Impulse

JUNE-NOV 2017

VOLUME 6 ISSUE NO:2

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Invente 2.0

Antenna theory Projects

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REPORT ON NBA

HALF-YEARLY NEWSLETTER OF ECE

THIS ISSUE

HEAR & CHEER OUR MENTORS

PUPIL'S PRIDE

Hello readers!

As inquisitive and impatient as you are to flip the pages, take a minute or two to know the energetic, enthusiastic team, who, with their astounding creativity and knowledge, left no stone unturned to achieve perfection to the tee with an eye for every miniscule detail. With them at the helm, you can be assured of a wonderful and an enjoyable read!

MEET TEAM IMPULSE!!

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INVITED ARTICLE | SOFTWARE DEFINED NETWORKING

-Dr. Nandita Lavanis

The internet is a medium used for loads of data transfer. Traditional internet protocol (IP) networks used in the internet have evolved over years are deployed for a quite long period of time. This has lead to hard and rigid networks which are not easily reconfigurable nor easily manageable. Reconfiguration requires that the network responds to faults, loads and changes which does not happen in the internet or IP network. This is due to the fact that IP networks are built from large number of devices like routers, switches etc. Any change required for these devices according to change in the network condition has to be manually performed by the network operator often with a limited set of tools. Due to these, network management and performance tuning are complicated tasks to be executed by network managers and often lead to errors. Apart from these disadvantages of the IP network, another source of rigidity is that network devices are vertically integrated i.e. the control and data planes are together and there is no separation in the control and data planes.

Taking into account all these drawbacks of the current IP-networks, software defined networks (SDN) were proposed in [1]. The salient point in SDN is the separation of control and data planes which breaks the vertical integration and thus separating the network's control logic from underlying routers and switches. This also imparts the ability to program and control the network. SDN essentially breaks the network control problem into manageable pieces. In this article, SDN is looked at in details.

The control plane of the network consists of the network's logic and data plane consists of switches which forward the data traffic. With this separation of control and data plane, the network switches become simple forwarding devices with control logic implemented in a centralized controller. A simple view of this architecture is shown in Fig.1.

SOFTWARE DEFINED NETWORKING.....

(i) Control and data plane are decoupled and control functionality is removed from network devices. (ii) Forwarding decisions are flow based and not decided by the destination, where flow is a sequence of packets from source to destination. (iii) Control logic is moved to an external entity which is called SDN controller or network operating systems (NOSs) which has the same purpose as an operating system. (iv) Software applications running on top of NOS program the network.

Various terminologies used in SDN networking are as follows: (i) Forwarding device (FD): These are hardware / software based data plane devices used to take action on incoming packets. (ii) Data plane (DP): Forwarding devices are interconnected using wired/wireless channels which are called data plane. (iii) Southbound interface (SI) : This defines a communication protocol between data plane and control plane

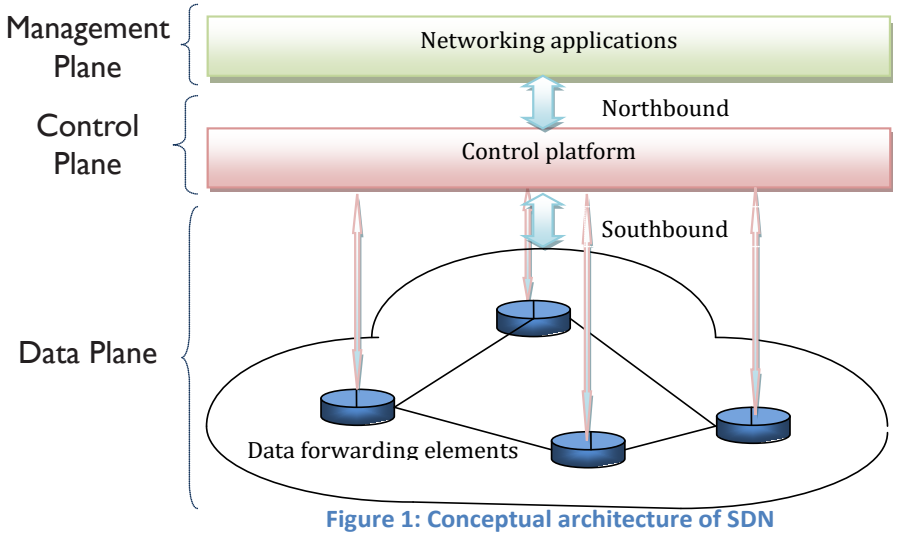

Figure 1: Conceptual architecture of SDN

elements. (iv) Control plane (CP): This is network brain and consists of entire controller logic. (v) Northbound interface (NI) : Common interface for developing applications. (vi) Management plane: set of applications that leverage functions offered by NI.

In Fig. 1, the SDN architecture is shown as a bundle of planes. Similarly the SDN architecture can also be shown as a stack of layers. Each of the plane in Fig. 1 consists of a set of layers which may or may not be present in the SDN. The corresponding layers along with their planes are shown in Fig. 2.

As seen from Fig. 2, each of the plane consists of layers. Each layer has its own functionality. Some layers in each plane are optional, some are necessary. Southbound API, northbound API, NOS and network applications are always present in an SDN

SOFTWARE DEFINED NETWORKING.....

implementation. Each layer of SDN is described further.

At the bottom of the SDN stack is the network infrastructure layer. This consists of all the network hardware components like routers, switches and middlebox appliances. The most important difference with respect to a traditional network and an SDN is that these components act as forwarding devices and do not have any control logic embedded in these. The control logic is embedded in the control plane. Apart from this difference, another difference is that these new networks are built on top of open and standard interface (e.g: OpenFlow). These open and standard interfaces ensure compatibility and interoperatability among different devices.

The next layer is the southbound API or the southbound interface which connects control layer to the forwarding device. However, these APIs are tied to the physical structure of the data plane device. Hence, proposal of OpenFlow API, is welcomed and network independent devices can be deployed.

The third layer is the network hypervisors. Hypervisors enable different virtual machines to share the same hardware resources. Each user can have his own

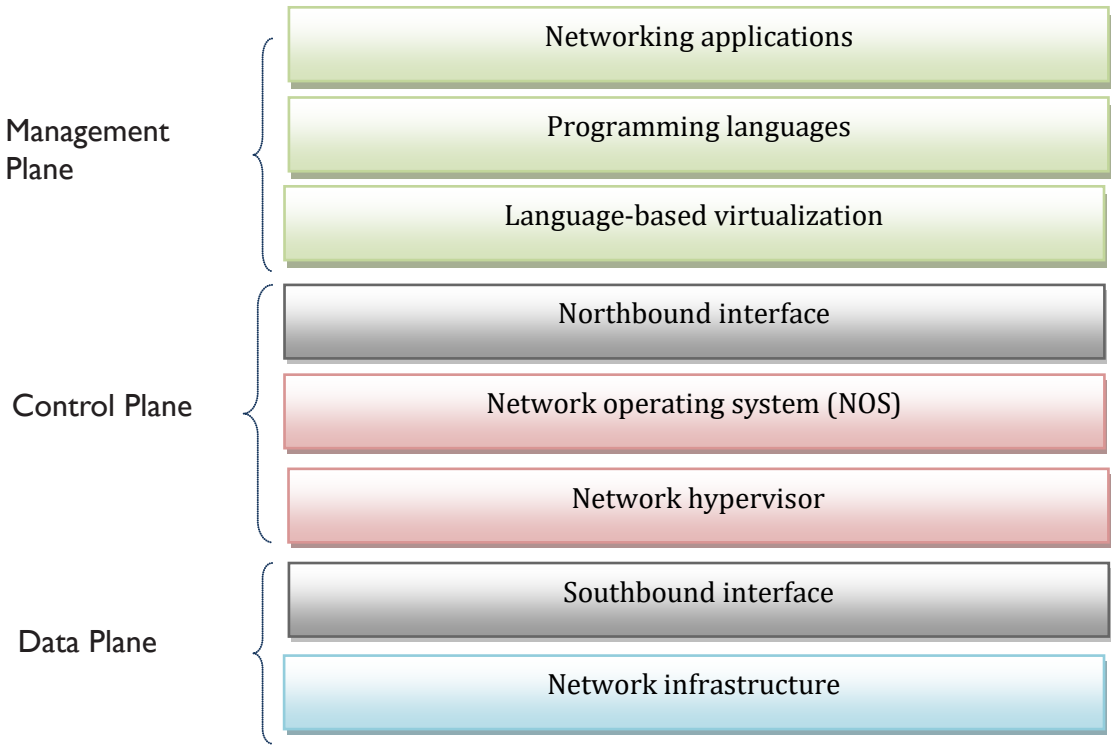

Figure 2: Conceptual architecture of SDN in terms of layers

SOFTWARE DEFINED NETWORKING.....

virtual resources which can range from a computing resource to a storage resource. One advantage of virtualization is easy deployment and shifting of a virtual machine from one hardware to another. In spite of advances and advantages of virtualization its deployment is partial. The network is deployed and mostly statically configured, one box at a time. This is so since there is no single abstraction which can be used to globally reconfigure a network. Network reconfiguration takes a long time as compared to computer provisioning. There is a possibility that SDN might change this.

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NOS is the next layer in SDN. Network management has been performed using low er level device specific instructions. Mostly proprietary NOS have been used. The idea of NOS providing common functionalities, abstracting a device is absent in networks. So network designers of routing protocols have to deal with complicated distributed algorithms to solve network problems. SDN proposes a logically centralized NOS which will provide abstractions, essential services and common API to developers. NOS is a critical element in SDN architecture as it is key supporting piece for control applications to generate network configuration.

The different architectures of NOS are centralized versus distributed. In distributed NOS architecture extra components or special case interface of eastbound/ westbound APIs are present. Functions of these include data import/ export between controllers etc.

The fifth layer of the SDN is the northbound interfaces. The southbound interfaces have a widely accepted proposal which is the OpenFlow. But the northbound interfaces have not yet been agreed upon. As SDN evolves, a common northbound interface is supposed to be agreed upon.

Language-based virtualization is the sixth layer of SDN. Virtualization techniques can allow different views of the same physical

SOFTWARE DEFINED NETWORKING.....

infrastructure. Several underlying devices can be combined to form another 'big' device as an example of virtualization. High-level abstraction of network topology can be performed in Pyretic, which is virtualization language. Static slicing is other example language-based virtualization. In this case, the network is sliced by a complier and a hypervisor is not required to manage the slices.

The seventh layer is that of programming languages. Programmability in networks is moving from low-level machine languages like OpenFlow which is equivalent to an assembly language of a microprocessor to high-level languages like FlowLog, NetCore etc... which are designed to provide an abstraction over the low-level languages in order to simplify the task of programming devices. Other advantages include speeding-up innovation and development and promote software reuse.

The eighth layer is that of network applications which is the most important layer or the "brain" of SDN. Main applications include traditional functionality like load balancing, routing, security policy enforcement. Other applications are network virtualization, mobility management etc. SDN applications are grouped into five categories namely: traffic engineering, mobility and wireless, measurement and monitoring, security and dependability and lastly data centre networking.

SDN represents the next wave in networking and promotes advances in areas of controller design, evolution of scalability and performance of devices as well as betterment of security and dependability.

Considering mobility and wireless communication in networks, SDN based approach makes it easier to deploy and manage such networks. One step to realize various features in wireless networks is to provide programmable and flexible stack layers of wireless networks. Apart from this, light virtual access point (LVAP) can be used to improve management capabilities of wireless networks. LVAP works with existing wireless hardware and does not impose any change on IEEE 802.11 standards. An LVAP is implemented as a unique basic service set identification associated with a specific client, which means that there is a one-to-one mapping between LVAPs and clients.

Very dense heterogeneous wireless networks have also been a target for SDN. These DenseNets have limitations due to constraints such as radio access network bottlenecks, control overhead, and high operational costs. A dynamic two-tier SDN controller hierarchy can be adapted

to address some of these constraints. Local controllers can be used to take fast and fine-grained decisions, while regional controllers can have a broader, coarser grained scope, i.e., that take slower but more global decisions. In such a way, designing a single integrated architecture that encompasses LTE (macro/pico/femto) and WiFi cells, while challenging, seems feasible.

There are two approaches for security and dependability, one involves using SDNs to improve network security, and another for improving the security of the SDN itself.

Traditional networks are complex and hard to manage. One of the reasons is that the control and data planes are vertically integrated and vendor specific. Another, concurring reason, is that typical networking devices are also tightly tied to line products and versions. All this has given rise to vendor lock-in problems for network infrastructure owners, as well as posing severe restrictions to change and innovation. SDN comes into picture here and solves these problems by using key ideas of dynamic programmability in forwarding devices, the decoupling of the control and data plane.

References:

[1] Kreutz, D., Ramos, F.M., Verissimo, P.E., Rothenberg, C.E., Azodolmolky, S. and Uhlig, S., 2015. Software-defined networking: A comprehensive survey. Proceedings of the IEEE, 103(1), pp.14-76.

REPORT ON NAAC

Peer Team Visit to the Department

-Dr.N.Venkateswaran

The NAAC peer team visited our college during June 19 – 21, 2017. Starting with the meeting with Principal on 19, June 2017 at 9.00AM , the peer team met the Steering Committee / IQAC Members at about 11.00AM. Thereafter the team visited to our ECE department. Based on the Self-Study Report (SSR) submitted, the team interacted with the HoD and all faculty members. The team also sought evidences to support our claims through SSR. The team also visited all the laboratory facilities and all the features of the department in particular appreciated The NAAC team took note of several unique efforts of the department in related teaching, learning and evaluation, publications, research and consultancy activities. With respect to teaching and learning the team looked into several aspects including course curriculum, log book, minutes of a class committee meeting, mentor book, average percentage of attendance, test schedule, Univ exam schedule etc., including number of subjects in which special classes were conducted. The entire visit was video recorded.During exit meeting, some important observations made by the NAAC peer team are given.

This was a wonderful experience. Actually, the team felt that time was not sufficient. For an institution of this magnitude, three days are not enough. Instead of compromising on quality, the team members compromised on time for sleeping. This is my 20th audit and seventh audit as Chairman. Certainly, visit to SSN is the top ranked visit.

SSN has excellent physical and intellectual capital (faculty + students) ; goodwill and loyalty of Non teaching staff; Very difficult to have all these and such an emotional connect among people. That is why SSN remains a preferred destination for all Stakeholders. All of them are proud to be part of SSN. Without all these, getting 27th position in NIRF is not easy.

Exactly one month later On 19th July 2017, NAAC declared that our college has been accredited with Grade A+ and CGPA of 3.55.

VISITS AND INTERACTIONS

1. On 12th Jun. 2017, Dr. M. Gulam Nabi Alsath, Asso. Prof interacted with Mr. Gupta, Technical Officer, Electrical and Electronics division, IPR Guindy.

2. Dr. S. Radha, Prof. & Head and Dr. R. Amutha, Prof. visited CSIR-CEERI, Chennai and discussions with the Director for M.E. student projects on 22nd Jun. 2017.

3. On 3rd Jul. 2017, Dr. S. Radha, Prof. & Head and Dr. B.S. Sreeja, Asso. Prof. visited CSIR-CEERI, Pilani for project discussions with Dr. Ajay Agarwal, Principal Scientist, MEMS Division and Dr. Kota Solomon Raju, Principal Scientist, IOT Group.

JUNE → JULY

4. On 4th Jul. 2017, Dr. S. Radha, Prof. & Head and Dr. B.S. Sreeja, Asso. Prof. interacted with Dr. Shantanu Chowdhury, Director and Dr. Bose, Area coordinator, CSIR-CEERI, Pilani regarding funded projects.

5. On 05th Jul. 2017, Dr. S. Sakthivel Murugan, Asso. Prof. interacted with Dr. Satish Ramachandran, Chief Digital Officer-Innovation, Baba research Center, Chennai regarding collaborative work on sediment deposition model design using acoustic inversion study. He also visited the underwater acoustic research lab

6. Dr. S. Radha, Prof. & Head and Dr. N. Venkateswaran, Prof. had discussion with Mr. Ashok Govindarajan, Sasken Technologies Ltd. On 08th Jul. 2017 for possible industry interaction.

7. Ms. Jemimah Ebinezer, Scientist 'F', Mr. Sukhant, 'Scientist 'C', Ms. Vinitha, Scientist 'C', Mr. Shanam Khan, Scientist 'C' from IGCAR visited the Department and interacted with Dr. S. Radha, Prof. & Head, Dr. K. Muthumeenakshi, Asso. Prof., Dr. B. S. Sreeja, Asso. Prof., & Ms. S. Kirubaveni, Asst. Prof. regarding implementation of the sanctioned BRNS project and the revision of the other BRNS project. They also visited the facilities available at SSN RC and Department of ECE.

JULY

8. Dr. S. Radha, Prof. & Head. and Dr. R. Kishore, Asso. Prof. had a conference call interaction with Mr. Ponmudi Ramachandran, Senior Principal Manager at Qualcomm on 19th Jul. 2017 about "Expectation on the Industry orientation - What can we do?"

9. Dr. S. Sakthivel Murugan, Asso. Prof. initiated and organized a MoU signing between SSN College of Engineering and M. S. Swaminathan Research Foundation, Tharamani at MSSRF campus, Tharamani Chennai on 21st Jul. 2017.

10. Dr. S. Radha, Prof. & Head., Dr. B. S. Sreeja, Asso. Prof., Dr. K. Muthumeenakshi, Asso. Prof., Ms. S. Kirubaveni, Asst. Prof. visited IGCAR and discussed about the BRNS sanctioned project and revision of another project with Ms. Jemimah Ebinezer, Scientist, 'F', and made a field visit to FBTR building at IGCAR on 25th Jul. 2017.

11. Dr. S. Sakthivel Murugan, Asso. Prof. interacted with Scientists of Vessel management team of NIOT on 28th Jul. 2017 for preoperative measurement to be carried for the cruise using MoES ships for various studies at various locations planned by August 2017 at NIOT Chennai.

12. Dr. S. Sakthivel Murugan, Asso. Prof. along with his research scholars Ms. S. Swathi, Ms. G. Annalakshmi, Mr. Logeswar, Mr. S. Somasekar and Ms. Sneha (III ECE) made underwater data collection along with NIOT using the ship Sagar Purvi from Ministry of Earth Sciences for various studies along the coastal areas of Chennai, Mahabhalipuram, Kalpakkam, Pondicherry, Cuddalore and Poompuhar from 6th – 8th Aug. 2017.

