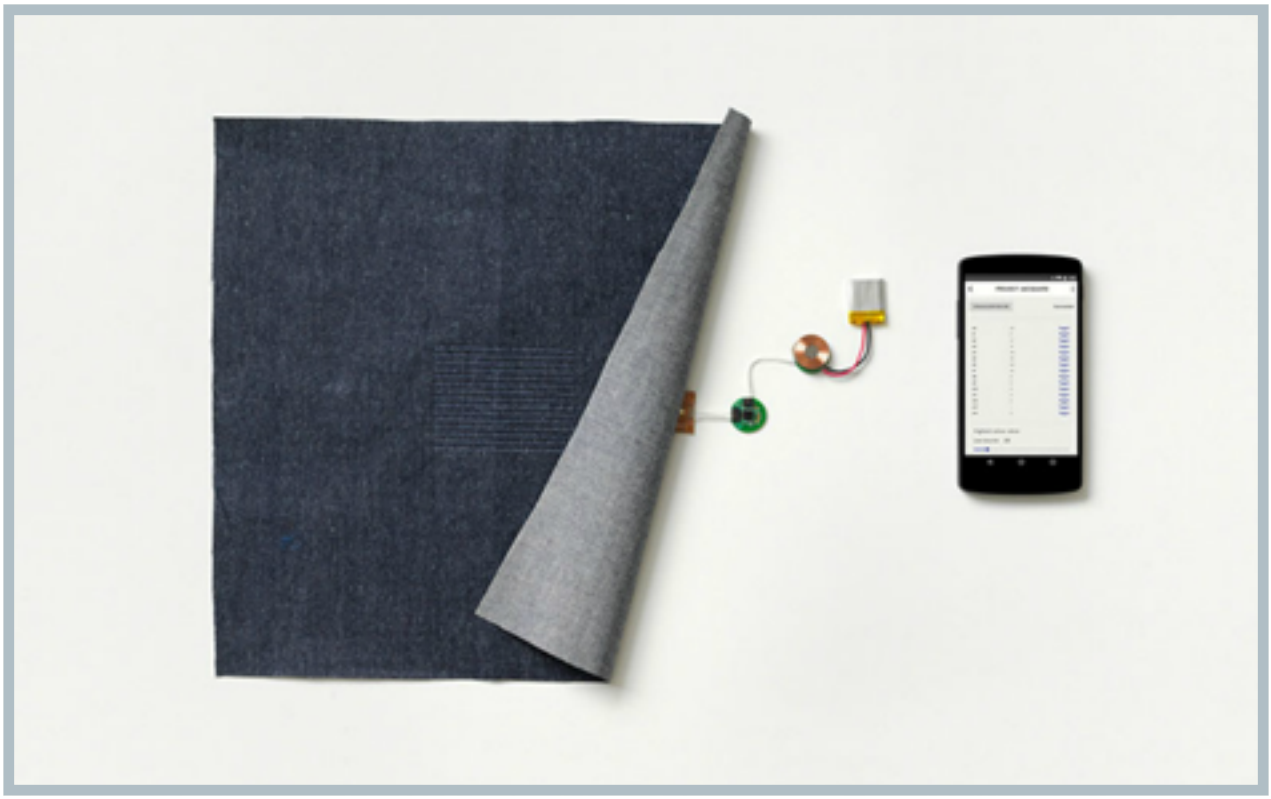
Google glass is another revolutionary product which works on the same concept. Here the users communicate with the internet via natural language voice commands.
In nuclear plants, the clothes the employees wear indicate how much radiation has been absorbed by their bodies. This will keep track of their health condition and prevent the occupational health hazards they are constantly exposed to.

Police interrogations can now be made easier if the police wear the 'smart glass'. This glass records the entire conversation the police have with the suspect and it is projected elsewhere and will also alert the police if the suspect has any previous cases.

Despite the high-fi gadgets that principally work on wearable technology, the basic idea is definitely not. Wearable technology may not be catastrophically harmful but when it falls in the hands of cheeky frauds, it can make quite a story. In 1961, two men Edward Thorpe and Claude Shannon attached a timing device to their shoes which could accurately predict where the roulette ball would drop on the table. The device was so successful that Thorpe reported a 44% increase in his winning.

Rings are ornaments that go down history's lane but clever men never spared anything. The 17th century Chinese were so resourceful that they fashioned rings that had abacus beads in it and mathematic calculations were at their fingers rather than fingertips!

After reading so far, you must have guessed that the applications of this field are countless. Apart from these, wearable technology are also being pushed into the limelight in the fashion industry. Do the wearable technology clothes not work properly? No problem! You can be a trendsetter! After all this is a world where fashion and bizarre are synonyms.



VISITS AND INTERACTIONS

1. Dr. S. Sakthivel Murugan, Asso. Prof. had a discussion with Dr. Haridoass, Director and Dr. Balan, Director-Technical from Cedicom Electronics, Kerala on the underwater acoustic instruments and its functionalities on 9th Jul. 2015. He also extended discussions on new funded projects on 27th Nov. 2015.

2. Dr. S. Radha, Prof. & Head, Mr. S. Ramprabhu, Asst. Prof. and Mr. K. J. Jegadishkumar, Asst. Prof. visited News 7 Tamil TV premises at Nungambakkam along with III SEM M.E Communication systems students as a part of Industrial Visit on 29th Jul. 2015.

3. Dr. K. T. Selvan, Prof. visited Tata Elxsi, Chennai on 15th Jul. 2015, to organize internship for UG project students and to discuss formal collaboration between the company and SSN.

4. Dr. S. Radha, Prof. & Head, Dr. R. Kishore, Asso. Prof., Ms. S. Aasha Nandhini and Ms. V. Angayarkanni, JRFs visited IGCAR on 07th Sep. 2015 for project discussion.

5. Dr. S. Radha, Prof. & Head, Dr. R. Jayaparvathy, Prof. and Dr. Premanand C, Prof. visited Xmos Semiconductor Technologies Pvt. Ltd on 25th Sep. regarding student internship, projects and sponsorship for the forthcoming international conference.

6. On 2nd Nov. 2015, Mr. Soundararajan, R&D VP, Tata Elxsi and his team visited ECE department and had a discussion with the faculty members to explore the possibilities of research collaboration with SSN. Dr. Premanand Chandramani, Prof., Dr. N. Venkateswaran, Prof., Dr. R. Amutha, Prof., Dr. K. T. Selvan, Prof., Dr. R. Kishore, Asso. Prof. and Ms. Hemalatha, Asst.Prof. interacted during the meeting.

Dr.S.Radha,Prof. & Head,Mr.S.Ramprabhu,Asst. Prof. and Mr.K.J.Jegadishkumar.Asst. Prof. at the News 7 tamil premises

EXPERT LECTURES

TALKS AT THE DEPARTMENT

1. "EMC Compliance in Electronic Devices," Dr. Nisha Gupta, Professor, Birla Institute of Technology, Mesra, Ranchi, on 09th Jul. 2015.

2. "Signal Integrity Essentials," Mr. K. B. Rajendra Kumar, Senior System Design Engineer, CISCO System, Bangalore, on 29th Sep. 2015.

3. "Antenna Applications," Dr. P. H. Rao, Senior Scientist, SAMEER on 12th Nov. 2015.

FACULTY TALKS ELSEWHERE

1. Dr. Premanand Chandramani, Prof. delivered inaugural address in the ISTE sponsored STTP on "Trends and issues in modeling and design of digital systems" on Jun. 22nd, 2015 at the Department of Electrical Engineering, Annamalai University

2. Dr. Premanand Chandramani, Prof. delivered two talks titled "Where does digital design fit in as part of a SoC" and "Suitability of FPGAs as an implementation platform for designing digital systems" at the ISTE sponsored STTP on "Trends and issues in modeling and design of digital systems" on Jun. 22nd, 2015 at the Department of Electrical Engineering, Annamalai University

3. Dr. K. T. Selvan, Prof. & IEEE AP-S Region 10 Distinguished Speaker, delivered talks on Fundamentals of electromagnetic units and constants & Radiation from apertures at SASTRA University, Tanjore on 10th Jul. 2015

4. Dr. Premanand Chandramani, Prof. delivered a special lecture on "FPGA Design" on 31st Jul. 2015 in the Refresher course on 'Embedded Hardware Design' for the faculty of Engineering and Technology organized by the Department of ECE, SRM University

5. On 10th Aug. 2015, Dr. K. T. Selvan, Prof delivered a guest lecture at VIT, Vellore, on the occasion of the inauguration of IEEE MTT-S Student Branch Chapter.

6. Dr. R. Amutha, Prof. delivered a guest lecture on "MIMO and its application to WSN" in STTP organized by Sri Sairam Engineering College on 7th Aug. 2015.

7. Dr. S. Radha, Prof. & Head delivered an invited talk on "Cooperative communication in WSN" in the workshop "Recent Research Techniques in Next Generation Wireless Technologies" organized by Department of ECE, CEG, Anna University, Chennai on 21st Aug. 2015.

8. Dr. P. Vijayalakshmi, Prof. delivered a talk on "Multivariate analysis and its applications" in the two-day workshop on "Applied Engineering Mathematics" organized by Dept. of Mathematics, SSNCE on 04th Sep. 2015.

9. Dr. B. S. Sreeja, Asso. Prof. delivered a talk on "MEMS-sensors and actuators" and conducted workshop session in the two-day workshop on "Microelectronics, MEMS Design and Simulation using Intellisuite and COMSOL" organized by Vidhya academy of science and technology, Thrissur on 10th and 11th Sep. 2015.

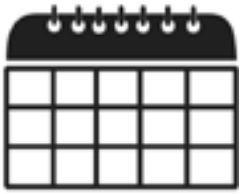
10. Dr. A. Jawahar, Prof. delivered a guest lecture on "Analysis and design of asynchronous circuits" at Agni Institute of Technology, Thalambur on 19th Sep. 2015.

11. Dr. K. T. Selvan, Prof. delivered a talk on "Electromagnetic constants" at the Society of EMC Engineers (India) workshop on "Science of EMC" held at Sri Sairam Engineering College, Chennai on 24th Sep. 2015.

12. Dr. K. T. Selvan, Prof. delivered a guest lecture on "Field equivalence principle" to PG students and faculty at VIT University (Chennai Campus) on 27th Oct. 2015.

13. Dr. N. Venkateswaran, Prof. delivered a talk on " Waveforms and beam forming for 5G wireless communications" in the five-day National workshop on "Roadmap to 5G Wireless Infrastructure" organized by Pondicherry University from 2nd to 6th Nov. 2015.

EVENTS ORGANIZED



1. Two day Workshop on MSP430 Wireless Interfacing Modules

Date: 12th and 13th Aug. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. R. Rajavel, Asso. Prof., and Mr. S. Joseph Gladwin, Asst. Prof.
Sponsors: Department of ECE
Resource Person: Rajarajan.E, Bluetronics Inc. Tamilnadu, India
Participants: 27 UG and PG Students

2. Two-day workshop on "Embedded Systems"

Date: 09th and 10th Sep. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. R. Jayaparvathy, Prof., and Ms. M. Anbuselvi, Asst. Prof.
Resource Person:
Mr. Raghavendra Bhat, System Solution Architect, Intel Corporation, Bangalore.
Mr. Srinivas Chandra, Lead Engineer, XMOS Technologies, Chennai.
Ms. Chenthamarai Selvam, Sr. Principal Scientist, CSO, Chennai
Ms. Geetha S Nazre, Manager-Technical Electro System Associates, Bangalore.
Participants: Internal 28 (Students UG 7, PG 15 & Research Scholars -6)
External 12 (Faculty 2 & Students 10)

3. One day workshop on "Internet of Things"

Date: 09th Oct. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr.R.Jayaparvathy, Prof & Dr. K. Muthumeenakshi, Asso. Prof.
Resource Person: Dr.S.Srikanth, CKO, Nanocell Networks, Banglore.
Participants: 35 participants inclusive of Faculty members, research scholars, UG/ PG students from various engineering colleges.

