IEEE Bangalore Section

This report summarizes activities and initiatives by IEEE Bangalore section during the year 2019.
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Executive Summary

Mr. Keshav Bapat has taken charge as Chair along with 28 members team ExeCom in 2019. He on behalf of ExeCom as well as various categories of members, presented suggestions in inaugural address to start few new initiatives and also continue well appreciated legacy events.

We have organized many workshops, conferences and seminars, Technology awards, standards activities, innovation related workshops etc.

Major events of 2019 include Smart Tech workshop, SYWLC19, Blockchain, International Leadership Summit ILS 2019, WiECON and many more with IEEE Chapters/Societies. The chapters and student branches have reported more than 1200 events this year.

Membership has been steady and we have good conversion from students to professional members this year. Section has been working on a strategy to improve the numbers in coming years. Section has increased number of awards from last year to recognize efforts of many dedicated contributors across different segments, as a result we have received very good number of nominations this year and membership has also improved. Also, we have continued with travel grants to students and also supporting project works.

*As on Dec 31st, 2019*
<table>
<thead>
<tr>
<th>Member Grade</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellows</td>
<td>18</td>
<td>19</td>
<td>22</td>
<td>15.80%</td>
</tr>
<tr>
<td>Senior Members</td>
<td>618</td>
<td>685</td>
<td>739</td>
<td>7.80%</td>
</tr>
<tr>
<td>Members</td>
<td>1775</td>
<td>1883</td>
<td>2106</td>
<td>11.80%</td>
</tr>
<tr>
<td>Graduate Student members</td>
<td>672</td>
<td>644</td>
<td>843</td>
<td>30.90%</td>
</tr>
<tr>
<td>Student members</td>
<td>4025</td>
<td>4595</td>
<td>5039</td>
<td>11.90%</td>
</tr>
<tr>
<td>Associate Members</td>
<td>77</td>
<td>176</td>
<td>117</td>
<td>-33.50%</td>
</tr>
<tr>
<td>Total members</td>
<td>7185</td>
<td>7812</td>
<td>8822</td>
<td>13.50%</td>
</tr>
</tbody>
</table>

Many of section members have been globally recognized and received quite a few awards. IEEE Bangalore Section won 2019 MGA Outstanding Large Section Award and IEEE Medal of Honor.
ANNUAL GENERAL BODY MEETING of 2018 (MOM) held on 6th Jan 2019

Vice-Chair Mr Puneet Mishra Welcomed the gathering.

Members observed a minute Silence for Late Pal BN, secretary Bangalore section in 2018.

Secretary Mr Rajashekhar, presented AGM 2018 minutes for Approval. Mr Ravikiran proposed for acceptance and Dr Javed seconded it.

Chair Dr Sudeendra addressed the meeting. He highlighted important initiatives and events of 2018. He also gave the strategy committee discussion, deliberations and recommendations to the members.

Secretary Mr Rajashekhar gave a presentation on the 2018 Activities Report, followed by Technical activities from Dr Prasant Misra and Industry activities by Dr Javed. The report has been proposed to be accepted by Mr RajaRao and seconded by Prof Ashwini Holla.

Prof Shrikant gave Report on Student branches, followed by Dr Chandrakanta on Chapter activities and by Prof Abhishek on YP & WiE.

Ms Sadhana presented the financial report. Dr D Das has accepted the report and seconded by Dr Surendra Pal.

It is proposed to continue M/s Usha & Associates to be Auditors for 2019-20. It is accepted by Prof KVS Hari and seconded by Dr CP Ravikumar.

Mr Puneet announced the Awards for 2018 and awardees are felicitated by Execom and other prominent people. The winners are:

- IEEE Medal of Honor: Prof. B S Sonde
- Most Promising Student Branch - Central University of Karnataka-IEEE Student Branch
- Outstanding Large Chapter-Computer Society Chapter
- Outstanding Large Student Branch-NIE, Mysore
- Outstanding Large Students Branch Counselor: Ashwini Holla of CEC, Canera
- Outstanding Medium Chapter-CAS (Circuit and Systems) Chapter
- Outstanding Medium Student Branch-Amrita School of Engineering, Bengaluru
- Outstanding Medium Student Branch Counselor- Dr. Kiran Gupta of DSCE, Bengaluru
- Outstanding Small Chapter-EPS Chapter
- Outstanding Small Student Branch- MVJE, Bengaluru
- Outstanding Small Student Branch Counselor- Dr. Bindu Thomas of VVIET Mysore
- Outstanding Best Student Branch Website: PESCE Mandya & UVCE Bangalore (2 Nos)
• Outstanding Student Volunteers: Samrath Bonthala, NITK, Karthik Kolle, UVCE, Shivani Nayak, PESCE and Surabhi Dixit, VVIE (4 Nos)
• Outstanding WIE Volunteer Award-Dr. Deepa Shenoy
• Outstanding YP Volunteer Award-Ankita S.
• IEEE Bangalore Outstanding Volunteer- DIVYA M G

There were few points raised during the open hour. Mr Anup Kumar Das wanted to know about volunteering opportunities and mode of approach. Dr Annappa wanted slate committee for Mangalore Subsection, be included with past chairs of Sub section.

Mr Ravikiran & Prof KVS Hari, gave a short talk on volunteering opportunities.

Incoming Chair Mr Keshav Bapat, gave his address and explained his priorities for 2019.

Dr Sanjay Chitnis spoke for hosts DSU.

Dr Ravikumar gave vote of thanks.

Meeting ended with lunch.
Section & AG Activities
Round up of activities in 2019

EXECOM for 2019 is as following.

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Keshav Bapat</td>
<td>Chair</td>
</tr>
<tr>
<td>Mr. Puneet Mishra</td>
<td>Chair-Elect</td>
</tr>
<tr>
<td>Dr. C P Ravikuar</td>
<td>Vice Chair</td>
</tr>
<tr>
<td>Mr. Rajashekhar S</td>
<td>Secretary</td>
</tr>
<tr>
<td>Ms Sadhana Attavar</td>
<td>Treasurer</td>
</tr>
<tr>
<td>Mr. Sudeendra Koushik</td>
<td>2018 Chair</td>
</tr>
<tr>
<td>Dr D Das</td>
<td>2017 Chair</td>
</tr>
<tr>
<td>Ms. Deepa Shenoy</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. BS Bindhumadhava</td>
<td>Member</td>
</tr>
<tr>
<td>Prasant Misra</td>
<td>Member</td>
</tr>
<tr>
<td>Vasantha Erraguntla</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Chandrakanta Kumar</td>
<td>Member</td>
</tr>
<tr>
<td>Navin Kumar</td>
<td>Member</td>
</tr>
<tr>
<td>S Sethu Selvi</td>
<td>Member</td>
</tr>
<tr>
<td>Sanjay Chitnis</td>
<td>Member</td>
</tr>
<tr>
<td>Shrikant Tangade</td>
<td>Member</td>
</tr>
<tr>
<td>Raghavendra Prasad S G</td>
<td>Member</td>
</tr>
<tr>
<td>Anand M</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. S K Niranjan</td>
<td>Member</td>
</tr>
<tr>
<td>Abhishek Appaji</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. V. N. Muralidhara</td>
<td>Member</td>
</tr>
<tr>
<td>Dr. Kaushik Basu</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Prasad Mantri</td>
<td>Co-opted</td>
</tr>
<tr>
<td>Dr. Javed GS</td>
<td>Co-opted</td>
</tr>
<tr>
<td>YVS Lakshmi</td>
<td>Co-opted</td>
</tr>
<tr>
<td>Krishna Kumar</td>
<td>Co-opted</td>
</tr>
<tr>
<td>Abhilash Manjunath</td>
<td>Co-opted</td>
</tr>
<tr>
<td>Dr. Manohar Pai</td>
<td>Chair, Mangalore Sub section</td>
</tr>
<tr>
<td>Dr. Suresh Jangamshetti</td>
<td>North Karnataka Sub Section coordinator</td>
</tr>
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IEEE Bangalore Section: Industry Activities

IEEE Bangalore Section’s Industry Activities team had taken TWO new initiatives towards enabling active participation from Industry in IEEE Bangalore Section Activities and inspiring student members and young professional; apart from continuing the existing programs.

New initiatives:

1. **Webinar Series on Standardization**: IEEE Bangalore Section, IEEE TEMS India and IEEE India Council jointly organized the following webinars on technical topics & standards.

   **Webinar – I**: *Introduction to IEEE Standards Development - A Step-by-Step Approach*
   **Speakers**:  
   - *Sri Chandra*: Director, IEEE SA India  
   - *Krishna Kumar*: Chief Cloud Architect, Huawei Technologies India | Executive Committee Member, IEEE Bangalore Section

   **Webinar – II**: *Introduction to Edge Computing - Open Source & Standards*
   **Speakers**:  
   - *Syam Madanapalli*: Director-IoT, NTT DATA Services | Chair, IEEE P1931  
   - *Sanil Kumar*: Chief Architect, Huawei Technologies India | India Head, OpenSDS

   **Webinar – III**: *Harmonization of IoT Device and Systems*
   **Speakers**:  
   - Gopalakrishna Kuppa: Chair (India), IEEE p1451  
   - Maruthi Rao: CEO Vidcentum R&D
2. **TechICON Series**: IEEE Bangalore Section organized this series to ignite the educational, technical, and professional aspirations of student members and young professionals by learning about the career journeys of successful technologists. The following four TechICONS were featured in this inaugural series.

**Prof. Gaurab Banerjee**  
*Associate Professor, Indian Institute of Science, Bangalore*  

**Dr. Shivkumar Kalyanaraman**  
*Executive Leader, Growth Offerings & Initiatives at GE Power Conversion, Bangalore*  

**Dr. Geetha Manjunath**  
*Co-founder and CEO of NIRAMAI*  

**Pamela Kumar**  
*Director General, Telecom Standards Development Society, India (TSDSI)  
Vice President, Cloud Computing Innovation Council of India (CCICI)*  
[https://www.linkedin.com/pulse/ieee-bangalore-techicon-pamela-kumar-vasantha-erraguntla/?trackingId=%2BOfmVMmnSFWS4lCI%2Bf1q5A%3D%3D](https://www.linkedin.com/pulse/ieee-bangalore-techicon-pamela-kumar-vasantha-erraguntla/?trackingId=%2BOfmVMmnSFWS4lCI%2Bf1q5A%3D%3D)
Continuing Initiatives:

Workshop on “AI and Blockchain at the Edge”

IEEE Bangalore Section and IEEE Standards Association (IEEE SA) Blockchain Group, together at Philips Innovation Center, jointly organized a one-day workshop on AI and Blockchain at the Edge in Bangalore on 10th May 2019. The objective of the event was to connect technologists together and share the knowledge to accelerate the adoption of these technologies. More than 150 professionals participated in this one full-day event.

The Keynote was delivered by Philips India CEO, Kalavathy GV, and she emphasized the medical industry's need for AI which is making a revolution in this field. Philips Research Lab Fellow Vijayananda, presented on “Trusted AI models in Healthcare”. His talk covered inflection points in healthcare including diagnose, payment models, IoT devices, Integrated 24/7 Healthcare. IBM India Blockchain Leader, Vinayaka Pandit, presented “Emerging Confluence of Blockchain and AI”. His talk covered the evolution of blockchain, AI, and the various use cases of these technologies.

There were a few technical sessions covering Blockchain, AI inference acceleration at the edge, IoT Use cases, Data at Edge, case studies, etc. The panel discussion on “Challenges & Opportunities in AI, Blockchain & Edge”, discussed various blockchain and AI challenges in India context and discussed emerging trends, solutions, and use cases. In summary, several speakers agreed that, as the world becomes decentralized, more and more devices joining the hybrid cloud, technologies to be deployed at the best location viz. local, edge or cloud with blockchain and AI an integral part of it.
IEEE SmartTech 2019: A IEEE Bangalore Flagship Event

IEEE Bangalore Section, in partnership with IEEE Computer Society (Bangalore Section), IEEE Power & Energy Society (Bangalore Section), IEEE Technology and Engineering Management Society - India, IEEE Young Professionals (Bangalore Section), IEEE Women in Engineering (Bangalore Section), IEEE Blockchain, NASSCOM CoE IoT, TSDSI, TiE Bangalore, EFYGroup, and VideoKen, organized the 6th edition of IEEE SmartTech from 2-3 August 2019 in Hotel Sterlings MAC, Bangalore.

The theme, for this edition of the workshop, was on "The Future of ElectroMobility"; technology practitioners shared their understanding on technologies and challenges for sustainable city-scale mobility in general, and electromobility in specific. It covered aspects on battery technology and storage systems, EV powertrains and charging infrastructure, sensing technology and ADAS, connectivity and 5G, on-premise computing and edge systems, digital payments and blockchain. It also discussed the role of utilities and infrastructure players, and government and policy makers in driving the future of electromobility; while deliberating on the evolution of vehicles in the next five years.

The keynote addresses, in this workshop, were delivered by Dr. Dejan S. Milojicic (Distinguished Technologist, HP Labs), Dr. Dhananjay Gore (VP Engineering & Head of Research, Qualcomm India), and Dr. Shivkumar Kalyanaraman (Executive Leader of Growth Offerings, GE Power Conversion); while plenary talks were given by Brian McMurray (VP Engineering & Operations, General Motors), Alexander Klotz (VP and Head of Technical Center India, Continental), and Shridevi Bale (Associate Director, Accenture India). In total, 27 speakers (leaders and technical subject experts) from more than 20 companies, startups, and standardization bodies (Mahindra Electric, TVS Motor, Intel, Robert Bosch, Hitachi, KPIT, TSDSI, Valeo, Greendzine, Meher Energy, Prasu, Ati Motors, Nutanix, Taqanal, and Quick Ride) participated and shared their views on various topics. The workshop was attended by around 150 delegates, spanning over two days.
Two panels were organized at SmartTech 2019. The first one titled “What Will Vehicles Look Like in 2025?” was moderated by Ms Prabhavathy Adavikolanu (Intel). The panel discussed the key drivers and challenges for electric vehicle technology today and what will be realized and what may have a longer pole by 2025. They discussed the trends, drivers and challenges in the shared mobility business overall and areas of key innovation that are relevant for India. The panel touched upon Infrastructure’s key role in realizing smart, safe, shared and green mobility and their perspectives on regulatory changes needed in India by 2025.

The second panel was moderated by Mr. S. Rajasekhar (GE) and discussed “The Role of Utilities and Infrastructure Players in Powering the Future of Mobility”. The panel included participants from Bosch, GE, Accenture, PRASU and Ati Motors. The panel focussed mainly about concerns of utilities and users.

The winners of the 2019 IEEE Bangalore Industry Awards were felicitated at this workshop: (i) Women Technologist of the Year 2019: Ponni K. (Head, Global R&D Laboratories, Nokia); (ii) Technologist of the Year 2019: K. Krishna Moorthy (Corporate VP ad MD Rambus Chip Technologies); (iii) Young Technologist of the Year 2019: Arkaprovo Das (Co-founder & Principal R&D Engineer, Simyog Technology); and (iv) Technology Startup of the Year 2019: MMRFIC Technology.

IEEE CONECT-2019

2019 International Conference on Electronics, Computing and Communication Technologies (IEEE CONECT) organized by IEEE Bangalore Section was held at IIIT Bangalore, during 26-27 July 2019. This conference is the fifth in a series to be organized by IEEE Bangalore Section. The conference will focus on the recent advances in the fields of Electronics, Computing and Communication.

Total 42 peer reviewed papers will be presented in the conference and these papers will be published in IEEE Xplore. The contributed papers were selected from a total of 250 submissions. 8 papers were posters were presented during the conference. Few tutorial sessions were also held on 25th of July. The conference also had a panel discussion on Machine Learning, Big Data, 5G, IoT, BlockChain : How will they create jobs in India? 59 participants had registered for the conference. 130 IEEE student members from various Institutes in Karnataka and about 100 students of the host Institute, IIIT Bangalore attended various tutorials, invited, keynote and research paper presentations during the conference. The conference was inaugurated by Prof. Jose M.F. Moura, IEEE President on Friday, 26th July. A MoU was signed between IEEE and IIEI and the IEEE-IEI award was awarded to Prof. Bhargab Bhattacharya during the inauguration.

The following plenary talks were the highlights of the conference
1. Prof. Jose M.F. Moura, IEEE President.
2. Dr. Prateek Jain, Microsoft Research India, Bangalore.
3. Dr. Navakant Bhat, IISc bangalore
4. Dr. Jaideep Kulkarni, University of Texas at Austin.
5. Dr. Jaiganesh Balakrishnan, Texas Instruments, Bangalore.

Following awards were given away during the closing ceremony.

BEST PAPER: Sharvari Ravindran, Saptarshi Chaudhuri, Jyotsna Bapat and Debarbata Das of IIIT Bangalore, titled “Isolation-based Sub-Slices for Throughput Optimization in 5G Radio Access Network”.


BEST POSTER: Shweta Pujar, Ravindrareddy Pulicharla, Nidhi Udayshankar, Rahulkumar Patel and Sivasubrahmanya Evani of Analog Devices, titled “Accelerating design verification of a complex SOC Using Formal”.
The IEEE Women in Engineering (WiE) International Leadership Summit – 2019 organised by IEEE Women in Engineering Affinity Group of IEEE Bangalore Section, had a Vibrant Start on 30th August here at Sterling’s Mac, Bengaluru. These summits held around the world provide regional opportunities to foster diversity in the workplace, networking, mentorship, and collaboration, their uniqueness being that they provide a platform for women in Engineering to share successes and learn from failures and challenges, celebrate Entrepreneur sprit and Leadership of women in the fields of Science and Engineering. The theme of the current Summit being “Redefining the Defined” it included 9 keynote addresses, 5 presentations, quizzes, an entertaining cultural night, a workshop and an invigorating panel discussion, with 27 speakers and over 350 participants from all over the globe- USA, Japan, Thailand and Sri Lanka. Around 175 participants were non IEEE members and over 250 participants were IEEE members.

Keshav Bapat, Chair -IEEE Bangalore Section, welcomed the gathering. Puneet Mishra, IEEE Bangalore Section Chair Elect, provided a glimpse of 43 years old history of IEEE Bangalore Section, its activities and its many volunteering opportunities. Dr. Deepa Shenoy, Conference Co-chair, highlighted the growth and process of Women in Engineering Affinity group and it’s eleven-year journey.