JULY → AUG

13. Dr. S. Radha, Prof. & Head, Dr. R. Hemalatha, Asso. Prof., Ms. V. Nivethapriya and Ms. M. Vijayalakshmi, IV ECE students visited the Polyhouse field near Payyanur, Thiruporur and had discussion on possible collaboration and support for real field implementation on 18th Aug. 2017.

14. Dr. S. Sakthivel Murugan, Asso. Prof. & Dr. K. Muthumeenakshi, Asso. Prof., as Investigators of TNSCST sanctioned project met Dr. R. Srinivasan, Member Secretary/TNSCST & Dr. Ramasamy, ASP and project in charge/TNSCST and discussed about the progress of project.

AUG

15. Dr. N. Edna Elizabeth, Prof/ ECE visited CLRI, Chennai and had a discussion with Dr. K. Phebe Aaron, Principal Scientist and her team, for project discussion on 8th August 2017.

16. Dr. Edna Elizabeth.N, Professor visited SETS Taramani and interacted with Mrs. Suganya, Scientist D about project proposal for ME Students for the year 2017-2018 on 11th August, 2017.

17. Dr. R. Jayaparvathy, Prof. and Dr. M. Gulam Nabi Alsath, Asso. Prof. visited Birla Cement Works, Chittorgarh, Rajasthan for field visit and discussions related to funded project from 7th Sep. to 9th Sep. 2017. They had interaction with the Technical Officers from Rajasthan Pollution Control Board, The President & Vice-President of Birla Cement Works Ltd.

18. Dr. S. Sakthivel Murugan, Asso. Prof. interacted with Dr. P. Madeswaran, Scientist F & Project Directorate, Ministry of Earth science, Integrated Coastal and Marine Area Management (ICMAM), NIOT Campus, Chennai regarding new funded project proposal submission on 20th Oct. 2017.

SEPT → OCT

19.On 20th Oct. 2017, Dr. S. Sakthivel Murugan, Asso. Prof. visited Trace Metal analysis lab, Seive Analysis Lab and Gas chromatograph labs of ICMAM, NIOT Campus and tested various components of Underwater samples collected in different locations at different depths using Sagar Purvi for Geo acoustic Inversion study.

20. On 16th Oct. 2017, Dr. K. T. Selvan, Prof. coordinated the conduct of a meeting between SSN colleagues and Tata Elxsi engineers at TEL, Taramani. This meeting reviewed the progress of the MoU between the two organizations and also initiated discussions on new collaboration in the area of DSP. The ECE colleagues that attended this meeting were Dr. S. Radha, Prof. & Head, Dr. P. Vijayalakshmi, Prof., Dr. N. Venkateswaran, Prof., Dr. K. T. Selvan, Prof., Dr. R. Rajavel, Asso. Prof., Dr. S. Joseph Gladwin, Asso. Prof. and Ms. S. Hanis, Asst. Prof. Four faculty from CSE also attended the meeting.

OCT → NOV

21. On 23rd Oct. 2017, Dr. N. Edna Elizabeth, Prof/ECE and Dr. R. Kishore, Asso. Prof. visited CLRI, Chennai and had a discussion with Dr. K. Phebe Aaron, Principal Scientist and her team, exploring the possibilities of joint project proposals to funding agencies.

22. On 6th of november Dr.Raj Kumar Choudhury, Head RSIM, Space Physics Laboratory VSSC, Trivandrum visited SSN to discuss about the InSWIM collaborative project.

EXPERT LECTURES

Talks at the department

1.Dr. M. Bhupeshwaran, Prorogue Research Consultancy, "Is Nonlinearity, a concern to soliton propagation? – but it is advantageous in avoiding interaction – 'Diamond cuts diamond'" on Jul. 05th, 2017.

2.Dr. Prem Pal, Professor, Indian Institute of Technology Hyderabad, "Silicon based MEMS" on Sep. 01, 2017.

3. Mr. Swami Krishnan, Vice President and Head of Emploee Engagement & Development at Sasken Technologies Ltd, "Managing your career" on 7th Sep. 2017.

4. Raghava Murthy D V A, Director Aerospace Research, Veltech University, Secretary, Society for Small Satellite Systems (4S), "Small Satellite technology and applications 2017" on 10th Sep. 2017.

JULY

SEPTEMBER

5. On 21st Sep. 2017, Dr. K. T. Selvan, Prof. hosted the visit of Prof. Karl Warnick, Brigham Young University, USA to SSN and facilitated his lecture to students on "Phased array antennas". The organization of this talk was coordinated by Dr. R. Kalidoss, Asso. Prof. and Dr. S. Ramprabhu, Asso. Prof.

Faculty talks elsewhere

1. Dr.B.S.Sreeja, Asso.Prof., delivered a keynote address in the 12th National Conference on Science and Technology (NCSET'17) held during 2nd-3rd May 2017 at VIT University.
2. Dr.B.S.Sreeja, Asso.Prof., chaired a session in the 12th National Conference on Science and Technology (NCSET'17) held during 2nd-3rd May 2017 at VIT University.

JUNE

3. Dr. R. Amutha, Prof., "Image enhancement - Spatial domain techniques" in the FDTP on "IT6005 Digital Image Processing" organized by Department of ECE, SSN College of Engineering on 20th Jun. 2017.
4. Dr. P. Vijayalakshmi, Professor, delivered a talk titled "Image enhancement - frequency domain - introduction to FT, smoothing and sharpening frequency domain filter" in the FDTP on "IT6005 Digital Image Processing" organized by Department of ECE, SSN College of Engineering on 21st June 2017.
5. Dr. R. Hemalatha, Asso. Prof., "Image enhancement - Spatial domain techniques" in the FDTP on "IT6005 Digital Image Processing" organized by Department of ECE, SSN College of Engineering on 20th Jun. 2017.
6. Ms. S. Hanis, Asst. Prof., "Image Compression Standards" in the FDTP on "IT6005 Digital Image Processing" organized by Department of ECE, SSN College of Engineering on 24th Jun. 2017.

JULY

7. Dr. N. Venkateswaran, Prof., "Image Sampling, Quantization and Restoration" in the FDTP on "IT6005 Digital Image Processing" organized by Department of ECE, SSN College of Engineering.
8. Dr. B. Ramani, Asso. Prof., "Speech Synthesis - An Overview" at Rajalakshmi

Engineering College, Chennai on 13th Jul. 2017.

9. Dr. S. Joseph Gladwin, Asso. Prof., "Overview of Digital Image Processing" at Rajalakshmi Engineering College, Chennai on 13th Jul. 2017.

10. Dr. M. Gulam Nabi Alsath, Asso. Prof., "RF Microwave Amplifier Design" at Velammal Engineering College, Chennai on 13th Jul. 2017.

11. Dr. N. Venkateswaran, Prof., "Introduction to Array Signal Processing" in the Two day workshop on "Geometric Approach of Subspace Methods for Array Signal Processing Applications" held at St. Joseph's College of Engineering, Chennai on 14th Jul. 2017.

12. Dr. S. Ramprabhu, Asso. Prof., "Electromagnetic Interference and Electromagnetic Compatibility" at Manakula Vinayagar College of Technology, Pondicherry on 15th Jul. 2017.

13. Dr. S. Sakthivel Murugan, Asso. Prof., "Introduction to communication system and evolution of Digital technology" and "Institution to Industry- Expectations and Challenges" at Mahendra Engineering College, Namakkal on 24th Jul. 2017.

AUG

14. Dr. V. Vaithianathan, Asso. Prof., "Electronic Circuits - I MOSFET Amplifiers" at Velammal Engineering College, Chennai on 4th Aug. 2017.

15. Dr. K. T. Selvan, Prof. "Introduction to antenna measurements" at the IEEE Antennas and Propagation Society Madras Chapter seminar held at PSG College of Technology, Coimbatore. On 18th Aug. 2017.

16. Dr. M. Gulam Nabi Alsath, Asso. Prof., "Antenna Fundamentals and MIMO Antenna Design" during the one day workshop on "3D EM Simulation Technique for Antenna and Filter Design Using CST Studio Suite and ADS" at Sri Venkateswara College of Engineering, Sriperumbudur on 19th Aug. 2017.

17. Dr. K. T. Selvan, Prof., "Reflections on academic excellence" to the first year ECE

students during the orientation programme held in the department on 29th Aug. 2017.
18. Dr. C. Annadurai, Asso. Prof., "Microprocessor and Micro Controllers" at Velammal Engineering College, Chennai on 31st Aug. 2017.

SEPT

19. Dr. R.Amutha, Prof., "Image compression" at Rajalakshmi Engineering College, Chennai on 8th Sep. 2017.
20. Dr. M. Gulam Nabi Alsath, Asso. Prof., "Automotive RADAR Antennas" at Bannari Amman Institute of Technology, Sathyamangalam on 13th Sep. 2017.
21. Dr. N. Venkateswaran, Prof., "Advancements in Digital communication techniques" at Dhaanish Ahmed College of Engineering, Padappai, Kancheepuram on 14th Sep. 2017.
22. Dr. S. Radha, Prof. & Head as a Guest of Honour, inaugurated IEEE THC 2017 and delivered an invited talk at Kalasalingam University, Krishnankoil, Srivilliputhur on 22nd Sep 2017.
23. Dr. K. T. Selvan, Prof., "Understanding electrical properties of dielectrics" and "Periodic structures in electromagnetics" at Loyola-ICAM College of Engineering & Technology on 25th Sep. 2017.

OCT

24. Dr. K. T. Selvan, Prof. visited IIT Kanpur on an invitation from the institute's IEEE AP-S Student Branch Chapter and delivered talks on "A story of Maxwell's displacement current" and "An introduction to antenna measurements" on 05th Oct. 2017.
25. Dr. S. Radha, Prof. & Head, as chief Guest inaugurated IEEE WIE affinity group and delivered a keynote address on "IOT" in IOT workshop at St. Peter's Engineering college on 06th Oct. 2017.

NOV

26. Dr. S. Radha, Prof. & Head delivered a lecture on "The Internet of Things and its Application" workshop organized by Vel Tech University on 7th and 8th Nov. 2017.
27. Dr. S. Esther Florence, Asso. Prof. delivered a lecture on "Textile Antennas" at the AICTE sponsored two day Seminar on "Latest Trends and Advances in Ultra Wideband

Antenna Design" held at KCG College of Technology during 9th – 10th Nov., 2017.

28. Dr. Premanand Chandramani, Prof. delivered an invited guest lecture titled "RF IC Design (Mixers and Frequency Synthesizers)" in the Dept. of Electronics Engineering, at Defense Institute of Advanced technology (DIAT), Pune on 11th Nov. 2017.

29. Dr. R. Rajavel, Asso. Prof., delivered talks on "The role of DFT in communications systems" and "Review of Discrete Fourier Transforms (DFT) and its relationships to other transforms" in the AICTE Sponsored QIP- Short Term Course on "Transforms and their Applications in Engineering" at Coimbatore Institute Of Technology, Coimbatore on 17th Nov. 2017

30. Dr. M. Gulam Nabi Alsath, Asso. Prof. delivered a guest lecture on "Advanced Electromagnetic Concepts" during the seven days Anna University approved FDTP on "Electromagnetic Fields" organized by Adhi College of Engineering and Technology, Kanchipuram on 23rd Nov. 2017.

31. Dr. S. Ramprabhu, Asso. Prof. delivered lecture on "EBG and FSS in Antenna engineering" at the Seven Days FDTP on "Antennas and wave Propagation" organized by the Department of ECE, CEG, Anna University on 28th Nov. 2017.

32. Dr. S. Esther Florence, Asso. Prof. delivered a lecture on "Textile Antennas" at the seven day FDTP on "EC6602 - Antennas and Wave Propagation" at CEG, Anna University during 27th Nov. 2017 to 3rd Dec. 2017.

33. On 29th Nov. 2017, Dr. M. Gulam Nabi Alsath, Asso. Prof. delivered lecture on "Slot and Microstrip Antennas" during the Seven Days FDTP on "Antennas and wave Propagation" organized by the Department of ECE, CEG, Anna University.

34. On 2nd Dec. 2017, Dr. N.Venkateswaran Prof. delivered lecture on "Radio wave Propagation" during the Seven Days FDTP on "Antennas and wave Propagation" organized by the Department of ECE, CEG, Anna University.

35. Dr. K. T. Selvan, Prof. delivered talk on "Radiation from Apertures" at CEG, Anna University.

EVENTS ORGANISED

National Conference on Circuits System & Signal processing

Date: 30th Jun. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinator: Dr. B. S. Sreeja, Dr. K. S. Vishvaksenan, & Dr. R. Kalidoss
Keynote Speaker: Dr. M. D. Selvaraj, Assistant Prof., IIITDM-Kancheepuram
Participants: 18

Two day workshop on "Hands on Internet of Things - A Hardware perspective"

Date: 11th – 12th Aug. 2017
Coordinator: Dr. S. Radha, Prof. & Head, Dr. R. Hemalatha, Asso. Prof. and Dr. S. Aasha Nandhini, PDF
Sponsor: IEEE Comsoc Society
Participants: 31 Student participants from EEE and ECE departments

Third Intra-College Technical Festival - CORONA 3.0

Date: 30th Jun. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinator: Dr. S. Ramprabhu, Asso. Prof. & Dr. Gulam Nabi Alsath, Asso. Prof.
Participants: 300+ students across various departments

Online design contest on MSP430 MCU

Date: 8th Aug. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinator: Dr. R. Rajavel, Asso. Prof. and Dr. S. Joseph Gladwin, Asso. Prof.
Sponsor: TI University Program Partner Digital Shark Technology, Bangalore
Participants: III and IV year ECE Students , around 41 students

First Year PG orientation Program

Date: 28th and 29th Aug. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinator: Dr. R. Amutha, Prof. and Dr. S. Esther Florence, Asso. Prof.
Speakers: Dr. K. Jayakumar, Retd. Scientist, DRDO; Dr. M. Meenakshi, Prof./CEG, Dr. K. T. Selvan, Prof./ECE, Dr. Premanand Chandramani, Prof./ECE, Dr. N. Edna Elizabeth, Prof./ECE, Dr. P. Vijayalakshmi, Prof/ECE, Dr. N. Venkateswaran, Prof./ECE, Dr. Idichandy, Head of Innovation Cell.
Participants: I year ECE students

EVENTS ORGANISED

First Year PG orientation Program

Date: 31st Aug. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinator: Dr. S. Sakthivel Murugan, Dr. S. Joseph Gladwin and Dr. K.J. Jegadishkumar
Participants: I year AE, CS and VLSI students

Refresher Course on Antennas

Date: 30th Oct. – 3rd Nov. 2017
Coordinators: Dr. S. Joseph Gladwin, Asso. Prof. and Mr. S. Karthie, Asst. Prof.
Speakers: Dr. S. V. Kulkarni, IIT-B; Dr. S. Pal, DAIT; Dr. Basudeb Ghosh, IIST; Dr. Dr. P. H. Rao, SAMEER; Dr. K. P. Ray, DIAT; Dr. M. Gulam Nabi Alsath, SSN; Dr. S. Esther Florence, SSN; Mr. V. Lingasamy, Ms. M. Akila and Mr. S. Rajkumar, Research Scholars, SSN.
Participants: 45 participants from various Engineering Colleges

Healthcare using Wireless Body Area Network and its Challenges

Date: 20th – 22nd Nov. 2017
Convener: Dr. S. Radha, Prof. & Head
Coordinators: Dr. R. Jayaparvathy, Prof. and Dr. M. Gulam Nabi Alsath, Asso. Prof.
Speakers: Dr. P. S. Pandian, Scientist E/ DRDO, Dr. T. Nithyananda, Principal Architect/Tata Elxsi, Dr. M. Meenakshi, Prof./CEG, Mr. Ram Kadambi, CEO/Aries biomed, Dr. Sridharan, Prof/CEG, Dr. Mahesh, Asso. Prof./BME
Participants: 50 participants from various Engineering Colleges

EVENTS ATTENDED

1

Dr.B.S.Sreeja, Asso.Prof., attended and presented two papers in "The 18th international symposium on Laser Precision Microfabrication" at Toyama, Japan on June 5-8,2017.

2

Dr. K. Muthumeenakshi, Asso. Prof., Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. S. Esther Florence, Asso. Prof., Dr. S. Ramprabhu, Asso. Prof., Ms. S. Kirubaveni, Asst. Prof. attended Anna University approved 7 days FDTP on "IT6005 Digital Image Processing" conducted by the Department of ECE, SSN College of Engineering from 19th to 25th Jun. 2017.

3

Ms. G. Durga, Asst. Prof. attended AICTE sponsored FDP on "MOSFETs and Beyond" at IIT Madras, Chennai from 10th – 15th Jul. 2017.

4

Dr. K. K. Nagarajan, Asso. Prof. attended the IEEE Workshop on "Nanotechnology and Sensors" at IISc, Bangalore during 11th to 13th Aug. 2017.

5

Dr. A. Jawahar, Prof. & Dr. N. Edna Elizabeth, Prof. participated in the "29th GISFI Standardization Series Meeting & IEEE 5G Summit" held at the Institute of Technical Education & Research, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha from 17th – 18th Aug. 2017.

6

Dr. S. Joseph Gladwin, Asso. Prof. & Chair, IEEE AP-S MC organised and attended IEEE AP-S 'Seminar and Poster Session' on 'Recent Advances in Antennas' at PSG College of Technology, Coimbatore on 18 August 2017.