4. Two-day workshop on "Cadence Tools"
Date: 16th and 17th Oct. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. Premanand Chandramani, Prof., Mr. V. Vaithianathan, Asst. Prof., Mr. K. K. Nagarajan, Asst. Prof. and Ms. G. Durga, Asst. Prof.
Resource Person: ME VLSI Design second year students. Ms. Annie Femena, Mr. R. Aravindaraj, Ms. J. Arockia Twinkle, Ms. P. Arulvizhi, Ms. M. Athia Farheen, Ms. E. Elakkiya, Ms. N. Gayathri, Mr. G. R. Guru Seshadhri, Ms. M. Iniya Abinaya, Ms. Kanaga Mythili and Mr. M. Kathick
Participants: 47 Students from ME VLSI Design, Applied Electronics and Communication Systems

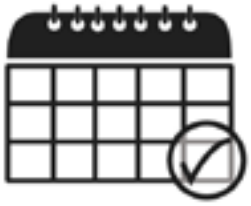
5. One day workshop on "Antenna & RF/Microwave simulations using CST Studio suite 2015"
Date: 19th Oct. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. N. Venkateswaran, Prof. and Dr. K. T. Selvan, Prof.
Resource Person: 1. Mr. Vaddagiri Kalyan & Mr. Rijin Saseendran, Application Engineers, CST India
Participants: 54 inclusive of external and internal participants

6. Hands on training workshop in "MEMS Design Tools"
Date: 26th Oct. 2015
Convener: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. B. S. Sreeja, Asso. Prof. and Ms. S. Kirubaveni, Asst. Prof.
Resource Person: Mr. Godwin Jacob, Research Scholar, SSNCE
Participants: 31 student participants of SSNCE

7. Anna University approved Seven days FDTP on "EC6602 Antenna and Wave Propagation"
Date: 30th Nov. 2015 to 7th Dec. 2015
Co-chair: Dr. S. Radha, Prof.& Head.
Coordinators: Dr. M. Gulam Nabi Alsath, Asso. Prof. and Mr. S. Ramprabhu, Asst. Prof.
External Resource Person: Dr. K. Malathi, Asso. Prof./CEG, Dr. B. Sridhar, Prof./AVIT, Dr. A. K. Shrivastav, Retd. Program Director, SAMEER & Dr. P. H. Rao, Scientist, SAMEER

Internal Resource person: Dr. N. Venkateswaran, Prof., Dr. K. T. Selvan, Prof., Dr. Joseph Gladwin, Asso. Prof., Dr. K. J. Jegadish Kumar, Asso. Prof., Dr. S. Esther Florence, Asso. Prof., Dr. M. Gulam Nabi Alsath, Asso. Prof. Mr. S. Ramprabhu,Asst. Prof., Mr.Raj Kumar,Research scholar,SSNCE.
Participants: 25 faculty participants from various engineering colleges.

EVENTS ATTENDED



1. Dr. Nandita Lavanis, Asso. Prof. attended the JTG Summer school 2015 and workshop held conducted by the Department of ECE, IISc, Bangalore on 23rd and 24th Jul. 2015.

2. Dr. R. Kishore, Asso. Prof., Ms. R. Hemalatha, Asst. Prof., Ms. Aasha Nandhini, JRF, Ms. Florence Gnanapoovathy, JRF and Ms. P. Nirmala, JRF attended the "Hands on Training on Wingz motes" at CDAC Bangalore on 30th Jul. 2015.

3. Dr. R. Kalidoss, Asso. Prof. attended two day workshop on "Research Techniques in Next Generation Wireless Technologies" organized by the Department of ECE, CEG, Anna University, Chennai on 21st and 22nd Aug. 2015.

4. Mr. S. Ramprabhu, Asst. Prof. attended an interactive session on "Setting up Innovation Centre at SSN" delivered by Prof. Idichandy, IIT Madras held at SSNCE on 27th Aug. 2015.

5. Ms. S. Kirubaveni, Asst. Prof. attended the COMSOL workshop organized by Dept. of Chemical Engineering on 11th Sep. 2015 held at SSNCE.

6. Dr. S. Radha, Prof. and Head, Ms. R. Hemalatha, Asst. Prof., Ms. S. Aasha Nandhini, Ms. V. Angayarkanni, Ms. J. Florence Gnana Poovathy, Ms. P. Nirmala, JRFs attended a two-day technical seminar on "Video Analytics" organized by Department of ECE, Mepco Schlenk Engineering College on 18th and 19th Sep. 2015.

7. Dr. N. Edna Elizabeth, Prof., Dr. S. Esther Florence, Asso. Prof., Dr. M. Gulam Nabi Alsath, Asso. Prof., and Mr. S. Ramprabhu, Asst. Prof. attended the one day workshop on "Internet of Things" organized by Department of ECE, SSNCE on 09th Oct. 2015.

8. Dr. S. Radha, Prof. & Head, Dr. M. Gulam Nabi Alsath, Asso. Prof. and Mr. S. Ramprabhu, Asst. Prof. attended the ISTE seminar entitled "The 21 irrefutable laws of leadership" delivered by Prof. P. D. Jose, MET School of Engineering, Mala, Thrissur on 17th Oct. 2015.

9. Dr. Premanand Chandramani, Prof/ ECE attended the one-day workshop on "Antenna & RF/Microwave simulations using CST Studio suite 2015" organized by Department of ECE, SSNCE on 19th Oct. 2015.

10. Mr. C. Vinothkumar, Asst. Prof. attended a two-day workshop on "Advancements on Bio Medical Signal and Image Processing" at MIT, Anna University on 29th and 30th Oct. 2015.

11. Mr. K. K. Nagarajan, Asst. Prof., attended a short term course on "Modeling, simulation and characterization of nano-transistors" at IIT Kanpur between 26th 30th Oct. 2015

12. Ms. S. Kirubaveni, Asst. Prof., attended the INUP hands-on training organized by Department of CENSE at IISC, Bangalore from 19th to 27th Nov.

PROFESSIONAL ROLES AND RECOGNITIONS

1. Dr. K. T. Selvan, Prof/ECE reviewed a paper for IETE Journal of Research.

2. Dr. S. Sakthivel Murugan, Asso. Prof. received Young Researcher Award from VIFFA 2015 (Venus International Foundation Faculty award) in the function held at Radha Regard Hotel on 05th Jul. 2015

3. Dr. S. Sakthivel Murugan, Asso. Prof. acted as session chair in "IEEE international conference on Technological Innovations in ICT for agriculture and Rural Development" (TIAR) 2015 organized by SRM Easwari Enginering College Ramapuram, Chennai on 12th Jul. 2015.

4. Dr. S. Radha, Prof. & Head received the International Travel Support under DST to attend the international conference IEEE SENSOR 2015.

5. Mr. K. J. Jeagdish kumar, Asst. Prof. reviewed papers for KSII Transactions on Internet and Information Systems and Microelectronics Journal (Elsevier).

6. Dr. S. Sakthivel Murugan, Asso. Prof. reviewed International edition of "Engineering Electromagnetics and waves" (Second Edition) authored by Umran S Inan, Aziz Inan and Ryan Said, published by Pearson Publications and "Fundamentals of Communication Systems", 2nd ed., by Proakis and Salehi for Pearson Education.

7. Dr. K. T. Selvan, Prof. reviewed a project proposal submitted to Ministry of Education, Singapore, under Tertiary Education Research Fund.

8. Dr. K. Muthumeenakshi, Asso. Prof. reviewed a journal paper submitted to the International Journal of Communication Systems, Wiley Publishers.

9. Dr. M. Gulam Nabi Alsath, Asso. Prof. was invited to review research articles submitted to IEEE Antennas and Propagation Magazine, IEEE Antennas and Wireless Propagation Letters, International Journal of Electronics Letters, Taylor & Francis and Applied Computational Electromagnetics Society Journal.

10. Dr. K. T. Selvan, Prof. reviewed four IEEE AP-S doctoral research award applications.

11. Dr. S. Radha, Prof. & Head acted as a subject expert for the Ph.D. Viva Voce at SRM University on 18th Aug. 2015.

12. Dr. S. Radha, Prof. & Head has been nominated as a Technical Programme Committee Member for the Global Wireless Summit GWS 2015 to be held at Hyderabad during Dec 13-16, 2015. She also reviewed scripts for submitted to the conference.

13. On 15th Sep. 2015, Dr. K. T. Selvan, Prof. inaugurated the IEEE AP-S Student Branch Chapter at St. Joseph College of Engineering.

14. Ms. R. Hemalatha, Asst. Prof. reviewed a paper submitted to IEEE Sensors journal and a book chapter titled "Combating Cyber Security Breaches in Digital world using Misuse Detection Methods" for IGI global.

15. Dr. K. T. Selvan, Prof. reviewed papers for the IEEE Applied Electromagnetics Conference to be held at IIT Guwahati during December 2015. He has also been invited to deliver tutorial and invited talk during the conference.

16. Dr. S. Radha, Prof. & Head reviewed two papers for Elsevier's Journal on Computers & Electrical Engineering.

17. Dr. M. Gulam Nabi Alsath, Asso. Prof. and Mr. S. Ramprabhu, Asst. Prof. submitted a proposal to Centre for Faculty Development, Anna University to conduct 7 days training program on "Antennas and Wave Propagation". The approval was favourably considered and the program has been scheduled to conduct between 30th Nov. 2015 and 7th Dec. 2015.

18. Dr. S. Joseph Gladwin, Asso. Prof. and Mr. S. Karthie, Asst. Prof. submitted a proposal to Centre for Faculty Development, Anna University to conduct 7 days training program on "Electromagnetic Fields".

19. Dr. K. T. Selvan, Prof. reviewed papers submitted to IEEE Antennas and Propagation Magazine and Advanced Electromagnetics Journal.

20. Dr. K. T. Selvan, Prof. has been invited to be a member of Technical Programme Committee for IEEE Asia Pacific Conference on Antennas and Propagation, to be held in Kaoshiung, Taiwan, during July 26-29, 2016.

21. Dr. S. Esther Florence, Asso. Prof. evaluated a proposal submitted to DST-Science and Engineering Research Board.

22. Dr. N. Edna Elizabeth, Prof. reviewed a journal paper submitted to the International Journal of Transactions on Internet and Information Systems, KSII Publishers.

23. Dr. N. Venkateswaran, Prof. reviewed a paper for Ingeniería e Investigación Journal.

24. Dr. S. Radha, Prof. & Head conducted PhD viva voce for her research scholar Ms. Victoria Jancee, Professor, St. Joseph's College of Engineering on 23-11-15.

25. On 27th Nov. 2015, Dr. S. Radha, Prof. & Head along with Dean (Research) and Expert member evaluated the completed Internal Funded Faculty Projects. Dr. S. Sakthivel Murugan and Mr. W. Jino Hans presented their projects during the same event.