Harish Mysore, Senior director of IEEE India operations gave a brief overview of WiE’s global initiatives. He expressed pride in the leadership that the subcontinent is taking in these activities. Divya M G, WiE Chair and the program chair for ILS2019 gave the key highlights of the summit.

The inaugural address was given by Smt. Nigar Shaji, Project Director, Aditya-L1 Mission of ISRO. Smt. Shaji recalled the vision of the founding Father of Indian Space Establishment, Dr. Vikram Sarabhai, to put India on the global space map and use space missions for social and national development. Today, India has demonstrated its technological capabilities and transformed the space program from what was once considered as a luxury to a necessity. Space research and science missions are now the next frontier for human species and ISRO is engaged in several missions like
Chandrayaan, Mars Orbiter Mission (MOM), Aditya L1, Xposat and many others to explore the universe.

The vote of thanks was proposed by the conference chair Dr. Sujatha D N. The inaugural was concluded by a group photo of the over 350 delegates and dignitaries from around the world.

Other presentations are given by:
Dr. Supavadee Aramvith, Chapter Committee Chair, IEEE Region 10
Dr. Kathy Susan Land, US Department of Defense
Bala Bharadraj Boeing India Engineering and Technology Center
Emi Yano, R10 WiE Chair, Japan
Pallavi Srinivasa, Cisco
Ravishankar B V, BMSCE
Srinivas A, DSU
Sarada Vempati, J P Morgan Chase
Sudheendra Kowshik, Prasu,
Takako Hashimoto, Global Chair WiE
Parul Jain- Google
Ravikiran Annaswamy, Numocity
Shruthi K Prakashan, HP Entreprise
Dr Punith Cariappa, DSU
Aruna Kalagnanam, JPMC
Shalini Kapoor, IBM
Pallavi Srinivasan, CISCO
Dr. Kavitha Sooda, BMSCE
Smitha Ojha, Google Enterprise
Subodh Gajare- CISCO
Sandhya Ranganathan, HPE
Lakshmi Mukund & Sandhya Kerehalli, CISCO,
Vidya Hungud, RJio.

Panelists in the very invigorating discussion were Shruthi Kannan CISCO, Vibhavari Jahagirdar JPMC, Prashanthi Moningi HPE, Latha Christe DRDO, Pamela Kumar TSDSI and Deepika BR CISCO.

On 30th August 2019, the Key note in Humanitarian track was delivered by Dr. Supavadee Aramvith and Prof Takako Hashimoto. Same day during Networking session Dr Prabha Ravi, MSRIT & Dr Ashwini Appaji, Chair Elect, YP briefed and addressed IEEE HAC initiatives and opportunities in India and R10. On 31st August 2019, Subodh Gajare of Cisco, Bangalore delivered talk in Humanitarian track.

The valedictory session was hosted and MC was Prof Annapurna Patil, MSRIT, Bangalore. The valedictory function chief guest was Ms Pamela Kumar, Director General, TSDSI. Chaired by Kathy Susan Land, program Manager, US Department of Defense and Mr Keshav Bapat, Chair, IEEE Bangalore section.
IEEE Bangalore Section SYWLC’19

IEEE Bangalore Section’s flagship event SYWLC’19 (Student-Young Professionals-Women In Engineering-Life Member Congress) was organized on 12th and 13th October, 2019 at Ballari Institute of Technology and Management (BITM), Ballari. SYWLC’19 consists of exciting technical as well as non-technical events for participants coming from different professional backgrounds from all over Karnataka. The congress is of two days, where more than 200 delegates get an opportunity for personality development, skill building and effective networking. Expert speakers from various technical domains lead the workshops and seminars. There are also talks on business and entrepreneurship, work life balance and more fun activities.
The conference objective was to bring together leading industrialists and researchers to exchange, share their experiences, expertise on all aspects of “Electrical Engineering and Computer Science” and “Humanitarian” spheres. The conference also aimed to provide an interdisciplinary platform to present papers and discuss the recent innovations and challenges in the fields of Electrical and Computer Engineering. With the view to encourage participation of women scholars, each paper had at least one female author. The accepted papers which were presented in the two-day conference will be submitted for publishing in IEEE Xplore digital library.

The Chief Guest Mrs. Nemichandra shared her experiences as a system engineer and integrator in HAL. She highlighted the strides women engineers had taken over these few decades. She motivated the audience with her quote, ‘Women in the past opened doors of opportunity in different spheres of life and it is now left to the younger generations to move forward and make an impact.’

Dr. Celia Shahnaz then delivered her inaugural address encouraging delegates to work in the areas of humanitarian technologies. She presented her research “AI based Non-invasive Technology Development and Deployment for the Local community to support SDGs” to serve as an inspiration to the participants. The vote of thanks was proposed by Mrs. Manisha Sanal. The inaugural was concluded with a group photo of the over 200 delegates and dignitaries from around the world.

The two-day conference had nine keynote addresses in as many technical tracks; 60 accepted paper presentations, 18 Poster presentation one tutorial and a panel discussion. The Technical Program Committee chairs, Dr Kumudhini Ravindra, Dr Shaikh Fattah and organizing committee chair, Dr Pushpa C N, expressed their joy at the quality of papers received and the program organized.

On day 2, a WePOWER panel discussion and WePOWER tutorial session was conducted. WePOWER is a World Bank project to increase women participation in Power & Energy in South Asia. The panel discussion deliberated on ways to improve gender diversity in the Power and Energy Sector and was moderated by Dr. Kumudhini Ravindra. The panelists were Dr. Deepa Shenoy from UVCE, Bangalore, Dr. Celia Shahnaz from IEEE Bangladesh, representing the academic partners and Ms. Shweta Sharma from ABB, Bangalore and Ms. Shanti D R from TCE, Bangalore, representing the Industry
perspectives. The WePOWER tutorial was provided to upskill participants on "Latest Development of Artificial Intelligence based Deep Learning Techniques in Smart Power Grid with penetration of Renewable Energy." The tutorial was conducted by Dr. Surekha Rajendra Deshmukh, Dean- Industry Institute Interaction, Pune.

The conference sponsors included Technical sponsors: Defence Research and Development Organisation (DRDO); Gold Sponsors: JP Morgan Chase, Google, Cisco, Hewlett Packard Enterprise (HPE); Silver Sponsors: Reliance Jio; Bronze Sponsors: Dayananda Sagar University, BMS College of Engineering and Boeing; Professional body sponsors: IEEE YP Bangalore Section, IEEE Humanitarian Activities Committee, Antenna and Propagation Society and Microwave Theory and Techniques Society, IEEE India Office; and Academic Sponsors: Ramaiah Institute of Technology, Reva University and RV College of Engineering.
2019 IEEE Conference Organizers Education workshop (COEW)

The IEEE Conference Organizers Education workshop (COEW) was organized by IEEE Bangalore Section and partially sponsored by IEEE Region 10. The event was held on 19 Oct 2019 at Sterlings Mac hotel, Bangalore, India. There were around 70 IEEE Members and 10 Non-IEEE Members who participated from various institutions and industries across the state of Karnataka.

The event was started by General chair, Abhishek Appaji who gave the statistics of IEEE Conferences and the quality required. He also spoke about the significance of organizing this event. Followed by which Bangalore Section Chair, Keshav Bapat spoke about the various conferences held at Bangalore Section and what is that Bangalore Section is aiming at in terms of technical activities across the globe.

The third session onwards was covered by Puneet Mishra, Chair Elect, who spoke about Why to organize Conferences and Why IEEE Conference=Quality?. He gave the entire process of IEEE Conference procedure and different types of sponsorship. After which he gave an overview of various committees required for a quality conference and key people and their responsibilities for a successful conference. The new and updated MCE process and Bangalore Section rules for TCS/FCS was informed to participants.

This was followed by the tools and techniques available from IEEE for usage of conference organizers as well as authors was upraised to the participants (IEEE Xplore, Open Access and IEEE Author centre) by Dr Dhanukumar P, IEEE India Office. He also gave a quiz of ten mins for all participants based on his session. Later Dr Navin Kumar, Execom member of Bangalore Section spoke about the technical Program and common practices and best practices for the same.

After the lunch session, Sadhana A, Treasurer, IEEE Bangalore Section spoke about various financial requirements, sponsorship and compliance with the rules of local government and IEEE. The importance of Exhibits/Booths/Poster Sessions and Practicing Ethics was highlighted by Abhishek Appaji who gave common way to attract people to exhibits as well as involving other academic institutions and industries for their booth.

This was followed by Prof Debabrata Das, Past chair of IEEE Bangalore Section who gave an overview of best practices for the conference with case studies.

The last session was handled by Abhishek Appaji and Rajashekhari on Bidding for IEEE Conferences in Bangalore Section and globally and what do reviewers look through for
successful bidding ex: POWERCON. There were also discussions about common mistakes and myths in organizing a conference and how can it be mitigated.

The last session was concluded by question answer session by speakers and participants with some feedback about the overall event which was positive. The event concluded with distribution of certificates to all participants. The organizers would like to acknowledge the support received from IEEE MCE for the materials provided for the speakers.
IEEE VITM App Development Course

The App Development Course on Android was held at Visvesvaraya Industrial & Technological Museum in collaboration with IEEE Bangalore Section for high school students during May 10-12, 2019. Twenty students from different high schools in Bangalore such as National Public School, Poorna Prajna Education Centre, Frank Anthony Public School, Sri Sri Ravishankar Vidya Mandir, Bishop Cotton Boys School, Christ school participated in the course. There were six sessions with 2 sessions per day. Ms. Sadhana Attavar, Senior Member IEEE and Senior Curator, Visvesvaraya Industrial & Technological Museum, Bangalore was the main coordinator for the programme. The students developed the following apps and demonstrated the same during the valediction of the course on 12th MAY 2019 for which Shri.Puneet Kumar Mishra, Chair Elect IEEE Bangalore Section was the chief guest. The students developed the following apps.

1. Translator and Pac-man
2. Game changer - All in one game launcher
3. Fitz - Fitness app with quiz
4. Launch pad and Tutor App
5. Tic Tac Toe and save the Ball

Glimpses of IEEE VITM App Development Course on Android
IEEE-TTTC VLSI Test Seminar, 21 and 22 Sept 2019 at BMSCE

VLSI test seminars started with formal inauguration by Navin Bishoni, addressed the participants, by emphasizing on industry interaction and importance of DFT in India. This was followed by Abhishek Appaji who spoke about IEEE and Bangalore Section and its strategy to increase members as well as the benefits for being a member.

The sessions mainly highlighted the following topics- DFX as a career: Choice or compromise (Nagesh Tamarapalli), Evolution of Design for Test-Part 1 (Abhishek Chaudhary), Evolution of Design for Test-Part 2 (Sivanantham S), Cell Aware Test (Presenter: Subhadip Kundu), Small Delay Defect Testing (Ankush Srivastava), Test Engineering Standards (Prasad Mantri), Emerging Automotive Electronic Industry and Associated Test Challenges (Prasad Mantri)

The lab session had details about Introduction to Design For Test, clear distinction between verification and test, tools and environment for testability, The DFT technique for logic testing such as Scan Insertion and ATPG (Automatic Test Pattern Generation) was briefed upon, The problem of Observability and Controllability and an optimal method of solving it by the use of Scan Insertion technique. A hands-on session on the Synopsys tool to get familiarized with Scan Insertion using the Scan Insertion DFT Compiler, testing designs without and with DRCs, along with ways to overcome a few DRCs but retaining the functionality by use of a mux with Test Mode(TM) as control signal. A hands-on session on the Synopsys tool to get familiarized with ATPG using Synopsys Tetramax to get the patterns file. The technique for memory testing using Memory BIST (Built In Self-Test) was briefed. To prove the concept, a code file was simulated.
Women in Engineering

PARICHAYA
Meeting had begun by Sadhana who explained the main flagship events ILS, WINCON etc., which are going to be conducted by WiE Bangalore Section. Divya Chair rolled out that WiE deals with activities and events also gave the detailed information on the ILS event which is going to be held in August 2019 at Sterling Mac Hotel Bangalore. More emphasize will be given for “senior grade member elevation” was given which was introduced and all the detailed information of how to elevate to Senior Member was introduced and discussed by Manjula Raja. Mr. Keshav Bhapat gave a brief importance of WiE and its benefits of WiE to all the participants which was more effective for the audience. Abhishek Appaji also inspired the participants to join WiE and also to collaborate with SIGHT which in turn helps the individual to solve the humanitarian problems through WiE technical activities.

International Women’s day
International Women’s day was celebrated in Ballari Institute of Technology and Management (BITM) by WIE Affinity Group in association with IEEE Student Branch BITM. The one-day programme was sponsored by daughters and granddaughters of Late Shree. Basavarajeshwari, founding chair of Basavarajeshwari Group of Institutions and former Union Minister of the Sate for Women and Child Development.

Womens Day celebration and WIE introduction (Membership drive)
Womens day was celebrated by PES Mandya student branch 3 speakers were invited from WiE Bangalore section for giving talk Dr Ashwini Appaji. Secretary, WiE Bangalore section ad Chair Elect YP gave the importance of Womens day celebration and talk on women empowerment. An online quiz was also conducted by Dr. Ashwini Appaji, the session was of great interaction. The 2nd speaker Dr Bindu Thomas WiE member, Execom committee, Bangalore section introduced about the Computer Vision which include methods of processing and analyzing digital images and Dr. Shambhavi shared the importance and applications of Information and Communication Technologies.

International Leadership Summit – 2019
The inaugural address was given by Nigar Shaji, Project Director, Aditya-L1 Mission of ISRO. 250 IEEE members and 125 non IEEE members including attendees from USA, Japan, Thailand and Srilanka participated in ILS. The theme of the Summit is “Redefining the Defined”. It included 9 keynote addresses, 10 invited talks in the following tracks: Entrepreneurship, Humanitarian, Innovation, Leadership and Women in Technology. A panel discussion on “Capability Vs Copability: Striking the Right Balance”, and a workshop on “Reskilling for Digital Economy” was a part of the summit.
The summit provided opportunities to foster diversity in the workplace, networking, mentorship, and collaboration. The uniqueness being that, they provide a platform for women to share success and learn from failures and challenges, celebrate Entrepreneur sprit and Leadership of women in the fields of Science and Engineering.

**Humanitarian RoadSafety workshop**
On Feb 1st, IEEE student Branch REVA University hosted IEEE humanitarian event 2019 “Road Safety Training for Youth” in collaboration with IEEE Young Professionals Bangalore Section and MASH NGO. The event focused on awareness about Road Safety and the first aid techniques. The event was opened to all the students from different branches and approximately 116 students were present. During the session students interacted with resource person and gained the knowledge about road safety.

**Block chain Technology**
The IEEE Student Branch of Dayananda Sagar University in partnership with IEEE Young Professionals Bangalore hosted a 2 Day Workshop on “Blockchain Technology” Day-1: Mr. Girish Nuli started his talk with an energetic vibe in order to create interest among the participants. Mr. Prahalad B started with Application Point of View which all attendees answered very interactively. Mr. Kishore held a very interactive session with the main objective being - enhance the general knowledge of all the attendees on the topic of Cryptocurrency.

Day -2: Mr. Kishore started with real world application scenarios and its benefits. These ideas influenced a lot of student-attendees to create projects based on blockchain technology.

**STEP**
To encourage interactions with peers and professionals from the industry with aim of making the learning better and effective, students were trained on technical writing, Enterpreneurship and innovations. Dr Pushpamala - Asst Prof DSU, gave a brief outline on technical writing and paper publications on research innovation. Dr Ashwini AM - Chair Elect YP, and Secretary WIE IEEE Bangalore Section, gave an overview on entrepreneurship and how to become a successful entrepreneur. Mr. Sudhindra Kaushik - Past Chair IEEE Bangalore, TEMS Chair Bangalore Section Spoke on innovation and their uses and how to Recreate Innovation into Products. Mr. Abhishek Appaji - Asst Prof BMSCE & Joint Secretary IEEE Bangalore Section, spoke on pitfalls to avoid and odds to follow as an innovator.
TISP
Students and faculty were divided into teams and were given a task to make a tall tower and 12 teams participated and interacted. It was a great interactive and networking session taken by Dr. Ashwini Appaji from YP.
Young Professionals (YP)

YP meet
Mallikarjun started the meet by addressing the gathering. He also collected the opinions of the attendees. Mallikarjun wanted all the participants to let him know about what the expectations from IEEE YP Bangalore Section. One participant suggested monetizing the membership. Other suggestions included increasing the YP membership count, adding more senior members. One student clarified his doubts on the costing of IEEE membership fee.

AGM Execom
On 6-Jan-19 at DSU YP team was introduced to the execom and the recent events of YP was discussed by past Chair Abhishek Appaji. the future plans and also the events were discussed by chair Mallikarjun and motivated the team to take up atleast 1 event and conduct for the year. Mr Manjunath past chair discussed with the team and motivated them to understand the requirement of the student and also the professionals and conduct the event. the new execom team was introduced.

YP Strategry meeting
On 27-Jan-19 Mallikarjun commenced the meeting by thanking everyone for joining the meeting. He wanted to discuss the plans and ideas of each member for complete year. Firstly, Abhishek started sharing his experience from Hubli Event, he suggested few points which includes: To contact Prashant Mishra for Annual Sponsorship and to conduct Events like STEP outside Bangalore in places like Hubli, Bagalkot, Mysore. Mallikarjun suggested YP to involve in Road safety awareness event in various colleges and suggested dates as mentioned below: REVA - 2nd Jan, SVIT – 4th Jan, Dayandsagar.

Abhishek proposed to Register YP as Separate Entity and get PAN Card to solve Canara Bank issue and asked Mallikarjun and Suraj to follow up on the same.

Further Mallikarjan suggested to have Action items for Every EXECOM members and asked two members to visit colleges and do IEEE awareness using Elevate program. He suggested YP Meetups to happen every two months and experts from various Industries are invited and Knowledge transfer platform is created for participants. These events can be free for initial meetups which will be further result in Mentorship program for Start-up and Students. For this Abhishek suggested IPR event can be one to start with.

Mallikarjun further asked team to be focused on Technical Events for Entire event along with fund raising event. He pointed out missing of Social media and Design team for YP and suggested to send mail for selection of the same. Lastly he proposed a Flagship event from YP which can be schedule in 6 months and make a grand success.