EVENTS ATTENDED

Dr. S. Radha, Prof & Head., Dr. R. Amutha, Prof., Dr. A. Jawahar, Prof., Dr. Premanand Chandramani, Prof., Dr. K. Muthumeenakshi, Asso. Prof., Dr. B. S. Sreeja, Asso. Prof., Mr. C. Vinothkumar, Asst. Prof. attended a workshop on Autonomy status on 28th Aug. 2017. 7

Dr. S. Joseph Gladwin, Asso. Prof. & Chair, IEEE AP-S MC organized and attended one day IEEE AP-S Distinguished Lecturer's Seminar by Prof. Karl F. Warnick, Brigham Young University, USA on the topic "Research Frontiers in Phased Array Antennas for Radio Astronomy" held at the Department of ECE, College of Engineering Guindy (CEG), Anna University on 21st Sep. 2017. 8

Dr. Premanand Chandramani, Prof. attended a two-day AICTE Seminar on "Smart Grids and Green Systems (Smart Greens)" at Pondicherry Engineering College, Pondicherry from 5th – 6th Oct. 2017. Dr. S. Sakthivel Murugan, Asso. Prof. participated the "Industry Academia Interaction Meet" conducted by CSIR-CLRI, CSIR-SERC & NIOT in India International Science Festival - IISF 2017 at CSIR-SERC, Taramani, Chennai on 14th & 15th Oct. 2017. 9

On 25th Oct. 2016, Dr. A. Jawahar, Prof/ECE and Dr. Premanand Chandramani, Prof/ECE attended a 1-day seminar on, "Keysight Hotspot seminar on IoT Devices measurement insights" organized by Keysight Technologies held at Residency Tower, Chennai. 10

EVENTS ATTENDED

EVENTS ATTENDED

Text Analysis" organized by CSE department of SSN College of Engineering from 13th Nov. – 25th Nov. 2017. 17

Dr. A. Jawahar, Prof. and Dr. R. Kishore, Asso. Prof. participated in the Chennai Technology day organized by NOKIA at Nokia Factory, Oragadam. Dr. A. Jawahar, Prof. was invited as a member in the panel discussion to discuss on the topic "Network needs for Smart cities/Smart-Cities for India" that was organized as a part of the event. 18

Dr. N. Edna Elizabeth, Prof., Dr. S. Esther Florence, Asso. Prof and Mr. W. Jino Hans, Asst. Prof. attended the AICTE sponsored Seminar on "Healthcare with Wireless Body Area Networks and its challenges" held at SSN College of Engineering from 20th – 22nd Nov. 2017. 19

Dr. M. Gulam Nabi Alsath, Asso. Prof. and Dr. S. Ramprabhu, Asso. Prof. attended the Seven Days FDTP on "Antennas and wave Propagation" organized by the Department of ECE, CEG, Anna University from 27th Nov. – 3rd Dec. 2017. 20

PROFESSIONAL ROLES AND RECOGNITIONS

1. Dr. S. Radha, Prof. & Head and Dr. R. Amutha, Prof., as member, evaluated the completed faculty internally funded project of ECE department along with Dean (Research) and external member at SSN RC on 20th Jun. 2017.

2. Dr. M. Gulam Nabi Alsath, Asso. Prof. reviewed the doctoral and predoctoral applications for IEEE APS research grant. He also reviewed research articles submitted to ACES conference, ACES Journal, IET Microwaves Antennas and Propagation, IEEE Transactions on Industrial Electronics, IEEE Access and IEEE Antennas and Propagation Magazine.

3. Dr. K. T. Selvan, Prof. reviewed papers for IEEE Transactions on Antennas and Propagation, IEEE Antennas and Wireless Propagation Letters, International Journal of RF and Microwave Computer Aided Engineering and IEEE Transactions on Antennas and Propagation.

4. Dr. S. Ramprabhu, Asso. Prof. attended a meeting with Professor V. G. Idichandy, Chief Mentor, Innovation and Incubation Centre to discuss the progress of internal funded projects on 07th Jul. 2017.

5. Dr. S. Radha, Prof. & Head attended DC meeting at Adhiparasakthi Engineering College, Melmaruvathur on 07th Jul. 2017.

6. Dr. P. Vijayalakshmi, Prof. was selected as Academic Council Nominee, Board of studies, Kumaraguru College of Technology, Coimbatore (Autonomous) and attended the Board of studies meeting on 10th Jul. 2017.

7. Dr. R. Hemalatha, Asso. Prof. conducted the first Doctoral Committee meeting for her part time research scholar Mr. S. Sudharsan on 11th Jul. 2017.

8. Dr. C. Annadurai, Asso. Prof. conducted the first Doctoral Committee meeting for his full time research scholars Mr. R. Rajesh, Mr. D. Ramkumar, and part time research scholars Mr. R. Anandan and Mr. M. Varun on 15th Jul. 2017.

9. Dr. A. Jawahar attended the Annual Academic Audit from the B.S Abdur Rahman University on 20th Jul. 2017

10. Dr. C. Annadurai, Asso. Prof., as a DC member attended the first DC meeting of Mr. K. E. Purusothaman at Adhiparasakthi Engineering College, Melmaruvathur on 22nd Jul. 2017.

11. Dr. S. Radha, Prof. & Head and Dr. S. Joseph Gladwin Asso. Prof. attended IEEE Excom and Annual General Body Meeting on 23rd Jul. 2017.

12. Dr. S. Radha, Prof. & Head conducted the first DC meeting for her two full time Ph. D scholars Ms. Sudha & Ms. Kiruthika on 27th Jul. 2017.

13. Dr. K. T. Selvan, Prof. is functioning as Tutorial Co-Chair for IEEE Applied Electromagnetics Conference to be held at Aurangabad during 19th to 21st Dec. 2017.

14. Dr. S. Radha, Prof. & Head reviewed an article for Journal of Internet Technology.

15. Dr. S. Ramprabhu, Asso. Prof. reviewed papers for IEEE Transactions on Antennas and Propagation and IET Electronics Letters.

16. Dr. S. Radha, Prof & Head. and Dr. B.S. Sreeja, Asso. Prof. attended the Patent Applications and Expert Committee Meeting on 12th Aug. 2017.

17. Mr. C. Vinothkumar, Asst. Prof. acted as an expert member during the NBA mock audit held at the Department of Mechanical Engineering, SSNCE on 21st Aug. 2017.

18. Dr. Edna Elizabeth.N, Professor conducted the first Doctoral Committee meeting for her Full time research scholar Ms. J.Renita on 21st Aug. 2017.

19. Dr. R. Rajavel, Asso. Prof., attended Doctoral Committee meeting for the research scholar Mrs. N. Sindhu at VELS University, Pallavaram on 28th Aug. 2017.

20. Dr. R. Jayaparvathy, Prof. conducted the Ph.D Viva- Voce Examination for her research scholar on 28th Aug. 2017.

21. Dr. R. Jayaparvathy, Prof. attended Doctoral Committee Meeting at PSG College of Technology as DC member on 30th Aug. 2017.

22. Dr. R. Jayaparvathy, Prof/ECE was invited as Expert for Academic Audit by M.S Abdur Rahman Crescent Engineering College and Kongu Engineering College during August 2017.

23. Dr. S. Esther Florence, Asso. Prof. reviewed a paper for IEEE Antennas and Propagation Magazine and IET Electronic Letters

24. Dr. S. Radha, Prof. & Head, as member of evaluation committee appointed by DST-TDT, New Delhi, attended 5th meeting of the PEG on state S & T programme/ Tier-2 Screening Committee at Chennai on 7th and 8th Sep. 2017.

25. Dr. N. Venkateswaran, Prof. attended the doctoral meeting of a research scholar at Hindustan University on 12th Sep. 2017.

26. Dr. S. Radha, Prof. & Head attended a Doctoral Committee meeting at MIT, AU, Chennai on 13th Sep. 2017.

27. Dr. S. Radha, Prof. & Head, as nominee of external examiner conducted Ph.D. viva-voce at RMD Engineering College, Chennai on 15th Sep. 2017.

28. Dr. B.S. Sreeja, Asso. Prof., PI, Dr. S. Radha, Prof. & Head, Co-PI, Ms.

Jemmima Ebenezer, SC 'F', IGCAR, PC, of the BRNS sanctioned project, and Dr. Gulam Nabi Alsath, Subject Expert conducted JRF interview for the BRNS sanctioned project on 26th Sep. 2017.

29. Dr. C. Annadurai, Asso. Prof., reviewed a paper for International Journal of Communication Systems (Wiley Publications) and two papers for Elsevier Computers and Electrical Engineering.

30. Dr. P. Vijayalakshmi, Prof. is appointed as an area chair for "Analysis of speech and audio signals" in the International Conference Interspeech 2018.

31. Dr. S. Radha, Prof. & Head, Dr. P. Vijayalakshmi, Prof. and Dr. N. Venkateswaran, Prof. ECE, evaluated the Student Internal funding sanctioned during the year 2016 on 03rd Oct. 2017.

32. Dr. R. Jayaparvathy, Prof. attended Doctoral Committee Meeting at PSG College of Technology as DC member on 06th Oct. 2017.

33. Dr. S. Radha, Prof. & Head/ECE, as a coordinator of R2017 syllabus subcommittee consolidated the ECE syllabus and submitted to Chairman, Faculty of ICE, AU, Chennai on 10th Oct. 2017.

34. Dr. R. Jayaparvathy, Prof. conducted the Ph.D Viva- Voce Examination for her research scholar on 13th Oct. 2017.

35. Dr. K. T. Selvan, Prof. conducted the confirmation meeting for his research scholar Mr. V. Lingasamy, Research Scholar on 14th Oct. 2017.

36. Dr. R. Amutha conducted confirmation meeting for her research scholar Ms. Jansi on 16th October 2017.

37. Dr. S. Radha, Prof. & Head submitted the DST FIST Progress review report for the period 2014 to 2017 to DST, New Delhi on 23rd Oct. 2017.

38. Dr. P. Vijayalakshmi, Prof. conducted the confirmation DC meeting for her research scholar Ms. K. Mrinalini on 25th Oct. 2017.

39. Dr.B.S.Sreeja conducted synopsis meeting for her research scholars Ms.Joshitha C and Ms.Chithra Devi R on 26th October 2017.

40. On 31st Oct. 2017, Dr. S. Sakthivel Murugan, Asso. Prof. conducted the Research Assistant interview for the TNSCST - DST funded project

41. On 31st Oct. 2017, Dr. N. Venkateswaran, Prof. attended the synopsis meeting of a research scholar at Anna University.

42. Dr. P. Vijayalakshmi, Prof. reviewed a paper submitted to IEEE signal processing Letters and a paper for ICON 2017, IEEE TENCON 2017

43. Dr. N. Venkateswaran, Prof. reviewed a paper for International Journal Informatics in Medicine Unlocked, Elsevier publications.

44. Dr. K. Muthumeenakshi, Asso. Prof. reviewed a research paper submitted to Wireless Personal Communications (Springer Publications).

45. Dr. S. Radha, Prof. & Head attended R2017 syllabus committee meeting at CEG, AU, Chennai on 10th Nov. 2017.

46. Dr. S. Radha, Prof. & Head submitted the department details for Institute of Eminence on 13th Nov. 2017 and for NIRF ranking on 20th Nov. 2017.

47. On 17th Nov. 2017, Dr. Premanand Chandramani, Prof. as one of the Doctoral Committee members, attended the DC Comprehensive meeting for Ms. S. Poorvasha (Supervisor Dr. B. Lakshmi, Asso. Prof. /School of Electronics Engineering, VIT, Chennai Campus.

48. Ms. K. Jayabharathi, Asst. Prof./MNMJEC, defended her thesis titled "Trust based BAT-Inspired Routing Protocol for Efficient and Secure Data Transmission in MANET" at ADA LOVELACE auditorium, Department

of Information Science & Technology, Anna University, Chennai. Dr. R. Kishore, Asso. Prof. was the Joint Supervisor of the candidate.

49. Dr. K. T. Selvan, Prof. facilitated an MoU between SSN and Carleton University on 17th Nov. 2017.

50. Dr. P. Vijayalakshmi, Prof. conducted the confirmation DC meeting for her research scholar Ms. Mariya Celin on 17th Nov. 2017.

51. Dr. N. Venkateswaran, Prof. conducted the synopsis meeting for his research scholar Ms. K. Nirmala, Asst. Prof./BME on 21st Nov. 2017.

52. Dr. S. Radha, Prof. & Head as an external examiner conducted project viva-voce examination for PG students at MIT, AU, Chennai on 22nd Nov. 2017.

53. Dr. S. Radha, Prof. & Head conducted synopsis meeting for her full-time research scholar Ms. Angayarkanni.

54. Dr. S. Sakthivel Murugan, Asso. Prof., reviewed paper titled "Signal Detection in Underwater Acoustic Noise Using Efficient Time-Frequency Denoising Technique" for Journal of Marine Engineering & Technology.

55. Dr. C. Annadurai, Asso. Prof. reviewed a paper titled "Optimization of Logarithmic Converter for LNS based SOC" for Springer's Cluster Computing.

56. Dr. S. Joseph Gladwin attended the All India IEEE AP-S Chapter Chairs meeting in the International Conference on Antenna Innovations and Modern Technologies for Ground, Aircraft & Satellite Applications (iAIM-2017) held at Bengaluru during 24th-26th Nov. 2017.

57. Dr. S. Joseph Gladwin Chaired a session with Dr. K.J. Vinoy, IISc Banglore on the theme 'Microwave Devices' in the IEEE AP-S IEEE International conference on Antenna Innovations and Modern technologies for Ground, Aircraft & Satellite Applications (iAIM 2017) held at Bengaluru on 25th Nov. 2017

PROPOSALS & IDEAS

01 Dr. S. Sakthivel Murugan, Asso. Prof. (PI) and Dr. K. Muthumeenakshi, Asso. Prof. (Co-PI) presented their project "MI based underground wireless sensor network system for smart irrigation" to the review panel committee for external funding to TNSCST on 9th Jun. 2017.

02 Dr. M. Gulam Nabi Alsath, Asso. Prof. (PI), Dr. S. Ramprabhu, Asso. Prof. (Co-PI), Ms. S. Kirubaveni, Asst. Prof. (Co-PI) submitted the project proposal titled "Theoretical and Experimental Analysis on the Design of Compound Reconfigurable Reflectarray Antenna with an Integrated Electronic Control System" worth Rs. 34.93 Lakh to DST-SERB under Extra Mural Research scheme.

03 Dr. M. Gulam Nabi Alsath, Asso. Prof. (PI) submitted the project proposal titled "Design, Development and Experimental Evaluation of Highly Integrated Multi-Standard Antennas for MIMO Implementation in Automobiles as a part of Intelligent Transport Systems" worth Rs. 36.58 Lakh to DST-SERB under Early Career Research Award Scheme.

04 Dr. S. Ramprabhu, Asso. Prof. (PI), submitted a proposal titled "Design and fabrication of miniaturized polarization insensitive and angularly stable frequency selective surface for electromagnetic shielding applications" with the request for funding to the tune of Rs. 30.346 Lakh to DST-SERB under Early Career Research Award Scheme on 10/08/2017.

05 Dr. M. Anbuselvi, Asso. Prof. (PI) submitted the project proposal titled "Solar powered IoT Enabled Smart Wheelchair for physically challenged" worth Rs. 14.67 Lakh to DST-SERB under Extra Mural Research scheme.

06 Dr. B.S.Sreeja, Asso. Prof. (PI), Dr.S.Radha (Co-PI) submitted the project proposal titled "Low cost programmable semi-automatic insulin delivery system for Juvenile diabetes" worth Rs. 29 Lakh to DST-SERB under Early Career Research Scheme.11

GRANTS RECEIVED

01

The project titled "MI based underground wireless sensor network system for smart irrigation" by Dr. S. Sakthivel Murugan, Asso. Prof. (PI) and Dr. K. Muthumeenakshi, Asso. Prof. (Co-PI) is sanctioned and orders are received for 7.34 Lakhs from TNSCST.

02

Dr. S. Radha, Prof. & Head, PI, Dr. M. Gulam Nabi Alsath, Asso. Prof. and Dr. S. Ramprabhu, Asso. Prof. as Co-PI, received a grant-in-aid form AICTE under MODROBS scheme for an amount of Rs. 8.75 Lakh, for the period 2017-19, for the establishment of microwave and antenna testing laboratory.

03

Dr. P. Vijayalakshmi, Prof. has been awarded CSIR travel grant to attend TENCON 2017.

04

The project titled "Omni-directional to Directional Pattern Switching Patch Antenna for Wireless Sensor Nodes at Reactor Containment Building" by Dr.B.S.Sreeja, Asso.Prof. (PI) and Dr.S.Radha (Co-PI) has been sanctioned (Amount sanctioned:Rs.24.96 Lakhs).

05

Dr.B.S.Sreeja received travel grant from DST, ITS to attend "The 18th international symposium on Laser Precision Microfabrication" at Toyama, Japan on June 5-8,2017.

FACULTY

DESIGN AND DEVELOPMENT OF PDMS BASED MICROFLUIDIC SENSING DEVICES FOR CHOLESTEROL AND CTC DETECTION

Dr. S. Radha, Prof. & Head

2 years

Rs. 1.80 Lakhs

INTERNAL

FABRICATION OF SELF-POWERED ZNO BASED VOC SENSOR

Ms.S. Kirubaveni, Asst. Prof.

Rs. 3.5 Lakhs

2 years

Co-investigator Dr. Muthu Senthil Pandian, SSN Research Centre

FUNDING

ACTION RECOGNITION USING SPARSE BASED SENSOR FUSION FOR AMBIENT ASSISTED LIVING

Dr. R. Amutha, Prof

1.073 Lakhs

2 years

Co-investigator Dr. N. Edna Elizabeth, Prof.

FACULTY

APPLICATION OF RFID TECHNOLOGY FOR SOLVING VEHICLE EMISSIONS IN CITIES ON INTERNET OF VEHICLES (IOV)

Ms. P. Kaythry, Asst. Prof.

Rs. 1 Lakh

2 years

Co-investigator Dr.R.Amutha,Prof. Dr. N. Edna Elizabeth, Prof.

INTERNAL

DESIGN AND MODELLING OF 3D - ORTHOTIC BRACES USING COMPUTER VISION

Dr.N.Venkateshwaran Prof.

0.80 Lakh

2 years

Co-investigator Mr. W. Jino Hans, Asst. Prof.

FUNDING

DESIGN AND IMPLEMENTATION OF AN INTELLIGENT FIRE EMERGENCY EVACUATION SYSTEM

Rs. 2.5 Lakhs

2 years

Dr. R. Jayaparvathy, Prof.

Co-investigator Dr. M. Gulam Nabi Alsath, Asso. Prof.

JOURNAL ARTICLES

Ms. P. Nirmala, JRF, Dr. R. Kishore, Asso. Prof., "Multi sensor image fusion for surveillance applications using hybrid image fusion algorithm," Multimedia Tools and Applications, pp. 1-32, Jun. 2017.

Ms. C. Joshitha, Research Scholar, Dr. B. S. Sreeja, Asso. Prof., Ms. S. Sasi Princy, Research scholar, Dr. S. Radha, Prof. & Head, "Efficiency enhanced novel 3T heads V-beam microactuator for low power applications," Microsystem Technologies, pp. 1-8, Jun. 2017.