NEW RESEARCH SUPERVISORS

Dr. K. Muthumeenakshi, Dr. S. Sakthivel Murugan, Dr. R. Kalidoss and Dr. M. Gulam Nabi Alsath, Associate Professors are recognized as Research Supervisors to guide PhD/MS Research scholars admitted to Anna University.

RESEARCH NEWS

PROPOSALS SUBMITTED:

1. Dr. S. Radha, Prof. & Head, Dr. R. Amutha, Prof., Dr. R. Kishore, Asso. Prof., Dr. B. S. Sreeja, Asso. Prof. and Ms. R. Hemalatha, Asst. Prof. submitted a project proposal under CER Call 2015 to DST worth Rs. 70 Lakhs.

2. Dr. S. Sakthivel Murugan, Asso. Prof. "Feasibility study on the vertical coherence and directionality properties of underwater ambient noise in Bay of Bengal and Indian Ocean" to DST SERB worth Rs. 15 Lakhs.

3. Dr. K. T. Selvan, Prof., Dr. Amalendu Patnaik, IIT Roorke, Dr. R. Kalidoss, Asso. Prof/ECE, "Bandwidth Enhancement of Reflectarray Antennas" to Indian Space Research Organization (ISRO) worth Rs. 13.61 Lakhs.

4. Dr. N. Edna Elizabeth, Prof., Dr. R. Kishore, Asso. Prof., Dr. S. Radha, Prof., "Secured Smart Card Transport System for Smart Cities" to DST under TSD scheme worth Rs.70.192 Lakhs

5. Dr. M. Gulam Nabi Alsath, Asso. Prof. "Design and Development of Wideband Reflectarray Antenna for Onboard Applications" to DST SERB worth Rs. 20 Lakhs.

6. Dr. B. S. Sreeja, Asso. Prof. "Custom design of animal intrusion detection system for forest areas using MEMS based pressure sensor," under DST Swarna Jayanthi Scheme.

7. Dr. S. Esther Florence, Asso. Prof. "Design and development of a computer controlled system for the production of textile antennas and sensors" to DST SERB worth Rs. 24.54 Lakhs.

8. Dr. S. Esther Florence, Asso. Prof., Dr. S. Radha, Prof. & Head, and Ms. R. Hemalatha, Asst. Prof. "Smart Garment

Equipped with Wireless Sensor Modules for Fall Detection in Elderly" to DST-TIDE for Rs 41.25 Lakhs.

9. Dr. S. Radha, Prof. & Head, Dr. A. Jawahar, Prof. and Dr. R. Kishore, Asso. Prof. "Cellular Phone based Farm Care" to the CSR initiative of HCL Technologies and was shortlisted to the top 6 at SSNCE.

10. Dr. R. Jayaparvathy, Prof. "Cellular phone based health monitoring for rural and senior citizens" submitted a project proposal to the CSR initiative of HCL Technologies and was shortlisted to the top 6 at SSNCE.

11. Dr. S. Esther Florence, Asso. Prof. "Trackable life jackets for coastal villages to augment occupational safety of fishermen" to the CSR initiative of HCL Technologies and was shortlisted to the top 6 at SSNCE.

12. Mr. S. Ramprabhu, Asst. Prof. and Mr. R. Vimal Samsingh, Asst. Prof./Mech, "Fabric Folding Machine for Aiding Weavers" for CSR initiative of HCL Technologies and was shortlisted to the top 6 at SSNCE.

13. Dr. S. Sundaravadivelu, Prof., Mr. Suresh R. Norman, Asso. Prof., Praveen Kumar P., Sowmiya D. (IV ECE) and Kishore Selvakumar B. (ME CS) and Abilash A (ME AE) "Development of Multiple Green Home Electric Power Supply for Rural Village People " for CSR initiative of HCL Technologies.

14. Dr. S. Sundaravadivelu, Prof., Mr. Suresh R. Norman, Asso. Prof., Praveen Kumar P., Sowmiya D. (IV ECE) and Kishore Selvakumar B. (ME CS) and Abilash A (ME AE) "Low Cost and Stable Solar DC Power Supply for Remote Village People " for CSR initiative of HCL Technologies.

INTERNAL FUNDED PROJECTS (BY SSN TRUST)

1. Mr. S. Ramprabhu, Asst. Prof. and Dr. S. Esther Florence, Asso. Prof., "Design and fabrication of miniaturized FSS for shielding WLAN signals" worth Rs. 2.9 lakhs.

2. Dr. K. Muthumeenakshi, Asso.Prof. and Dr. S. Radha, Prof. & Head "Real time performance analysis using RF wireless signals for cognitive radio applications" worth Rs. 2.75 lakhs.

BOOK COVERS

The following project reports of three ME AE students in 2013 - 2015 batch was selected for publishing by a German publisher Lap-Lambert Academic Publishing. All three projects were guided by Mr. Suresh R Norman, Asso. Prof.

· B. Jamlee Ludes, Suresh R. Norman, "Enhancement of Endoscopic Image using TV-Image Decomposition" (ISBN 978-3-659-75619-1)
· Arthi S V, Suresh R. Norman, "Analysis of Electrooculography signal for the Interface and Control of Appliances" (ISBN 978-3-659-75216-2)
· S. Manigandan, Suresh R. Norman, "Fall Detection System for Elderly Persons Using GSM Network" (ISBN 978-3-659-76465-3)

JOURNAL ARTICLES

1. Ms. R. Kanimozhi, M.E (AE), Mr. W. Jino Hans, Asst. Prof., Dr. N. Venkateswaran, Prof. "Single Image Super-resolution Based on Second Order Regression and Sparse representation Model," Australian Journal of Basic and Applied Sciences, pp.413-419, 2015.

2. Mr. P. T. Vasanth Raj, M.E (AE), Mr. W. Jino Hans, Asst. Prof., "Sparse Representation Based Single image Dictionary Construction For Image Super-resolution" Australian Journal of Basic and Applied Sciences, pp.386-390, 2015.

3. Ms. R. Hemalatha, Asst. Prof., Dr. S. Radha, Prof., Mr. S. Sudharsan, M.E (CS) "Energy-efficient image transmission in wireless multimedia sensor networks using block-based Compressive Sensing, " Elsevier Computers and Electrical Engineering, vol.44, pp.67-79, 2015.

4. Ms. R. Hemalatha, Asst. Prof., Dr. R. Ramaprabha, Asso. Prof./EEE, Dr. S. Radha, Prof. "Design and Implementation of PV based Energy Harvester for WSN Node with MAIC algorithm," Advances in Electrical and Computer Engineering, vol.15, no.2, pp. 109-116, 2015.

5. Ms. R. Monika, M.E (CS),
Ms. R. Hemalatha, Asst. Prof.,
Dr. S. Radha, Prof. "Enhanced Image Reconstruction using Coefficient Permuted Reweighted Sampling based Compressed Sensing for WSN," International Journal of Applied Engineering Research (IJAER), vol. 10, no. 41, pp.30327-30332, 2015.

6. Mr. W. Jino Hans, Asst. Prof., Dr. N. Venkateswaran, Prof., "Single Image Super-Resolution Based on Sparse Representation Using Batch-Wise K-SVD Algorithm" International Journal of Applied Engineering Research, vol. 10,

7. Ms. B. Ramani, Asst. Prof., Ms. M. P. Actlin Jeeva, Research Scholar/JRF, Dr. P. Vijayalakshmi, Prof., Dr. T. Nagarajan, Prof./IT, "A Multi-Level GMM-Based Cross-Lingual Voice Conversion using Language Specific Mixture Weights for Polyglot Synthesis," Circuits Systems and Signal Processing, Springer, pp.1-29, 2015.

8. Ms. P. Janani, M.E (VLSI), Dr. S. Sakthivel Murugan, Asso. Prof. "Microbial Fuel Cell Underwater Power System - Harvesting Energy from Seawater for low power applications," International Journal of Sea Technology, vol. 56, no.7, pp.10-13, 2015.

9. Mr. R. Karthipan, Research Scholar, Dr. K. S. Vishvaksenan, Asso. Prof., Dr. R. Kalidoss, Asso. Prof., Dr. R. Suresh Babu, Prof./Kamaraj College of Engg. & Tech., "Uplink Capacity Enhancement in IEEE 802.22 Using Modified Duplex Approach," Wireless personal communication, Springer, 2015,

10. Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. K. Malathi, Asso. Prof./CEG, "Compact UWB Monopole Antenna for Automotive Communications," IEEE Transactions on Antennas and Propagation, vol. 63, no. 9, pp. 4204-4208, 2015.

11. Mr. H. Arun, Asst.Prof./Sri Sairam Engg. College, Ms. Aswathy, PG Scholar/CEG, Dr. K. Malathi, Asso. Prof./CEG, Ms. V. Sangeetha, PG Scholar/CEG, Mr. C. Raviteja, PG Scholar/CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof., "A Polarization diverse MIMO antenna with enhanced isolation," IET Microwaves, Antennas & Propagation, vol. 9, no. 12, pp. 1267-1273, 2015.

12. Mr. R. Vimal Samsingh, Asst.Prof./Mech, Dr. K. Malathi, Asso. Prof./CEG and Dr. S. Esther Florence, Asso. Prof., "Detection of Voids in Fiber Reinforced Plastics Using Magnetoinductive Coupled Microstrip Sensor," IEEE Sensors Journal, vol.15, no.8, pp.4182-4183, 2015.

13. Ms. K. Indhumathi, Research Scholar/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. A. K. Shrivastav, Scientist/SAMEER, Dr. S. Indira Gandhi, Asso. Prof./MIT and Dr. Gulam Nabi Alsath, Asso. Prof., "A Planar Microwave Phase Shifter using Microstrip-CPW-Microstrip Transition with Defected Ground Structures," International Journal of Microwave and Wireless Technologies, pp.1-10, 2015.

14. Dr. S. Sundaravadivelu, Prof., Mr. Suresh R. Norman, Asso. Prof., Norman "Study of Physical, Mental, Intellectual and Spiritual Health of a Human Being Living in A Dwelling Place Constructed According to The

Vastu principle", International Journal of Innovative Research in Computer and Communication Engineering , vol.3, no. 7, pp 6835 -6841, 2015.

15. A.V.Y. Phamila, Research Scholar, R. Amutha, Prof., "Energy efficient low bit rate image compression in wavelet domain for wireless image sensor networks", Electronic letters vol. 51, no. 11, pp 824-826, 2015.

16. K. Selvakumarasamy, Research Scholar, S. Poornachandra, Prof./SNSCE and R. Amutha, Prof., "Subband Adaptive Shrinkage Function using Fuzzy Logic," Biomedical & Pharmacology Journal, vol. 8(1), pp. 445-451, 2015.

17. M. Kanthimathi, Research Scholar, R. Amutha, Prof., "Performance analysis of DAPSK modulated OFDM signals in two-way Relay Communication Systems," International Journal of Applied Engineering Research, vol. 10, no.10, pp. 143-147, 2015.

18. N. Edna Elizabeth, Prof., S. Kaushik, UG student, "ECC Implementation for Wireless Data Transfer in Mobile Devices", International Journal of Applied Engineering Research, vol. 10, no. 19, pp 40391-40395, 2015.

19. R. Nithya, Research Scholar, and N. Venkateswaran, Prof., "Analysis of Segmentation Algorithms in Color Fundus and OCT Images for Glaucoma Detection", Indian Journal of Science and Technology, vol. 8, no. 24, pp1 - 6, 2015.