Ashwini proposed events for School students which includes create and Application development programs. Abhishek said about YP Visiting cards and asked Kishore to create a google form and circulate and get in contact with Natraj for printing
Humanitarian Road Safety workshop
On Feb 1st, IEEE student Branch REVA University hosted IEEE humanitarian event 2019 “Road Safety Training for Youth” in collaboration with IEEE Young Professionals Bangalore Section and MASH NGO. The event focused on awareness about Road Safety and the first aid techniques. The event was opened to all the students from different branches and approximately 116 students were present. During the session students interacted with resource person and gained the knowledge about road safety.

Road Safety
An event on Road safety was hosted by SVIT IEEE Student Branch and Department of ECE, Sai Vidya Institute of Technology, Bengaluru in association with IEEE- Bangalore Section, IEEE Young Professionals, Bangalore Section and MASH Foundation. We would like to thank Management and Principal for providing an opportunity to host this event. A special thanks to our Principal, Dr. Ramesh Babu H S for his encouragement in hosting and also for providing the logistics required for hosting the event.

Dr. Narayan K, IEEE SVIT Student Branch Advisor, initiated the event by addressing the students about Road safety and the importance of it. Mr. Mangesh Raut, MASH Foundation, was the trainer for the event. He addressed the students about the road safety, how to take measures when someone is met with an accident, he explained the students about Samaritan law. He demonstrated how the first aid can be performed on the spot of accident. He has also given insight to the students about medical emergencies like CPR, snake bite, dog bite etc. Students have actively participated in this event, at the end of event students have gained knowledge about the first aid, which can be performed in an emergency situation. Students have got the clear information about Samaritan law. 6th Semester students from ECE, CSE, EEE, ISE, Mechanical, Civil branches have participated in the event.

No. of Participants: 180

Womens day celebration
Womens day was celebrated by PES Mandya student branch 3 speakers were invited from WiE bangalore section for giving talk Dr Ashwini Appaji, Secretary, WiE Bangalore section and Chair-Elect YP gave the importance of Womens day celebration and also a talk on women empowerment she also gave a brief introduction about the WIE and YP functions and their benefits to IEEE student members. An online quiz was also conducted by Dr. Ashwini Appaji for the particpants, goodies were distributed for top 3 scorers the session was of great interacton. the 2nd speaker Dr Bindu Thomas WiE member, Execom committe, Bangalore section introduced about the Computer Vision which include methods of processing and analyzing digital images and Dr. Shambhavi shared the importance and applications of Information and Communication Technologies.
The IEEE student branch of Dayananda Sagar University in collaboration with IEEE Young professionals Bangalore section organized a 4-Week Summer internship program about NVIDIA JESTON NANO development boards.

**STEP**
To encourage interactions with peers and professionals from the industry with aim of making the learning better and effective, students were trained on technical writing, Enterpreneurship and innovations.

Dr Pushpamala - Asst Prof DSU, gave a brief outline on technical writing and paper publications on research innovation. students were keen on research writing and project publications.

Dr Ashwini AM - CHair Elect YP, and Secretary WIE IEEE Bangalore Section , gave a overview on enterpreneurship and how to become a successful entrepreneur.

Mr. Sudhindra Kaushik - Past Chair IEEE Bangalore, TEMS Chair Bangalore Section Spoke on innovation and their uses and how to Recreate Innovation into Products.

Mr . Abhishek Appaji - Asst Prof BMSCE, Joint Secretary IEEE Bangalore Section spoke on Pitfalls to avoid and Odds to follow as an innovator

It was a successful event and all the students were really happy about about speakers and had a networking session to know more on the topics.

**TISP**
Students and faculty were divided into teams and were given a task to make a tall tower and 12 tems participated and interacted . It was a great interactive and networking session taken by Dr. Ashwini Appaji from YP.
IEEE Bangalore Section SIGHT Group report for 2019

NETHEALTH 2019: NETWORKING HUMANITARIAN TECHNOLOGY FOR HEALTHCARE

The NetHealth 2019 Networking Humanitarian Technology for Healthcare workshop was held during the 11th International Conference on COMmunication Systems & NETworkS (COMSNETS 2019) on the 11th of January 2019 in Bangalore, India.

Every year, the NetHealth Workshop brings together a multi-disciplinary audience from across the healthcare spectrum to share their ideas and break the conventional silos that exist in this field. NetHealth is centered around people and technology that are changing the face of healthcare. The theme of NetHealth 2019 was “Networking Humanitarian Technology for Healthcare.” The workshop covered an array of healthcare topics like Artificial Intelligence, Bio-entrepreneurship, Tele-medicine, Nanotechnology, and 3D printing. Over 100 delegates were in attendance, and live streaming reached an additional 200 online viewers.

KEYNOTE SPEAKERS

The workshop included a number of well-rounded and knowledgeable speakers.

- Pramod Varshney, Distinguished Professor of Electrical Engineering and Computer Science, Syracuse University, USA
- David Kotz, Professor of Computer Science, Dartmouth College, USA
- Gopalakrishnan, Aarogya Seva, USA
- Dr. Dhruv Joshi, Cloud Physician, India
- Dr. Geeta Manjunath, Niramai, India
- Dr. Manish Arora, IISc, India
- Dr. Jagdish Chaturvedi, CEO & Co-Founder HiiH Innovations, India
- Dr. Aravind Kumar Rengan IIT, Hyderabad, India
This year’s NetHealth had a record number of research paper submissions. Out of 30 paper submissions, expert reviewers shortlisted 20 to be presented. Subjects extended across diagnostics, IoT, medical simulation, social media in population health, and more. The top three papers received awards at the end of the conference. We also had a book launch by representatives from The Affordable Inventions in MedTech Research Fellowship on their Unmet MedTech Needs database for India. The event organizers hope that platforms like NetHealth can bring about innovation in every facet of healthcare so that no one in India lacks access to the latest medical technology. For more pictures from the event, visit

Awareness and promotion of IEEE SIGHT during IEEE Branch Counselors Meet at RVCE, Bangalore on 24 Feb 2019

Sunday walk and breakfast with IEEE Fellow Prof John V Mathews at Cubbon Park

5 May 2019

A newly organised event of IEEE Bangalore section was started with the name Sunday Walk and Breakfast with an IEEE Fellow. The Inaugural IEEE Fellow was started by Prof. V John Mathews, Professor in the School of Electrical Engineering and Computer Science at the Oregon State University. The registered participants were from different colleges and industries. There were students, faculties and industry based participants. Prof.
Mathews interacted with all the participants he gave a clear idea how the Signal Processing society (SPS) works and also the benefits of society to its members. Prof KVS Hari from IISC also added important information regarding how to write a research article and how to perform effective research. Prof Mathews also shared his long Journey in IEEE having 40+ years of experience. This event was its first of kind in the section where all the participants could closely and informally interact with the eminent IEEE Fellows and get a clear idea on being a society member whereas he also made it clear that for students the society membership cost was very minimal out of which a great information, connections and networking could improve by attending different events conducted by societies. The participants also networked with others in groups and also shared information and knowledge and interest of their choice over the breakfast. This event was one of the newly initiative and successful one. All the participants also shared their review on the days event and requested more events of this kind to be initiated so that they can know the IEEE fellows well and can get idea to improve in their proficient life.

Sunday Walk and breakfast with IEEE Fellow Prof Srinivasa Ramani at lalbagh
16 June 2019

The second walk and breakfast with IEEE Fellow was organized at Lalbagh along with Prof. Srinivasa Ramani. The event was attended by around 25 IEEE members. Prof. Ramani gave the insight about the importance of local languages in technical writing and also about how IEEE members and volunteers can help the society to learn the technology in local languages. Some interesting information was shared with participants so that they have an idea on taking the discussion further. Few blogs were also shared with the participants.

http://newstudentresearch.blogspot.com/
http://obvioustruths.blogspot.com/ and
https://hindimemstem.blogspot.com/

All the participants also shared their review on the days event and requested more events of this kind to be initiated so that they can know the IEEE fellows well and can get ideas on how to improve in their proficient life.
The 3rd Morning walk and breakfast was organized at Indian Institute of Science, Bangalore on 27 July 2019. The IEEE Fellow was Prof. Goutam Chattopadhyay, Jet Propulsion Lab, NASA, USA. Prof Chattopadhyay spoke about his experience after walk at NASA and he also answered some of the technical questions related to satellites. He also gave some inputs to the students and professionals about career opportunities as well as research vacancies at various related labs and how research is of priority in the field of Aerospace engineering. The event had good feedback and was attended by around 30 IEEE members.

The 3rd Morning walk and breakfast was organized at Lalbagh, Bangalore on 8 Sept 2019. The IEEE Fellow was Prof. Gaurav Sharma, University of Rochester, USA. He spoke about the importance of research and his experience of becoming a fellow at a young age. He also spoke about how IEEE helped him in his career and his contributions towards signal processing domain. He gave insight about various trending topics in the field of engineering and the journals which he is part of. He also spoke about PhD opportunities in the USA. There were around 30 IEEE Members who actively participated in the event.
IEEE Day Celebration and SIGHT Chapter inauguration at Sambhram IT, Bangalore on 1 Oct 2019

IEEE SIGHT Chapter Inauguration at NMAMIT, Nitte, Mangalore Subsection on 23 Oct 2019

IEEE SIGHT Chapter Inauguration at Ballari Institute of Technology & management (BITM), Ballari on 12 Oct 2019
IEEE SIGHT Chapter Inauguration at Dayananda Sagar University, Bangalore on 11 Nov 2019

IEEE Bangalore Section Students Innovation Project Fund (BSSIP)
Six projects of previous BS-SIP were presented during CONNECT 2019

<table>
<thead>
<tr>
<th>Title of the Project</th>
<th>College</th>
<th>Team</th>
<th>Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Control on Algal Bloom in Hydroponic Farming-an IoT Application</td>
<td>Alliance College of Engineering and Design</td>
<td>Naveen Kumar J R Sindhu C</td>
<td>Dr. R.Selavarani</td>
</tr>
</tbody>
</table>

The following 6 projects was approved by the committee for BSSIP 2019
IEEE SIGHT Education Competition Pilot

This year, the SIGHT Education Subcommittee hosted a pilot competition to allow student branch SIGHT groups to (conceptually) design sustainable solutions to a healthcare and/or clean water challenge faced by their local community. One of the competition's goals is to provide intentional mentoring and guidance to groups, and empower them to submit a strong SIGHT project proposal.

IEEE Bangalore Section SIGHT group was selected along with six others and participated in the pilot phase. The submitted proposal was “Portable Scavenger Machine”.

The video about the project is available at https://tinyurl.com/SIGHT-BLR-Project

IEEE SIGHT Celebration Week (1 to 8 Dec 2019)

The first-ever 2019 IEEE SIGHT Celebration Week was held during 1 - 8 December as a way to foster a spirit of community for the global SIGHT network, increase awareness of IEEE SIGHT within IEEE, and celebrate the impact SIGHT volunteers and groups have made in 2019.

The social media hashtag is #SIGHTWeek2019. The activities can be found in the link below https://sight.ieee.org/ieee-sight-celebration-week-1-8-december/
**Awards and recognitions**

**Dr. Bhargab Bhattacharyya** received *2018 IEI-IEEE Engineering Excellence Award* in recognition of his engineering contributions par excellence “For the contributions in VLSI and Microfluidics, especially in the field of Bio Medical applications”

**Prof. Gopakumar**, Department of Electronic Systems Engineering, received the IEEE-IE society’s highest technical award (Eugene Mittelmann achievement award-2019), during the last IECON-2019 conference in Portugal.

**Abhishek Appaji** received IEEE R10 Young Professionals Outstanding Volunteer in Academics Award, In recognition for outstanding contributions and services to YP Academic Program & to the IEEE Bangalore Section

MGA Achievement Award: **Sudeendra Koushik**
For exemplary contributions in increasing member engagement in the IEEE Bangalore Section
IEEE Simon Ramo Medal for 2020: Dr. B. N. Suresh and Dr. K. Sivan, ISRO

Prof. K V S Hari, Member, Board of Governors, IEEE Signal Processing Society as Vice President – Membership, (1 Jan 2020 – 31 Dec 2022)

IEEE Bangalore Section - 2019 MGA Outstanding Large Section.

India Council Outstanding Student Branch Award: UVCE, Bangalore

Darrel Chong Student Activity Award: NITK Envision

Darrel Chong Student Activity Award: UVCE, Gold Category for Kagada 18

IEEE Regional Exemplary Student Branch Awards:
B.M. Srineevasiah College of Engineering, Bangalore
Central University of Karnataka, Gulbarga
UVCE, Bangalore
NITK, Surathkal.
Chapters report
Consumer Electronics Chapter
IEEE Activity Report 2019- CE08 Chapter, Bangalore

Highlights

- IEEE CE chapter volunteers presented their ability to ~6 events
- Final closure to ICCE ASIA 2017 event: Audit + Bank Closure + Event Audit
- Chapter execom members are ready for the next big event in coming years

1. IEEE TECH DAY EVENT IN REVA UNIVERSITY - TECH SESSION

Topic: How to write technical paper
Conducted a session to students and faculties on “How to write technical paper” for conferences and journals. Did interactions with students based on their research interests
Rohith Kamath (IEEE YP, IEEE CE Chapter)
Vivek Venkobarao (IEEE Senior Member, IEEE CE)

2. IEEE Herald in Continental TCI Bangalore, India

Below are key features which were presented and discussed during the event:

- How IEEE bridges world together in terms of latest techno-management techniques and contribute to the advancement of industry
- How employees can present their innovative and novel work across industry and research community
- How IEEE provides independent platform for engineers to share their knowledge via “conferences presentation”, “technical workshops”, “journal publications”, etc.
- Professional networking to understand new technical and management skills for current as well as futuristic industry needs
- Woman in engineering (IEEE WIE); a group primarily focused to provide woman engineers a platform and encourage them to contribute more in technological world
- Various voluntary activity to grow an engineer as a leader by conducting and organizing technical events
3. TECHNICAL TALK AS A PART OF HIGHER EDUCATION PROGRAM OF MENTOR GRAPHICS INDIA

Date: July 24, 2019
Venue: RMZ Ecospace, Bellandur
Presenters: Arun Shankar
It was a pleasure to give a motivational talk on “The Changing Landscape of Automotive Semiconductors” to a group of engineering students coming from all over India. They are interested to pursue their careers in the semiconductor industry. I was amazed to see their inquisitiveness about automotive semiconductors. At the end of the session, they were enriched with learning about the megatrends in mobility and how these megatrends are driving developments in semiconductors. This was part of Mentor’s Higher Education Program (HEP) initiative which aims to make students industry ready and build a strong foundation in the area of Hardware Verification.

4. TECH TALK - FSTIVAL 2019 EVENT, THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI

Date: Aug 30, 2019
Venue: Thiagarajar College of Engineering Madurai, Tamil Nadu
Presenters: Satish Patel
FStival is a Free Software Festival conducted annually, since 2004, by GLUGOT and LUG-Madurai in commemoration of Software Freedom Day (SFD). This year - 2019, Thiagarajar College of Engineering, Madurai invited Mr. Satish Patel (IEEE Member, CE Chapter, Bangalore) as chief guest for inauguration and as presenter for tech talk.
Mr Satish Patel has presented 2 hrs tech talk on "Free Software - Why?". Talk included data privacy issues with closed sources, data threats with existing OS and alternative solution to prevent the same. How free software can help to elevate data privacy to society

5. TECH TALK - MACHINE LEARNING AND PRACTICAL USE CASE

Date: Sept 21, 2019
Venue: PES Mandya, Karnataka
Presenters: Vivek Venkobarao
Presented the BTech students on the following
1. What is Machine Learning and how is it different for human learning
2. What learning techniques to be used in typical engineering applications
3. How to take up projects in Machine learning for their BTech projects
4. Practical use cases and demonstrations
6. INSIGHT SESSION - IEEE STUDENT BRANCH, YIT MANGALORE

Date: 24 Sep 2019
Venue: Skype Online Session
Presenters: Rohith Kamath
Conducted skype session with YIT students and faculty members. Interacted with students to give them insights into IEEE for research and career perspective. Shared personal achievements and contributions done to research community via IEEE.

7. IEEE CE CHAPTER MEETING (02) - 23/11/2019

Date: 29 Sep 2018
Time: 08:30 AM to 11:15 AM
Attendees: Arun K, Satish, Kousik, Arun B, Vivek, Rohith, Prabindh
IEEE Computer Society Bangalore Chapter (CH10446-C16)

IEEE CS Celebrating Computing: The series aiming at bringing together professionals and academicians to share an interesting topic with the student community to spark an interest in them to pursue a career in the Computer Science’s niche research areas. The event was hosted in over 20 institutions across the country.

PART A IEEE CS Connect
IEEE CS GirlGeeks Programme
IEEE CS GirlGeeksHack

Major International and National Events Conducted
- IEEE DeepText.AI 2019 – 21 September 2019
- InGenius Hackathon – 16-17 November 2019
- GirlGeeksHack – 16-17 November 2019
- IEEE GirlGeeks – 24 August 2019 to 14 September 2019
- International Conference on Modeling, Machine Learning and Astronomy (MMLA) – 21-23 November 2019
- Research avenues in Machine Learning and Artificial Intelligence – 26-28 September 2019
- IEEE CS Connect – April-November 2019

Major Activities by Members
- Invited Talks on various emerging technical topics of interest in Computer Science as a part of Celebrating Computing, CS Connect and GirlGeeks Programmes
- Webinars on emerging technical topics in Computer Science at various institutions across India with a special focus on Karnataka.
- Active involvement in technical focus groups including Astroinformatics
- Technical co-sponsorship to several International Conferences held in Bengaluru
- Membership of Technical Program Committee & Organizing Committee of several Conferences & Workshops
- Active participation in IEEE Standards Working Groups & Technical Committees
- Participation as judges, mentors & reviewers at technical events
PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities
- Total number of active members in Y2019: 556
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members, details are made available in Appendix – I and II

B.2 Chapter Activities
- Number of Student Chapters formed in the current year: 1 (NMIT Bangalore)
- Number of Student Chapters in the Process of filing the petition: 2 (RUAS Bangalore and CUK Gulbarga)
- Summary of Chapter activities for Y2017 is provided in Appendix II

B.3 Professional and Continuing Education Activities
- Summary of continuing educational activities including conferences, technical activities, training courses, and distinguished lecture programs: Appendix II

B.4 Students Activities
- Number of student chapters: 11
- Number of student chapters actively participating and networking: 7
- Number of Student Chapters in the current year: 1
- Number of Student Chapters in the Process of filing the petition: 2
- Chapter level student activities (student congress, paper and other contests, awards etc): Appendix II

B.5 Communication Activities (Newsletter, Home Page, E-mail etc.)
- The website of the chapter was renewed and moved as a subdomain under the section website with the web address: cs.ieeebangalore.org
- Social Media Accounts were generated and is being extensively used with the following social media handles, to interact with members and technical community:
  - Facebook: https://www.facebook.com/ieeeecsbsc
  - Twitter: https://twitter.com/ieeeecsbs
  - LinkedIn: https://www.linkedin.com/company/ieeeecsbc/
  - Instagram: https://www.instagram.com/ieeecsbs/
  - YouTube: https://www.youtube.com/channel/UCeBFoMYx2O2gq1_f6FeQFvQ
- A group email that can be a single point of contact for the core office bearers is also present and is effectively being used: ieee.blr.cs@gmail.com
- A WhatsApp group was also created for quick communication and decision making among Execom Members
- A WhatsApp group and a mailing list is created with the chairs and chapter advisors of the student chapters for effective communication and coordination.