Ms. Y. Panneer Selvam, RS/CEG, Ms. L. Elumalai, PG Scholar/CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. K. Malathi, Faculty/CEG, Ms. S. Kingsly, RS/CEG, Mr. S. Subbaraj, RS/CEG "A Novel Frequency and Pattern Reconfigurable Rhombic Patch Antenna with Switchable Polarization," IEEE Antennas and Wireless Propagation Letters, vol. 16, pp. 1639-1642, 2017.

Ms. K. Harshitha, Ms. G. Annalakshmi, Research scholar, Dr. S. Sakthivel Murugan Asso. Prof., "Model predicting sediment transport," Sea Technology Journal, vol. 54, pp. 22-24, Jun. 2017.

Mr. R. Vimal Sam Singh, Asst. Prof./Mech, Dr. K. Malathi, Asso. Prof/CEG, Dr. S. Esther Florence, Asso. Prof. "Transit Time Dependent Condition Monitoring of PCBs during Testing for Diagnostics in Electronics Industry," IEEE Transactions on Industrial Electronics, pp. 1-8, 2017.

Mr. I. Nelson, Asst. Prof., Dr. C. Annadurai, Asso. Prof., Dr. R. Kalidoss, Asso. Prof., Dr. B. Partibane, Asso. Prof., "Mitigation of co-channel interferences in cognitive multi-carrier code division multiple access system by singular value decomposition techniques" Cluster Computing (Springer), pp. 1-8, Jun. 2017.

Ms. K. Madheswari, Asst. Prof./CSE and Dr. N. Venkateswaran, Prof. "Swarm Intelligent based Contrast Enhancement Algorithm with Improved Visual Perception for Color Images," Multimedia Tools and Applications, Springer, pp. 1-24, Jul. 2017.

Dr. Trevor S. Bird, Mr. V. Lingasamy, Research Scholar, Dr. K. T. Selvan, Prof., Dr. H. Sun, "Improved Finite Range Gain Formula for Open Ended Rectangular Waveguides and Pyramidal Horns," IET Microwaves, Antennas & Propagation, pp. 1-6, Jul. 2017.

Mr. S. Rajkumar, Research Scholar, Mr. N. Vivek Sivaraman, Ms. M. Sharada, UG Student, (Batch 2013-2017) and Dr. K. T. Selvan, Prof., "Heptaband swastik arm antenna for MIMO applications," IET Microwaves Antennas and Propagation, vol. 11, no. 9, Jul. 2017, pp. 1255-1261.

Ms. G. Annalakshmi, Research Scholar, Dr. S. Sakthivel Murugan, Asso. Prof., Dr. P. Venugopal, Asso. Prof/Maths, Ms. Swetha Vivekananthan, Ms. Vaishali Selvaraj, "Coherence analysis of ambient noises in shallow water for underwater Communication" Journal of Marine Science and Technology, vol. 25, no.3, pp. 311- 318, Jul. 2017.

Ms. Angayarkanni, Research Scholar, Dr. S. Radha, Prof. & Head, "Feature based Fall Detection System for Elders Using Compressed Sensing in WVSN" Springer's Wireless Networks, pp. 1-15, Jul. 2017.

Ms. V. Angayarkanni, Research Scholar, Ms. V. Akshaya and Dr. S. Radha, Prof. & Head, "Design of a Compressive Sensing based Fall detection system for elderly using WSN," Springer's Wireless Personal Communication, pp. 1-17, Aug. 2017.

Ms. Vanaja Selvaraj, Asst. Prof./RIT, Ms. Poonguzhali Srinivasan, Asst. Prof./CEG, Dr. K. J. Jegadish Kumar, Asso. Prof., Mr. Rahul Krishnan, Asst. Prof./RIT, Mr. Karunakaran Annamalai, Asst. Prof./RIT, "Highly Directional Microstrip Ultrawide Band Antenna for Microwave Imaging System," Acta Graphica, pp. 35-40, vol. 28, no.1, 2017.

Dr. K. T. Selvan, Prof. and R. Janaswamy, Prof./MIT, "Fraunhofer and Fresnel distances: Unified derivation for aperture antennas," IEEE Antennas and Propagation Magazine, vol. 59, no. 4, pp. 12-15, Aug. 2017.

Dr. P. H. Rao, Scientist/SAMEER, R. Sujitha, Dr. K. T. Selvan, Prof., "A multiband, multi-polarization shared aperture antenna: Design and evaluation," IEEE Antennas and Propagation Magazine, vol. 59, no. 4, pp. 26-37, Aug. 2017.

Mr. R. Vimal Samsingh, Asst. Prof./Mech, Ms. S. Sangeetha, Research Scholar/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. S. Esther Florence, Asso. Prof., Ms. P. Yogeshwari, Research Scholar/CEG, Ms. K. Saffrine, Research Scholar/CEG, Dr. Y. V. Ramana Rao, Prof./CEG, "Characterization of Delamination in Fiber-Reinforced Epoxy-Based PCB Laminates, Using an EBG-Enhanced Planar Microwave Sensor," IEEE Transactions on Components, Packaging and Manufacturing Technology, pp.1-8, Aug. 2017.

Ms. V. Angayarkanni, Research Scholar and Dr. S. Radha, Prof. & Head, "Quantization and security enabled compressive video CODEC for WSN" in Springer's Multimedia Tools and Applications, pp. 1-18, Sep. 2017.

Ms. G. Anushiya Rachel, RS/IT, Dr. N. Sripriya, ASSO. PROF./IT, Dr. P. Vijayalakshmi, Prof., Dr. T. Nagarajan, Prof. & Head/IT, "Significance of Differenced EGG Signal as a Spectrum in Phase Difference Computation for the Estimation of Glottal Closure Instants" Circuits, Systems, and Signal Processing (Springer), pp. 1-24, Sep. 2017.

Dr. P. Vijayalakshmi, Prof., Dr. B. Ramani, Asso. Prof., Ms. M. P. Actlin Jeeva, Research Scholar, Dr. T. Nagarajan, Prof & Head/IT, "A Multilingual to Polyglot Speech Synthesizer for Indian Languages using a Voice-Converted Polyglot Speech Corpus," Circuits, Systems, and Signal Processing (Springer), pp. 1-22, Sep. 2017.

Ms. C. Joshitha, RS., Dr. B. S. Sreeja, ASSO. PROF.., Ms. S. Sasi Princy and Dr. S. Radha, Prof & Head. published a paper titled "Fabrication and investigation of low actuation voltage curved beam bistable MEMS switch" in the Microsystem Technologies journal, October 2017, vol. 23, no. 10, pp. 4553-4566.

Dr. L. Nandita, Asso. Prof., Dr. D. Jalihal, Professor/IITM, "Performance analysis of non-coherent MIMO MRC scheme with training using finite-SNR diversity and multiplexing Tradeoff." Physical Communication (Elsevier), vol. 25, pp. 26-33, Sep. 2017.

Dr. N. Padmapriya, Asst. Prof./Maths, Dr. N. Venkateswaran, Prof., Ms. Toshitha Kannan and Ms. Sindhu Madhuri, UG students-Batch 2012-2016, "Non-invasive Glaucoma Screening Using Ocular Thermal Image Classification," Journal of Computing and Information Technology, vol.25, no.3, pp. 223-232, Sep. 2017.

Dr. S. Ramprabhu, Asso. Prof. and Dr. K. Malathi, Asso. Prof./CEG, "Novel Reconfigurable 3-D Frequency Selective Surface," IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. 7, no. 10, pp. 1678-1682, Oct. 2017.

Dr. S. Ramprabhu, Asso. Prof., Mr. M. Balaji, Dr. K. Malathi, Asso. Prof./CEG, Mr. R. Vimal Sam Singh, Asst. Prof./Mech, Dr. M. Gulam Nabi Alsath, Asso. Prof./ECE, "A Wideband Frequency Tunable FSS for Electromagnetic Shielding Applications," IEEE Transactions on Electromagnetic Compatibility, vol. 60, no. 1, pp. 280-283, Feb. 2018.

Ms. P. Nirmala, Research Scholar, Dr. R. Kishore, Asso. Prof., "Infrared and visible image fusion using discrete cosine transform and swarm intelligence for surveillance applications," Journal Elsevier Infrared Physics & Technology, vol. 88, pp. 13-22, Nov 2017.

Ms. P. Kaythry, Asst. Prof., Dr. R. Kishore, Asso. Prof., "Energy Efficient Quasi Cyclic FEC for Wireless Sensor Networks" International Journal Applied Mathematics and Information Sciences, vol. 11, no. 6, pp.1815-1824, Nov. 2017.

Dr. G. Geetha, Faculty/CEG, Dr. P. Sandeep Kumar, Faculty/SRM, Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. K. Malathi, Faculty/CEG, Dr. T. Ramarao, Faculty/SRM, "Compact and Flexible Monopole Antenna for UWB Applications Deploying Fractal Geometry" in the Journal of Electrical

Engineering and Technology, vol. 13 (1), pp. 1921-1926, 2017.

Ms. Y. Panneer Selvam, RS/CEG, Dr. K. Malathi, Faculty/CEG, Dr. M. Gulam Nabi Alsath, ASP/ECE, Mr. S. Velan, Faculty/SJIT, Ms. Saffrine Kingsly, RS/CEG, Mr. S. Subbaraj, RS/CEG, Dr. Y. V. Ramana Rao, Faculty/CEG, Dr. S. Raju, Faculty/TCE, Dr. A. Varadhan, Faculty/TCE, "A Low Profile Frequency and Pattern Reconfigurable Antenna" in IEEE Antennas and Wireless Propagation Letters, vol. 16, pp. 3047-3050, 2017.

Ms. P. Janani, Dr. S. Sakthivel Murugan, Asso. Prof., "Design and performance analysis of boost converters in an energy harvesting system for underwater applications using sea water in microbial fuel cells" in Indian Journal of Geo Marine sciences, vol.46, no.11, November 2017, pp.2241 - 2249.

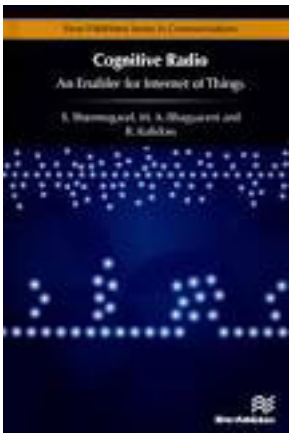
Dr. T. S. Bird, Mr. V. Lingasamy, RS/ECE, Dr. K. T. Selvan, Prof/ECE and Dr. H. Sun published a paper titled "Improved finite-range gain formula for open-ended rectangular waveguides and pyramidal horns" in the journal IET Microwaves, Antennas & Propagation, vol. 11 (14), pp. 2054-2058, 2017.

Ponuma .R, R.Amutha, " Compressive sensing based image compression -encryption using Novel 1D - Chaotic map" in Multimedia Tools and applications, Springer, pp: 1-16, Nov 2017.

S. Aasha Nandhini, R. Hemalatha, S. Radha, K. Indumathi, "Web Enabled Plant Disease Detection System for Agricultural Applications Using WMSN", Springer's Wireless Personal Communication, pp. 1-16, Dec. 2017.

BOOKS....

COGNITIVE RADIO- AN ENABLER FOR INTERNET OF THINGS



- Dr. S. Shanmugavel, Prof./NEC
- M. A. Bhagyaveni, Prof./CEG
- Dr. R. Kalidoss, Asso. Prof./SSN

River Publishers

CONFERENCE PRESENTATIONS

Ms. M. Sudar Devi, PG Student, Mr. M. Saketh, Scientist/SAMEER, Dr. K. Muthumeenakshi, Asso. Prof., "Design of Costas Loop for Carrier Recovery Mechanism of BPSK Modulation," Proc. of International Conference on Intelligent Computing and Control Systems (ICICCS 2017), Vaigai College of Engineering, Madurai, TamilNadu held on 15th & 16th Jun. 2017.

Ms. M. Kanthimathi, Research Scholar, Dr. R. Amutha, Prof., Ms. S. Anusha, "Modulation Diversity for Differential Amplitude and Phase Shift Keying technique," Proc. of International Conference on Innovative Research in Engineering and Science (IRES2017), Asian Institute of Technology Conference Center, Thailand on 16th & 17th Jun. 2017.

Ms. M. Maansa, Ms. V. Ishwarya, Ms. N. Hemapriya, UG students, (Batch 2013-2017) Dr. L. Nandita, Asso. Prof., "Transmit Signal Characterization of Generalized Frequency Division Multiplexing," Proc. of IEEE TENSYMP (IEEE Region 10 Symposium) 2017, Cochin, from 14th -16th Jul. 2017.

Ms. K. Ashwini, Research Scholar, Dr. R. Amutha, Prof., Ms. K. Harini, "Sparse based image compression in wavelet domain," Proc. of IEEE international conference on signal processing and communication (ICSPC'17) held on 28th & 29th Jul., 2017 at Karunya University, Coimbatore.

Ms. K. Ashwini, Research Scholar, Dr. R. Amutha, Prof., Ms. B. Haritha, "Sparse based Simultaneous Fusion and Super Resolution of multi-modal images," Proc. of IEEE international conference on signal processing and communication (ICSPC'17) held during 28th & 29th Jul., 2017 at Karunya University, Coimbatore.

Dr. N. Edna Elizabeth, Prof., Mr. TK Gowthaman, Mr. J. Joannes Sam Mertens, Ms. P. Likhitta Dugar, UG students, Batch: 2013-2017, "Intelligent Counter System for Generating Attendance," Proc. of 3rd International Conference on Micro-Electronics, Electromagnetics and Telecommunications, ICMEET- 2017 held at Hyderabad, Telangana. The paper will also be published by springer LNEE.

Mr. C. Vinothkumar, Asst. Prof., Ms. K. Nirmala, Asst. Prof./BME and Dr. N. Venkateswaran, Prof., "HoG based Naive Bayes Classifier for Glaucoma Detection" at IEEE Region 10 Conference (TENCON 2017) held at Penang, Malaysia, pp. 2331-2336.

Dr. P. Vijayalakshmi, Prof., Ms. M. Dhanalakshmi, Asst. Prof./BME, Ms. T. A. Mariya Celin, Research Scholar/ECE and Dr. T. Nagarajan, Prof. & Head/IT, "Electromagnetic articulograph sensor-to-sound unit mapping based intelligibility

assessment of dysarthric speech" in TENCON 2017 at Penang, Malaysia, pp.1784 - 1789.

Dr. A. Jawahar, Prof., "Design and Implementation of an Automated Security System using Twilio Messaging Service" in the ICON-SONICS International Conference (technical sponsor by IEEE) held at Yogakarta, Indonesia from 8th – 10th Nov. 2017.

Ms. S. Suganya, Mr. P. S. Kumar, Ms. G. Padmalaya, Research Scholar/ECE, Dr. B. S. Sreeja, Asso. Prof., "Metal oxide impregnated biopolymer as thin film for the reclamation of essential poison selenium contaminated mining waste water" at DAE-BRNS Symposium on Selenium Chemistry & Biology (SSCB - 2017) held at DAE-Convention center, Mumbai from 9th – 11th Nov. 2017.

Ms. J. Saranya, Dr. B. S. Sreeja, ASP/ECE, Ms. G. Padmalaya, RS/ECE presented a paper on "Fabrication of nanoselenium biosensor for cervical cancer diagnostics" at DAE-BRNS Symposium on Selenium Chemistry & Biology (SSCB - 2017) held at DAE-Convention center, Mumbai from 9th – 11th Nov. 2017.

Ms. R. Chithradevi, Research Scholar, Dr. B. S. Sreeja, Asso. Prof., "A compact UWB MIMO antenna with high isolation and Low correlation for wireless applications," 2017 IEEE International Conference on Antenna Innovations & Modern Technologies for Ground, Aircraft and Satellite Applications (iAIM 2017) held at Hotel Sterling Mac, Bangalore, India from 24th - 26th Nov. 2017.

Mr. V. Lingasamy, Research Scholar, Mr. B. Pavankumar, Dr. K.T. Selvan, Prof., Mr. A. Patnaik and Ms. R. Jyoti, "Investigations on some wideband reflectarray elements for Ku band" at IEEE International Conference on Antenna Innovations and Modern Technologies (iAIM 2017), held at Bangalore. Mr. Lingasamy won the student travel grant award.

Ms. T. Deepa, PG scholar/CEG, Ms. K. Saffrine, RS/CEG, Dr. K. Malathi, Asso. Prof. /CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof., Ms. S. Padmathilagam, PG Scholar/ CEG "Dynamic Spectrum Access Using Reconfigurable Filtering Antenna" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 3, pp. 1-4, Nov. 2017.

Ms. K. Saffrine, RS/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. M. Gulam Nabi Alsath, Asso.

Prof. "Bandwidth Reconfigurable Microwave Filter for Dynamic Spectrum Access Using Reconfigurable Transmission Zeros" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 3, pp. 5-8, Nov. 2017.

Ms. S. Sangeetha, RS/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. P. Sandeep Kumar, Asst. Prof. "Multiband MIMO Antenna for 4G/5G Hand-Held Devices" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 3, pp. 9-12, Nov. 2017.

Ms. S. Padmathilagam, PG Scholar/CEG, Ms. S. Sangeetha, RS/CEG, Dr. K. Malathi, Asso. Prof/CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof, Ms. T. Deepa, PG Scholar/CEG, "MIMO Antenna Integrated with Ellipsoid Slot Array for 4G and 5G Spectral Bands" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 5, pp.5-8, Nov. 2017.

Ms. Y. Panneer Selvam, RS/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof./ECE, Dr. P. Sandeep Kumar, Asst. Prof./SRM, "Compact Polarization Reconfigurable Monopole Radiator for Fifth Generation Mobile Networks Applications" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 8, pp. 1-3, Nov. 2017.

Ms. Y. Panneer Selvam, RS/CEG, Ms. L. Elumalai, PG scholar/CEG, Dr. K. Malathi, Asso. Prof./CEG, Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. P. Sandeep Kumar, Asst. Prof./SRM, "Compact Dual Band Pattern Reconfigurable Antenna for Future 5G Application Bands" in the Procs. of 30th GISFI Standardisation Series Meeting and IEEE 5G Summit, vol. 8, pp. 5-6, Nov. 2017.