20. Ms. J. Florence Gnana Poovathy, JRF& Research Scholar, Dr. S. Radha, Prof. & Head "Non-Iterative Threshold based Recovery Algorithm (NITRA) for Compressively Sensed Images and Videos", KSII Transactions on Internet and Information Systems, vol. 9, no. 10, pp. 4160 4176, Oct 2015.

21. Dr. M. Gulam Nabi Alsath, Asso. Prof, Ms. Livya Lawrance, PG Student/ CEG, Dr. K. Malathi, Asso. Prof, ECE, CEG "Bandwidth enhanced grid array antenna for UWB automotive radar sensors" IEEE Transactions on Antennas and Propagation, vol. 63, no. 11, pp. 5215 - 5219, 2015.

CONFERENCE PRESENTATIONS

1. Dr. A. Jawahar, Prof. "Realization of Soliton Phase Characteristics in 10 GBPS, Single Channel, Uncompensated Telecommunication System," 17th International Conference on Computing and Communications (ICCC 2015), San Francisco, USA on 7th and 8th Jun. 2015. He also chaired a session in ICCC 2015.

2. Dr. K. T. Selvan, Prof. attended 4th IEEE Asia Pacific Conference on Antennas and Propagation in Bali, Indonesia (a) as a member of Technical Programme Committee (b) as co-chair in a session on MIMO antennas and (c) to deliver an invited talk on EM education between 30th Jun. and 03rd Jul. 2015.

3. Mr. W. Jino Hans, Asst. Prof., Dr. N. Venkateswaran, Prof., "An Efficient Super-resolution Algorithm for IR Thermal Images Based On Sparse Representation," International conference on Quantitative Infrared Thermography - QIRT-ASIA 2015, Mahabalipuram, Tamil Nadu, India between 7th and 10th Jul. 2015.

4. Dr. N. Venkateswaran, Prof., "Markov random field labeling of infrared thermal images: Applications in industry and veterinary medicine," International conference on Quantitative Infrared Thermography - QIRT-ASIA 2015, Mahabalipuram, Tamil Nadu, India between 7th and 10th Jul. 2015.

5. Dr. P. Vijayalakshmi, Prof., Ms. G. Anushiya Rachel, Research Scholar and Dr. T. Nagarajan, Prof./IT, "Estimation of Glottal Closure Instants from Telephone Speech using a Group Delay-Based Approach that Considers Speech Signal as a Spectrum," International Conference INTERSPEECH 2015, Dresden, Germany between 6th and 10th Sep. 2015.

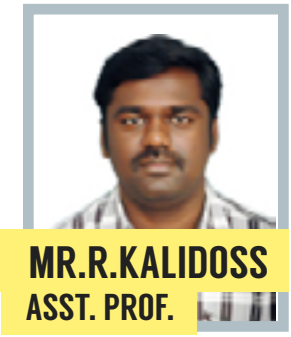
6. Dr. S. Radha, Prof. & Head "Energy Efficient Weighted Sampling Matrix based CS Technique for WSN" IEEE Sensors 2015 Conference, at Busan, South Korea from 1st to 4th Nov. 2015.

7. Dr. R. Kishore, Asso. Prof. "Light Weight Security Architecture for Cluster based Wireless Sensor Networks" 15th IEEE International Conference on Ubiquitous Wireless Broadband (ICUWB 2015) at Montreal, Canada between 4th and 7th Oct. 2015 .

8. Mr. N. Prabagarane, Asst. Prof. "Performance of Cooperative MC-DS-CDMA System in the Presence of Interference Using Transmitter Preprocessing Based on CSI Feedback" 15th IEEE International Conference on Ubiquitous Wireless Broadband (ICUWB 2015) at Montreal, Canada between 4th and 7th Oct. 2015

FACULTY UPDATES

1. Mr. R. Kalidoss, Asst. Prof. defended his thesis titled "Interference reduction techniques for next generation wireless networks" at the Department of ECE, CEG, Anna University on 12th Jun. 2015.



MR.R.KALIDOSS
ASST. PROF.

Abstract: The growing demand for higher capacity wireless networks can be met by increasing the bandwidth, spectral efficiency, and base station density. Also, flexible spectrum access, multi antenna, and multicarrier techniques are key enablers in satisfying the demand. Interference is also a pressing issue in 4G system. IEEE 802.22 standard based on cognitive radio (CR) that operates on time division duplex (TDD) in the underutilized portions of TV bands has been proposed for wireless regional area network (WRAN). For eliminating CTS interference in IEEE 802.22 WRAN standard, Location Based Duplex (LBD) scheme is proposed and analyzed.

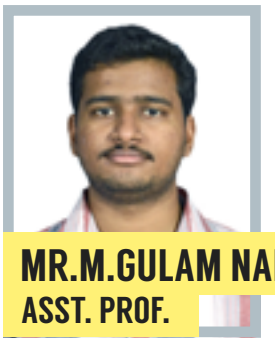
2. Mr. S. Joseph Gladwin, Asst. Prof. defended his thesis titled "Studies on Various Channel Estimation Methods in OFDM System over Wireless Channels" at the Department of ECE, SSN College of Engineering on 24th Jul. 2015.

MR.S.JOSEPH GLADWIN
ASST. PROF.

Abstract: This thesis deals with the analysis of various wireless channel estimation techniques for Orthogonal Frequency Division Multiplexing (OFDM) systems, in fading channel. OFDM has been considered as an effective modulation scheme for combating the effect of Inter Symbol Interference due to multipath fading channels and has been employed in broadband communication systems. OFDM is an excellent solution to high data rate requirement, with good spectral efficiency. The system is capable of transmitting data at high throughput in physical layer and provides optimized hardware resources. Channel estimation is important in wireless applications because, in practical transmission scenario, channel correlation functions are neither known nor easily be estimated. It is therefore desirable to have an estimator, robust to mismatches between the assumed and the actual channel correlation functions. The wireless channel has fading characteristics and its time varying nature adds additional cost to estimator design. A simplified Kalman filter is proposed which reduces the noise effects of the Least Square estimation. Channel estimation based on Kalman filters, Approximate Linear Minimum Mean Square Error and -Infinity filter are discussed. The proposed algorithm

in this thesis is based on the use of filter for wireless channel estimation. based estimation is more robust in terms of model uncertainty and they are more suitable for OFDM systems. The estimation criterion is to minimize the worst case estimation errors. filter is based on the principle of minimizing the maximum error when apriori knowledge of the noise source statistics is not known. In such cases, this estimator provides better performance compared to other estimators. The estimation error in the other existing methods is also investigated. This approach has been observed to have low latency, high throughput, efficient resource utilization, reduced power and test cost. Performance has also been quantitatively analyzed in terms of Mean Square Error and Bit Error Rate

3. Mr. M. Gulam Nabi Alsath, Asst. Prof. defended his thesis titled "On the Design and Investigation of Multi-service Antennas for Automotive Environment" at the Department of ECE, CEG, Anna University on 29th Jul. 2015.



MR.M.GULAM NABI ALSATH
ASST. PROF.

Abstract: The major objective of this thesis is to design and develop multi-frequency antenna that reduces the number of radiating elements for automotive communication. The presented designs ensure high flexibility in mounting the antenna and complement the aesthetics of the vehicle. This thesis also presents antenna configurations to exploit diversity functionality in modern automobiles with reduced envelope correlation coefficient, enhanced isolation and high diversity gain. The attempted configurations increase the antenna coverage and ensure link quality during fast mobility. In addition to communication antennas, sensing antennas are developed for short range automotive radar applications.

4. Ms. S. Esther Florence, Asst. Prof. successfully defended her doctoral dissertation on the "Design, Development and Performance Evaluation of Conformal Textile Antennas" at the Department of ECE, CEG, Anna University on 14th Aug. 2015.

MS.S.ESTHER FLORENCE
ASST. PROF.

Abstract: The immensely growing miniaturization of electronic devices is leading to the production of devices that can be attached on people's body as part of their clothing. The key aim of the dissertation was to deal with the various aspects of wearable antenna design. Diverse studies were performed to learn about the effects of the human body present close to the radiator. Detuning effects and changes in directivity were studied in detail. The thesis established basic inferences regarding the working of antennas integrated as part of the clothing. Then the research was extended to ensure increased efficiency of the same. An extensive study on materials that could be used to increase the drapability of the antenna is studied and their performance is evaluated.

5. Mr. K. J. Jegadish Kumar, Asst. Prof. defended his thesis titled "Investigation and Analysis of Cryptography Techniques for Wireless Sensor Networks" at the Department of ECE, JNTU, Hyderabad on 11th Sep. 2015.

MR.K.J.JEGADISH KUMAR
ASST. PROF.

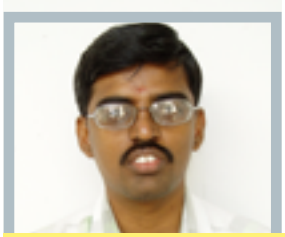
Abstract: Recent development and advances in ultra-low power technology enabled the development of smaller autonomous and mobile devices. Wireless Sensor Networks (WSNs), Personal Digital Assistance (PDA) and Radio Frequency Identifiers (RFIDs) are such recent trend applications. For ultra-low power devices like WSN, RFIDs, security is a critical factor due to their impact on privacy trust and control. Traditional cryptographic algorithms are much complex and power consuming. The goal of this research is to develop a best possible cryptography algorithm for wireless applications that operate at very low power.

6. Mr. V. Vaithianathan, Asst. Prof. successfully defended his doctoral dissertation on the "Studies on the Performance of Low Noise Amplifier Structures suitable for Ultra Wide Band applications " at the Department of ECE, SSN College of Engineering on 26th Oct. 2015.

MR.V.VAITHIANATHAN
ASST. PROF.

Abstract: The performance analysis of a Low Noise Amplifier (LNA) suitable for Ultra Wide Band (UWB) applications is carried out in this dissertation work. The local active full and partial feedback techniques are proposed in order to reduce the noise figure of the proposed LNAs. The double current reuse (DCR) technique is proposed to reduce the power consumption. The suitability of all the proposed LNA is verified by using impulse radio UWB test bench. This dissertation work concludes that the DCR LNA with local partial common gate active feedback achieves highest figure-of-merit.

7. Mr. K. K. Nagarajan, Asst.Prof. successfully defended his doctoral dissertation on the "Structural and Doping Parameter Based Sensitivity Analysis in 30 nm FinFET LNA and Investigation for Its Tunability to Compensate for Structural, Doping and Frequency Variations" at the Department of ECE, SSN College of Engineering on 19th Nov. 2015.

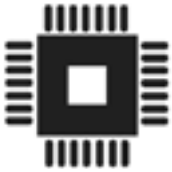


MR.K.K.NAGARAJAN
ASST. PROF.

Abstract: The impact of process variations on simultaneously driven double gate (SDDG)-FinFET based cascoded low noise amplifier (LNA), operating at 10 GHzis studied qualitatively over a wide range, and quantitatively at nominal values (through Plackett-Burman Design of Experiment technique). The devices in the LNA circuit are allowed to go through structural and doping variations (totally 18 parameters) and their impact

on LNA performance is studied and ranked. The parameters, gate oxide thickness, gate length, fin width, fin height and underlap of the common source stage of the LNA circuit, are identified as the most significant parameters. Underlap being one of the important device optimizing parameters and also one of the most significant parameters, the impact of underlap on LNA has been studied separately. An underlap in therange of 3 nm to 5 nm provides better gain and NF. The usefulness of the independently driven double gate (IDDG)FinFET for programmability / tunability has been investigated. The two gates in the IDDG FinFET are identified as signal and control gate in this thesis. Signal gate accepts the RF signal and the control gate modulates/tunes the behavior of the device by applying a DC control voltage. RF performance metrics of the device such as unity gain frequency (fT), Re{Zin} and Im{Zin}, intrinsic gain, and NF are analyzed for various control gate voltages. This is exploited in mitigating the process variation induced impedance mismatch and tuning the impedance to various frequencies in IDDG device based LNA.