B.6 Industry Relations
Activities for/with industry members were conducted at:
- Tech Panel at Zinnov Confluence 2019
- WomenWhoCode, VMware
- All India Radio
- IEEE DeepText.AI 2019

Many other industry-centric events were conducted as enlisted in Appendix II.

B.7 Humanitarian Technology Activities
The chapter took part as a technical co-sponsor in various hackathons that focused on humanitarian technologies
B.8 Community Activities

- Technical Talks and inspirational talks were delivered on the occasion of Engineers’ Day and International Women’s Day celebrations
- Members were active contributors of various projects including the GirlGeeks and CS Connect Initiatives as well as events that were not hosted by the chapter but chapter was an active promoter of the events in colleges as a part of the student chapters

GOALS AND PLANS

Continuation of Project/Activity in Progress and Implementation Plans

Goals and Future Plans

1. Grow our member base and drive a better communication model of the IEEE Computer Society Bangalore Chapter activities
2. Designated liaison for Student and Industry focused activities
3. Increase the reach of our technical activities and ensure inclusion of more members
4. Identify an upcoming key technical domain in AI to drive the flagship event series, IEEE DeepTech.AI
5. Plan to conduct workshops in new and emerging technologies such as Soft Computing, Computational Modeling, Brain Computer Interfaces and Safety Critical Computing
6. Plan and conduct faculty development programs in greater Karnataka, particularly in the domains of pedagogy improvement and funded research proposal write up techniques
7. Humanitarian Technology Activities: Identify and be a part of humanitarian activities that impact the society

2019 ComSoc Chapter Executive Summary
ComSoc has been doing exceptionally well with the members from both industry and academia. ExCom agreed to take some new initiatives apart from doing things which are necessary and required. Some of the new initiatives like organizing events outside Bangalore (completed two this year), Research methodology workshop series, nomination for distinguished award worldwide etc. are taken by the team. Some of these exercises are not only expensive but time consuming as well. But the team agreed to do and did very well in the first year.

ComSoc account was in a very healthy state. We are using Netsuite to report our operations. NetSuite is now operative and well balanced.

T-Time Charcha - Tea/Coffee - Technology Innovation, Management and Entrepreneurship Charcha (discussion) is yet another initiative started from June 2018 and is being conducted every alternate month in industry corridor. This is a half day FREE event sponsored by ComSoc Bangalore. We arrange talks on some innovations, management, entrepreneurship related stuffs. It is found to be very useful for start-ups, youngsters and innovators who listens to the experienced people.

Reaching out to student branch (SB) to start student branch ComSoc chapters and offering support for this resulted in two new student branch chapters (SBCs); St Joseph College of Engineering, Mangalore and RVCE, Bangalore. The coming year, we have set a target of at least 2-3 new SBCs.

Industry collaboration, visibility to global level is another milestone on ComSoc this year. Many new industry partners have joined after attending our events. They had lot of appreciations for the initiatives taken by ComSoc. Wipro Ltd, Arricent Ltd, Accenture (have contacted and are taking lead for the first event in 2019). Nokia is continuing and enjoying our collaborative works.

Statistics: The Member Counts

Bangalore Section IEEE Communications Society Membership MEMCOM019

<table>
<thead>
<tr>
<th>Affiliates</th>
<th>Fellow</th>
<th>LS</th>
<th>GSM</th>
<th>M</th>
<th>SM</th>
<th>StM</th>
<th>Total</th>
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<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>12</td>
<td>133</td>
<td>80</td>
<td>33</td>
<td>273</td>
</tr>
</tbody>
</table>

Significant increase in the count of Graduate Student Members and Student Members with ComSoc Society Membership.

New Initiatives:
- ISCAT (IEEE Smart City Advisory Team)
- 5G Workshop Series
- Research Methodology and IEEE AuthorshipLab workshop
- T-TIME Charcha
- Intelligent Transportation Workshop Series
- Graduate Congress - GraTE-7"
- Expert Data Base (Local Distinguish Experts)
- ComSoc Bangalore/India Newsletter

**Research Methodology and IEEE AuthorshipLab**
This was a 2-day intensive workshop which was very different from normal Research Methodology workshop in the sense that 4 unique sessions were covered by 4 speakers over the course of 2 days. The speakers were not just explaining the methods but showing relevant examples taken directly from IEEE and other highly cited publications

- **2nd EAI UBICNET 2019, talks**
  This year also we held our flagship Workshop on 5G. This is the 4th installment of this workshop which IEEE ComSoc conducts. This year we had a list of distinguished guests from across India, from Standardization bodies to Academia experts to Industry leaders talk on various aspects of 5G.

- **DLT Talk by Dr Fawzi Behmann**
  IEEE ComSoc strives to conduct events outside Bangalore and we volunteer for every opportunity to serve student/academic community outside Bangalore. This event was held in MCE, Hassan. Talk on topics included “Evolution to 5G and Beyond” and “Introduction to Quantum Communications”.

- **DLT Talk by Dr Fawzi Behmann**
  This was the 2nd installment for our newly initiated T-TIME Charcha. This event confirmed that T-TIME Charcha is a successful venture and more installments are in pipe-line.

- **IEEE Graduate Congress - GraTE-7**
  IEEE ComSoc Chapter is involved in e-Governance initiative within the Smart City Workshop. At the end of the workshop, the deliberations and suggestions, will be brought out as a white paper and submitted to local Government and IEEE Smart Cities Steering Committee.

- **5G Seminar -Is 5G a Game Changer**
- **Inauguration of IEEE Communications and Photonics Joint Societies Student Branch Chapter**
- **Visit and Small Meet at Schneider White Field**
- **IEEE ComSoc Newsletter release (5th in series )**
- **IEEE ComSoc Bangalore Chapter Summer School Discussion**
- **One day workshop on the 5G Technologies**
- **2nd Edition of ComSoc Intelligent Transportation Systems (ITS) workshop**
- **ComSoc Study Group Session 3 & Face to face Meeting**
- **5G Summit - 3rd Edition for Year 2019**
Consolidated Events report:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Event Title</th>
<th>Event Date</th>
<th>Event Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ComSoc AGM</td>
<td>06/01/2019</td>
<td>Dayanand Sagar University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>2</td>
<td>IEEE ComSoc Execom Monthly Meeting - Face to face</td>
<td>26/01/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>3</td>
<td>Research Methodology and IEEE Authorship Lab</td>
<td>02/02/2019</td>
<td>Kristu Jayanti College, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>4</td>
<td>2nd EAI UBICNET 2019, talks</td>
<td>08/02/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>5</td>
<td>IEEE ComSoc Execom meeting(Teleconference call)</td>
<td>13/02/2019</td>
<td>Online (Teleconference)</td>
</tr>
<tr>
<td>6</td>
<td>Chapter Chairs Meeting</td>
<td>14/03/2019</td>
<td>Board Room, UVCE, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>7</td>
<td>DLT Talk by Dr Fawzi Behmann</td>
<td>22/03/2019</td>
<td>IISC, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>8</td>
<td>DLT Talk by Dr Fawzi Behmann</td>
<td>27/03/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>9</td>
<td>IEEE Graduate Congress - GraTE-7</td>
<td>30/03/2019</td>
<td>Amrita University, Karnataka, India</td>
</tr>
<tr>
<td>10</td>
<td>ComSoc Execom Meeting - Face to face</td>
<td>30/03/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>11</td>
<td>IEEE ComSoc 5G &amp; Future Network Summit (5G as Innovation)</td>
<td>12/04/2019</td>
<td>Accenture, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>No.</td>
<td>Event Description</td>
<td>Date</td>
<td>Location</td>
</tr>
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<td>-----</td>
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</tr>
<tr>
<td>12</td>
<td>6th edition Research Methodology and IEEEAuthorshipLab Workshop</td>
<td>13/04/2019</td>
<td>CMRIT, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>13</td>
<td>5G Seminar - Is 5G a Game Changer</td>
<td>27/04/2019</td>
<td>PES, Banashankari, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>14</td>
<td>Inauguration of IEEE Communications and Photonics Joint Societies Student Branch Chapter</td>
<td>30/04/2019</td>
<td>CMRIT, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>15</td>
<td>IEEE ComSoc Execom meeting(Teleconference call)</td>
<td>08/05/2019</td>
<td>Online (Teleconference)</td>
</tr>
<tr>
<td>16</td>
<td>IEEE ComSoc Execom Monthly Meeting - Face to face</td>
<td>08/06/2019</td>
<td>Jio office, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>17</td>
<td>Visit and Small Meet at Schneider White Field</td>
<td>21/06/2019</td>
<td>Schneider White Field, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>18</td>
<td>IEEE ComSoc Newsletter release (5th in series )</td>
<td>26/06/2019</td>
<td>Online Release</td>
</tr>
<tr>
<td>19</td>
<td>ComSoc Study Group Session 1 &amp; IEEE ComSoc Execom Monthly Meeting - Face to face</td>
<td>06/07/2019</td>
<td>Jio office, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>20</td>
<td>TIA Summit 2019</td>
<td>18/07/2019</td>
<td>Taj West End, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>21</td>
<td>ComSoc Study Group Session 2</td>
<td>20/07/2019</td>
<td>Jio office, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>22</td>
<td>IEEE CONECCCT 2019</td>
<td>26/07/2019</td>
<td>IITB, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>23</td>
<td>A day long Workshop on &quot;Technology Trends in 5G&quot;</td>
<td>30/07/2019</td>
<td>RR Campus PES University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>24</td>
<td>IEEE ComSoc 5G Summit Bangalore</td>
<td>17/08/2019</td>
<td>I5 Building - Ground Floor, Manyata Embassy Business Park, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>25</td>
<td>PhD EDITS - PhD Colloquium on &quot;Ethically Driven Innovation and Technology for Society&quot;</td>
<td>18/07/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>26</td>
<td>Meeting to discuss IEEE ComSoc Summer School 2020 proposal</td>
<td>04/09/2019</td>
<td>Amrita University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>27</td>
<td>Developer Weekend - Bengaluru</td>
<td>28/09/2019</td>
<td>REVA University, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>28</td>
<td>IEEE ComSoc Bangalore Chapter Summer School Discussion</td>
<td>12/09/2019</td>
<td>Online (teleconference)</td>
</tr>
<tr>
<td></td>
<td>Event Description</td>
<td>Date</td>
<td>Location</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>29</td>
<td>One day workshop on the 5G Technologies</td>
<td>16/10/2019</td>
<td>R V College of Engineering, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>30</td>
<td>2nd Edition of ComSoc Intelligent Transportation Systems (ITS) workshop</td>
<td>08/11/2019</td>
<td>WIPRO Campus, Electronic City, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>31</td>
<td>ComSoc Study Group Session 3 &amp; Execom Monthly Meeting</td>
<td>23/11/2019</td>
<td>Jio office, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>32</td>
<td>5G Summit - 3rd Edition for Year 2019</td>
<td>30/11/2019</td>
<td>Samsung Office, Bangalore, Karnataka, India</td>
</tr>
</tbody>
</table>
IEEE EPS Bangalore

Highlights (2019)

- **Outstanding Small Chapter Award for 2018, Awarded on 6th January 2019:**
  
  On 6th January 2019, IEEE EPS Bangalore Chapter was awarded IEEE Bangalore- Outstanding Small Chapter Award for the year 2018.

- **Sponsoring Technical Workshop at IIT Madras, 5th February 2019:**
  
  IEEE EPS Bangalore was the society sponsor for a workshop titled “Energy Optimization in Data Centers” to promote research collaboration across industry and academia. The workshop was focussed on energy optimization and thermal management. It was held at Indian Institute of Technology Madras (IIT Madras) in the city of Chennai, India.

- **Technical Talk, 17th May 2019:**
  
  Mr. D. Pinjala, Technical Leader, Engineering, Cisco Systems India was invited to deliver an invited technical talk on thermal aspects of packaging. The technical talk titled "Electronic Equipment Design for Harsh Environment" focussed mainly on equipment design considerations to improve product reliability when deployed in uncontrolled environment (such as mobility, cell site deployments) etc. The event was attended by 8 IEEE members and 24 non-members.

- **One-Day Power Integrity Workshop, 25th July 2019:**
  
  On 25th July 2019, IEEE EPS Bangalore organized a one-day workshop on Power Integrity. The speakers for the event were Prof. Madhavan Swaminathan (IEEE Distinguished Lecturer and John Pippin Chair in Microsystems Packaging & Electromagnetics, Georgia Tech., USA), Dr. Arun Chandrasekhar (IEEE Senior Member and Principal Engineer, Intel India), and Dr. Dipanjan Gope (IEEE Senior Member, CEO at Simyog Technology and Asst. Professor at Indian Institute of Science). The topics covered were “Power Delivery & Power Integrity Revisited”, “Package Design Techniques for Power Gating and Integrated Voltage Regulators”, and “Computational tools for Power Integrity simulation”. The event gathered good interest and participation from both industry and academic circles, and was attended by 14 IEEE members and 67 non-members.

- **Seminar on Post-Moore’s Law Electronics, 22nd November 2019:**
  
  Prof. Rao R. Tummala, IEEE Fellow, Georgia Institute of Technology and Satish Dhawan Visiting Chair Professor, Indian Institute of Science was invited by the chapter on 22nd November 2019 to deliver a talk titled “Post–Moore's Law Electronics:An Unparalleled Opportunity for India’s Scientific, Engineering and Industrial Organizations”. The seminar highlighted different technologies that can dominate the Post-Moore’s Law era, primary among them being Quantum Computing. The event was attended by 10 IEEE members and 26 non-IEEE members.
## Summary of Events for 2019

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Activity</th>
<th>Resource person</th>
<th>Duration</th>
<th>Number of attendees</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th Feb</td>
<td>Workshop: Energy Optimization in Data Centers</td>
<td>Dr. Rohit Sharma, IIT Ropar</td>
<td>1 day</td>
<td>30 (9 IEEE + 21 non-IEEE)</td>
<td>The workshop was focussed on energy optimization and thermal management</td>
</tr>
<tr>
<td>17th May</td>
<td>Tech Talk: Electronic Equipment Design for Harsh Environment</td>
<td>Mr. D.Pinjala, CISCO</td>
<td>1 hr</td>
<td>32 (8 IEEE + 24 non-IEEE)</td>
<td>Technical talk involving thermal aspects of packaging</td>
</tr>
<tr>
<td>25th July</td>
<td>One-Day IEEE EPS Workshop on Power Integrity</td>
<td>Prof. Madhavan Swaminathan (IEEE Fellow, Georgia Tech.), et. al.</td>
<td>1 day</td>
<td>81 (14 IEEE + 67 non-IEEE)</td>
<td>Workshop on Power Integrity</td>
</tr>
</tbody>
</table>
### IEEE Industrial Electronics Society Bangalore Chapter

List of Activities /Events held under the aegis of IES Chapter for the year 2019

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Activity</th>
<th>Type of Activity</th>
<th>Sub category</th>
<th>No. of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th February 2019</td>
<td>Annual General Meeting</td>
<td>Administrative</td>
<td>ExCom</td>
<td>23</td>
</tr>
<tr>
<td>9th April 2019</td>
<td>Seminar on &quot;Battery Charging Systems: Challenges and Topologies&quot;</td>
<td>Technical</td>
<td>Seminar</td>
<td>37</td>
</tr>
<tr>
<td>26th July 2019</td>
<td>Tech Talk on “Application Reliability of a Wide Bandgap (WBG) Semiconductor Power Electronics Switch&quot;</td>
<td>Technical</td>
<td>Distinguished Lecture</td>
<td>65</td>
</tr>
<tr>
<td>14th August 2019</td>
<td>Seminar on “Electric Mobility”</td>
<td>Technical</td>
<td>Tech Talk</td>
<td>80</td>
</tr>
<tr>
<td>18th September 2019</td>
<td>Tech Talk on “Industrie 4.0 - Evolution, Components, Roles and Challenges”</td>
<td>Technical</td>
<td>Tech Talk</td>
<td>65</td>
</tr>
<tr>
<td>18th September 2019</td>
<td>Tech Talk on “Impact of Digitalization in Industrial automation and power sectors”</td>
<td>Technical</td>
<td>Tech Talk</td>
<td>60</td>
</tr>
</tbody>
</table>
1. **Education Activities 2019**
This educational activity was conducted in two different Govt. schools in Kunigal Taluk by Global Academic of Technology. A team of 24 students led by three faculty members visited the schools on 27 Jul 2019 during 09:00 AM to 12:00 PM.

2. **Young Researchers’ Meet 2019**
The Department of Electrical and Electronics Engineering of RV college of Engineering, organized the “2019 Young Researcher’s meet (YRM)”. The event is organized on 14th Sep 2019.

3. **WiPE 2019**
Women in Power Engineering (WIPE-2018) was organized at Basaveshwar Engineering College, Bagalkot, India, on 24th Aug 2019. The event was attended by 187 participants from various Engineering Colleges in North Karnataka.

4. **All India PES Student Congress (AIPESSYWC 2019)**
The Department of Electrical and Electronics Engineering of Global Academy of Technology, India, organized the “All India PES Student Congress”. The event is organized from 17th Oct 2019 to 19th Oct 2019.

5. **Chapters Chair Meeting 2019**
IEEE PES R10 Chapter Chairs meeting for the year 2019 was hosted by IEEE PES Bangalore chapter and held on 19th October 2019 at Global Academy of Technology, Bangalore. The members discussed the various future activities for chapter at length in this meeting.

6. **Advisors and Chairs meet- 2019**
ExeCom members have addressed the Advisors and Chairs of student branches on various support related activities for the professional development and discussion on the budget for events to be conducted and the other facilities available from the Chapter.