Mr. V. Lingasamy, Research Scholar, Dr. K.T. Selvan, Prof. and Ms. R. Jyoti , "Wideband, stub-loaded cross-dipole reflectarray elements for Ku-band" in Progress in Electromagnetics Symposium, Singapore, November 19-22, 2017.

Ms. M. Akila, Research Scholar, Mr. V. Lingasamy, Research Scholar and Dr. K.T. Selvan, Prof., "A study on Q of printed antennas as radiators and as reflectarray elements" in the IEEE International Conference on Antenna Innovations and Modern Technologies, Bengaluru, India, November 24-26, 2017.

R. Jansi, Research Scholar, R. Amutha, Prof., D. Priyadharshini, L. Saranya, B. Varshini, "Medical Activity Monitoring for Elderly People using Wearable Wrist Device" in the International conference on Power, control, signals and Instrumentation Engineering, 21 and 22 Sep 2017, Saveetha Engineering college, Chennai

CONSULTANCY SERVICES

Dr. S. Radha, Prof. & Head., Dr. M. Gulam Nabi Alsath, Asso. Prof., Dr. S. Esther Florence, Asso. Prof., Dr. S. Ramprabhu, Asso. Prof. executed RF consultancy for research scholars from Hindustan University and Sri Venkateswara College of Engineering, Chennai on 10th Jun. 2017 for a tune of Rs. 20,125/-.

Dr. S. Sakthivel Murugan, Asso. Prof. had signed a consultancy work for Rs. 5900/- with Ms. Nithya, PG student, AC Tech, Anna University for a project titled "Designing the Stack arrangement of Galvanic cell for energy harvesting in underwater" in underwater Acoustic research lab on 25th Jul. 2017.

அன்பிற்குரிய மாணவன்

(An expression of gratitude)

This edition, an alumnus takes the opportunity to thank the one who motivated, groomed and shaped him through a heart-warming letter.

Sir,

Hope you are doing good. Recently when I was surfing through YouTube, I came across a video. It's a similar to the one you asked during the college days. Back then, I couldn't find one because everyone's video was about health or something related to politics and eventually, you stopped. I know I was not the perfect "Student" but you never cared about making us a "Perfect Student", you made us as a "Perfect Gentlemen". In my office when everyone was busy fighting (Internal politics) I was able to stand neutral and people were amazed seeing my maturity level at this age. I want you to continue doing the same to my juniors, I want you to help find their talent and motivate them like you did for me.

> "Life is like Forward-Biased PN Junction Diode, if the applied external voltage (motivation) becomes greater than the value of the potential barrier (Life hurdles), width of the depletion layer decreases and current(Success)will start to flow ."

These are the links of the videos I want to share with you:
https://www.youtube.com/watch?v=0mtJOu29qbQ
https://www.youtube.com/watch?v=nMPqsjuXDmE

I wanted to share this with you because it was found that 60% of students joined engineering by force and didn't have proper guidance. Eventually they lost interest in both academics as well as

extracurricular, which could have been avoided if the students were regularly motivated. (I'm sure many of our students ought to take the mentor hour more seriously).This 60% is the backbone of our country because the rest 40% will go abroad and will get settled there. But this 60% set their goal as "Exams" or "Marks" which rather should be "Knowledge" and "Exposure" to/in the corresponding field. Let's not blame Anna University and wait for our education system to change, when we can be "That Change".

As you know, talent is like gravity.All it takes is a little push (motivation). Ask them "You gonna do it or you gonna talk about it?". Teach them "Everything will be fine in the end, if not, that's not the end" like you taught me. I will never forget you in my life sir. Without your help and support, I would have just led a normal life.

To my juniors: All you need in life is twenty seconds of courage and after that everything becomes alright. Whenever you're in a situation where you are scared, where your feet are wobbling, where you can't speak… give yourself twenty seconds to gather the courage to get it done… If you can be courageous for twenty seconds, it is a breeze after that phase. Trust me twenty seconds of courage is all you need in life because after that your mind just takes over. Your mind just needs that start. Sometimes you got to take a leap of faith and the success/failure part comes later.

With love,

Teachers are pillars of a community. They introduce you to the concept of the outside world, what it has in store for everyone and prepare us to face them.

CAMPUS STARS

YOGESH KANNA and VAIDHYANATHAN L V

Compiled by
NIKHILESH N
ECE 3rd Year - B

Confused on what to pursue after a graduation in engineering? Thought thathigherstudieswereretheonlylucrative options? While pursuing management or a technical master's in science (M.S) has its own advantages, some alumni are here to enlighten us on the prospects of employment right after the completion of engineering.

YOGESH KANNA

ASSOCIATE SOFTWARE ENGINEER
CAR MULTIMEDIA SECTION
BOSCH

Do you remember Yogesh Kanna, a 2016 passout from our Department, currently working at BOSCH as an Associate Software Engineer in Car Multimedia section?Well,he boasts of an illustrious track record not just in academics but also in the field of Sports. I managed to have a quick chat with him where he answered some of the questions on Placements, Higher Studies and much more.

Here is the transcript:

First off, how did you land a job with BOSCH? It is considered to be a job that eludes many.

Accidentally, I suppose. (There is a smile on his face) I am actually thankful for being rejected by a lot of companies during the on-campus placement drive. If not for these rejections, I wouldn't have gained the confidence required to crack the one interview that mattered - the interview with BOSCH. I have always envisioned myself working in an Electronics based company. Despite being rejected , I remained calm and composed. I learned something out of every failure, waited for the right time and took my best shot. It is safe to say that it paid off.

How was the interview procedure? What was your approach to tackling it?

I had to take an aptitude/technical test, a technical interview, and an HR interview as part of the on-campus placement drive for BOSCH. The technical test consisted of MCQs related to Electronic circuits, programming, Digital electronics and general aptitude. Then, I had 45 minute long technical discussion session with a panel where I was quizzed on fundamental concepts in electronics and the projects I did during college. Finally, I had a friendly interview with the HR manager in the HR round. Throughout the process, I remained calm and confident and did not let my nerves get the best of me. I believed that I had the skill set they were looking for and profound knowledge in the domain and hence I was able to ace the test and interviews. This optimistic approach and self confidence has taken me quite far and today, I am a proud BOSCHLER.

What are some of the strategies to be adopted to prepare for core placements?

I feel there are three important strategies that are to be adopted to excel in core placements. First and foremost is gaining thorough knowledge about the company one is applying for and its products and services. Second, is strengthening one's foundation in core concepts and programming. The recruiters don't actually expect applicants to be proficient in everything. They only look for strong fundamental knowledge in core electronic concepts in the candidates,so that they can be groomed for the domain they are going to be employed in. Third, is spending some quality time in improving one's soft skills. This is crucial for any working professional.

Why did you opt for a technical job, given the current scenario of recession in technical employment, due to automation?

Ah! 'Automation' the buzz word. (There seems to be a denial on his face.) Many believe that automation is going to have a major impact on IT field, and that it is going to take over people's jobs. I don't agree with this completely. Yes, I concur that there is a trend of most industries shifting towards automation. It is going to take over some jobs, no doubt in that. But, it will never obliterate manual jobs completely. The motive of incorporating automation into the industries is not to make us jobless, but to make our job less! So, if you are passionate and talented enough, take a bold step into the technical industry and you will be rewarded well.

How do we select companies based on our career interests?

Communicate with a lot of people, build networks, gather sufficient and reliable information about different companies, and then take a well informed decision. Choosing the company that has its goals aligned with your career goals is very vital. That way you will never regret your decision.

What is the scope of employment for engineers from private engineering colleges?

There is a growing requirement for talent pool and plenty of vacancies in different industries, especially in IT firms. As long as the private engineering colleges manage to produce respectable, admirable and talented engineers, they will be hired and valued.

What is your field of expertise and interest? What electives did you choose in college to hone your skills further in that field?

The electives that I chose were Digital Image Processing, Soft Computing, Professional ethics and Satellite communication. I was very much interested in Signal Processing and Programming. I actually did a course on Image processing on Coursera prior to taking it as my elective in the 7th semester. Doing that course increased my interest and I did a project based on Image processing and machine learning with two of my friends. We even published a paper on our research in IEEE

How can students today learn outside the scope of the curriculum?

Today, there are so many different platforms available for students to go beyond the curriculum. There are a plethora of workshops, inplant and implant trainings conducted to quench the thirst for learning. Furthermore, there are lots of online courses available for students to explore, learn and excel. Opportunities are abundant and ubiquitous. It is up to the students to grab them.

Tell us a little more about yourself. What are your future plans?

My plan is to pursue Master's degree in computer engineering abroad, and contribute my expertise towards the field of VLSI.

Given that you are planning to do higher studies after working for some period of time. How would you compare it with a Masters degree immediately after Bachelors degree ?

Personally I believe that it is better to gain some work experience before one pursues a masters degree. The admission committee of graduate schools and their recruiters prefer candidates with work experience. So, the chances of getting admitted into graduate schools or organizations are higher if one has a couple of years of work experience. An added advantage is that the individual will improve his/her technical skills, soft skills, and decision making skills through the industrial experience. But one shouldn't delay the Masters degree for too long. One might lose the energy and motivation that is required. In my opinion, two years of work experience before pursuing Masters is ideal.

For a student who hasn't decided on pursuing higher studies or placement what would be your advice?

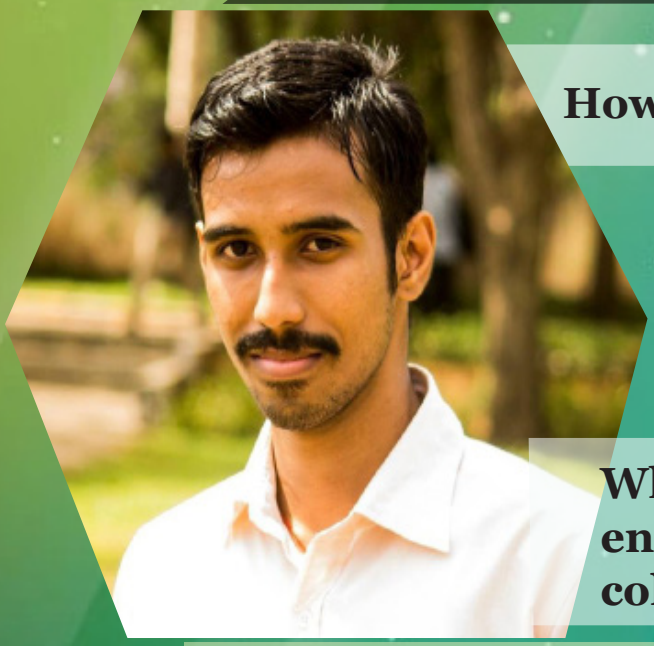
Listen to everybody, but don't let anyone decide for you. Travel the path that you feel is the right one. And once you begin your journey, never look back. You will reach your destiny.

Finally, what is your advice to students who wish to pursue the same career path?

My advice to students is to not to seek any advices. Follow your passion and success will follow you.

VAIDHYANATHAN I.V.

ASSOCIATE SOFTWARE ENGINEER
CAR MULTIMEDIA SECTION
BOSCH



How did you land a job in the first place?

Bosch visited our campus as a part of college placements. I prepared for the same and did well in my interview. We got our results and thankfully, I was selected. That's how I got my first job.

What is the scope of employment for engineers from private engineering colleges?

I personally believe that the employment of an engineering graduate solely depends on the student's interest and subject knowledge. Yes, college placements do play a part in helping students get into jobs before graduation, but opportunities are always there for those ready to grab it. So, please prepare yourself towards your aim. You will reach there for sure.

How to select companies depending on your career interests and goals?

Google it. As simple as that. Also, interacting with people having similar interests and those already experienced in the field will help share domain knowledge and in selecting companies as well.

What strategies are to be adopted to prepare for core placements?

Going through basic concepts and researching the company's usual interview pattern will be helpful. Know what each company is expecting from you and prepare accordingly.

How was the interview procedure? What was your approach towards tackling it?

We had an online test consisting of aptitude as well as a few questions from our core subjects. This was followed by a technical interview and HR interview.
As I said, researching on the company's interview questions helped a lot. I was mainly asked about my project work and subjects relating to that.

Why did you opt for a technical job, given the prevailing scenario of recession in technical employment, due to automation? (your views of its scope in the future)

Automation is done only on repetitive work. My personal opinion is, if we can automate repetitive work, then we are not replaceable. Indeed, we will be an asset to the company.

How can students learn outside the scope of the curriculum?

I would suggest students to make the best use of eLearning platforms such as Coursera, edX etc. Also, our college professors will be more than happy to guide us on the same. Help is available to those who ask for it.

What are your future plans?

My future plan (once I get the required professional experience) is to pursue my Master's in my field of interest.

What is your advice to students who wish to (pursue the same career path)?

Prepare yourself. Go through the basic concepts and be clear as to what each company is expecting from you. Relevant coursework supplemented with few projects will make you stand out from the crowd. Remember that companies do know that you are fresher. They only expect basic subject knowledge and genuine interest to join them. Hence work towards your goal and you will surely achieve it. All the best!

CREATECH

We present to you the innovative fusion of Technology and Creativity through the organization of various events that have unraveled the intellectual genius that's latent in each one of us.

TECH CLUB

The TECH club of ECE functioned with full of enthusiasm over last few months. It had many events organised under its belt.

>> One session focussed on the introduction to the different technical domains in ECE .

>> Multiple sessions were conducted on the introduction to robotics and hands on sessions focussing on building a line follower robot.

>> The Tech Club conducted its third edition of the signature intra-collegiate event, Corona 3.0

>> A session on various internal funding projects taken on by the seniors and the process of applying for the funding and different domains of projects were discussed

>> A 24 hour Hackathon event with a total cash prize of Rs. 14,000/-. where 14 teams were selected to build their designs and three teams won prizes and vouchers.

>> There was a session discussing the merits of an internship and the process of applying for internships.

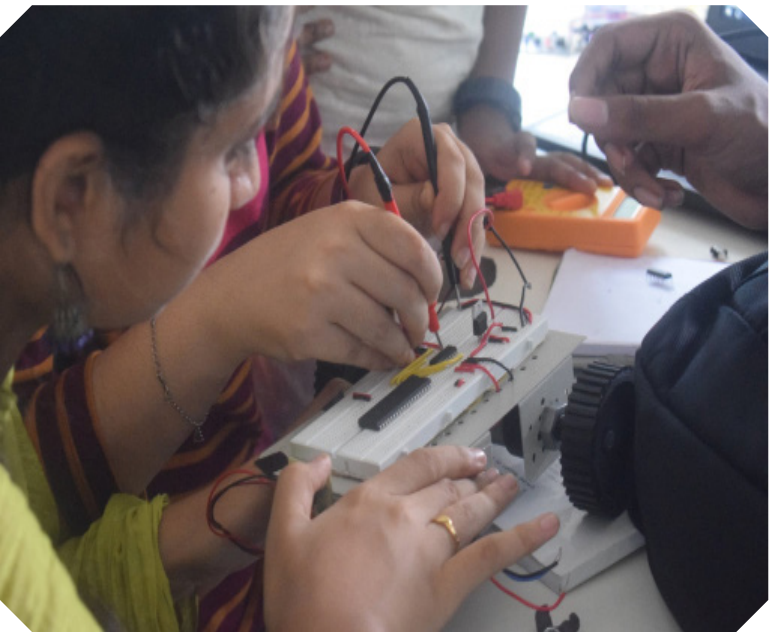
>> A session about applying for Masters Programs abroad, conducted by Aadithya Venkat and Nandagopal described at length the application process and how the system works.

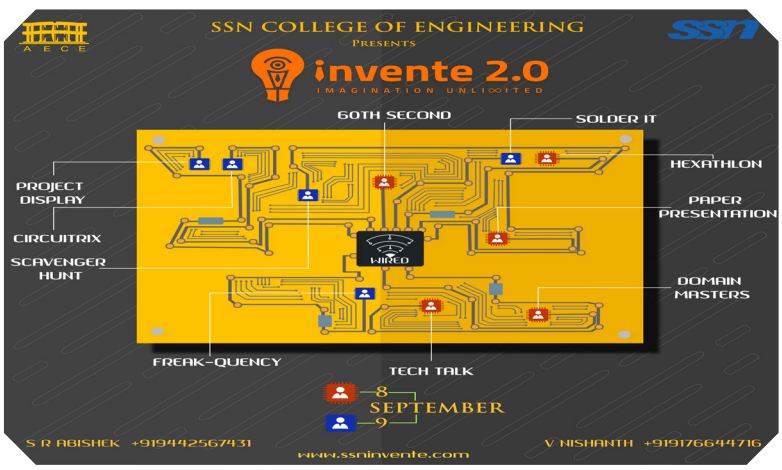
CORONA 3.0

This event is an Intra college Technical event conducted by the Department. It was held on Thursday, the 25th of July. It comprised of several technical events like Line- Follower, Paper Presentation, Project Display, Neuro Quiz and Non-technical events like Sherlock Ohms.

INVENTE 2.0

This event was a part of the National Symposium conducted by SSN College of Engineering on September 8 and 9. The Department of ECE took up the theme of Game of Thrones, with each event being assigned with a specific house.





GADGET GIZMOS

ADITHYA M
FINAL YEAR
ECE - A

GRAPHENE – THE NEXT BIG THING

We are nearing the end of the second decade of the twenty first century and most of our time is spent staring at a glaring screen. The form factor of the devices we use have changed and smartphones have become our closest companions. Users just keep using the technology around them, failing to realize the value of materials used to make these technologies or how a breakthrough in the choice of materials can lead to a boom in the field !

But scientists and the R&D department of top-notch companies are gearing to spot it. Innovations are always happening in material science. Plastic was one material which took most of the industries by storm. Just stay still, don't get up and look around you, and you'll realize that plastic is used all around. Similarly, a material that can just change the world of technology upside down is what is known as graphene. Graphene is an allotrope of carbon and ever since it's isolation in 2004 it has captured the attention of scientists and researchers. Graphene consists of a two dimensional hexagonal lattice structure.