FUNDED LAB



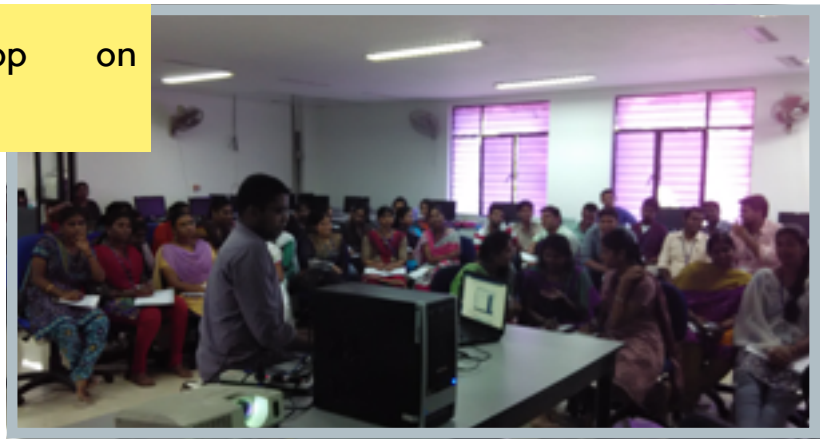
1. Dr. S. Radha, Prof. & Head, Ms. R. Hemalatha, Asst. Prof., Ms. S. Aasha Nandhini, JRF set up the DST-FIST sponsored Wireless Sensor Network lab. Also, the DST-FIST sponsored Antenna Measurement lab was successfully set up by Dr. S. Radha, Prof. & Head, Dr. K. T. Selvan, Prof., Dr. S. Esther Florence, Asso. Prof. and Mr. S. Ramprabhu, Asst. Prof.

2. During Jul-Nov. 2015, Rs. 8.47 Lakhs have been received from Alumnus of the ECE Department to setup the Wireless Communication lab. Further National Instruments sponsored software worth Rs. 4.88 Lakhs. A sum of Rs. 14,14,533/- has been invested so far to setup the laboratory.

FACULTY GALLERY

S.Shrikanth,during the one day workshop on “Internet of Things”.

Two-day workshop on Cadence tools.



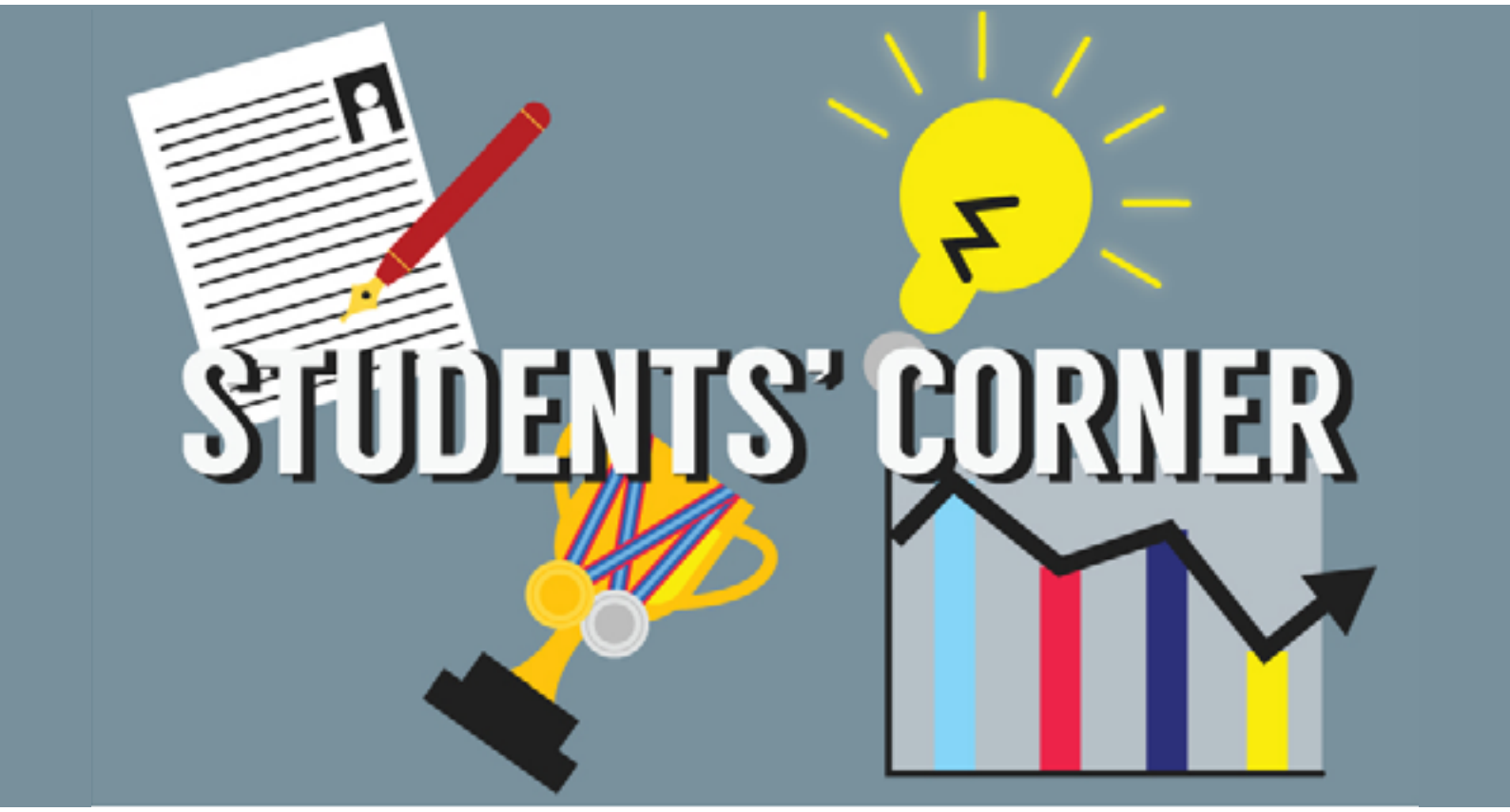
Dr. S. Sakthivel Murugan, Asso. Prof. received Young Researcher Award from Venus International Foundation Faculty award 2015 (VIFFA)

Dr.A.Jawahar,Prof. at the International Conference on Computing and Communications(ICCC)

Mr. N. Prabagarane, Asst. Prof. at the 15th IEEE Conference on Ubiquitous Wireless Broadband (ICUWB 2015) at Montreal, Canada

Dr.R.Kishore at the 15th IEEE Conference on Ubiquitous Wireless Broadband (ICUWB 2015) at Montreal, Canada

Faculty participants during the FDTP on Antenna and Wave propogation.



ORBITCE 2K15 REPORT

A NATIONAL LEVEL STUDENTS TECHNICAL SYMPOSIUM ASSOCIATION OF ELECTRONICS AND COMMUNICATION ENGINEERS

ORBITCE2K15 AUGUST 31, 2015

Orbitce2K15, an Annual National Level Student's Technical Symposium, was conducted by the Association of Electronics and Communication Engineers on August 31, 2015.

Shri. K. P. Jeyakar, I.R.S.,Assistant Commissioner of Customs, Air Cargo, Chennai, inaugurated the Symposium by Lighting the Kuttuvillakku. He also gave a talk on "Civil Services and Students", and released the official souvenir, "SURGE". During the Symposium following events were organized for the students, by our students: Paper Presentation, Project Display, RISC IT, Circuitrix, Wired, M-Guru, Panto-math, Freeze Quiz, Domain Masters, Electropati, Clash of Circuits, Solder-it, Treasure Hunt, Scribblers, Wizard, and Mock Placement (two online events Online Quiz and Online Photography were also conducted).

Workshops on "Advanced Networking and Ethical Hacking by HCL Learning,

Velachery, Chennai and “Automatons : An Introduction to Robotics”, byLema Labs, IITM Incubation Cell, IITM Research Park were organized for the benefit of students. A Technological Exhibition on (1) Electrical Brainwave Sensing Device Neuro Headset and (2) Working Circuit Construction on Paper Paper Electronics with Live Demonstration was done byPantechProLabs India Pvt. Ltd., Chennai . Prizes worth Rs. 70,000/- were distributed to winners in the various events conducted, in the Valedictory function. About 4000 Students from various engineering colleges in around Chennai participated in the event.

Chief Guest Shri. K. P. Jeyakar Lighting the Kuthuvillaku

Principal Lighting the Kuthuvillaku

HoD Lighting the Kuthuvillaku

Chief Guest, Principal, HoD, AECE Faculty Coordinators and AECE Presidents and Vice-President

Chief Guest Addressing the Gathering

UNIVERSITY RANK HOLDERS

Anna University released the Rank List for the year 2015. SSN Institutions bagged 166 University ranks and the Department of ECE backed 60 University ranks. A more detailed statistics of the rank holders produced by DECE is given in the Chart below. The Faculty team congratulates the rank holders and young graduates.

UG RANK HOLDERS

S.NO.	REG. NO.	NAME	CGPA	RANK
1	312211106057	Mila Kankanala	9.26	5
2	312211106004	Alakar Srinivasan R	9.19	10
3	312211106027	Efina U	9.19	10
4	312211106056	Mahitha Mahesh	9.18	11
5	312211106088	Sam Sundar D	9.07	19
6	312211106019	Deepika Narayanan	9.07	19
7	312211106106	Sindrella S	9.06	20
8	312211106121	Vignesh Shridharan	9.06	20
9	312211106003	Alagu Sanjana S	9.03	23
10	312211106002	Akshaya C	9.01	25
11	312211106101	Shri Ranjani G	8.98	28
12	312211106119	Venkatesh S	8.98	28
13	312211106107	Sistla Venkata Anish	8.98	28
14	312211106104	Sibi Chakravarthy D	8.93	33
15	312211106001	Aishwarya Sharma	8.92	34
16	312211106079	Priyamvadha K	8.88	38
17	312211106080	Priyanka Ganesh	8.88	38
18	312211106018	Deepak M	8.87	39
19	312211106039	Indu Vadhani S	8.86	40
20	312211106072	Prasannavenkatesh S	8.82	44

PG RANK HOLDERS

APPLIED ELECTRONICS

S.NO	REG. NO.	NAME	CGPA	RANK
1	312213401004	Arthi S.V	9.06	4
2	312213401008	Jayasri S	8.91	10
3	312213401002	Ann Agnetta Chandru	8.68	25
4	312213401001	Abidha D	8.57	33
5	312213401003	Archana Vipin G	8.49	38
6	312213401007	Jamlee Ludes B	8.41	44