7. **Technical Talks**

<table>
<thead>
<tr>
<th>S.No</th>
<th>Hosting institute</th>
<th>Speaker</th>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Global Academy of Technology, Rajarajeshwari Nagar.</td>
<td>Dr. Rahul Kumar Dubey</td>
<td>Adaptive and intelligent relaying scheme for power transmission network</td>
<td>16 Nov. 2019</td>
</tr>
<tr>
<td>2</td>
<td>Ramaiah Institute of Technology, formerly M.S. Ramaiah Institute of Technology.</td>
<td>Dr. Rajashekar P. Mandi</td>
<td>Renewable Energy and Microgrid’</td>
<td>4th May 2019</td>
</tr>
<tr>
<td>3</td>
<td>Vidyavardhaka College of Engineering, Mysore</td>
<td>Dr Kannan Tinnium</td>
<td>Energy Storage for Future Grid</td>
<td>24th April 2019</td>
</tr>
<tr>
<td>4</td>
<td>Reva University Bangalore</td>
<td>Dr.M.Arunachalam</td>
<td>Energy Conservation &amp; Renewable energy</td>
<td>13th March 2019</td>
</tr>
<tr>
<td>No</td>
<td>Organization</td>
<td>Speaker</td>
<td>Topic</td>
<td>Date</td>
</tr>
<tr>
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</tr>
<tr>
<td>5</td>
<td>DAYANANDA SAGAR COLLEGE OF ENGINEERING</td>
<td>Mr. R C Anand</td>
<td>Relay and Substation Automation</td>
<td>16th March 2019</td>
</tr>
<tr>
<td>6</td>
<td>DAYANANDA SAGAR COLLEGE OF ENGINEERING</td>
<td>Dr Hariram</td>
<td>Evolution of platform for industrial applications</td>
<td>6th May 2019</td>
</tr>
</tbody>
</table>

8. INDUSTRY ACADEMIA CONCLAVE

The Department of Electrical and Electronics Engineering of The National Institute of Engineering, Mysore, India, organized the “2019 Industry Academia Conclave (IAC)”. The event is organized on 20th July 2019.
IEEE Robotics and Automation Society, Bangalore Chapter

<table>
<thead>
<tr>
<th>S.No</th>
<th>Date</th>
<th>Name of Activity</th>
<th>Name of Resource Person</th>
<th>Duration</th>
<th>No of attendees</th>
<th>Remarks/Oucomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8th &amp; 10th February, 2019</td>
<td>Robodium @ Amrita School of Engineering (RASE’19)</td>
<td>Robotics Competition</td>
<td>3 Days</td>
<td>Non IEEE - 152</td>
<td>Total of 46 teams form 22 Engineering Colleges participated</td>
</tr>
<tr>
<td>2</td>
<td>14th April 2019</td>
<td>Robotics Workshop 1.0</td>
<td>Students of PESIT South Campus</td>
<td>1 Day</td>
<td>Non IEEE - 27</td>
<td>It was a hands on workshop with take away kits</td>
</tr>
<tr>
<td>3</td>
<td>21st and 22nd October, 2019</td>
<td>Two days Hands on Workshop On “Firebird-V &amp; ATMega 2560 Robot”</td>
<td>Dr. Venkatarangan M J, Associate Professor, Dept of EEE, PESU and e-Yantra team of CMRIT</td>
<td>2 Days</td>
<td>Non IEEE - 33</td>
<td>It was a hands on workshop.</td>
</tr>
</tbody>
</table>

RASE’19 (National Level Robotics Competition)

ACROM and IEEE RAS in association with IEEE RAS Bangalore Chapter joined hands to organize RASE’19 (Robodium@ASE), ASE-B’s annual national level robotics competition during 8th, to 10th of February, 2019. The event was conducted with an aim to lay a platform for young college students to compete in lively battles ranging from mind puzzling, algorithm testing and design improvement seeking competitions through the robots they built to showcase in the competition. RASE’19 had a total of 48 teams form 22 Engineering Colleges form all over the country, participating across five different competitions, namely Lifo, Throttlewars, Robo Soccer, Death Race and Maze Runner.

Event saw the best 3 teams in each of the events winning a total whooping amount of Rs. 66,000/-. The three day event came to a close after the distribution of certificates and prizes for all the events in their respective arenas.

Robotics Workshop 1.0

The IEEE PESIT South Campus Student Branch and the IEEE Robotics and Automation Society Bangalore Chapter, have jointly organized an introductory level robotic workshop. The objective was to get the participants familiar with working of a line follower robot and also program it for obstacle avoidance. In a world where software and robots are replacing human workforce in several industries, a line follower is an essential kind of robot which can be used in manufacturing industries for carrying objects from one place to another in the warehouse automatically. Furthermore, this workshop was also designed to demonstrate the thought process and pipeline for the development of a robot.
Two days Hands on Workshop On “Firebird-V & ATMEGA 2560 Robot”
A two-day hands-on workshop on FIREBIRD V using Atmel Studio was organized at CMRIT Bangalore on 21st and 22nd October 2019 by the CMRIT IEEE student branch, CMRIT e-Yantra lab, CMRIT center of excellence of embedded system, IEEE Robotics & Automation Society and IEEE Bangalore section. The workshop had a registration fee of Rs. 400 for IEEE members and Rs 500 for Non-IEEE members. Total of 33 people registered for this event and out of which 10 were external participants.

Workshop was a success as it received many positive feedbacks from the participants; they were excited and had shown great interest towards robotics programming. As it was more of hands-on they wanted to explore more and showed interest in joining the e-Yantra club.
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-May-19</td>
<td>AGM of IEEE AESS Bangalore chapter for 2019</td>
<td>Annual General Body meeting elected the new office bearers (Chairman, Secretary &amp; Treasurer for 2019) and discussed about the activities to be conducted during 2019. Meeting conducted at IETE Bangalore.</td>
</tr>
<tr>
<td>26-Sep-19</td>
<td>Distinguished Lecture - Enhancing Aviation Safety through Prognostics Technologies</td>
<td>Minimizing the risk to passengers, cargo, ground personnel and equipment during operations continues to be the central concern in aviation. The traditional approach to improving aviation safety has been through rule making, certification procedures and facility improvements based on the analysis of past accidents and incidents.</td>
</tr>
<tr>
<td>27-Sep-19</td>
<td>Technical Sponsorship - Workshop of Automatic Control and Dynamic Optimization Society - Air Traffic Modelling and Aviation Safety</td>
<td>The objective of this workshop is to make the audience aware of the current protocols and regulations in place for operational safety of Indian aviation. However, since it is increasingly becoming inadequate to handle the exponential growth of the air traffic over recent years, this will be followed by exposing the audience with some scientific modelling and optimization tools to handle this problem.</td>
</tr>
<tr>
<td>9-Dec-19</td>
<td>Green, Smart, 5G Technologies at MCE Hassan (FDP) - Key Note Address and Technical Lecture</td>
<td>AICTE Sponsored Two week Faculty Development Programme on “Green, Smart, 5G Technologies, at Department of Electronics &amp; Communication Engineering, Malnad College of Engineering, Hassan, Karnataka, INDIA.</td>
</tr>
<tr>
<td>12-Dec-19</td>
<td>Organize and Participate in IRSI 2019 - International Radar Symposium India</td>
<td>The International Radar Symposium India 2019 (IRSI-19), the 12th in the series, being jointly organized by IEEE Bangalore Section, IET Bangalore Network, IETE Bangalore Centre and Society of Electronic Engineers (SEE), co-sponsored by Bharat Electronics (BEL), Defence Research &amp; Development Organisation (DRDO), Hindustan Aeronautics Ltd (HAL) and Indian Space Research Organisation (ISRO) is scheduled for 10-14 Dec 2019</td>
</tr>
</tbody>
</table>
IEEE SSIT ES Joint Bangalore Chapter

Awareness Program on “Digital India” and IT Jobs in IT/IMS Industry

Awareness program on “Digital India” and IT Jobs in IT/IMS Industry was organized at Nagarjuna College of Engineering & Technology, Bengaluru on 25th Feb 2019. This event was organized by IEEE Bangalore section in association with Jetking, IEEE SSIT ES Joint Bangalore chapter. 187 members had registered for the program. The program started at 11 am and ended at 1 pm. Mr. Jaifulla, Senior technical officer, Jetking Computer Institute in Sadashiv Nagar, Bengaluru, Dr. Srikantha Murthy K, Principal of NCET and Branch Counceller, IEEE SSIT, NCET Bangalore chapter, along with Dr. Gururaj Murtugudde, prof., and Head, Dept. of CSE graced the occasion. Mr. Jaifulla, Senior technical officer, Jetking Computer Institute in Sadashiv Nagar, gave an excellent presentation on Digital India and IT Jobs in IT/IMS Industry. He highlighted upon the need for IT Jobs in IT/IMS Industry and how to make our country as Digital India.

The event was organized and sponsored by IEEE SSIT ES Joint Bangalore chapter.

Two day workshop on “Network Security” - Date: 26th & 27th February 2019

A 2 days on “Network security” was organized by IEEE student branch of NCET on 26th & 27th February 2019. The event was inaugurated by Dr. Srikanta Muthy K, Principal and Dr. Gururaj Murtugudde, Head of the Department of Computer Science & Engineering. IEEE and non IEEE student members (124) of NCET were attended the workshop. Resource person Mrs. Sunitha G Ambhadiga, elaborated the importance of network security for engineering students of Computer Science and Engineering. She also explained in detail how to develop a virtual network in CISCO software. She also highlighted the importance of deployment of network into real world application. Later, hands-on sessions were held to the students to gain the practical knowledge about networking.

The event was organized and sponsored by IEEE SSIT ES Joint Bangalore chapter.

Three Day Hands-on Workshop on Analog and Digital IC Design Using Cadence Tool - 12th to 14th March 2019

Three Day Hands-on Workshop on Analog and Digital IC Design Using Cadence Tool was organized at Nagarjuna College of Engineering & Technology, Bengaluru on 12th March 2019. This event was organized by IEEE Bangalore section in association with IEEE SSIT ES Joint Bangalore chapter. 19 faculty members had registered for the program. The program started at 10 am on 12th March 2019 and ended at 3 pm on 14th March 2019. Mr. Kedharnath, Entuple Technologies, Dr. Srikantamurthy K, Principal, NCET, Dr. Harisha P, Vice Principal, NCET and Dr. Nagesh K N, HOD, ECE and participants attended in the function. Mr. Kedharnath, Senior technical officer, Entuple Technologies, gave an excellent presentation on Analog and Digital IC. He highlighted upon the need for Analog and Digital IC. He also elaborated on implementing Analog and Digital IC and methods of Using Cadence Tool.

Two day workshop on “Project Based Learning” - 28th & 29th March 2019

Two days workshop on “Project Based learning” was organized at NCET on 28th & 29th March 2019. The workshop was organized for 6th semester students of CSE and ISE branches in association with Pthinks and Code Factory. Mr. Dheerendra Madhusuadan, Chief Technical Officer, Pthinks, held all the sessions. Students were given the assignment of developing software for a big departmental store by considering the various functionalities of the store. The participants were asked to develop individual software for the same using Java programming.

Teqip sponsored Two days workshop on “Power Electronics Circuits and Systems- Design challenges and Issues” - 29th & 30th March 2019

The two day schedule of this program was oriented towards design, analysis and nurturing the technical aptitude and skills necessary for successful implementation of power electronic systems for various applications. Practical sessions were included to lay emphasis on the need for successful realizations of systems designed through necessary hardware. The resource persons for the workshop were from
Industry with vast experience and have a deep and thorough knowledge and proficiency in the chosen topic. Besides, they were committed to make a difference to the process of quality up-gradation of post graduates and research scholars.
IEEE SPS Winter School was organized by IEEE Bangalore Section in collaboration with IEEE SPS Bangalore Chapter during November 12-14, 2019 at Ramaiah Institute of Technology, Bangalore. The event was sponsored by IEEE SPS and cosponsored by Sensors Council Bangalore Chapter.

There were 120 participants from all over India and participants were represented by various industries and academia. The speakers were drawn from various industries, academia and research institutions.

More details about the event can be found at https://attend.ieee.org/sps-wsbmsip/

The schedule of the winter school is as below:

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TEMs Bangalore

Webinar on Employee vs Entrepreneur 28 June 2019, 8 pm
Mr. Sudeendra Koushik
The webinar is intended to clarify what it means to be an employee versus to be an entrepreneur. Very often young students are unsure which path to follow, especially given the situation in India and the increasing number of start-ups. The situation is not a very different one as experience professionals and young professional look to find their sweet spot and wonder in the process to continue as an employee or find their way as an entrepreneur.
There are some similarities between being an entrepreneur or an employee. Some of the skills and attributes are common. Obviously there are many differences too between them. Having said that, it is not a simple choice to make. Whichever choice one makes, it can keep coming back to the point to assess whether the other path wold have been better. Making a choice between them is tricky to many. And keeping that choice can be even trickier for many, depending on the circumstances of their employment.
There wer close to 55 participants in the webinar who got a better understanding of their career path.

Building Lasting Professional Networks, 25 July 2019 | 8:30 PM to 9:30 PM IST
Mr. Ravikiran A, CEO of Numocity Technologies.
This webinar helped the participants to get an idea about professional networking. The speaker also emphasized on the importance of professional networks in one's career. There were about 40 participants from various background, i.e students, YPs, professors who took the best use of the webinar.

World Intellectual Property Day 2019
Celebration Webinar on IPR Filing for Academia by Pratik Baheti
27 April 2019, 7 PM to 8PM IST
On account of World Intellectual Property day, IEEE TEMS organised a webinar on “PR Filing for Academia” Being into the field of IPR, the speaker gave an insight about filing IPR for students. He explained the procedure of filing patents and participants got a good understanding of the same. There were around 55 participants in the webinar.
The participants understood the procedure and other details of filing an IPR, also appreciated the organising team for choosing a different but important topic.

Managing technical career - HR leader's perspective. Date: 8 September 2019 | 11 AM
Nidhi Raina, CEO, Quonscious Technologies, Mumbai.
The participants were around 45 in number and it was an interactive webinar. This webinar also addressed most of the participant’s current dilemma.

PRAGYAN 1.0
IEEE TEMS Bangalore and GITAM Bengaluru, a major institution in spreading Higher education especially among the rural youth, recently celebrated a National Technical Project Presentation Symposium, named PRAGYAN 1.0, on May 4th 2019.
PRAGYAN aimed to pool hidden technical talent and innovation across the country and to harness it. Presently this talent, coming out of Engineering colleges mostly stops at Term-end Projects. These Projects have hidden ideas and have potential to grow big. GITAM Bengaluru provided these ideas an opportunity to grow it further. A Cash prize of Rs.50,000 for the Best
IEEE BANGALORE SECTION REPORT OF THE ACTIVITIES DURING THE YEAR 2019

Project Expo, Rs.25,000 for the Runners Up Project Expo and a Cash prize of Rs.25,000 for Innovation Challenge had been declared.

More than 300 Engineering students from colleges across South Indian states like Karnataka, Kerala, Tamil Nadu, and Andhra Pradesh and Telangana, participated in the event.

Mr.Sudheendra Koushik, Chairman- IEEE Technology and Engineering Management Society, Bangalore and Mr.Yatheendranath T.J from IEEE Computer Society Operations(India) were the guests for the event and primary jury for critiquing the Science Projects. Other members of the jury were, Mr.Mallikarjun Choukimath- Manager at Innohabit Technologies, Mr.Abhishek Appaji- Convenor of MECLink, Ms.Divya MG- Co Chair person, CDAC, Mr. Javed GS- Design Lead at Terminus Circuits Ltd & Founder of Kings Consulting Lab, Mr.Srikanth Tangade- Asst Professor from Reva University, Bangalore, Mr.Rajashekhar S-Secretary of IEEE Bangalore. A participant team from MS Ramaiah Institute of Technology, Bangalore won the first prize for the Best Project, and SVCE Bangalore won the Runners Up, whereas a team from KLE Deemed University, Belgaum received Cash Award for Innovation Challenge.

Prof.P V Sivapullaiah- Pro Vice Chancellor, GITAM Bengaluru, Prof. Vijaya Bhaskar Raju-Director, GITAM Bengaluru awarded the winners and congratulated the organizers of the event.

**Project Management for Continuous Innovation – Management by Project Mapping**

11 Oct 2019 | 10:00 AM to 11:30 AM

IEEE Technology and Engineering Management Society is organizing webinar on "Project Management for Continuous Innovation – Management by Project Mapping" by Dr. Kern Peng.

Mainstream project management including Traditional Project Management and Agile Project Management overwhelmingly focuses on techniques and processes for planning and controlling. These create a framework to confine project team members to operate within a set of processes and measurements. However, most projects require project team members to be innovative and creative. It is difficult to ask engineers to think outside of the box while using a "box" style system to manage projects. In addition, much of the focus of that type of system is to achieve a success result in every project. Such emphasis discourages risk taking because employees may not want to initiate projects unless they feel the chance of success is high. Inhibited risk taking constrains learning opportunities and innovation.

This webinar introduces a new approach called "Management by Project Mapping" (MBPM). Strategically, it utilizes projects to transform a company's organizational system, culture, and capability, creating a foundation upon which to achieve long-term sustainable innovation. It categorizes projects first then applies different management approaches to different types of projects. Tactically, it redefines project management with emphasize on employee initiative and participation. It introduces many practices that utilize the cultural approach to drive performance rather than use management control. Overall, this model enables employees to be innovative not only on the results of the projects but also on how the projects are conducting. The webinar went on well with 40 participants. The speaker also threw light on how innovation helps in a professional career.
The event started with setting up the stage by introduction of the event by Abhishek Appaji, VC of YP, IEEE TEMS India. He gave insight about Young Professionals and Technology Engineering and Management. He also told about various platforms for graduating students to be part of Young professionals and importance of them networking with future leaders and current leaders.

This session was followed by A Vijayarajan who is senior member and founder and CTO of InnAccel who has 4 decades of experience in the field of Engineering and Innovation. He shared about how one can grow in their Career especially in the field of engineering Technologies. He shared some of the valuable experience about his journey to the graduate students and young professionals.

The session was followed by Dr Ashwini, YP Chair Elect, Bangalore Section, who spoke about her journey after her graduation which involved academic teaching/research, entrepreneurship as well as volunteering in IEEE and Young Professionals. She also spoke about her journey and how YP activities impacted her personally as well as professionally.