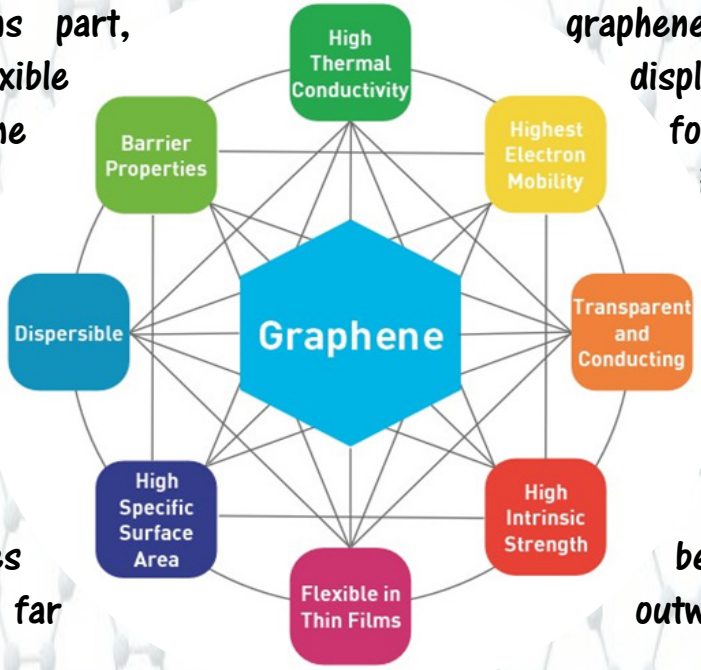
It has several advantages. It's thin and light yet stronger than steel and is also flexible. Two major areas where graphene is of interest in the tech industry (more so in the smartphone industry) are screens and batteries, with the latter being more revolutionary. So how many times have you been texting someone important or binge watching a TV series when boom, 'Low battery' message pops up. To relieve you of these discomforts comes graphene. In addition to all the properties mentioned above graphene also provides very high conductivity. In conventional batteries a

small amount of carbon is coated on the electrode to add conductivity to it. The life time of a battery is inversely proportional to the amount of carbon coating.

Graphene batteries do not require this coating due to their high conductivity, hence providing a large life time. Hybrid materials can also enhance batteries. Graphene and Vanadium Oxide can be combined together to grant quick charge and discharge abilities for lithium-ion cathodes. Graphene super capacitors are certainly the way to go.

What more does a graphene battery offer than providing a long battery life between charges? It has high power density and your device might be able to charge in just seconds and you're good to go, hence making you use your smartphone longer and making you even more lazier.

As for the screens part, graphene can be used to make bendable and flexible displays which can drastically change the form factors of the devices we use today. Beyond the scope of smartphones is electric cars. If a graphene based battery is made to be used in electric cars, that will be a remarkable success in the world of technology and will also help tech enthusiasts to proudly proclaim that technology serves better for the society, which may far outweigh its harmful impacts.



Sounds so cool right? Too good to be true in 2018? Yes, definitely. There are a lot of challenges ahead. Further research has to be done to decide how graphene has to be produced and be implemented in various devices. We need more research to discover the true potential of graphene under laboratory conditions before it can reliably be used in various mobile technologies. There are commercial roadblocks as well. Silicon is widely available and very cheap and is present in all our devices. Hence it will take time to push silicon out and bring graphene into the consumer market even though carbon is still abundant. Only mass production and adoption of graphene can make it economically viable. Even with all these challenges, the pace with which innovations are taking place in the tech industry makes me feel confident that this technology will be in our hands in the near future. Graphene might be the next revolutionary thing in the industry we live, it might go on to create a much bigger impact than smartphones, machine learning or AI.

This section, we introduce you to the technical marvels of electronics and telecommunications, which has something to quench your gadget thirst.

GADGET GIZMOS

An Apple sheep's rant!

"It just works!" to "Hey, we have an update for you!"

Kashyap Ravichandran
ECE
3rd Year - A

The year was 2010, Steve Jobs took center stage to announce a teeny-weeny device (by today's standards). It ran an OS which was boring. But there was something about that device which made me a huge Apple fan. I never cared about customisation. I just wanted my device to work. When I pressed the power button I wanted my lock screen to display the time and all my notifs. When I unlocked my phone, I wanted a familiar looking springboard to pop up with all my apps. That's it. That's all I ask, and that's all I will ever ask. I wanted a device that would work my way.

When Apple announced their new mobile OS during WWDC 2017, I was excited. The OS introduced some kick ass features: a new (read somewhat new) design, a new control centre and what not. I was genuinely excited about iOS. I was eager to download it on my iPhone 6 and so I installed iOS 11. And Voila! My phone was running the greatest and the best from Apple. The device was working perfectly. I had a good run for a week's time with my phone. iOS 11 was fast, was fluidic and it just worked. But my phone had a battery problem and it gave up on me. . Being a loyal Apple fan, I immediately went to the nearest Apple store on the day of the launch and got a brand new iPhone 8plus.

I know what you all might be thinking,"paavam this fellow has a problem with the brand new iPhone his parents got him and his unicorn isn't pretty anymore and he probably has to tie his shoe laces on his own. CHI PAAVAM".(BTW that's me doing sarcasm). But hold your horses. I'm not done yet.

Anyhow, coming back to the story, my phone's battery life took a hit. I was barely able to scrape through the day without plugging my phone in between. Apple was quick to notice this and came up with a fix. The most logical thing that any company would do, updates! Apple decided to release the 11.0.x series of softwares.But these softwares went on to create a host of problems. In one of the software updates, all location based apps crashed. People were not able to navigate from place to place. So, to fix this, Apple released another version of iOS and everything was pretty good for a while . Meanwhile, the Cupertino boys and girls geared up for their big launch of the iPhone X. Along with iPhone X, the Cupes were expected to release iOS 11.1. Which they did. Now iOS 11.1 was tailor-made for iPhone X. It was supposed to be fluid, fast and most of all, better than the previous versions of iOS. And the update satisfied all that. Battery life was better, performance was at an all time high. The geekbench scores were off the charts. But everything wasn't rosy for us Apple loyalists. The $1000 phone stopped working at temperatures close to 0 degrees. So out of the five software releases, Apple has screwed almost all of them. Each OS fixes an issue and introduces another. It's a vicious cycle.

At this point in time, Tim Cook probably said 'Boys and girls, we need to get our shit together'. So he decided to pack his ace software development team into a "mini room" and asked them to find a solution. And they came up with iOS 11.1.1. This OS was no better than 11.1. While it did resolve the freeze problem, it introduced a new one where the character 'i' was changed into a bunch of mumbo jumbo. Oh Apple! What have you done!? A bug was squashed and another one was created. Steve Jobs is turning in his grave fellas.

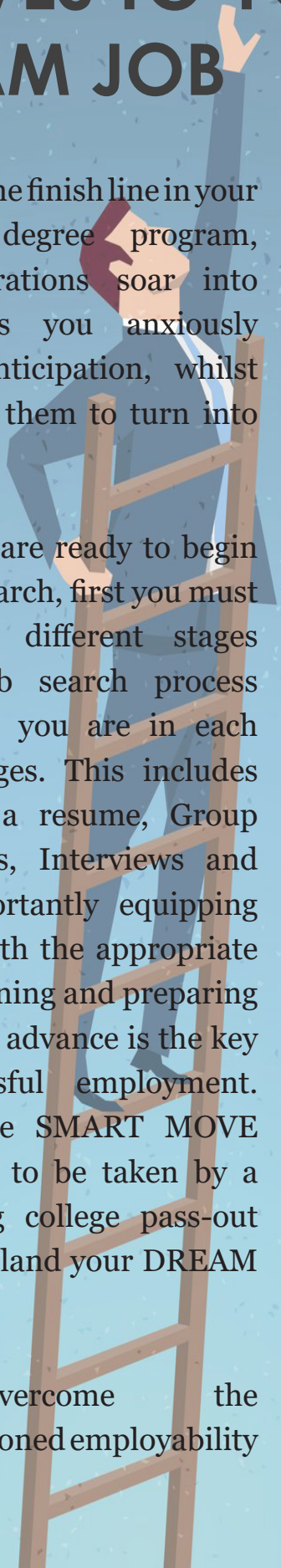
The software team, for some reason, worked their ass off to roll out a fix (iOS 11.1.2). I think Steve Jobs' ghost decided to take things into its own hands and scared the living bejesus out of its ex-software team to come up with a fix.

Going by the pattern, you would think that Apple would screw up their next software release as well. And you would be right! At precisely 12:15 am, on the 2nd of December, the phones entered an infinite loop of reboots and refreshes. Apple this year seems to have faced issues as serious as the ones they faced way back in the year 2012. They do provide a quick fix but, in the long run, they makes things messier.Like iOS 11.2. It was made public well before its scheduled release. The update did fix the reboot bug but it disabled Face ID. Yep, the USP of the iPhone X. Apple is in the middle of a big gooey mess they created by releasing close to 10 iterations of iOS 11 in the span of a mere two months.

Apple needs to re-group itself. They need to slow down and rethink their strategy. They seriously need to let go of few people *cough* Craig Federighi *cough*. As a consumer if I pay a $1000 for a phone, it better grant me three wishes. And if I could I would use one of those wishes to make Apple drop their newfangled ideas and revert back to what we know and love.

INDUSTRY INSIGHT

SMART MOVES TO YOUR DREAM JOB



As you approach the finish line in your graduate degree program, you should be thinking about your ultimate career aspirations. If clinching a job is what you have finally zeroed in on, then you are at the right place. You come from a country that churns out millions of graduates from various universities every year, which makes your chances of landing a successful job all the more cumbersome. This is due to the highly competitive job scenario that accepts a small minority from a pool of vast majority. Many a time, you aren't clear about the selection process of most companies that visit your campuses round the year. Moreover, it's more likely that though some of you all may be academically competent and ace aptitude tests, you tend to lack various other skills that companies today look for during the recruitment process. As you approach the finish line in your graduate degree program, your aspirations soar into dreams as you anxiously wait in anticipation, whilst envisaging them to turn into reality.

When you are ready to begin your job search, first you must know the different stages in the job search process and where you are in each of the stages. This includes preparing a resume, Group Discussions, Interviews and most importantly equipping yourself with the appropriate skills. Planning and preparing for a job in advance is the key to successful employment. This is the SMART MOVE that ought to be taken by a job-seeking college pass-out like you to land your DREAM JOB

To overcome the aforementioned employability gap in the student workforce and to initiate such 'smart' moves, there are various moves taken round the clock in various forms such as 'Skill-gap analysis studies and talent pool enhancement initiatives undertaken by various industry bodies',' Education providers beginning to gear up to provide the necessary skills through various on-campus training programs' and 'Employers investing more on in-house training and academic collaborations'. Though the aforesaid initiatives can enhance employability at a macro level, the onus of overcoming the challenge at the individual level is shifting towards the job seeker. Thus, CAREER SMART was initiated as a diversified wing of

ASSESS PEOPLE that acts as a one-stop-shop for first time job seekers to get themselves assessed and obtain inputs to prepare for their job search.

PROGRAM HIGHLIGHTS

The Career Smart program is valid for 60 days and is priced at Rs.1000 per student. Job seekers are given an opportunity to go through assessments first at the centre to assess their current proficiency levels in a guided online environment. It can be availed at the end of the third year or at the beginning of the final year when they will be focusing on preparing themselves for the placement process that would ultimately fetch them the job. Once a student has registered with career smart, he/she is given an access code and a password, which they can use to access the services, from crafting attractive resumes to giving exceptionally good interviews.

RESUME BUILDER

The resume builder helps one build attractive resumes by prioritizing the more important details and skip the less important ones. To make an eloquent and proactive resume, the first requisite is specifying your objective which tells the employer that you aren't wavering in your career choices. The next most important step is in highlighting your educational details, achievements and additional qualifications that are most relevant to your job, the door you are going to knock on.

APTITUDE TEST

An aptitude test is the most integral part of any company's screening and selection process. Most companies that visit campuses today use it in the early stages of recruitment to reduce the volume of applications to a manageable number. Career Smart provides two aptitude tests – CAREER SMART APTITIDE TEST (CSAT1 & CSAT2) that tests a candidate's basic numerical ability, problem solving, verbal ability and computer skills. The test is a generalized test designed to suit the nature of jobs a vast section of the student workforce opt for. Students have the opportunity to take the test twice to get a better understanding of their proficiency levels.

GD COACH

Group discussions are a means of assessing a candidate's critical thinking abilities and soft skills. This aspect of the program helps the student to prepare themselves efficiently by learning how to address others in the group, speaking quality content and learning how to proceed with the argument from where the predecessor has just finished. This is mostly carried out after the aptitude process.

ENGLISH –WISE

Many companies have a soft skill assessment where they test the students on the application skills of

English like asking them to summarize a narrative or writing a piece on a particular topic within a time limit. For this, Career Smart has a unique English Skill Assessment where they train your language- application skills for effective verbal and written communication.

INTERVIEW MANAGER

This is the final lap of the placement process where the lasting impressions you make undoubtedly determine your first entry point in your dream company. The features of this program highlight the body language to be used while presenting yourself as a "PROFESSIONAL" before the recruiter. The program enables you to wear the right personality to clinch your ENVISIONED job.

Besides, this program hones the diverse facets of a student's personality giving them the extra edge to ace the placement process through certain measures unique to the program as listed below.

1.An Interactive web enabled programme.
2Helps familiarize job seekers with the different stages in the job search process.
3.Helps individuals assess where they stand in each of the stages..
4.Multiple assessments with Pre and post feedback (comparative assessment analysis to check for improvements and identify areas for development).
5.Personal one-on-one feedback by experienced HR professionals (currently available only in Chennai).
6.Increased awareness of effective and ineffective approaches.
7.Services offered in a guided online environment.

HOW CAN I BECOME CAREER SMART?

You can become career smart by registering for the 'CareerSmart' programme. The service is available on the internet and can be accessed with valid access codes. You can purchase your access codes through our payment gateway instantly.

CAREER SMART CENTER LAUNCHED IN CHENNAI

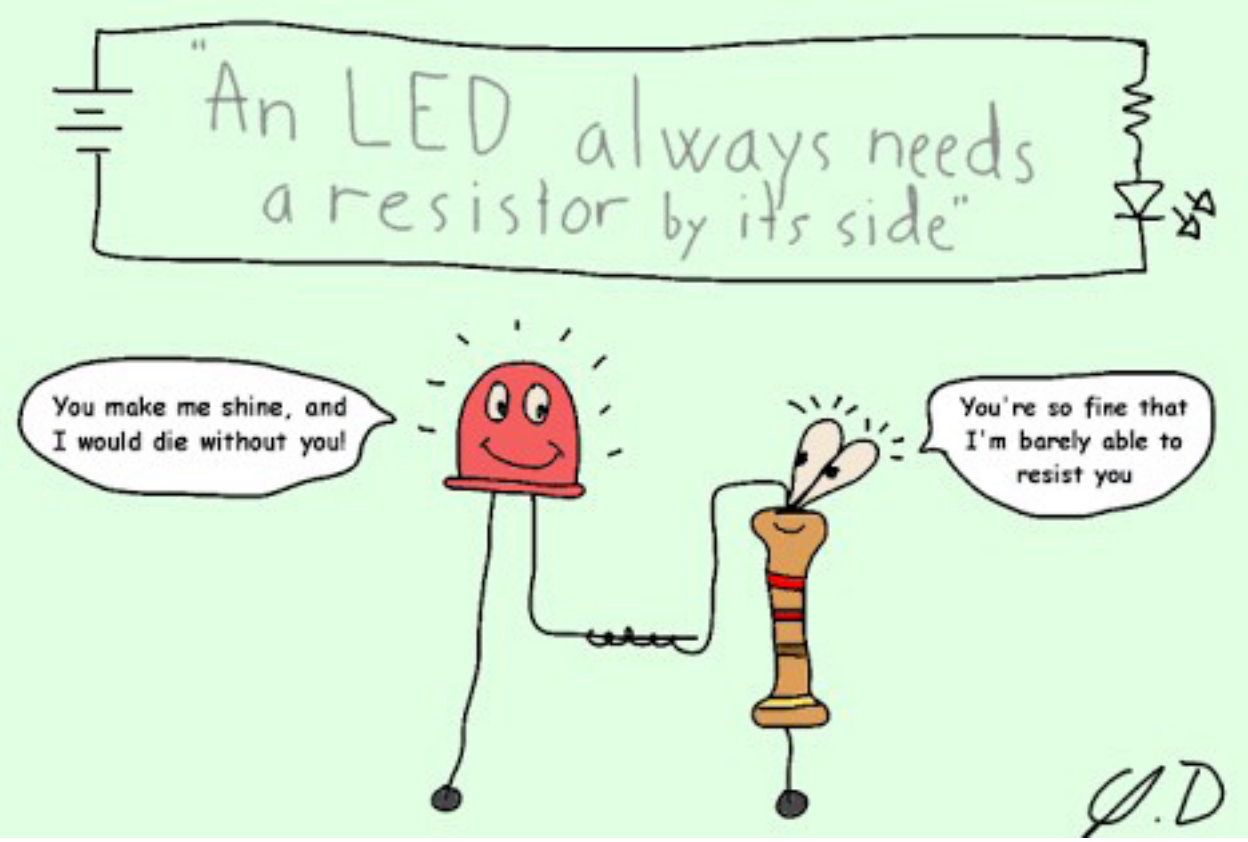
The first Careersmart centre has been launched in Chennai and more centres will be opened in other locations in due course of time. Thus , paving your way for a successful job search through the personalized online coach.

ABOUT THE FOUNDER

Ramachandran Kannan is the founder promoter of AssessPeople and brings with him over thirteen years of experience in Human Resource Management and over eighteen years of entrepreneurial experience. His areas of expertise include Human Resource strategy management, workforce management and process management.

An alumnus of XLRI (Batch of '82), he has worked in organisations like Blow Plast, Crompton Greaves, Hindustan Lever and the Murugappa Group in various positions in workforce management. Long before online workforce management solutions entered the Indian scenario; he envisaged its need and founded AssessPeople in 1998, with a charter to provide best-in-class, workforce management solutions through the synergy of HR and psychology, in India and abroad, using the Internet as the medium of delivery.

To know more about the company, visit https://www.assesspeople.com/management-team.html.



STUDY CORNER

ANTENNA THEORY

Engineering is one course that enables you to fast-track, re-skill or upskill your career for professional development. As you hop from semester to semester, you are exposed to a wide range of subjects, some of which may seem more cumbersome(conceptually) than others. This causes majority of students to prefer some courses more than the others, among the myriad domains available. This edition, we explore such courses, due to their unpopularity among a vast student majority, and those which have become vaguely "unconventional ".

This article tries to estimate their industrial scope and future technological prospects.We have here with us, Dr.Esther Florence who shares her valuable inputs for aspiring students.