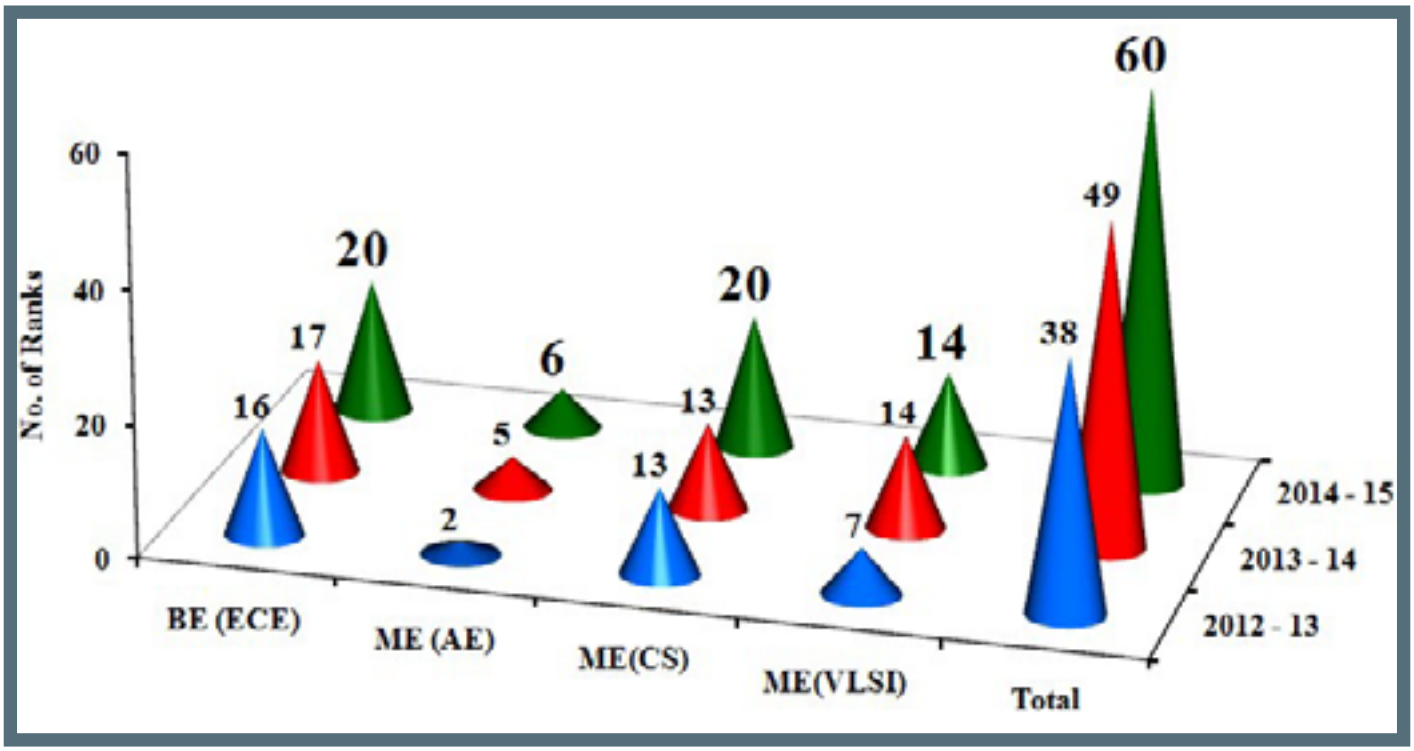
COMMUNICATION SYSTEMS

S.NO	REG. NO.	NAME	CGPA	RANK
1	312213403002	Aruna N	9.16	1
2	312213403021	Poongulazhi P	9.04	3
3	312213403016	Monika R	8.93	7
4	312213403019	Namitha S	8.78	13
5	312213403027	Sandhiya R.G	8.77	14
6	312213403032	Sughanya Devi M	8.77	14
7	312213403003	Ayeswarya R	8.68	19
8	312213403033	Sujitha S	8.64	21
9	312213403035	Upasana S	8.61	23
10	312213403025	Raga K	8.59	24
11	312213403018	Nafiza N	8.58	25
12	312213403017	Mrinalini Kannan	8.57	26
13	312213403026	Resiga K.V	8.52	29
14	312213403014	Mariya Celin T.A	8.43	35
15	312213403028	Saran Raj S	8.42	36
16	312213403023	Prathima P	8.35	41
17	312213403029	Sindhu Parvathi K	8.29	45
18	312213403007	Janani Chellam I	8.28	46
19	312213403004	Deepika B	8.26	47
20	312213403013	Manimozhi S	8.25	48

VLSI DESIGN

S.NO	REG. NO.	NAME	CGPA	RANK
1	312213419012	Gowthami A	8.93	12
2	312213419002	Abirami V	8.87	15
3	312213419020	Lakshmi J.L	8.82	18
4	312213419025	Methini Raa	8.65	30
5	312213419028	Nivethalakshmi S	8.56	37
6	312213419006	Bhavana Prasannanjanayelu	8.54	36
7	312213419008	Chrisben Gladson S	8.49	41
8	312213419003	Abisha Queen C	8.49	41
9	312213419024	Malar Vizhi K	8.47	42
10	312213419018	Jenifer Majella J	8.47	42
11	312213419021	Lakshmi Priya D	8.47	42
12	312213419010	Deepika S	8.46	43
13	312213419034	Sowbana V A	8.38	48
14	312213419017	Jeevanandham M	8.35	50

UNIVERSITY RANK TREND OF THE DEPT.



PLACEMENT DIARIES

The atmosphere is pumped up. The students are anxiously waiting for their turn. The room is filled with hopeful faces awaiting their future prospects and experienced corporate professionals scrutinizing the candidates carefully. Not to forget the Training and Placement Officer Prof S.Krishnan and the in-charge Mr.Ramiah Ramesh making sure that the placement process is taking place smoothly. The days are as much stressful as exciting they sound. We, the placement co-ordinators representing our respective departments are shouldered with the responsibility of ensuring that the needs of the companies and their expectations are made aware to the students and vice versa. The technical assistance and the logistics are handled by us as well, working strenuously keeping in mind the need of the hour.

We were given clear instructions by the placement officer regarding our job description and what is expected of us. This gave us an insight into the kind of odd jobs that has to be done along with the fixed requirements. We had to collect the personal and academics details of the class in the format prescribed by the Placement cell and create a database. Then, as and when a company confirms the date for the placement, it also gives their eligibility criterion which is forwarded to us. We are in charge of collecting the list of the interested and eligible candidates who can attend the respective company's placement drive.

The on day experience is of great importance since it includes helping with the various stages of the process, be it the aptitude test or the final personal interview. Sudden requirements like an additional panel or informing the selected students to report for the next rounds, call for dedicated students who don't mind the extra trouble. It has been noted by all of us that the panel members are very eager to know about the college and the other companies that are visiting, so they are constantly asking questions even while gobbling up their food in the break. Particularly the window given to the mass recruiters that is called the shared slot saw such exuberance in the campus and gave a festive look to the library where the process was taking place. There are times when the process goes on until or after the dusk and drains us of all our energy. But all that fatigue vanishes when the happy faces of the selected students with their offer letters in hand, light up the room.

We are very happy to thank the HOD ma'am Dr.S.Radha and the faculty for the sup-

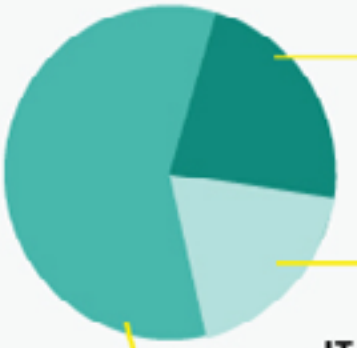
port they provide in helping the students balance between attending the UTs and the placements. Mr.I.Nelson sir, our department's placement in-charge never fails to guide us through all the responsibly given to us. He constantly gives feedback and puts us back on the track when we do anything wrong. The OD in-charge Mr.Kalidass sir is always patient in hearing out our troubles and helps us accordingly. With all these pillars of support and the hard work of the students, we have been able to keep the placement process up and running smoothly and will continue to do so for the rest of the drive.

Prasanya P
IV Year,ECE-B

PLACEMENT COORDINATORS

PLACEMENT REPORT

DEPARTMENT OF ELECTRONICS AND COMMUNICATION



CORE OFFERS — 26

DREAM OFFERS — 23

IT OFFERS — 58

17 COMPANIES

107 JOB OFFERS

HIGHEST PACKAGE (6.24 L FROM TEMENOS)

M.S.KARTHIK

SRIHARI.S

RUTHIRAN.B

CORE OFFERS

ROBERT BOSCH — 4

TATA ELXSI — 22

STUDENT CO-CURRICULAR

INTERNAL FUNDED PROJECTS

About 24 project proposals were presented by the students of ECE department for internal funding to the project sanctioning committee. The President handed over sanction letters for 19 internal funding projects for students in ECE department on 27th Oct. 2015.

1. Nitin Srinivas, S Sabarish and Sunil Kumar, III ECE, Dr. S. Esther Florence, Asso. Prof., "GPS aided search and rescue"

2. Aparna S, Gayathri Gopal, II ECE, Dr. P. Rajesh, Ms. R. Hemalatha, Asst. Prof., "effect of tin oxide's grain size on the efficiency of a solar cell constructed with polyaniline-tin oxide nano composite"

3. R Suresh Kumar, K Sreeram, III ECE, S Vinubhagavath, Dr. K. Muthumeenakshi Asso. Prof. "prototype for field monitoring and automation in agriculture"

4. K Arvind Chakravarthy, V Krithika, II ECE, Dr. V. Vaithianathan, Asst. Prof., "Keyless to remote-less acess of car security systems using mobile app"

5. J S Poorna, II ECE, Dr. R. Jayaparvathy, Prof., "Way finding gloves for visually impaired"

6. Atul Taneja, III BME, H Karnik Ram, Yash Oza, III ECE, Dr. R. Jayaparvathy, Prof., "Assistive device for people suffering from dysgraphia and other writing disorders"

7. M. Sharada, R. Shrivatsan, V. Sreenivas, Srihaarika Vijjappu, III ECE, Dr. S. JosephGladwin, Asso. Prof., Dr. R. Rajavel, Asso. Prof., "Smart walking cane for the blind"

8. Praveen Narayan, V. Shrinidhi, Gokulakrishnan, II ECE, Mr. Suresh R Norman, Asso. Prof., "Wireless electronic notice board using GSM"

9. S. Srihari, S. Praveen, Ramesh Ashwath, IV ECE, Dr. S. Radha, Prof., “e-Akshayapatra”

10. Nandagopal Srinivasan, Prithviraj Prabhu, S. Sanjana Smruthi, N. Vivek Sivaraman, III ECE, Dr. S. Joseph Gladwin, Asso. Prof., Dr. R. Rajavel, Asso. Prof., “Automated seed planter”

11. P. Abarna Banu, K. Karthikeyan, T. Keerthi Priya, IV ECE, Dr. K. S. Vishvaksenan, Asso. Prof., “Surveillance using ornithopter”

12. P.M. Vishal Kumar, III ECE, Dr. N. Edna Elizabeth, Prof., “Wired and wireless data transfer from a pen-drive”

13. Roshan Arvind, Sanjana Mallya, Supreeta Venkatesan, Varsha Srinivasan, II ECE, Dr. Premanad Chandramani, “istand robot, a prototype of segway (self balancing robot)”

14. C. Sreenithy, C. Sneha, III ECE, Dr. N. Edna Elizabeth, Prof., “Smart Helmet”

15. M. Ani Melfa Roji, II VLSI, Ms. S. Kirubaveni, Asst. Prof., “Electrical tuning of piezoelectric vibration energy harvester”

16. M. Sudha, II AE, Ms. R. Hemalatha, Asst. prof., Ms. R. Kirubaveni, Asst. Prof., “Vibration based wide band and power enhanced piezoelectric energy harvester”

17. J. Vinitha, II CS, Dr. B. S. Sreeja, Asso. Prof., Ms. R. Kirubaveni, Asst. Prof., “Sewer gas detecting self powered wireless sensor node system”

18. S. Vinoth Kumar, II VLSI, Dr. R. Jayaparvathy, Prof., “Ambulatory assistive system”

19. M. Deepalakshmi, II VLSI, Dr. R. Jayaparvathy, Prof., “Integrated insulin infusion system”

TECH CLUB

1. A Guest seminar on "Introduction to GRE" was conducted by trainers from Magoosh Ltd. for the UG students of ECE on 02nd Jul. 2015.