The next session was from Dr Prasant Mishra from TCS Research and Innovation team who told why corporate research is important and how is it different from academic research as he has both the blends in his experience.

The last session was handled by Aisha Nazia who is the VC for WIE in TEMS India. She spoke about how can consultancy become professional especially being women immediately after graduation. She told about how she was as student and how she made strategies to reach to the highest level in her life.
Student Branches Report
AMC Engineering College, Bengaluru

Technical Talk – The Semiconductor Industry – Opportunities and challenges
27 August, 2019.
The technical talk on “the semiconductor industry – Opportunities and Challenges was conducted by Department of Electronics and Communication Engineering under IEEE Student branch. Mr. Natesh, CoreEL Technologies, Bengaluru was the resource person. Approximately 100 students participated and benefited.

Embedded Skill Development- 11 February, 2019

The Embedded skill development program was conducted by Department of Electronics and Communication under IEEE Student branch. Mr. Sunil Swain, Managing Director, Mbed Technologies, Bengaluru was the resource person. Approximately 150 students participated and benefited.

Navanvesha- 2 November, 2018

The Navanvesha was conducted by Department of Electronics and Communication in INNOTRONICS lab (Room No. 305). Dr. Manjunath Ramachandra, Senior Consultant, Wipro Technologies, Bangalore was the Jury Member. Approximately 100 students participated and benefited and three prizes were given to students.

Technotides- 17 May, 2019

The TECHNOTIDES was conducted by Department of Electronics and Communication under IEEE Student branch for the students of eighth semester of all Departments in ADC lab (Room No. 104). Dr. Manjunath Ramachandra, Senior Consultant, Wipro Technologies, Bangalore was the Jury Member. Approximately 50 teams participated and benefited and three prizes were given to students.

Voting- Duties and Responsibilities- 9 April, 20019

On account of Indian Government Central Election May 2019, an encouraging talk on Voting – Duties and responsibilities was conducted by AMC Engineering College, under IEEE student branch for all students. Dr. Giridhar Upadyaya, KIMS, Mrs. Sudha Balaji, IIMB, Mrs. Latha Narashimmamurthy delivered motivational speech and they encouraged students to vote. Students participated with lot of enthusiasm. More than 200 students were participated.
Amrita School of Engineering Student Branch (STB63931)

IEEE ComSoc GRADUATE CONGRESS: GraTE’7
(Graduate Thesis Evaluation in 7 minutes)

An annual National level workshop is conceptualized by IEEE ComSoc Bangalore and Kerala to recognize and award few top/best thesis work at post graduate level and PhD level in the field of Information and Communication Technology (ICT). The event is known Graduate Congress: Graduate Thesis Evaluation in 7 minutes (GraTE’7). In this event, it is decided to recognize 7 best theses; 4 from master and 3 from PhD and awardees institution/university should belong to either Kerala or Karnataka state. (However, the plan from next edition would be to cover entire nation). The award comprises 20,000/- INR cash prize for each PhD thesis and 15,000/- INR for each master thesis along with certificate of merit. The corresponding supervisor would also be recognized as the best supervisor for the work.

IEEE YESIST 12 (YOUTH ENDEAVOURS FOR SOCIAL INNOVATION USING SUSTAINABLE TECHNOLOGY)

The event began with a brief introduction about IEEE YESIST12 and the panel members to the participants by Prajwal K.S., Vice Chairperson of IEEE Student Branch Amrita School Of Engineering, Bangalore. IEEE YESIST 12 (YOUTH ENDEAVOURS FOR SOCIAL INNOVATION USING SUSTAINABLE TECHNOLOGY) (formerly SS12) is an international talent show for the students and young professionals to showcase their innovative ideas to solve humanitarian and social issues affecting directly the community around them. The activity is a part of the vision of ASIST (Augmented Social Innovations through Science and Technology) Secretariat to integrate engineering education and the society creating useful practical scalable products thus encouraging entrepreneurship and patenting. IEEE YESIST12 has an interesting history of having its home in California and moving on to various countries and transforming into various themes, shapes and sizes. Born as SS12 (meaning Saturday Sunday 12 hours) it was a hackathon on humanitarian theme for the students of USA. Moving on to Europe and Asia, it blossomed into competition between countries. The first SS12 Asia was conducted in 2013 between two countries – India and Bangladesh. Now it has reached more than 9 countries touching about 2000 students and young professionals every year. The theme now aligns with the Social innovation for sustainable technology and the format includes four tracks. The finals will be organised at Stamford International University, Bangkok, Thailand on 7th and 8th of September, 2019.

Python Workshop

The basic concepts of Python language were mainly focused, then a few coding challenges were given, one of it being “A shopping mall application”. The workshop was very interactive. After every topic a sample coding challenge was given to solve by the attendees. So many doubts and interesting queries related to the topics discussed were raised and were cleared. Finally the attendees got good chunk of knowledge in “Python Programming Language”. The interested in learning the python speaker recommended a few platforms like codeinza to continue their learning process.
The first meeting of Quadra was held in the main building BEC. Total of 18 volunteers were present in the meeting. The 18 members team went through many BOT events videos on YouTube. And decided to keep 3 rounds eliminating the teams in first two rounds. The volunteers distributed work among themselves like registration and publicity in college and other colleges also...
The planning of hurdles in the arena were decided and rules of the competition were set!!

BEC-IEEE "House of Dead"

The first meeting of House of Dead was conducted on 22 Jan 2019. It was conducted in the main building at around 10 a.m. Meeting was conducted by the lead. Firstly, we started to discuss a name for the event and also a tagline for the event. And also, how many rounds to keep in the event. We finalized to keep 2 rounds. We also finally decided the name and a tagline

BEC-IEEE “Black Hawk 19”

The meeting was started by Raja Masali. In the meeting first there was a brief description about what the things had happened at last meeting. Next all the rounds were finalized and the works were distributed to the respective leads and volunteers of the each and every round. Doubts regarding the event are cleared and some new ideas were implemented in order to reduce the mistakes during the event. Lastly the meeting was winded up by clearing all the doubts of volunteers and assuring that they are clear with all the rules and regulations. Dates of the event is finalized on this meeting.

BEC-IEEE "Tvasta"

This meeting was led by Suman Malagar to discuss the rounds in the event. Total of 3 rounds were kept by discussing them with the volunteers. The first round was of designing a Genetically Modified Organism, writing its uses and also Drawing the Imagined Organism on a paper. Second Round Was of a Quiz in which the participants were asked to answer some question based on biological life forms. Third Round was of “Treasure Hunt” in which the Participants were handed out some Clues which they had to find it in the whole Campus.
Annual General Meeting.
Annual General Meet (AGM) was organized to meet the agenda of the event. Previous year events report was read by Ex-Chair and budget report was read by Ex-Treasurer. Outgoing executive committee shared their experience and motivated the upcoming executive committee members. The new office bearers were introduced by branch counsellor Dr. Manjula Raja. Followed by this, certificate distribution and appreciation ceremony were held by our guests namely Dr. Knedh (HOD, Dept. of EEE, BITM) and Dr. Mahabaleshwar (HOD, Dept. of Civil, BITM).

Branch Counsellors MEET-1 (SAC + WIE + YP + SIGHT)
Rangaswamy Kadapa had attended the Branch Counsellor meet - 1 at R V college, Bengaluru on 24th Feb 2019 with institute’s funding.

National Science Day
The national science day 2019 is celebrated by organizing an event on 28/02/2019 from 1:30pm to 4:30pm. It was three hours intercollege event planned for B.E students of all the departments. After registration of teams of two, event started with first round of quiz which was objective questions written test based on basic science with half hour duration. Qualified teams were allowed to participate in second round i.e. Spell Bee. In this round, teams were asked to spell the word within a given time limit. If they answered then points were added otherwise word was passed to other teams. Each team has got three words to spell. Winners were announced immediately after this round.

IEEE International Women’s Day 2019
International Women’s day was celebrated in Ballari Institute of Technology and Management (BITM) by WIE Affinity Group in association with IEEE Student Branch BITM. The one-day programme was sponsored by daughters and granddaughters of Late Shree. Basavarajeshwari, founding chair of Basavarajeshwari Group of Institutions and former Union Minister of the State for Women and Child Development.

The event commenced with the inaugural function of the newly formed WIE Affinity Group, BITM in presence of our Chief guest Ms. Anandi Giridharan, Principal Research Scientist, IISC Bengaluru, the Deputy Director Prof Prithviraj Y J, and all female members of BITM. The opening remarks of the event were given by our deputy director Prof. Prithviraj Y J, that included enlightening us on the noble services extended, by our founder and chair Late. Shree. Basavarajeshwari, towards the upliftment of women and children welfare. Following these, the IEEE coordinator and student branch counsellor, Dr Manjula R, Senior Member IEEE, faculty in the dept. of ECE, shared the views of IEEE and the benefits of being the member, as well as her experiences of being the part of IEEE so far.

SYWLC’19
As a mark of pride, Ballari Institute of Technology and Management(BITM) has received an opportunity to host IEEE Bangalore Section’s flagship event SYWLC’19 (Student-Young Professionals-Women In Engineering-Life Member Congress) on 12th and 13th October, 2019.
SYWLC’19 consists of exciting technical as well as non-technical events for participants coming from different professional backgrounds from all over Karnataka. The congress is of two days, where more than 200 delegates get an opportunity for personality development, skill building and effective networking. Expert speakers from various technical domains lead the workshops and seminars. There are also talks on business and entrepreneurship, work life balance and more fun activities.
BMSCE Student Branch

AGM

The Annual General Meeting is an annual event where a past report on the previous year's activities and achievements of BMSCE IEEE are presented. AGM 2019 was conducted on 2nd March 2019. The events and workshops conducted throughout the academic year of 2018 and 2019 were recapped and the new Executive committee was selected.

IEEE Awareness Drive:

BMSCE IEEE got an opportunity to be a part of the orientation held during the induction programme for the first year on 17th August 2019 and we utilised the most of it by familiarizing them with the student branch and its workings. They were also given an insight on the various events and workshops conducted by the club.

IEEE Day:

BMSCE IEEE, in association with the various college student clubs, hosted IEEE Day on the 10th of October 2019, staying true to the spirit of Innovation while offering students an opportunity to enjoy themselves participating in events, or to sit back and relax, watching the performances of their peers. Over 170 people came to take part in the various events conducted and also were a gracious audience for the cultural performances. At the end of the day, the motive of IEEE day was successfully achieved.

IEEE Xtreme:

IEEE Xtreme is an IEEE member exclusive Annual Coding competition held simultaneously across the globe where participants compete to reach the top of the leaderboard. It is a 24 hour coding competition and this year it was conducted on 19th October 5:30 am to 20th October 5:30 am 2019 and a total of 110 participants took part. Refreshments and accommodation were taken care of.

Python:

One of the most useful skills to possess in today's modern day world is python programming language. Be it machine learning or networking or AI, python comes to the rescue. So, BMSCE IEEE made an effort to teach python and took a small step towards making them industry ready. Machine Learning: Machine learning is the future of the world. Keeping this in mind, BMSCE IEEE conducted the Machine Learning workshop where all the participants were taught the basics of ML.

IOT:

BMSCE IEEE in collaboration with Electronics and Communication Engineering Department, organised a 3 hour long lecture session on Internet of Things on 22nd February. Key Highlights of the workshop were:
- Fundamentals of IOT was taught
- Making connection using Raspberry Pi
- Design Thinking and Programming for R-Pi

Linux

BMSCE IEEE conducted a 5 day long workshop on Linux with a total footfall of the was 39 people. It was a hands on workshop mainly focussed for students looking to grasp basic concepts of open source software and LINUX Operating System. The overall agenda of making students understand about Linux and its application was successfully achieved.
Website Development Workshop
The web development workshop conducted by IEEE SB BMSIT engaged students in an intuitive experience of making a website from scratch and uploading on a dedicated server. Mr. Gautama Bharadwaj, IEEE SB Chair hosted the workshop with the help of SB volunteers. The workshop integrated a hands-on session throughout. The workshop began with welcoming the students and explaining them the course work planned out for the day. HTML, CSS and Javascript, the three major front end web development tools were explained with required detail so that by the end of the session the students would be able to make their own websites. After every major topic the students were given enough time to practice what they’ve learnt or ask for any pending doubts so as to keep everyone on the same page during the course of next topic. The volunteers were available throughout the complete session helping students and the speaker to be on the same page. At the near end of the session everyone had their sites uploaded to a dedicated server via Bytehost.

Talk on Radio Communication and 5G
The Radio communication and 5G talk were held on 27th April 2019 by Mr. Anand M, a Senior Research Engineer for of telematics. He was welcomed by Mr. Gautama Bharadwaj, IEEE SB Chair and Dr. Anjan K, IEEE counselor with a brief keynote. Mr. Anand then started off with getting to know the crowd making the following session more personal making it easy for students to ask questions. He briefly explained about wireless communication touching topics like MIMO, Satellite communication, and spectrums followed by an overview of 5G technology both a commercial and development point of view. The three-hour interactive session was attended by over 60 students from various branches and semesters. The questions asked by the students were answered effortlessly by the speaker and gave a better understanding of radio communication to everyone alike.

Girl Geeks 1
The Girl Geeks Neural Network workshop was inaugurated on 24th August at 10 A.M. Dr. Sunanda Dixit, IEEE Senior Member BMSIT&M gave the welcome address and presented the speakers and other dignitaries to the gathering. Mrs. Ambika addressed the gathering and talked briefly about the event and motivated everyone to empower women. Ms. Adarsha a detailed view about real world application of Machine Learning and Neural Networks. She continued the session and discussed about basic concepts of Machine Learning, and elaborated with some real world use cases. The session was interactive and the students seemed interested in knowing more about the aforementioned. Later, Mr. Shakeel took over from Adarsha and gave a hands on session. Students were taught the implementation of basic Machine Learning algorithms, which learnt in the previous session along with basic neural networks. It was of great benefit for us budding engineers regarding the recent trends in Machine Learning and Deep Learning.

Industrial Visit - Nokia
Industrial visit to Nokia Center was one of the most memorable and wonderful experiences both in terms of gaining knowledge and exposure to the corporate world. The session started at 9 am with the formal welcome program, followed by various technical sessions from the most talented and experienced guest lecturer on topics like 5G, IoT, AR/VR etc., A panel discussion on future work in 5G and introduction 6G was also organised. Followed by lunch, there was a walk-through to the entire Nokia center. Afternoon session was the most interesting. There was a demo on 5G technology in the lab setup at the centre. Along with that, there were projects showcasing the use of AR/VR in education and many other fields. This gave us a lot of knowledge and also an idea of how these tools are implemented into practical purpose. The session was concluded by the university relations manager at Nokia.
IEEE Membership Drive
The IEEE membership drive event was held in the Digital Library. This event was witnessed by 30 enthusiastic students who were made aware of the importance of IEEE membership. Gautama Bharadwaj, Chair, Student Branch and Deepa M.S, Vice Chair, Student Branch threw light on the various topics such as the hierarchy of IEEE organization around the globe, the importance of IEEE membership and its benefits and various societies active currently through an illustrative powerpoint presentation.

Swati Sandhya, Vice Chair, Computer Society Chapter spoke about the additional benefits of being a member of Computer Society. The presentation was followed by the registration under the guidance of IEEE student volunteers.
IEEE BNMIT Student Branch – Code 14831

Swachh Bharat Abhiyan, 26th January 2019
(SBA) or Swachh Bharat Mission (SBM) is a nation-wide campaign in India that aims to clean up the streets, roads and infrastructure of India’s cities, towns, urban and rural areas. The campaign’s official name is in Hindi and translates to “Neat and Tidy India Mission” in English. The objectives of Swachh Bharat include eliminating open defecation through the construction of household-owned and community-owned toilets and establishing an accountable mechanism of monitoring toilet use. Run by the Government of India, the mission aims to achieve an “open-defecation free” (ODF) India by 2 October 2019. The mission will contribute to India reaching Sustainable Development Goal 6 (SDG 6), established by the UN in 2015.

Tatva 2019 on March 22nd, 2019
A total of eleven students from different engineering colleges participated in the event. The participants presented papers on a variety of topics. Each participant was assessed based on the following factors – Presentation skills, originality of content, quality of response to the questions from jury.

Poster Presentation September 20, 2019
IEEE-BNMIT student branch and IEEE Nanotechnology Council, Bangalore Section organized posters in varied domains for display. A total of 60 participants presented the posters. Dr. Kriyang Shah, Project/Program Manager, Power Switches, Texas Instruments (India) Ltd. Mr. Vishweshwara Mundkur, Chief System Architect, SenseSemi Technologies Pvt. Ltd., and Dr. V. Srinivasan, Deputy Director, NTTF judged the competition.

Symposium on Nanotechnology and it Applications
A two days “Symposium on Nanotechnology and its Applications” jointly organized by IEEE-BNMIT student Branch and IEEE Nanotechnology Council, Bangalore Section was conducted on September 20 & 21, 2019. It included tech talks, poster presentation on the first day and industrial Visit on the second day. The Symposium was inaugurated by Chief Guest Mr. Vikas Gupta, Director, Mentor Graphics. He delivered a technical talk on “Nanotechnology and Role of EDA”, which highlighted about the applications of VLSI industry, home automation, PLCs, Sensors, IoT, Automotive Electronics, portable hand held devices, high performance videos, communication technologies like GPS, GSM, Bluetooth, WiFi etc. His presentation included VLSI design flow, FinFET transistor, IC manufacturing process, ASIC design, physical design, partitioning, Clock tree, Placement and Routing, DRC, LVS and tapeout of the IC.
IEEE CMRIT Student Branch

IEEE INAUGURATION OF JOINT CHAPTER OF PHOTONICS AND COMMUNICATION SOCIETY 30th of April, 2019
The event was organised under the guidance of Prof. Mahesh Kumar Jha, Branch advisor and Prof. Chetan H Gowda, Branch counsellor. The chief guests for this events were Dr. T Srinivas – Photonics Integrated Circuits, Mr. Anand M – IEEE ComSoc events & Activities, Dr. Navin Kumar – Edge Computing : Merging with Multimeter wave for 5G wireless and Dr. Sanjay Jain- Principal, CMRIT. Rashmi T – Chair person
C Raghavendran – Vice chair person.

DIGITAL IMAGE PROCESSING WORKSHOP REPORT 20-21st of September 2019
A Two day Hands on Workshop on Image Processing Algorithms for Project Implementation – MATLAB Open Source Perspective was conducted. It was a completely a hands on workshop with keynote speakers from IEEE; Mr. Venkateshwaran, Dr Suma M N, Professor Vijayalakshmi, Ms Ashwini N, Mrs. Rashmi K.V, and Chetan H were the resource persons.