The subject of Antenna Theory can be taken by the student after he/she has earned sufficient credits from a course on Electromagnetic (EM) Theory. The mathematical nature of the subject and its prerequisite has obscured the joy of learning it. The struggle for every EM theory/Antenna teacher and student is real!!

Various research findings have also been given on how exactly EM theory/ Antennas has to be taught to students. For effective reach of the concepts, a lecture cum demo method [1] is widely prescribed. Real time reasoning (for ex. would a taller base station [antenna height] be required for rural areas than urban?) is found to increase the interest. Alternatively simple design tools [2] for augmenting every theoretical concept taught is also advised.

GUIDELINES FOR AN INTERESTED STUDENT

Any genuinely interested student must allocate time for studying, designing and hardware implementation of antennas to appreciate the essence of the course. To design antennas students need to be familiar with softwares like HFSS and CST, these softwares will help them visualize the antenna in a better

manner. Those who wish on studying further (MS or PhD) would do well if they worked on completely understanding one particular type of antenna (wire, patch, horn etc.,) over and beyond the foundational course offered as part of their curriculum. Classic books for the course would be the well known 'Antenna theory' by CA Balanis. For a beginner 'Antennas and Wave Propagation' by J D Kraus and Ronald J Marfeka, would be a good read too. Thomas Milligan's 'Modern Antenna Design' has comprehensive, design oriented information for antennas.

IS IT POPULAR? NO!!!?WHY?

Though there might not be many takers for the course (as compared to say Networking courses for example) simply because of the challenging nature of the course, that in itself increases the demand for an efficient RF/Antenna Engineer. Considering the global demand it is recommended that more students take up this domain for higher studies. Some of the top-class Universities in the US offering courses related to Applied Electromagnetics/ RF-microwave Engineering/Antenna & Telecomm are UCLA, University of Michigan, Ann Arbor, Ohio State University (Electroscience Laboratory), Georgia Tech, Texas A & M College Station, Virginia Tech, Pennsylvania State University, University Park. In Canada, SFU is active in antenna research.

CAREER CHARMS

A course on Antennas and Wave Propagation might add value to a possible future RF Engineer. RF Engineering is one among the top paid professions in India and Abroad. Communication equipment manufactures like Nokia, Apple, Samsung, Google etc., are probable employers for RF engineers. In addition, EMI/ EMC Engineers and RF System Designers are an integral part of any consumer electronics manufacturer like HP, Nvidia. A fair share of jobs in the defence and government sector is also allocated to Antenna/RF Engineers.

INTERDEPENDENT NATURE

Domains that are related to EM Theory/Antenna course are photonics, solid state circuit design, RF and MMIC Design, Mobile Communications Systems, EMI/EMC, Millimeter Wave Systems, Computational Electromagnetics, Bio-Electromagnetics, Radar Imaging and Remote Sensing to name a few. So there is ample scope for students to diversify their interests.

Happy Learning and May You Radiate Goodness!!

References:

[1] P. Crilly, "An innovative approach to teaching an undergraduate electromagnetics, antennas and propagation course," Proceedings of the 2014 Zone 1 Conference of the American Society for Engineering Education, Bridgeport, CT, 2014, pp. 1-5.
[2] J. L. Besada, L. de Haro Ariet, B. Galocha and M. A. Salas-Natera, "ASYTRAIN: A new methodology for teaching and learning antennas," 2013 7th European Conference on Antennas and Propagation (EuCAP), Gothenburg, 2013, pp. 3479-3481.

POTENTIALS UNLEASHED

When it comes to performance, it's little wonder that ECE's motley crowds of enthusiastic engineers and alumni are proving their mettle in every field possible. From technical research discussions to music to coding to clinching hefty packages, they have definitely contributed to SSNCE's pride and reputation. Draw your inspiration from these with ACTIVITIES MULTIFOLD and TALENTS PLENTIFOLD. And to these young grads ,

CON 'GRAD' ULATIONS!

CO-CURRICULAR ACHIEVEMENTS

STUDENT EXTERNAL FUNDING & PROJECT DISPLAY

1. Ms. G. Monisha and Ms. D.S. Karthika, IV ECE, under the mentorship of Dr. S. Radha, Prof. & Head received an amount of Rs. 1,00,000/- as Part of Carbon Zero Challenge (CZC)-prototype building, which is a pioneering initiative by IIT Madras in association with US Consulate and Polaris, a Virtusa Company to identify innovative and indigenous solutions to India's unique energy problems.

2. Mr. V. Rakesh, Mr. B. Premkumar, Mr. I. Vishal, III ECE students under the guidance of Dr. R. Rajavel, Asso. Prof. participated and demonstrated the project titled "Software controlled variable bandwidth FIR filter bank for digital hearing aid" in SS12 Innovation Fair'17 held at Kongu Engineering College, Perundurai on Aug. 31, 2017.

3. The project titled 'Detection and Prediction of Faults in Automobiles using Vibration and Audio Signature Analysis" submitted by Kishore Jayakumar, Dyaneshwar Sivakumar, Allen Fernando J (Final Year ECE Students) and Dr. R. Rajavel, Asso. Prof. (Faculty Mentor) has been selected for TI Innovation Challenge in the Qualifying Round Phase-II.

INTERNALLY FUNDED PROJECTS

ECE - UG STUDENT PROJECTS

No.	Name and Year of the Students	Project Guide(s)	Title of the project	Duration	Budget	Items approved
1	N. Nikhilesh (III Year) , K. Krithika (III Year)	Dr. B.S. Sreeja , Dr. R. Rajavel	Optimally sized 2-18 MHz broad-band antenna	6 months	Rs.25000	1. Co-axial pipe 2. Pre-amplifier 3. Lumped port and co-axial feed 4. Mechanical components 5.

No	Name and Year of the Students	Project Guide(s)	Title of the project	Duration	Budget	Items approved
2	Harini Bala-subramani-yam (II Year)	Dr. Esther Florence	Wireless respiration monitoring T-shirt	5 months	Rs.14000	1. Sensors 2. Arduino 3. Electronic and electrical components 4. Miscella-neous
3	O.S. Sarjana (III Year) , S. Savitha (III Year) , M.S. Praveen Kumar (III Year)	Dr. S. Radha	Wearable asthma prediction device	1 year	Rs.14000	1. Graphics processing unit 2. Sensors 3. Raspberry Pi 4. Electronic and electrical components 5. Fabrication 6. Miscella-neous
4	A. Divya Sanchana (III Year), Nishita Maria Govias (III Year), V. Rakesh (III Year), S. Rakshana (III Year)	Mr. W. Jino Hans	Rover Bin	1 year	Rs.25000	1. DC Motors 2. Motor Drives 3. Chassis 4. Wheels 5. HD Cam-era/Sensors 6. Miscella-neous
5	G. Hemanth (III Year), K. Raeshak (III Year), S. Pramodh Kumar (III Year), Aadesh Samdaria (III Year)	Dr. S. Radha	Smart climate control using IoT	1 year	Rs.15000	1. Raspberry 2. Ardunio 3. Sensors 4. Electronic and Electrical components 5. Miscella-neous
6	S.S. Ram-achandran (III Year) , J. Rishi Ganesh (III Year), V.M. Kumar (III Year), V. Sasidharan (III Year)	Dr. B. S. Sreeja	Low cost 3D printer for silicone rub-ber printing	1 year	Rs.25000	1. Arduino 2. Stepper Motor 3. Mechanical components 4. Miscella-neous

No	Name and Year of the Students	Project Guide(s)	Title of the project	Duration	Budget	Items approved
7	S. Anand (III Year), Adithya Prem Anand (II Year) , A. Andrew Martin (II Year), K.N. Karthik Eswar (II Year)	Dr. R. Amutha , Dr. K. Muthumeenakshi	Cloud-assisted healthcare monitoring system	1 year	Rs.16000	1. Sensors 2. Raspberry 3. Battery 4. Cloud storage and processing 5. Miscellaneous
8	Aishwarya Narayan (II Year), J. Akshaya (II Year), B. Harini Gauri (II Year), S. Mahima (II Year)	Dr. K. Muthumeenakshi	Design and development of a hybrid energy harvester	1 year	Rs.16000	1. Transmitter 2.Solar Panel 3. Boost Converter 4. Cantilever beam 5. Fabrication 6. Electronic and electrical components 7. Miscellaneous
9	B. Pranamika (III Year)	Dr. M. Gulam Nabi Alsath	Design and implementation of a reconfigurable filtering bow tie antenna	1 year	Rs.22000	1. Microwave laminates 2. Fabrication 3. Miscellaneous
10	Ajay Nair (III Year ECE), K. Harish Kumar (III Year ECE), P. Dinesh Kumar (III Year Civil), Inakota Sai Sahith (III Year Civil)	Dr. R. Hemalatha (ECE), Dr. P. Sangeetha (Civil)	Detection and estimation of defects in concrete using infrared thermography	1 year	Rs.25000	1. Thermal Imager 2. Materials 3. Miscellaneous

No	Name and Year of the Students	Project Guide(s)	Title of the project	Duration	Budget	Items approved
11	E. Velkani (IV Year), Dommalapti Navya (II Year), Yarasi Tusharika (II Year)	Dr. M. Gulam Nabi Alsath, Ms. S. Kirubaveni	Design and implementation of microwave based gas sensor for breathe analysis	1 year	Rs.22000	1. Fabrication 2. Chemicals 3. Characterization 4. Miscellaneous
12	R.A. Krishna Kumar (III Year), K.B. Nandha Khumaar (III Year), A. Karthik (III Year), M. Hari Prasad (III Year)	Dr. R. Hemalatha (ECE), Dr. M. Balaji (EEE)	Hydroponics control using IOT	10 month	Rs.22000	1. Pumps 2. Water Tank 3. Sensors 4. Materials 5. Miscellaneous
13	D. Santhosh , M. Meyyappan, J. Jayabalachandar S.R. Manoj (III Year)	Dr. R. Hemalatha (ECE), Dr. M. Balaji (EEE)	Smart parking system using IoT	10 months	Rs.22000	1. Raspberry 2. Sensors 3. Electronic and electrical components 4. Miscellaneous
14	A. Alaguraj, C. Akshay Kumar, Gunupati Sumadhura, S. Harini (III Year)	Mr. C. Vinoth Kumar (ECE), Dr. K. P. Gopinath (Chemical)	Monitoring and identification of region-growing microalgae biomass quantification using digital image processing	1 year	Rs.25000	1. Chemicals 2. Dark Chamber Box 3. Electronic and electrical components 4. Miscellaneous
15	A. Mohammed Abraar, A.P. Kapileshvar, Keshav Subramaniam (III year)	Dr. S. Ramprabhu	Automated delivery drone	1 year	Rs.18000	1. Battery 2. Raspberry 3. Camera 4. Electronic and electrical components 5. Miscellaneous

No	Name and Year of the Students	Project Mentor(s)	Title of the project	Duration	Budget	Items approved
16	R.S. Arun Kumar (IV Year), N. Janani (IV Year), Jyoti Chanda (IV Year), N. Nandhitha (III Year)	Dr. M. Anbuselvi	Autonomous transit system for campus navigation	7 months	Rs.20000	1. ARM Processor 2. GPS Module 3. RFID Tag and Reader 4. Solar Panel 5. Battery 6. Miscellaneous
17	Yogesh V Narayan (III Year), S. Prashanth (III Year), K. Rahul (III Year), Sidharth (III Year)	Dr. B. S. Sreeja, Dr. R. Rajavel	Pro-Track	4 months	Rs.25000	1. Arduino 2. Raspberry 3. LoRa Radio Shield Arduino - 868 MHz 4. Electronic and electrical components 5. Miscellaneous
18	S.A. Thirumalini (III Year), D. Deepika (III Year)	Dr. S. Sakthivel Murugan	Designing the stack arrangement of galvanic cell for energy harvesting under water	1 year	Rs.20000	1. pH Meter 2. Stack galvancic cell 3. Chemicals 4. Miscellaneous
19	A. Uma (III Year)	Dr. A. Jawahar	Reinforcement learning based locomotion of wheeled planetary rovers	1 year	Rs.20000	1. Raspberry 2. DC Motors 3. Battery 4. Metal Components 5. Electronic and electrical components 6. Miscellaneous
20	M. Nagulan (III Year), J. Shakthivelu (III Year)	Dr. R. Jayaparvathy	Explorer Bot	1 year	Rs.20000	1. Raspberry 2. Batteries 3. Motors 4. Sensors 5. Electronic and electrical components 6. Miscellaneous

No	Name and Year of the Students	Project Mentor(s)	Title of the project	Duration	Budget	Items approved
21	S. Saiharihiaran, M.G. Shivakarthickeyan, S. Varsha, I.B. Vishal	Dr. B. S. Sreeja	Tubular Furnace	1 year	Rs.25000	1. Temperature controller 2. Thermocouple3. Vacuum nozzle 4. Gas spraying nozzle 5. Heating elements 6. Electronic and electrical components 7. Miscellaneous
22	S. Marjerie (II Year), Jakkula Divya Tej (II Year), A. Aditi Balgujar (II Year), K. Akash Kannan (II Year)	Dr. Premanand V. Chandramani	Autonomous, machine learning based, scalable 3x3 Rubik's cube solver with visual inputs from Android App.	1 year	Rs.24000	1. Raspberry 2. Stepper motors 3. Fabrication 4. Electronic and electrical components 5. Miscellaneous
23	V.S. Muthu Lekshmi (III Year), Fathima Sameem (III Year), Gali Kavya Shree Sai (III Year), Mohammed Irshad Hussain (III Year)	Dr. Nandita Lavanis	Prototype for an affordable foetoscope	1 year	Rs.7000	1. Sensors 2. Arduino 3. Signal generator 4. Electronic and electrical components 5. Miscellaneous
24	S. Akruthi (II Year), S. Meena (II Year), Mridhula Ramesh Chakravarthy (II Year), K. Nandhini (II Year)	Dr. S. Joseph Gladwin, Dr. R. Rajavel	Vehicle theft intimation system using GSM and GPS interfaced with biometric	9 months	Rs.20000	1. GPS Module 2. GSM Module 3. Biometric 4. DC Motor 5. Electronic and electrical components 6. Miscellaneous

No	Name and year of Students	Project Mentor(s)	Title of the project	Duration	Budget	Itmes approved
25	Taruna Sudhakar (II Year), Sowmya Colanakuduru (II Year)	Mr. W. Jino Hans	Design and development of a helmet detecting safety system using computer vision	1 year	Rs.12000	1. Raspberry 2. Beep Sensor 3. Electronic and electrical components 4. Miscellaneous
26	G. Lakshmi Janaki, C. Harini, P.K. Madhumitha(III year)	Dr. S. Ramprabhu	Smart doorbell system	1 year	Rs.8000	1. Raspberry 2. Electronic and electrical components 3. Miscellaneous
27	S. Nikhitha (III Year),Zohra Noori Mohsina(III Year)	Dr. S. Sakthivel Murugan	Development of smart electricity energy management system for smart campus using IoT	1 year	Rs.22000	1. Raspberry 2. Jio-Fi wifi router 3. Electronic and electrical components 4. Miscellaneous

ECE - PG STUDENT PROJECTS

No	Name and Year of the Students	Project Guide(s)	Title of the project	Duration	Budget	Items approved
1	M. Priyadharshini (II Year)	Ms. S. Kirubaveni	Design and fabrication of nanostructured UV photodetector	1 year	Rs.25000	1. PET/ITO Sheets 2. Chemicals 3. Miscellaneous
2	A. Sangeetha (II Year)	Dr. B.S. Sreeja	Reconfigurable RF filter with strechable conductor on reversibly deformable substrate	10 months	Rs.25000	1. Substrates 2.Conductive Rubber 3. Miscellaneous

No	Name and year of Students	Project mentor(s)	Title of the project	Duration	Budget	Items approved
3	K. Keerthana (II Year)	Dr. S. Radha	Compressive sensing based cyber physical systems for healthcare applications	1 year	Rs.10000	1. Raspberry 2. Image Sensor 3. Electronic and electrical components 4. Miscellaneous
4	V. Gayathri (II Year)	Dr. S. Ramprabhu	Design and fabrication of tunable frequency selective surface for wideband shielding	1 year	Rs.25000	1. Substrates 2.Varactor Diodes 3. Miscellaneous
5	P. Charumathy (II Year)	Dr. S. Radha, Ms. S. Kirubaveni	Detection and classification of plant diseases using machine learning techniques	1 year	Rs.20000	1. Sensors2. Battery 3. Raspberry-Pi4. Launch Pad 5. IR Camera 6. Miscellaneous
6	A. Arivu Selvi (II Year)	Dr. R. Amutha ,Dr. K. Muthu Meenakshi	A smart wearable vest to monitor children with chronic illness	1 year	Rs.17000	1. Sensors 2. Raspberry 3. Battery 4. Electronic and electrical components 5. Miscellaneous

INITIATIVES

NSS & YRC ACTIVITIES

1. Dr. S. Joseph Gladwin, Asso. Prof. and Ms. P. Kaythry, Asst. Prof. organized Blood donation camp NSS and YRC units of SSN CE on 12th Sep. 2017.

2. Dr. S. Joseph Gladwin coordinated 'Rally for voter awareness camp' on 14 July 2017 at Tiruporur. Around 10 YRC volunteers from ECE participated.

3. Dr.S. Joseph Gladwin organized Voter id Registration camp between 17-20 July 2017 at SSN CE.

WORKSHOPS/SEMINARS

1. Ms. R. Chithradevi, Research Scholar. participated in a "Short term course on control systems Engineering Design" organized by Department of Avionics, Indian Institute of Space Science and Technology, Thiruvananthapuram, Kerala from 6th to 9th Jun. 2017.
2. Mr. V. Lingasamy, Research Scholar attended One day Seminar and Poster Ses sion on "Recent Advances in Antennas" held at PSG College of Technology, Coimbatore on 18th Aug. 2017.
3. Mr. V. Lingasamy, Research Scholar handled a tutorial session on CST for ME (CS) 1st year students on 22nd Nov. 2017.
4. Mr. V. Lingasamy, Research Scholar participated IEEE iAIM Pre-Workshop on "Designing High-Performance Antennas using ANSYS HFSS" on 23rd Nov. 2017.
5. Ms. R. Indhu, Research Scholar attended a Two day Training Programme on "High Resolution Electron Microscopy and Scanning Probe Microscopy" organized by PSG college of Technology and PSG science and Technology Entrepreneurial Park, Coimbatore on 23rd and 24th Nov. 2017.
6. Ms. A. Deepa Thereas Arockiam, Ms. S. Suryakala and Ms. V. Reshma attended the three day seminar on "Healthcare using WBAN and its Challenges" sponsored by AICTE and organized by the Department of ECE, SSN from 20th - 22nd Nov. 2017.