2. The founding edition of Corona 2015, an intra-college technical fest, was organized on the 9th July 2015 at the Department premises. The fest was open to all UG students of SSN, barring final year ECE. It witnessed a participation of over 450 students across the college, in four events, namely Dispro (Project Display), Socket (Circuit Design), RISC IT (Programming) and Sherlock Ohms (Tech Hunt).

3. The inauguration of Tech Club activities for the academic year 2015-2016 was organized jointly with the inauguration for AECE activities on 09th Jul. 2015. The function was presided over by Mr. G. Venkataramani, Technical Head, Alliance Broadcast, and Dr. S. Radha, Prof. & Head. The office bearers for the academic year were introduced, the agenda for the academic year was presented, and prizes for Corona 2015 were distributed. Mr. G. Venkataramani also delivered a talk titled "Understanding the generic terminology of broadcast".

4. A Guest seminar on "Placement Tips and Guidelines" was conducted for the third and final year students of ECE on 16th Jul. 2015. Mr. Prasanna Valliappan, alumnus of ECE handled the session.

5. Mr. Harshavardhan Raju, Domain Head, Embedded Systems handled a session on "Embedded Systems and Arduino" for the second and third year students of ECE on 23rd Jul. 2007.

6. Dr. R. Ramaprabha, Asso. Prof./EEE delivered a talk on "Benefits of IEEE membership" on 20th Aug. 2015.

INTERNSHIPS AND INPLANT TRAININGS

1. Ms. S. Aishwarya, Final year ECE 'A' attended the internship at TCS S2S lab between 1st Jun. and 15th Jul. 2015.

2. Mr. S. Prithivi Shankar,Ms.Varsha,Mr.Srinath and Ms.Sri Vidya attended the Summer Fellowship Programme (SFP-2015) at IITM between 22nd Jun. and 17th Jul. 2015.

3. Ms. B. Shubhashree, III year ECE 'B' attended the IAS summer fellowship 2015 at IISc, Bangalore and worked with
Dr. Supratim Ray between 25th May and 10th Jul. 2015.

4. Ms. C. Joshitha, Research scholar of Dr. B. S. Sreeja, Asso. Prof. has been selected and given a fabrication slot to fabricate their device named MEMS based Bi-stable switch under INUP scheme at SENSE lab, IISc Bangalore.

5. XMOS visited Department of ECE on 19th Oct.2015 and conducted written test followed by interview for PG candidates to hire interns. Ms. A. Anne Femena, M.E (VLSI) and Ms. V. Arthi, M.E (CS) were shortlisted for the same.

SYMPOSIUMS AND WORKSHOPS

1. Research scholars Mr. P. Maran, Mr. Mir Firdouse Ali khan,
Mr. K. Karthigeyan, Mr. S. Rajkumar, Mr. Edington Alex attended the seminar on "MATLAB and Simulation for Engineering Education" by MathWorks at Hotel Royal Lee Meridian, Chennai on 08th Jul. 2015.

2. Ms. S. Aasha Nandhini, Ms. V. Angayarkanni and
Ms. P. Nirmala, JRFs attended the IEEE authorship workshop titled "How to Write a Quality Technical Paper and Where to Publish within IEEE" organized by Indian Institute of Technology Madras (IITM) Chennai on 20th Aug. 2015.

3. Ms. S. Aasha Nandhini, Ms. V. Angayarkanni and
Ms. J. Florence Gnana Poovathy, JRFs attended a two-day workshop on "Embedded Systems" organized by Department of ECE, SSNCE on 9th and 10th Sep. 2015.

STUDENT EXTRACURRICULAR ACTIVITIES

SPORTS ACHIEVEMENTS

1. I. Gohulalakshmi, IV ECE represented the Anna University in the Tamil Nadu Inter University Badminton tournament organized by SDAT, Madurai during 17th to 19th July 2015 and won the cash prize of Rs. 10000.

2. Devi Rajalakshmi, II ECE represented the Anna University in the Tamil Nadu Inter University Basketball tournament organized by SDAT, Madurai during 17th to 19th July 2015.

3. I. Gohulalakshmi, IV ECE won SAIRAM TROPHY 2015 for Badminton organized by Sri Sairam Engineering College on 20th July 2015.

4. I. Gohulalakshmi, IV ECE part of Women Badminton team won MEPCO TROPHY 2015 for Badminton organized by MepcoEngg. College, Sivakasi on 30th July 2015.

5. I. Gohulalakshmi, IV ECE participated in the All India Senior National ranking badminton tournament held at Hyderabad.

6. I. Gohulalakshmi, IV ECE was part of the women badminton won Anna University Zone 3 tournament held at SSN College of Engineering on 18th Aug. 2015.

7. I. Gohulalakshmi, IV ECE was part of the women Badminton team has won the title in the Anna University Inter zone tournament held at Kongunadu Engineering College, Thottiyam during 10th to 15th Sep. 2015

CULTURALS AND OTHERS

1. Mr. Jerry Thomas (IV B.E., ECE) have been selected as one of the top three winners (from 566 essay competition from all over the country) on climate change organised by the European Union and The Hindu. He was invited and felicitated to a cocktail reception hosted by the EU ambassador at his residence in Delhi. Other dignitaries for the function were the Director General of the EU - Mr.Daniel Calleja Crespo, the EU ambassador and deputy ambassadors to India, the head of WWF for India, former editor in Chief of the Hindu - Mr.N.Ravi and other prominent personalities. Mr. Jerry will be sent on a study tour to Europe in June next year.

SERVICE TO SOCIETY

1. On 5th Sep. 2015, Dr. K. T. Selvan, Prof. organized the inauguration of the SSN Good Citizenship Forum with active support from faculty and student volunteers.

2. NSS Unit of our college organized NSS Day for the first time in our campus on 24th Sep. 2015. More than 250 students participated in the NSS Day celebration. NSS day events were inaugurated by Dr S. Radha, Prof. & Head at 9.30 AM in the Mini auditorium. She delivered a motivating talk to the volunteers and participants towards social service. NSS Programme Officer, Ms. P. Kaythry and W. Jino Hans presided

over the function. Volunteers organized various competitions to the students related to social issues and causes.
Events like Quiz, ideas innovation, Drama, case study, poster painting were conducted. Competitions were organized on the theme of Rural development projects, Women empowerment, global warming, Fuel Conservation, and conservation of natural resources.

3. Ms. P. Kaythry, Asst. Prof. and Dr. S. Joseph Gladwin, Asso. Prof. organized a Blood Donation Camp in association with Madras Voluntary Blood Donors Association on 05th Sep. 2015.

NSS Day held on 24th Sept. 2015

Blood Donation Camp held on 5th Sept. 2015

INTERVIEW WITH B.SHUBASHREE

A budding engineer, a diligent student, an inquisitive learner, an innovative thinker... these words just don't suffice to describe Ms B.Shubashree, a third year ECE student in SSN who was one of the recipients of the prestigious Indian Academy of Sciences Summer Fellowship. Here, I heartily share the conversation I had with this would-be technocrat!

How did you get to know about the Indian Academy of Sciences?

-Annapoorni.B

There was a poster in our college library about the IAS and by networking with friends and others, I received a good review about the program. Though initially my parents were hesitant to send me to a different city, I convinced them about the exposure I would gain in the competitive environment that we are in today.

-B.Shubashree

How did you get interested in Neuroscience being a Computer Science student in high school and an Electronics and Communication Engineering major in college?

My mom was a biology school teacher for the higher secondary and would often narrate the discussions she had with her students in school. Often, at home, she would raise many thought-provoking questions about how the brain worked. As I pursued Computer Science in higher secondary, I would attempt to answer, though I had miniscule knowledge of it. But I feel, it was those futile attempts I made at answering that kindled my interest to pursue a project in Neuroscience.
"I grew in my own eyes with every single mistake that I committed and that was the greatest experience ever."

What kind of infrastructure was there? How was your guide ?

My guide, Dr.Supratim Ray, was highly encouraging and systematic. Whenever I had a doubt, he urged me to explore on my own, gather enough information and refined my understanding of subtle things. He guided me to modify my approach to search for simple answers to some highly complicated (in my terms) questions that I had to encounter while doing my project. Besides, I was greatly inspired by his working methodology. It was an invaluable experience and I can't find words to describe it.

Did you feel you had the expertise to handle a project and meet your guide's expectations in an institution of international repute?

The best part of the experience was that I was given time to learn and experiment with every material which was required for my project. Also, my enthusiastic fellow researchers and interns in the lab offered guidance and motivation to complete my project successfully. I grew in my own eyes with every single mistake that I committed and that was the greatest experience ever. And yes, I tried my level best to meet the expectations.
I would like to add that all of this would not have been possible if it weren't for the support extended to me by my handling faculty, class-in charge and HOD in encouraging me to pursue my internship with confidence and enabling me to make up for the course work I had missed while working as an intern. They were definitely instrumental in making my experience as a learner memorable.
"The greatest failure in life is not participating 100%"

What was your area of specialization and the outcome in terms of technical expertise?

I worked on a project involving bio-signal processing in the field of Neuroscience.
I realized the tremendous potential signal processing along with machine learning has in improving the quality of our everyday lives. Being more mathematically inclined, with my basic knowledge of probability and other areas, I was able to appreciate the application of mathematics in such emerging fields. It was a great reminder to me that there is so much more waiting to be explored and makes me try my level best to learn more about them and strive to create a solution to common issues in the above areas.

Many people say that mere bookish knowledge would only accumulate theory in our heads and would rust in due course of time if it is left unimplemented. How do you wish to infuse this reality into students' minds?

I get reminded of the advice given by my first year professors about this. I took their words quite seriously and find them to be quite true. I was initially hesitant to explore new areas and encountered stumbling blocks as I felt that I didn't have enough basic knowledge to make a start. Thanks to the constant encouragement given by them (my teachers), I am much better now. However, I strongly urge students to willingly experiment with new concepts without hesitation. Once you know you have reached the pinnacle, it's just another beginning with so much to explore. Science is an ocean and what we do is just a tiny droplet in its vast expanse. Hence, I would only want them to know that, "The greatest failure in life is not willing to explore and experiment."

"Once you know you have reached the pinnacle, it's just another beginning with so much to explore"

Finally, what are your future plans?

I want to pursue a master's degree. It will definitely be based in the area of signal processing but I haven't still determined what to pursue yet. I am hoping to find an answer to that soon.

Thank you, Shubashree. It was nice interviewing you. I hope your experience will continue to inspire those who are into the field of electronics and those who are yet to enter. All the best for your future endeavours!

TAKE HER AND GO

Brazen, you ask, 'how much will suffice',
Like I would ever name a price!
Take her, my man, take her and go,
She is worth more than mere show!

There she glares, the beast you would tame,
Red as rouge, the blush of shame;
There she stands, the mare you would mount,
In scars of action, too many to count!

There she lurks, lethal and low,
A hulking hull, a rim aglow;
There she waits, the bike you would ride,
Wheels of night, of toughest hide.