Two days Hands on Workshop on Firebird-V & ATMEGA 2560 Robot
A two day hands-on workshop on FIREBIRD V using Atmel Studio was organized at CMRIT Bangalore on 21st and 22nd October 2019 by the CMRIT IEEE student branch, CMRIT e-Yantra lab, CMRIT Centre of Excellence of Embedded System, IEEE Robotics & Automation Society and IEEE Bangalore Section. The workshop was inaugurated by Dr. Sanjay Jain, Principal, CMRIT at 9.30 am, it was followed up by a presentation on “Introduction to Robotics Platforms and motivation towards robotics” by Dr. Venkatarangan M J, Associate Professor, Dept of EEE, PESU, Bangalore and he is also the secretary of IEEE Robotics and automation society Bangalore section. He was the resource person for that entire day from 10am to 3.30 pm. The introductory session covered various fields of robotics, the key features of different platforms available in the industry.
Second day session started with a key-note speech about “Basics of Robotics and IoT” by Prof. Velraj Kumar P, Senior Member IEEE, Associate Professor , EEE Dept. CMRIT, Bangalore. There was a session on basics of programming and hands on training of motion control using FIREBIRD V kit and Atmel Studio by Prof. Deepa Pradeep and Prof. Hemanth Kumar U M, Asst. Professor, TCE Dept. CMRIT.
IEEE Student Branch Dayananda Sagar University

ROBOTRIX 1.0
The Robotrix Workshop and Challenge took place on the 9th and 10th of March, 2019 at the Dayananda Sagar University campus. The workshop was attended by students from all branches of DSU School of Engineering. The event saw a huge turnout of participants from across all years and branches that were segregated into 18 teams of 4 members each. Each of the teams was provided with a kit that could be carried away with them and was provided with ample assistance from the trainers and volunteers in addition to hands on training on hardware and software components of the workshop.

IEEE DAY CELEBRATIONS
International IEEE DAY is celebrated globally on the 1st of October, observing which even the DSU IEEE student branch lined up a series of interesting events to celebrate this day. A large number of participants including the members and non-IEEE members joined the celebrations. The day was wrapped up with a thanksgiving talk by Sai Saahas S and an ample amount of photographs were taken.

BLOCK CHAIN WORKSHOP
The IEEE Student Branch of Dayananda Sagar University hosted a 2 Day Workshop on “Blockchain Technology” from 09-08-2019 to 10-08-2019. The event was organized by the members of the Student Branch and Counselor who strived to make it a successful learning experience.

The speakers were Mr. Girish Nuli, Founder - CEO of Antara technologies, a company specializing in Blockchain Consulting and Training, Mr. Prahalad B and Mr. Kishore A T. Mr. Girish Nuli has an experience of over 4 years in the blockchain industry. He has also conducted training workshops on Blockchain for Business, Ethereum, and Hyperledger.

Vote of Thanks was given by Amulya S, ECE department. And a token of appreciation was given to both the speakers by IEEE - DSU Student Branch Counselor, Dr.Pushpamala and Student Chair - Mr. Abhishek Reddy. At the end, a group photo was clicked, and the session was wrapped up with a rendition of the National Anthem.

Design and Development of Nano Satellite
A Workshop on “Design and Development of Nano Satellite” was held from 3rd July 2019 to 5th July 2019. The workshop was organized by the “IEEE Student Branch of Dayananda Sagar University” and “Planet Aerospace” to provide the students with an opportunity to gain knowledge and understand about the process of satellite design and the effects of space environment for the development of satellites.

On the first day, the event was started with an invocation song followed by the lighting of the lamp by the dignitaries. The session was then continued by Mr. N K MALLIK, who began with an introduction of what is a ‘satellite’ and its applications. Then Mr. Venkata Rao gave a lecture on payloads for nano satellites. Following a lunch break, Mr. C A Prabhakar spoke about structure design and deployment mechanisms and Mr. S G Barve spoke about thermal design of satellite.

On the second day the session began with invited talk by Dr. V K Aggarwal on Nano sat Realization-PISAT. Mr. Rajangam R K gave a brief lecture on electric systems and Mr. Manohar Sonada spoke about RF Communications. Following a lunch break, Mr. J A Kamalakar gave an introduction on sensor systems involved in satellites and the day ended with a session by Mr. Raghavendra Hathwar on ground station.

On the last day of the workshop, the session began with lecture by Mr. Rajangam R K on Space environment and the session was then continued by Mr. M R Thyagaraj who gave a lecture on Assembly, Integration and Testing of satellite. Then, a convocation ceremony was conducted and Dr. P S Goel, Former director of ISRO appreciated Faculty members, students volunteer and students for the successful conduction of the event.

STUDENT TRANSITION AND ELEVATION PROGRAM – STEP
The STEP event was a platform provided to the students, to help them in the transition from a student to a Young Professional. It was organized by IEEE Student Branch of Dayananda Sagar University along with IEEE Young Professionals on 14th September, 2019 to provide the students with an opportunity to gain knowledge and understand about the process of paper writing and innovation.
The fascinating and informative session was then wrapped up by the distribution of certificates to all the participants.
East Point College of Engineering and Technology

WORKSHOP ON PCB AND EMBEDDED SYSTEMS
Two days hands-on workshop on PCB design was conducted during 21st & 22nd of Feb 2019 for the benefits of students to get the practical exposure on the design aspects of latest electronic circuits. PCB is an acronym for printed circuit board. It is a board that has lines and pads that connect various points together. In the picture above, there are traces that electrically connect the various connectors and components to each other. A PCB allows signals and power to be routed between physical devices.

WORKSHOP ON 3D PRINTING
3D printing workshop was conducted by Department of Electronics and Communication on 19th Aug 2019 in collaboration with East Point IEEE student branch which gave a practical exposure for the student community regarding 3D printing and its application. The resource people were from reputed company named “WOL3D” with branches all over India. Our honorable C.E.O, Mr. Rajiv Gowda had taken special interest in the event and has tried one 3D model in the 3D printer. Event was a grand success in igniting minds of students towards 3D printing technology which is the trend for future engineering.

TECHNICAL TALK ON MACHINE LEARNING
Machine learning (ML) is the scientific study of algorithms and statistical models that computer systems use to perform a specific task without using explicit instructions, relying on patterns and inference instead. It is seen as a subset of artificial intelligence (AI). Technical talk on Machine learning was held in the Department on 29th August 2019. It empowered students and teaching community on the latest cutting edge technologies related to machine learning and AI.

WORKSHOP ON ARDUINO FOR BEGINNERS
The department of ECE had organized a one day hands on workshop on Arduino in association with East Point IEEE student branch (EPISB) for 3rd Semester Students on 25th October 2019. The third semester students learnt about programming in Arduino. With this knowledge many students came up with wonderful projects.

AIKYA ’19
The department of ECE had organized a one day Technical program AIKYA 2019 on behalf of IEEE student branch on 11th November 2019. The different activities and competitions conducted are
1) KAAGAD ---- Paper Presentation
2) INSIGHT-----Mini Project Competition
3) KALA-SIRI-----Photography Competition
4) POSTER PRESENTATION

For each category of competition, first prize, first runner up, and participation certificates were awarded.
IEEE Week - Technical First Year
It is the technical event for the first year students which consists of two rounds namely, 1. Fault in our code and 2-Codebyte. In this event students are asked to debug the errors in the code and write the c program based on the description. This event made the best platform for the first year students about the preparation of IEEE Xtreme coding competition.

IEEE Week - Technical Second Year
It is the technical event for the second year students which consists of two rounds namely, 1. Starcoders and 2-Reverse Engineering. In this event students are asked to debug the errors in the code and write the c program based on the description and in the second round the students are asked to observe the mechanical model kept in front of them and disassemble the model after few minutes and assemble the model as it was first with the given time. This event made the best platform for the first year students about the preparation of IEEE Xtreme coding competition as well as to improve the observation skills and thinking skills.

IEEE Week - Non-Technical Second Year
It is the non-technical event for both first and second year students which consists of three rounds namely, 1. Brain drain, 2-Spikachu and 3-Treasure Labyrinth. In the first round students are asked to answer simple quiz, which had some pictures of monuments, logos etc. In the second round the students are asked to give short speech on the topic given and in the third round the students need to find the treasure (a gift) by specified hints given to them.

BVBIEEE Student Branch Orientation Program
We were able to provide a brief introduction to IEEE, the activities that we organize every year at our SB, the scope to participate & organize events & workshops, opportunities to be a part of the student congresses & gatherings, present papers at renowned conferences around the world, etc. We were relieved when our efforts finally borne some fruits with the newly admitted students showing immense interest in IEEE & came forward to become members. Hope to continue our efforts in building the membership, providing valuable services to the members & continue working with dedication to better the performances of the students.

BVBIEEE Student Branch Family Introduction Meet – Up
The event included an interaction session where in all of us were involved in discussions about their journey to & through engineering. It was a sort of meet & greet programme which enabled us to get to know each other in a better way, understand their abilities to work for an event, etc. This event was a break through for us to successfully organize Mathstar in the best possible way.

IEEE CS Connect
Talk 1: IEEE Computer Society
Talk 2: When Machine Learning meets Chaos Theory
Talk 3: Designing and Architecting for the Cloud - Enterprise Usecases

Mathstar’19
Mathstar’19, district level Mathematics competition for high school students was organized by BVBIEEE Student Branch on 24th November 2019. The test was conducted for an 75 minutes from 10:00 am to 11:15 am. The question paper was similar to the International Olympiad Examinations. The students were given some snacks after the exam. There was the entertainment session and fun-time from 11:45 am to 12:45 pm, in which 489 students and their parents were present in the Bio Technology Auditorium at our college filling up. This was followed by the formal function. It was began with the prayer song followed by Presidential remarks. Then the most exciting part of the function came into picture, i.e., the Prize Distribution.
Hirasugar Institute of Technology, Nidasoshi

General Body Meeting
General Body Meeting was held at IEEE HIT SB Nidasoshi, to select the execom team for the year 2019. Based on the creative thinking, activeness and overall involvement in the activities conducted, we selected the execom team members for the year. The duties of each of the execom team and their individual responsibilities are also been informed on this occasion. The plan for the activities to be conducted in the current academic year is done. On the contrary the meeting was successful in conveying the execom team and list of events to be conducted in this academic year.

Meeting
Meeting was held at IEEE HIT SB on 18-02-19 at 4.00 PM to brief the advantages of IEEE and to make them familiar with the IEEE membership access. Benefits of IEEE membership, resume lab, IEEE Explore and creating mail account with ieee.org extension were been demonstrated to new student members. The meeting was successful in making the new IEEE student members familiar with the IEEE website.

National science Day
IEEE HIT Student Branch organized National science Day on 28th February 2019 with the theme “science for people and people for science”. On the eve of science day we had organized two events such as Poster presentation and Essay competition. The event began with a brief introduction regarding National Science Day and it’s importance followed by Essay competition was from 2.15pm to 3.00pm and poster presentation from 3.15 pm to 5.00pm. We had 14 participants for essay competition and 5 groups for poster presentation. Rules and regulations were displayed and informed before the commencement of the events.

Technovision
A National level Project Exhibition and paper presentation contest for the Diploma Students, A platform for Students to showcase their technical skills and talents, an exposure for creative innovations. The guest of honor was Prof. Sandeep Kyatannavar, Principal of C.B.Kore Polytechnic, Chikodi. The function started with a melodious invocation song by Miss. Vijeta K. Kulkarni. Then Prof. S. S. Kamate, Branch counselor, IEEE HIT, SB Nidasoshi did welcome speech and brief introduction of the Technovision event. Prof. M. G. Huddar, staff advisor IEEE HIT, SB Nidasoshi, introduced the chief guest to the gathering. Prof. M. Y Yanagimath presented bouquet to the dignitaries and jury members. After a warm welcome to the guest and jury members it was the time for lamp lighting ceremony. All the dignitaries on the dias were requested to light the lamp as our Indian tradition says, “Sanskriti ke anusar har shubh karya ka aarambh deep prajwalan vidhi se kiya jaata hain”

Plantation
As a part of Humanitarian activity though IEEE Student branch plantation saplings was done on 15/09/2019. IEEE professional society has it’s tag line Advancing Technology for Humanity. All student branches have to conduct humanitarian activities along with technical ones. So , on the eve of Engineer’s Day we the HITians have planted Principal, staff and students were actively involved in this process. Now, their nourishment is carried out by IEEE students and garden maintenance staff. HSIT conducts such events every year.

IoT, Artificial Intelligence and Machine learning
A Guest lecture on “IoT, Artificial Intelligence and Machine learning” was arranged on 20/09/2019. The lecture was arranged from 2.30 to 5.30pm by IEEE Student branch HIT, Nidasoshi. The Resource person for the talk was Shri. Gopal Krishna, CTO RAAR R&D Labs and K-tech Belagavi. Shri. Gopal Krishna explained the IoT technology with relevant examples and applications. Later he addressed on Artificial Intelligence and Machine learning, totally 79 students from the CSE, ECE and EEE departments were present for the lecture. The lecture was successful in imparting good knowledge about IoT AI and ML to our staff and students.

LoRa
A Guest lecture on “LoRa” was arranged on 30/09/2019. The lecture was arranged by ECSA, of ECE Dept. and IEEE Student branch of HIT, Nidasoshi. Resource person for the talk was Shri. Vinayak R. Dhogande, Co-founder of aMSA embedded solutions Hubli. He clearly elaborated the LoRa- Long range
low power wireless communication technology with respect to it’s advantages, applications by comparing with other communication technology. Totally 87 students from ECE Department were present for the lecture. The lecture was successful in imparting good amount of information related to long range low power communication technology to our staff and students.

**IEEE Day celebration**

IEEE-HIT student branch has organized **IEEE Day** on 13th November 2019, conducted formal and informal events on the eve of IEEE day. The event was graced by the presence of the Principal, Brach counselor, HODs of all the Departments, Placement officer. Brach counselor Prof. S S Kamate, staff advisor Prof. Mahesh Huddar and entire IEEE team of HIT, Nidasoshi. The celebration began with welcome speech by Miss. Kiran Kelaginmani, Miss. Prachi Ratnapgil Chair IEEE Dept. HIT, SB briefed about the history of IEEE day and the IEEE Day celebration. Branch counselor addressed the gathering on this auspicious occasion to share the importance of having an IEEE student Branch and the of theme of year 2019 “Leveraging technology for a better tomorrow...” followed by cake cutting.
IEEE KSIT STUDENT BRANCH

TECHNICAL TALK ON “ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING-INDUSTRY TRENDS”
The main objective behind organizing a technical talk was to make the students aware about the latest industrial trends in the field of Artificial Intelligence and Machine Learning which are the booming topics in the current technology. The Speaker explained the students about the importance of Artificial Intelligence and how it helps in solving the business problems because of which it has got a huge demand. Artificial Intelligence (AI) is the ability of a computer program or a machine to think and learn. AI is currently trending because of its readily available high performance computing power and also due to its proliferation of products, solutions.

ANDROID APP DEVELOPMENT WORKSHOP
IEEE KSIT along with WIE affinity in association with CSI conducted an Android App Development Workshop on 28th and 29th of September, 2019 at KS Institute of Technology. There were 38 IEEE members who took part in it.
The students were given an idea about basics of app development, had hands on experience and an interactive session on app development. By the end of the Workshop, Student were able to write simple GUI applications with backend support, use built-in widgets and components to make effective applications for android devices.

TECH TALK- NANO SATELLITES
IEEE KSIT along with WIE affinity organized a technical talk on ‘EVOLUTION OF NANO SATELLITES’ on 14th October 2019. The speaker, Prof. M Krishnasamy is life member of National Institute of Quality and Reliability and currently is a member of Board of governor of BMS college of engineering and mainly is worked on TES (Technology Experiment Satellite).
He was also the former outstanding director at ISRO -small satellites. The speaker gave a brief about the production and applications of nano satellites and even explained to the students about different types of nano satellites. He even explained about the IMS, cube satellites and CHANDRAYAN I.

UTTUNGA 1
IEEE KSIT along with WIE affinity group and PSG conducted their second event UTTUNGA on 12th and 13th July, 2019.
The volunteers assembled at the Government High School, Sarakki by 10:00 am on Friday, the 12th July. The day one of uttunga was started off with the inauguration, where the Headmaster of the school was the chief guest. He gave a brief introduction to the students about the purpose of our members and volunteer's visit to the school.
He also enlightened the importance of learning English as a window to the outside world followed by distribution of stationeries like books and pens for 200 students of the Govt School.
VerTechX 9.0
MVJ College of Engineering organized a National Level Technical Fest “VerTechX 9.0” on 1st and 2nd March, 2019 for students of various Engineering discipline and various colleges to take part and showcase their talents.
As a part of VerTechX-9.0, MVJ College of Engineering, Tinkering Lab, organized an event “AQUA SOCCER” on 1st March, 2019 in front of Tinkering Lab.
The students had to design a manually controlled robot which had a capacity to cover float on water, play soccer and beat the other components.
The event started at 11:00 AM 1st March with student registrations, distribution of deliverables and checking of robot models made by students for design specifications. The general rules followed were use of wired and wireless robots with a maximum dimension of 30 × 30 cm (l × b) and not more than 3 kg and power supply Maximum up to 12volt.

Event: Drone GP VertechX 9.0, Participants with the coordinators with their drones kept in the foreground at the closure of the event on 02nd March 2019.

Hands-on Training on 3D printing and PCB design
Department of Electronics and Communication Engineering and IEEE student branch of MVJ College of Engineering organized a Two-day hands-on training on 3D printing and PCB design, sponsored by IEEE student chapter, Bangalore section. In this training, students trained on 3D CAD modelling, using 3D printer, CAD design for electronic circuits and hands-on on PCB prototype machine. This training was conducted by Mr. Bhanuteja G (AP/ECE) and Ms. Varsha P H (AP/ECE). Totally 120 students from various branches participated in this training. The training was conducted in 4 batches each of 30 students on different dates. The training was started by explaining about importance of CAD modelling, difference between model, prototype and products. The First batch training was conducted on 29th and 30th August 2019. This training was divided into two sessions, in first session Mr. Bhanuteja G explained the trainees about the difference in subtractive manufacturing and additive manufacturing, types of 3D printing, 3D printing materials and applications of 3D models.