PLACEMENTS

HIGHEST PAID SALARY:
Roshan (ECE-B)
18LPA
Amazon - Cloud Support

- 140 Students registered
- 128 Students eligible
- 30 Companies visited
- 79 Students placed
- 95 Offers

- 5 Super dream companies
- 17 Dream companies
- 4 Core companies
- 14 IT Service companies

EXTRA-CURRICULAR ACHIEVEMENTS

Annapoorani Barani of final year won third place in 4x400 metres relay in the Anna University Athletic Meet meet held at MNM JAIN college of Engineering on 16.09.2017.

Maanasa Bharathi and Aparna Srinivasan won second place in STARTUP CHALLENGE and SOCKET DESIGN at CORONA 2017.They were also the finalists in the VANJIYA KOSHAM(B-PLAN) and MIX N MATCH at DAKSHA , an inter college MBA symposium of SSN school of management.

Supreeta, Sanjana, Varsha and Roshan of 3rd Year ECE B won the second prize in the IEEE Project Expo 2017 conducted by SCSVMV University, Kanchipuram. About 100 teams participated in the event and displayed their projects. The project displayed by them was iStand - A two wheeled self balancing robot built as a part of their internal funding project. They won a cash prize of Rs. 5000 for winning the second place.

INTERNSHIPS/FIELD VISITS

1. Mr. V. Lingasamy, Research Scholar, visited ISRO-SAC, Ahmedabad for ISRO Project related discussions on 23rd Jun. 2017.
2. Mr. V. Lingasamy, Research Scholar, visited ISRO-ISAC, Bangalore carry out measurement at their measurement facility on 29th Jun. 2017.
3. Dr. R. Hemalatha, Asso. Prof., Dr. S. Sakthivel Murugan, Asso. Prof., Dr. S. Joseph Gladwin, Asso. Prof. and Dr. B. Partibane, Asso. Prof., accompanied First Year PG - CS, AE & VLSI and Third Year BE ECE students in the visit to CSIR Laboratories on 26th Sep. 2017.
4. Dr. K. J. Jegadish Kumar, Asso. Prof., Dr. S. Ramprabhu, Asso. Prof., Ms. P. Kaythry, Asst. Prof. accompanied first year ME students to Radio Astronomy Center, Ooty from 2nd Nov. – 5th Nov. 2017.

ALUMNI UPDATES

The Department of ECE is proud to share that the following students of 2013 – 2017 batch joined various reputed Universities in India and abroad for higher studies. The Department congratulates and wish them success in all their future endeavours.

Name	GRE	TOEFL	University
Aadithya V	314	111	University of California Los Angeles
Aadya Natesan	330	116	Carnegie Mellon University
Apeksha Avinash Somalinga	335	120	University of British Columbia
Ashlin Shibu			Essec Business School, Paris
Deekshitha V			Nitie, Mumbai
Harish S	318	111	University of Maryland
Karthiknathan S		114	Central St. Martins, London
Mahitha G			Loyola Institute of Business Administration, India
Mira M	332	115	Carnegie Mellon University
Nandagopal Srinivasan	333	117	Carnegie Mellon University
Prithviraj Prabhu	330	111	University College London
Sanjana Smruthi S	328	115	Dartmouth College, New Hampshire
Sharada M	323	114	University of Minnesota Twin Cities
Shrivatsan R	326	110	University of California San Diego
Shubashree B	327	108	Georgia Tech
Sreenithy C	318	109	Arizona State University
Sreenivas V	337	115	University of Massachusetts Amherst
Sreeram K	303	87	Arizona State University
Srihaarika Vijjappu	320	112	KTH Royal Institute of Technology in Stockholm
Swarna N		105	TU Delft, Netherlands
Vivek Sivaraman N	314	112	Arizona State University

Other Updates:

1. Mr. Naveen Bharathwaj (2008 - 2012) joined Achronix Semiconductor Corp, USA as Senior Hardware Engineer
2. Mr. Nitin Krishna Gowda (2010 - 2014) currently works as a Physics Teacher in HUS School. He is currently aiming towards Master's Program in foreign Universities.

ALUMNI CORE COMMITTEE MEETING

“

Minutes of the suggestions given at the Core Department Alumni meeting held on 11th November, 2017” by Dr. N. Venkateswaran, Prof. & Dr. S. Sakthivel Murugan, Asso. Prof.

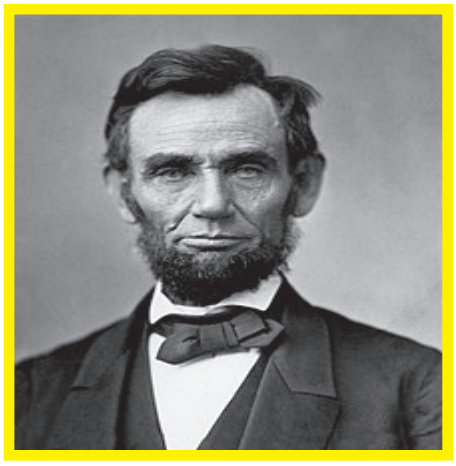
The purpose of the meeting was to build closer bonds with alumni, departments, alumni office and SSN management. Twenty two alumni invitees from ECE attended the meeting. The following points were discussed during the meeting with ECE alumni.

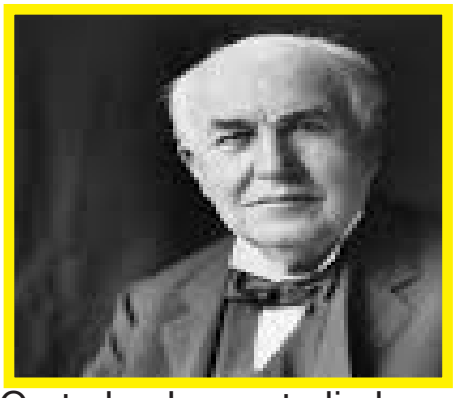
1.More Entertainment events on the day tribute for larger participation of alumni and their family
2.Alumni wants to get communication on the Research activities of the departments regularly through newsletters so that they can benefit / contribute.
3.It is suggested that Alumni can contribute in PG placement or internship
4.Incubation centre may accessible to alumni to solve their industry problems through SSN students
5.Alma connect may be made active through regular notifications
6.Alumni interests to interact with HOD’s by quarterly message.
7.Third year students may also be made member of Alma connect on a suitable platform.
8.Department wise alumni meeting other than Tribute day.
9.Presentation by successful alumni in the department events.
10.Suggestion by alumni for not to collect registration fee at the Tribute events.
11.Suggestion for an alumni interaction centre - a place where alumni can meet within the city, have a recreation centre, fitness centre and restaurant and avail various membership.

COUNSEL FOR CONFUSION

Most of us pursuing our graduate studies have been in that situation, where we have been constantly questioning our fate as to whether we would end up studying our post graduate at the right university; end up getting the right job to settle comfortably in life. Through life's roller coaster ride of ups and downs, we have succeeded in many ventures and experienced failure in a few. But failures have taken the better of us in most situations, making us lose our confidence and wallow in self-pity.ONE thing we must never fail to realize is that, whatever happens at anytime, we must never lose our SELF-CONFIDENCE and COURAGE.

History boasts of famous people like Abraham Lincoln who won the election in 1860 after losing it many times..If self-confidence were a deterrent, Steve Jobs and Bill gates couldn't have founded organizations that rule today's Silicon Valley despite being college drop-outs. We would have been engulfed in darkness had Edison lost confidence mid-way before finally inventing the light (after failing 9999 times) that illuminate our lives.





Not everybody who are CEOs today have studied or graduated from top institutes or have had a great academic career. We all must remember the famous gospel, "Academic success is not necessarily related to a successful career." This doesn't mean that you would become a billionaire if you are intellectually brilliant.

This also doesn't mean that you would end up as a total failure if you are not academically competent. What is more important is that you should have TRUST in your own abilities, TRUST in your attempts to succeed and more so, TRUST in god and faith that something better is definitely bound to happen to you.

Haven't you all heard of the story of a successful king named Bruce who was once badly defeated in spite of winning many battles. Immersed in deep sorrow and out of disappointment he gave up all hope and struggle and retreated into a cave. As he lay there, he saw a spider that was trying to reach the roof of the cave where it had a cobweb. It made six attempts to reach its web but each time it slipped down before it finally succeeded in the seventh attempt. This incident boosted up the spirit of King Bruce. He gained new strength and fresh courage. He gathered his forces and fought another battle. This time he fought with new vigor and enthusiasm and was ultimately successful in conquering his enemies.

Thoughts are inextricably related to what we become. Pessimistic thoughts will definitely dampen the spirit of any hardcore competent person. While optimistic thoughts, on the other hand, will lift the spirits of even an acutely diffident person.

While it's true that circumstances are what maketh a person, we must also realize that that they don't essentially determine what we make of ourselves in future.

COUNSEL FOR CONFUSION.....

For instance, many of us are aware that we were brought up in circumstances that were way better than those of our parents. Yet, some of us still fail to use it to our utmost advantage to succeed in our lives, while some of our friends, strived against all odds to achieve great heights.

An auto driver's daughter obtaining her chartered accountancy degree ought to be learning points for some of us.

On the contrary, encouraging circumstances too don't necessarily provide an easy path for success. Abhinav Bindra, an Olympic gold medalist in shooting, still had to invest many hours a day in his air-conditioned studio to succeed. This too, I believe should be an important lesson for most of us in our step towards success.

All said, what ultimately makes for a winner is the way one processes his thoughts every second of his life, the indomitable spirit he sustains in any situation, and relentless passion he devotes towards whatever he had desired to pursue.

Keep your morale high! Have immense faith in yourself and God!
All the very best to each of you!
Great going!

TECH & TRAVEL

> "Internships are arterial for higher studies and placements."

Employee 1: "What was that blonde college student doing at the senior technical manager's room?"
Employee 2: "Trying his luck at getting an internship!"

I am sure we all have tried this at least once to ultimately walk out with a proud offer while pursuing our graduate studies.So, what's an internship all about?
Internships are experiences whose primary purpose is to offer practical work experience in a particular industry to student engineers new to that field. These days, they have become a phenomenon among enthusiastic budding students because of their worth and advantages.This edition, Nikhilesh of third year ECE-B, shares his experience of interning at BOSCH,Bangalore.

Every time I heard someone discuss their internship I was excited by it. By then, most of my friends had done at least one internship while I had spent my holidays blissfully. Suddenly it hit me hard that internships ought to be arterial for higher studies and placements. This epiphany, though a little late at the offset, got me on the right track and it was then that I started to ponder over my interests. Introspection for a few days made me realize that my interests lie in Augmented and Virtual Reality and App development. With very little previous experience and (obvious) help from Google I prepared my resume and applied to a few companies. Though it was not the best it spoke clearly about my vision and determination to achieve greater heights.

I got selected for an internship at BOSCH, Bangalore in AR and VR domain. I was ecstatic that my first internship was in a reputed company and that, I was going to stay away from home for the first time. I had planned my stay in Bangalore in a hostel and made a list of things to be taken along. I hadn't even started my internship but I was already getting better at organizing.
Life , though, had its unexpected twists waiting for me.

On the day I was about to leave to Bangalore I came to know that the hostel I had finalised on was not available anymore. I was very worried as Bangalore was an unfamiliar city for me. Luckily, with the help of my cousin, I found another hostel in Bangalore and everything was set for the new experience in my life. The initial few hours were very difficult for me. Just the previous day I had been watching television with my family but now I was sharing a room with a stranger. I began to question my decision of taking up this internship; self-doubt began to overpower me but I refused to surrende.

" Internships give a 360° growth. They help in moulding one's career. "

After a motivational conversation with my friend, I gathered confidence and I never looked back. The next day was my first day in office;things were exciting and new! I had been given a digital employee card with my photo. Wearing it gave me a sense of pride. I spent the first day getting to know the place and work. Then in the following days I slowly began to learn things and started working. Though my progress was sedate in the first week, I began to work diligently making good progress and was able to finish my assignment in subsequent weeks. I was introduced to new technology and ideas, OpenCV and android development studio. During the course of the internship I made lots of friends and had a very fun-filled learning experience.

Looking back at the experience I can say that it has given me a 360° growth. Though the hands-on experience was the major take away, my time management and organization skills had also improved. I would like to emphasize the fact that internships help in moulding your career. This article my friends, I believe would serve as a stimulus for you to take up internships in future.

WASSUP?

WASSUP? You have come this far! By now, you must be acquainted with every nugget of information an electronics engineer should know and I hope we have been able to provide it as discreetly and precisely as we can.Beyond this, shouldn't you explore opportunities that tap your talents ? This section exactly guides you on that. Here is a list of workshops and contests that you can attend in technical / non-technical domain.

2018

CONFERENCES

15-16 MARCH	152nd International Conference on Science, Engineering & Technology - ICSET 2018
22 MARCH	4th International Conference on Bio signals, Images and Instrumentation, SSN College of Engineering
22-24 MARCH	WISPNET 2018- International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), sponsored by IEEE at ECE Department, SSN College of Engineering,
25-26 MARCH	357th International Conference on Innovative Engineering Technologies (ICIET) 2018 Pune, India
2-3 APRIL	National Level Conference on Emerging Trends in Electronics and Communication Engineering (ETECE) 2018. Bharati Vidyapeeth University, College of Engineering, Pune
24-25 MAY	381st International Conference on Communication and Signal Processing (ICCSP) 2018 Pune, India
23-27 JULY	7. International Geoscience and Remote Sensing Symposium (IGARSS) 2018,Spain
SEP	Advances in Materials and Processing Technologies (AMPT) 2018, Dublin City University, Ireland (tentative).

TECHNICAL EVENTS

6 JAN	Embedded system workshop, IITM Android Applications workshop, IITM
7 JAN	Python programming workshop
21 JAN	VLSI programming workshop
27 JAN	Machine Learning workshop
28 JAN	Big Data workshop - IITM Digital Image Processing workshop, IITM

NON-TECHNICAL EVENTS

6 JAN	RADIATE conducted by DG VAISHNAV college
10-14 JAN	SAARANG, IIT-M
2-3 FEB	FESTEVE, Women's Christian College

WRITER'S ENCLAVE

Writing is a unique ability to express, a gift that only a few possess to influence and inspire many.

Some write to vent out the pent up frustrations and feelings of the mind

Some write to voice their opinion on matters of concern.

and some write simply because they are triggered by a figment of imagination.

Welcome to the **Writer's Enclave**, *where you find a creative blend of different emotions engulfing you for an amusing and enjoyable read!*

As a society and as a community, people are more often than not, judged by their way of living, income, gender, place of living etc. Many are limited to the expectations of others rather than their own abilities. Many are attacked just because of the land of their birth. Many are never given an opportunity to succeed in certain fields while the rest are affected in some way by labels and pre-conceived notions. With progress as a prerogative in every field of advancement, isn't it time to progress in our way of thinking? It's time to step out of the comfort zone. It's time to give everyone a chance. It's time to show compassion. Let's not judge anyone based on anything other than their true self. Let's strive for a better place for all our fellow brothers and sisters, for all our fellow humans.

BREAKING STEREOTYPES

SHE was the kind of light,
that brightens life.
Why then, was she never
allowed to shine it?

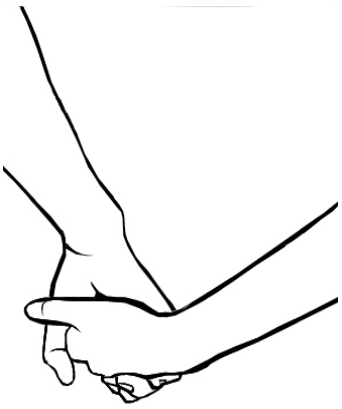
HE had the kind of sweetness,
that soothes any raw.
Why then, was he never
allowed to savour it?

SHE had the kind of leap,
that inspires many.
Why then, was she never
allowed to jump?

HE was the kind of gentle,
that calms any storm.
Wh then, was he never
allowed to feel?

Why was she denied acceptance?
Why?
When she is my sister?

Why was he denied recognition?
Why?
When he is my brother?



Brothers and Sisters of the same land, yet,
North defies South, and,
East defies West.
Gender defies talent,
Blood defies compassion,
Honour defies peace, while
Money defies honesty.

WHY?

- S. Charu Mathi ,
ECE - A, Final year

I DO MIND!

A comforting note to the unhappy soul in our lives.

Hello dear,
it's me, your mind. I've been observing you for the past few months. I've tried telling you these in a subtle manner, all these days when you were broken, but you chose to ignore them. The time has come. No, don't talk. Just don't. It's my turn now. I'm done with your crying, it hurts. I feel wrecked every time I see you bawling for the smallest of things. Now I want you to shut up and listen to me, for a few minutes. It's okay. It's okay to cry your heart out. It's okay to see your expectations to free fall as you come face to face with pure disappointments. It's okay to feel like you're breaking. You know what's not okay ? It's not okay to underestimate yourself. It's absolutely not okay to keep crying over the same thing again and again and again when it's done and dusted. It's over. You can't change anything now. And it's fine. You lived 19 years believing in "everything happens for a reason". This one also would have some reason behind it's occurrence. And even if it doesn't, what's the big deal?
Crying makes you feel better. But crying again and again ? It's hurting everyone around you. Your parents, your sister, your brother, your bestfriends, your friends. Everyone. You're not doing any good to yourself by worrying over what has already happened . Just remember, You are a blessing. You are much more talented than what you think you are. You are invincible. You are courageous. You are kind. You are good. You have a good family.You have best friends who bring even the most valuable treasures of the world to shame. You are blessed with people who care for you, who love you, who adore you. Be grateful. Be thankful for whatever good you get. Be calm. Be confident. This won't last for long. Good times are to come. And when they come, you'll realize, it's all worth the pain.
There is happiness everywhere. Don't choose to focus on the not-so-good ones. It won't help a bit. You are the creator of your happiness. When you love yourself, you radiate it to everyone. And you're happy when everyone around you is. Wear that ornament on your face. And go, brighten up the lives of other people.

"The best things take time to happen, all it needs is a patient heart and a determined mind."

- Amirthavarshini.S
ECE -A, Third Year