She watches you, her eyes alight,
A gentle beam, that belies her might;
She lists, she listens, a tilted ear,
A mirror a side, that handbars bear.

She looks the same, years hence,
Since when I first paid her pence,
Since when I first took that seat,
And rode round, heart abeat!

Years of joy, years of life,
Of senses honed like a knife;
Years adrift, Years of love,
Years that passed, I cared not how!

To kick a lever, thrust a throttle,
To feel the thrum, the metal bottle,
The click of a gear, the jump ahead,
And wind in the face, as she sped!

For days we rode, a bonded pair,
In thrill, in bliss, in fear, in despair!
Through miles we flew, swift and bold,
In sun, in rain, in heat, in cold!

And now I stand, a man in pain,
A man driven to give her for gain!
A man whose past has been but her sight,
A man whose hence she shall never light!

Brazen, you ask, 'how much will suffice',
Like I would ever name a price!
Take her, my man, take her and go,
She is worth more than mere show!

There she sits, a shadow, spent;
A story of sorrow, in a single dent!
That mark you see, that snaking scar,
That remnant of that bloody car!

Blind he was, mired in drink,
He pushed me to the very brink!
Sleeping, slipping, sliding, swerving,
He made me this broken thing!

A flash of light, a boom of sound,
And I was bleeding on the ground!
A surge of faces, a slip of time,
And my arm is a stub, encased in lime!

And now I stand, a man in pain,
A man driven to give her for gain!
Where once I perched, proud as a prince,
Dust gathers, in motes, in evil grins!

Brazen, you ask, 'how much will suffice',
Like I would ever name a price!
Take her, my man, take her and go,
She is worth more than mere show!

Ashwath Ramesh
IV YEAR,ECE

AFTERMATH

They asked a query from tricky trigue,
A query on a cloud and a lake blue...
They asked for the height of the vapour,
Gives some angles in black on paper...

Wrong I did it, Physics I forgot,
I thought it not, used it not,
That object n image cut equally the plane...
Thus did a cloud become my bane...

I knew not that I'd done wrong,
I was happy, humming a song,
Till my mate explained, in glee,
And caused my soul strain to flee...

The face of mom, the face of dad,
The face of sir, in coldness clad,
When I told them of six marks flown...
Oh! I wished then I'd never been known!!

First came shock, at what I'd done,
At how easily I'd been won,
On the very day my exams were spent,
When I'd been expecting a cent...

Then came despair, as my hopes sank,
For down with mark went my rank...
My pride gone, my work wasted,
Worry came, to spoil the hols instead...

Then shame, from in and from all,
As my name began to fall...
For I'd made a huge mistake,
By not taking a line 'low the lake!!

And then they asked, "Why'd u do so?"
"and that in Math", "Where'd ur brain go?"
Ah! There surfaced frosty frustration...
Was Math their only passion??

Why do they for Math alone bawl?
Why should it be the gem among all?
Oh! It's important, all very fine,
But in Social had I got ninety nine!

Why do they see but what I've lost?
Why treat the gained as past?
Perfectly had I done twenty nine pertrois,
But only to the one do they call AHOY!

Thus on what was to be a day of peace,
I was cut in many a sorry piece...
As my marks not only made me weep,
But came thither to spoil my sleep!

Ashwath Ramesh
IV YEAR,ECE

ALUMNI UPDATES

The Department of ECE is proud to share that 109 admits have been received by the students of 2011-15 batch from the top ranking foreign universities.

THE LIST OF UNIVERSITIES AND THE NUMBER OF ADMITS RECEIVED

NAME OF THE UNIVERSITY	NO. OF ADMITS	RANK*
University of California, Berkely	1	3
Georgia Tech	5	6
Carniege Mellon University	4	8
University of California, Los Angeles	4	13
University of Southern California	10	13
University of California San Diego	2	15
University of Maryland, College Park	1	15
Columbia University	3	15
University of Wisconsin-Madison	2	18
Texas A&M University	2	18
Ohio State University	5	21
University of California Santa Barbara	6	24
Virginia Tech	1	24
Arizona State University	8	27
University of Minnesota, Twin Cities	5	32
University of Colorado Boulder	4	34
University of Florida, Gainsville	12	35
North Carolina State University	1	37
University of Virginia	1	39

NAME OF THE UNIVERSITY	NO. OF ADMITS	RANK*
RUTGERS, The State University of New Burnswick	3	41
University of Califronia, Irvine	1	41
Boston University	1	41
North Eastern University	2	41
University of Texas, Dallas	7	52
Stony Brooke	1	66
Syracuse University	1	76
Illinoi institute of Technology, Chicago	2	76
Rochester Insitute of Technology	2	83
University of Santa Cruz	1	88
University of South Florida	1	105
University of Bridgeport	2	NA
McGILL University,Canada	1	3
Delft University,Netherlands	1	
Techincal University Eindhoven, Netherlands	1	
University of Karlshrue,Germany	1	
Technical University of Hamburg, Germany	1	
Fauerlangen University, Germany	1	
Griffith College of Dublin, Ireland	1	
University of Texas, St.Antanio	1	
Total	109	

*Source: US News

AN ALUMNUS SPEAKS...

MUSINGS ON THE PROFESSIONAL WORLD

B.S.RENGANATHAN, B.E (ECE),
CLASS OF 2010 – 2014

As humans, we tend to believe in myths until the light of knowledge casts them aside. I had my own myths about the professional world and prepared myself for it during college. But getting into the professional world I got my myths busted. Through this article, I would like to share some of my myths and how I believed in them mistakenly.

"There are great mentors/teachers in the Industry and they can teach me everything about the practical stuff". This is not entirely true. Especially, hardware (electronic) industries have just started blooming in India and they don't have enough human resources to conduct training like that in IT industries. Even if there are employees who are good teachers/mentors, their work obligation prevents them from really helping you out. Ideally, employers expect you to deliver from day one and the mindset that there should be someone to teach can pull you down. Making yourself your own teacher is the best thing you can do for your professional career. High Tech industry changes at such a rapid pace that everything you learn gets outdated in a few months. But the ability to teach yourself anything can help you go places. This was the single most important thing that differentiates high achieving employees from the rest.

"Hard work all the way is the only route to success". This is what I always believed in and I was so driven to succeed that I soon became a workaholic. Later, during my interactions with the elite people, I realized that I was missing the big picture. You need to work hard to learn the trades of the craft; from there you need to work smart to succeed. Working smart comes down to how well you manage your time and your resources. Learning to work smart when you are in college is the best investment you can make on yourself.

"Basics are not needed, it is very old. I will be able to do the fancy stuff even without having a grasp of it". This is what I thought and believed. I was completely wrong. I am still able to work on the fancy stuff without knowing the underlying principles which make it work. But when it comes to tweaking and optimizing the fancy stuff, I still needed the basics. It is perfectly fine to be a late bloomer with strong basics rather than an early riser with half screwed up fundamentals (basics). I consider myself the latter and from my experience I can say it is the former who wins in the end.

In the world I am in, the results are binary (success or failure). It is as ruthless as it could be. There is no partial output (success) like in lab exams. To survive here, you need to have the skill set required for your work and the perseverance to never give up in face of failure. This is a time tested formula to succeed in this world and to make success your habit.

I think I have done enough preaching, so let's sum it up. There is no ideal teacher/ mentor out there; you are your greatest teacher. Work hard till you learn the trades of the craft and from there work smart. Learn to manage your time and resources well. Basics are needed. Period. Best thing you can do in college is to get your basics right and become your own greatest teacher.

All the things I was able to share came through my own interaction with this world. With time and experience I could go on to say that the best way to learn is to observe this world in an unbiased manner. Best lessons are not taught in class or by people but by life. So go out there, experience life and learn the best lessons of your life.

Short Bio:

My name is B.S.Renganathan, class of 2010-2014. Post graduation, I started working in Healthcare Technology Innovation Center, IIT Madras. I started my career working in the exciting field of wearable technology and its application in medical/

clinical diagnosis. For the next one year, I worked with a team to develop wrist based wearable devices which can diagnose a number of vital parameters with clinical grade accuracy. Recently I joined IIT Madras to pursue my masters in Electrical Engineering. As part of my masters, my research project is done in collaboration with a number of leading research groups in Finland with the aim of replacing existing wired clinical diagnostic devices with wireless wearable tech solutions.

DREAM ON

L.V.RENGANATHAN, B.E (ECE), CLASS OF 2010 - 2014

All of us draw a lot of inspiration and dream of becoming the next Satya Nadela, Sundar Pichai, Ratan Tata, Shiv Nadar, Mark Zuckerberg, Steve Jobs, Elon Musk or for that matter any big leader of the past few decades. We dream day and night of being successful and of becoming an achiever. We seriously want to become the next big face. Given the fact that we are the species named 'Gen-Y', this is not surprising (If possible try reading the article Why Gen-Y is unhappy from the website Wait but Why). The reality is that nothing is stopping us from achieving that feat. This article is just a collection of my thoughts and experiences that I had gathered on my way to getting my dream job at Caterpillar Inc.

Dreaming big alone isn't going to help us achieve what we want. The first thing which I believe is important is to develop the willingness to learn. Many leaders of our age strongly believe in learning over knowing. This is one of the best things I have learnt from my first employer Mu-Sigma Inc. A person capable of learning is what the world wants. I am saying this with due respect to experience because we can never deny the fact that with experience comes wisdom. But given an opportunity, a right mind-set to learn creates the necessary drive to get the job done in the first place.

Secondly, at any point in time, we should be ready to take up challenges in life. I can relate this to the opportunity I got in our college. I am thankful not just to our department but also to Dr.Prita Nair (Physics Dept) and Dr.K.Babu (Mechanical Dept) for trusting me and giving me such an opportunity to work with a great team on a project called the 'Autonomous Navigation of a Pentacopter(5-rotor UAV)' . That was right after my second year at SSN, for which we eventually won the "Best project of the year" award from the Dept of ECE. To add more to that, it was this project that fetched me my dream job at Caterpillar. There is one phrase which I came across recently that's fresh in my mind "When hard work meets opportunity, that's when luck happens". This saying keeps resonating at the back of my head.

There have been so many instances during my project days when I had felt that I was being over ambitious, but that's when I realized the importance of people. My teachers, parents, seniors and friends helped me a lot during that phase. The next important thing in achieving our goals: dedication and perseverance. I strongly believe that you and I are here for a purpose and if we are focused in getting the results, we can definitely get the job done. At the same time one more important aspect that we need to develop is people skills. Many of us might feel that it's a skill a manager requires and not a techie. We are wrong. Relating to others in a positive way is how we can get the best of results. This is because I believe it really helps in putting the right things at the right place, which is quite essential for being successful. Again coming to our final year project as an example (we converted the project we took up at the end of our 2rd year into our final year project), I would say it's the TEAM that did it, not just me. So relating to people and connecting with everyone possible for a 'win-win' situation is what everyone around the world is ideally looking for.

Given the fact that we guys are smart (because we were somehow able to make it to one of the most prestigious institutions in India), I strongly believe we can achieve whatever we dream of in life. I wish that someday someone in the world would have you and me as their inspiration for their life. With that wish of mine goes the saying "Stop Wishing. Start Doing". Let us start getting things done. Wish you all the success.

FORTHCOMING EVENTS 

1. IEEE International Conference on Wireless Communications, Signal Processing and Networking - WiSPNET 2016 during Mar. 2016.

2. IEEE APS and IEEE MTT sponsored three day workshop on " Key EM concepts" between 20-22 Jan, 2015.