Guest Lecture 'Radar and Signal Processing'
A Guest Lecture on ‘Radar and Signal Processing’ was organized by the ECE Department in association with IEEE STUDENT BRANCH on 31st August 2019, at Smt. Rajalakshmi Auditorium from 9:30 am to 12:40 pm. The speakers were Dr. G N Rathna (Principal Research Scientist, IISc., Bengaluru) and Sri Vishnu O C (Scientist-E,LRDE, Bengaluru). The program was presided over by Dr. Nagaraj Sitaram (Principal, MVJCE), Prof. M Brindha (Vice Principal, MVJCE) and Prof. Vaman B Gudi (CoE & Registrar, MVJCE). The session started at 9.30 am with an invocation song and welcome address. Dr. G N Rathna delivered an insightful talk on applications of digital signal processing, and some of its practical uses in the real world. Sri Vishnu O C explained about the prototyping of silent radars based on
broadcast emission, ship-borne surveillance radars, and phased array radars. The talk helped the students to enhance their theoretical concepts, which would in turn, help them in their research activities.

IEEE- EMPERICA
On the occasion of Engineers Day, IEEE student branch of MVJ College of Engineering conducted a technical competition -IEEE EMPERICA. On September 6th, 2019. It is a college level technical competition. More then 48 IEEE MEMBERS, 140 NON IEEE MEMBERS from all different discipline participated in the event. The Event consisted of challenging topics from following domains: Medical Electronics Cyber security, Disaster Management, Automation, Biometric recognition, forensic and Virtual reality. Out of 40 teams, top 8 team was shortlisted for the final round by the faculty judges. From the top 8 teams, best teams were considered for top 3 places based on their problem statement complexity, feasibility of the solution and presentation skills.

Training on Robotics and Industrial Automation
The training was conducted on 20th and 21st September 2019. This training was divided into three sessions, in first session the trainer explained the trainees about the basic of robotics, how to choose components for different robots, and explained about the ARDUINO board and components required for basic robot. At the end of the session students understood the architecture of Arduino Uno board and how to interface electronics components with the board.

The second session training was on designing simplest Autonomous robot i.e. Line follower. Students taught about IR sensors; how infrared radiations are used to detect the change in colours. Students interface IR sensor with Arduino and displayed its status on LED. Later Mr. Bhanuteja G, taught students how to soldier the wire connections to motors and how to code for the line follower.

On day 2, students taught about how to select different motors based on the application. Mr. Venu Prasad (7th sem, ECE) explained about the HC-05 Bluetooth module and how to communicate with android platform from Arduino using serial communications. By the end of the session students prepared Bluetooth controlled robot.
Soldering Workshop - 13th March, 2019

- 27 participants from Semester II and few from VI, of various branches, attended the workshop.
- The workshop commenced at 2:00 p.m. and ended at 5:15 p.m.
- The workshop outlined the process of Soldering.
- It was an interactive session where participants had a chance to clarify their queries.
- A presentation about the history and introduction of soldering was given.
- Participants were given a hands-on experience on soldering a PCB.
- This knowledge and skill will be beneficial to them for their upcoming projects.
- The participants soldered the NE555 timer PCB with the necessary components.
- A thorough explanation of the circuit and its working was given by the trainers.
- PCB Kits and Solder gun was provided. Participants kept the soldered circuit with themselves.

MACHINE LEARNING - 15th March 2019

IEEE NHCE SB conducted a Technical Talk on 15th March 2019, under the topic “MACHINE LEARNING" by Mr. RISHI JAIN, Senior Data Analyst, Schneider Electric, Bangalore. He has over 10 years of experience in the field of Machine learning and has worked alongside with various companies such as Mindtree, Mu Sigma, Schneider etc.

He started with a great and simple quote on machine learning. “Machine learning refer to a system capable of the autonomous and integration of knowledge”

He also covered some machine learning applications like Retail, finance, manufacturing, medical field etc.

He also gave many interesting examples on growth of machine learning which made the session more interesting for the audience.

After a few examples, the speaker took the session in technical way as he explained about growth of machine learning and the various fields in which the changes were made in. Such as natural learning processing, computer vision, robot control etc.

Towards the end of the session, the speaker made an interactive session in which he asked the students what they felt about machine learning and it’s different applications.

At the end of the event the faculty coordinator had presented a sapling as the token of gratitude & appreciation and concluded the event with a vote of thanks.

SENSORS AND ARDUINO WORKSHOP - 17th April, 2019

- Participants are from different Semesters of various branches, attended the workshop.
- The workshop commenced at 2:00 p.m. and ended at 4:00 p.m.
- The workshop outlined the methodology about getting started with Arduino and working of basic sensors.
- A presentation about the architecture of Arduino Uno and working principle behind the sensors used in the workshop was given. The code was also explained.
- Participants were given a hands-on experience to work with Arduino and Sensors.
- This knowledge and skill will be beneficial to them for their upcoming projects.
- The participants worked with Ultrasonic Sensor, DHT11 and Servo Motor SG90.
- A thorough explanation of the circuit, the code and its working was given by the members of the club.

Workshop on Node MCU and Block Chain - 26th October, 2019

The Block chain session by Mr. Mohammed Musaveer, ITC InfoTech was held in VLSI lab and the and IOT hands-on was held in room number 217. It was conducted as a team event with a max. of 4 students in a group. NODEMCU kits were provided for each group for the hands-on session. The activity primarily
focussed on giving students an overview about latest trending technology block chain and also gave students an innovative hands-on session on NODEMCU-ESP8266 WIFI Module.

Students from various departments actively participated for the same. Teams have worked on projects other than what was conducted in the session. They have done a lot of research and are working on their projects.

Do It Yourself Workshop - 26TH October, 2018

Digital Electronics Lab, Electronics &Communication Department, New Horizon College of Engineering, Bangalore

DIY was a hands-on workshop the participants were given the kits which consisted of different circuits. The workshop started with the explanation of the different circuits available. Suraj and Manoj of 3rd semester who made excellent mini projects presented their work to the participants and they explained the projects they are currently working on and gave a demo of their project.

The session was interactive which the participants asking various questions related to the different electronic components and basic network designs.

The students from different semesters of engineering took part in the workshop. In the second session the teams where given kits to rig up the circuit and check their functionalities.

Overall the workshop was interactive and knowledge was exchanged in the fields each one them felt comfortable and interested.
IEEE Student Branch Ramaiah Institute of Technology

Homage Event
The recent terrorist attack of pulwama, Jammu and Kashmir has depressed each and every Indian. Mother India lost many of its brave sons which was an irreparable loss. Such great sacrifice and bravery of every soldier of our Indian army is still keeping our country safe from many terrorist. These great brothers keep their lives in danger and take responsibility of our protection in every critical situation. In the light of providing respect to those brave soldiers whom we lost, IEEE RITB had organised a homage event. The event was held on 18th February 2019 at RIT, Bangalore. The event started at 11.00 am in the quadrangle. The Principal, faculty of all departments and all the students of RIT took part in the event. Each and everyone present in the event supported the event and paid respect to the brave by wearing black, lit candles and offered two minutes of silence. A huge respect to all those brave people who sacrifice their families, risk their lives and consider their duty as their happiness for safety of Mother India and her children.

PCB Workshop
It was organized on 23rd February, in Digital Electronics Laboratory, DES block, RIT, Bangalore. The mentor for the workshop was Mohammad Arfan. He was accompanied by 3-4 members of B-AUTOMATE. The workshop was conducted from 9.00am to 4.00pm. Around 60 students from various departments attended the workshop. Initially students were introduced with PCB and DIPTRACE, software used for designing PCB layout. Later some circuits were converted to PCB layout using DIPTRACE. In the afternoon students designed their own PCB including etching. In the requirement and enthusiasm of students, IEEE RITB will always be on the verge of organizing such workshops ahead and keeps providing knowledge on varied aspects to students.

WIE Symposium
The IEEE Student Chapter of Ramaiah Institute of Technology, in collaboration with Women in Engineering, was proud to organize a two-day Symposium to celebrate Women’s Day and recognize the technological advances made by women in today’s generation. The theme for this year was “Accelerating Entrepreneurship through Innovation.” The two-day event celebrated the achievements of present-day women from all walks of life. The event was conducted on the 8th and 9th of March, 2019 on International Women’s Day. There were various talks also conducted during 2 day symposium by Geeta Manjunath, Arthi Narsimhan and Jayashree Sridharan. There was also a panel discussion where eminent women personalities from various walks of life were asked to share their perspective and experiences on the topic “Accelerating entrepreneurship through innovation”.

IEEE Orientation
The IEEE Orientation took place on 20 Sept 2019 at 3 pm in ESB Seminar Hall. Shashank N, Vice-Chair of IEEE RITB, delivered a talk about how global IEEE is and went on to prove that it is the largest technical society in the world. Sashank Agarwal, the Chair of IEEE RITB, elaborated about the goals and past achievements of the Student chapter. He talked about our Flagship fest Aavishkaar which is the only technical fest in the Odd Semester. Ashutosh Pattanaik, Secretary of IEEE RITB, interacted with the audience and spoke about his experience as an IEEE member. This was followed by a talk from the Chair of WIE RITB, Rakshitha B R, about the WIE’s activities which are not just limited to the WIE Symposium but also other activities like a Computer Science Session for underprivileged students. Dhananjay Kumar MV, Chair of ROBORIT chapter IEEE RITB, presented information about the workshops and competitions conducted by ROBORIT throughout the year. All in all, this enlightening orientation and call for Volunteers for Aavishkaar 2019 opened the minds of students to all the benefits they can enjoy with the support of IEEE on their journey to becoming a professional engineer.
IEEE RVCE Student Branch Chapter - STB11651

The workshop was conducted under IEEE student chapter, RVCE in association with MARS Research Lab, IIT, Guwahati. The resource person for the workshop was Dr. John Jose, an Assistant Professor in the Department of Computer Science and Engineering, IIT Guwahati, Assam. Prof. Manju R. is currently a Ph.D. scholar in the Department of Computer Science and Engineering, IIT Guwahati. The workshop was comprised of theory and hands-on session. The theory session were conducted in forenoon in ISE seminar hall. The hands-on session were conducted in Cognitive Centre. The workshop was attended by 48-students and 5-faculty from different colleges. The workshop was very successful with the students and faculty benefitted with the knowledge of advances in the field of network on chip. Since the participants of the workshop were very heterogeneous, the speaker, Dr. John Jose, Prof IITG, connected the concepts to the applications of all UG/PG branches.

BC Meet 2019
The Bangalore Chapter Meet was conducted on 24th February, 2019 in R V College of Engineering on 24th February. It saw attendance from 41 colleges and student chapters. From the EXECOM Committee 30 members were in attendance. The WIE event also saw a good turn up with 13 student chapters.

Industrial visit to 220KV Somanahalli substation
The industrial visit was conducted by EEE dept. RVCE in association with IEEE PES RVCE student chapter on 14th March 2019.
Some of the key points were
- The station receives power from the 3 PGCIL stations, 2 subatations from Bidadi. The power is received in two buses namely North and South bus.
- The received power was transmitted at 220KV to the places like subrahmanyapura, HSR layout etc which were significantly far. The power was transmitted at 66KV to the places like Bannergatta,Aarohalli which were relatively closer to the substation . Also the power was transmitted at a reduced voltage of 11KV from the substation for domestic use.
- The presence of the relays like EFR( earth fault relay),OCR( over current relay) for monitoring the condition of the line was shown.
- The yard was covered with Earth mat at a depth of 0.9m from the surface. This provides means for earthing. It also reduces the touch potential( potential difference between the hand and the foot), step potential( potential difference between the two feet) so as to avoid any hazardous damage to humans.

Workshop on HAM
The workshop was conducted by Dr.S.Sathyapal ,VU2FI and Mr. Marcus , VU2VTM from the Indian Institute of Hams. Dr.S Sathyapal, who has always taken the initiative for the progression of HAM, is currently the President of Rajiv Gandhi Radio Repeater Foundation of India, President of National Road Safety Organization, Governing Council member of National Institute of Amateur Radio and serves as the Chief Communication Coordinator in many National level motor rallies.

IEEE PES Day
IEEE PES DAY was celebrated in the EEE department of RVCE on May 3rd 2019. The final year students project presentation was the theme of the event which was then followed by cake cutting ceremony. The cake cutting event started at around 11:30 in the presence of the principal Dr.Subrahmanya and HOD Dr.Rudranna Nandihalli.

Machine Learning for Remote Sensing Data Analysis
Prof. Gustau Camps-Valls received a B.Sc. degree in Physics (1996), in Electronics Engineering (1998), and a Ph.D. degree in Physics (2002) all from the Universitat de València. He is currently an associate
The workshop was started with welcome address of the speakers Mr Saravan.B and Dr Sheldon Williamson at 9:30. The first talk was given by Mr Saravan.B on “Power electronics in traction applications” from 10:00-11:00. The second talk was given by Dr Sheldon Williamson on “Electric Energy storage systems and charging infrastructure for future electrified transportation and autonomous E-mobility” from 11:30-12:30.

**IEEE talk on BioMEMS based Microfluidic Biosensing Systems: Next generation diagnostic tools**

IEEE student chapter of RV College of Engineering, Bengaluru arranged a talk on BioMEMS based microfluidic biosensing systems by Dr. C. Raman Suri, who is an eminent personality in the field of biotechnology. Dr. C. Raman Suri heads the Biosensor and Nanobiotechnology group (BNG) at the Institute of Microbial Technology (IMTECH), Chandigarh having a major objective to develop low cost molecular/immuno diagnostics devices for health care and environmental applications.

Dr. C. Raman Suri started by speaking about having good environment in the development of students’ interest in research field. The talk continued with the research carried out in IMTECH which were mainly in four areas described below:

1. Affinity and enzymatic biosensing platforms for clinical/environmental applications.
2. Synthesis of nanoparticles for nanoparticles for diagnosis and therapeutic applications.
3. Lab-on-chip: Next generation biodiagnostic tools.
4. Synthesis bacteriorhodopsin protein from halophilic sp. for nanodevices applications.

**Talk by Analog Devices**

Prof. Gustau Camps-Valls received a B.Sc. degree in Physics (1996), in Electronics Engineering (1998), and a Ph.D. degree in Physics (2002) all from the Universitat de València. He is currently an associate professor (hab. Full professor) in the Department of Electronics Engineering. His is a research coordinator in the Image and Signal Processing (ISP) group. He has been Visiting Researcher at the Remote Sensing Laboratory (Univ. Trento, Italy) in 2002, the Max Planck Institute for Biological Cybernetics (Tübingen, Germany) in 2009, and as Invited Professor at the Laboratory of Geographic Information Systems of the École Polytechnique Fédérale de Lausanne (Lausanne, Switzerland) in 2013.
Resume Building for Pre-final year students

Resume is a gate pass for students’ career. A good resume is the one which can impress the recruiter in the first glance for few seconds. With intent of guiding the students for building an impressive resume, the placement coordinator of department of E&C engineering Prof. Vidyarani M. Katigar took an initiative to conduct a workshop for pre-final year students of the department. With guidance of Dr. Veena V. Desai and coordination of Prof. Pratijnya S. Ajawan, a series of activity sessions were organised in collaboration with IEEE GIT student branch of KLS's GIT.

PAANCHAJANYA 2K19

The annual flagship event of IEEE Student Branch of GIT, PAANCHAJANYA 2K19 was organized on 23rd and 24th February 2019. This was a regional level technical symposium, where it witnessed participants from neighbouring institutes, local engineering colleges as well as from nearby cities like Hubli, Dharwad, Chikkodi, Haliyal, Nidasoshi, Nippani. More than 500 students participated, volunteered and coordinated for PAANCHAJANYA 2K19. Various events organized were: IDEA PRESENTATION, PROJECT EXHIBITION, LASER MAZER, BLIND CODING, QUIZ, TECHNICAL TREASURE HUNT and BEST MANAGER. Online gaming contest COUNTER STRIKE-GO was also a major attraction. The IDEA presented and few BOT based projects have been invited at the institute INCUBATION Centre for support.

One Day workshop on Introduction to PYTHON PROGRAMMING and PROFILE BUILDING on LINKEDLN

The students of 4th and 6th semester ECE participated in One Day workshop on Introduction to PYTHON PROGRAMMING and PROFILE BUILDING on LINKEDLN. There were 50 participants for the workshop. The schedule was divided into 2 major sessions:
(1) Morning session was dedicated to PYTHON PROGRAMMING where introduction and few very basic codes were exercised. The session included hands-on activity.
(2) Afternoon the resource person also took a hands-on session on how to build an effective and attractive LINKEDLN Profile. The participants saw the detailed demonstration using a dummy profile, about how the skills, academic strengths, networks and other avenues of a strong bio-data can be prepared.

Resource person for the workshop was our alumnus, Mr. Sumit Chachadi 2015 passing out batch. He competed his MS in Electrical Engineering with specialization in Networking from State University of New York. He has a CCNA certification. Presently working with CISCO.

Food packing and distribution to aid people affected by heavy rain

The situation was quite tense due to heavy rains and flood-like situations in certain parts of Belagavi. Execom members stepped and volunteered to help the affected. We collected materials like blanket, clothes, sanitary materials and funds to distribute to people in the affected region. ISCON temple was serving by distributing food packets. In collaboration with ISCON, we helped to pack food and also assist in distributing them in the affected region. After the college hours, we visited ISCON temple and helped them in packing nearly 500 packets every day in the afternoon and distributing in the evening. Even college professors and staff members were active participants and helped in bringing things back to normal. Several volunteers and IEEE members assisted us in this humanitarian activity.
IEEE SJCE

SCIENCE CAMP

It was held on November 22nd 2018. About 20 volunteers contributed to the event. The volunteers formed a group of 2 or 3 and designed small and basic science models for demonstrating in front of the kids at the Trust. Few of them include electric boat, pinhole camera, onion-candle experiment, solar system model, lift/elevator model. The basic working was explained to the students in Kannada (their local language).

ROBOTICS 11

This 5 day workshop was held from 16th January to 20th January. The participants were introduced to practical and designed oriented approach. The participants were introduced to the basics of embedded systems and automation so that they are equipped with the knowledge to design their own advanced bot. This year we made use of the development board titled Arduino MEGA having ATmega 1280 microcontroller which is a low power board. A total of 160 students among which 12 were from different colleges attended the workshop which had a volunteer strength of 40. The volunteers handled software installation, microcontroller programming, hardware (bot building) debugging, teaching of basic concepts and code debugging all by themselves.

KALPANA CHAWLA MEMORIAL LECTURE

The lecture was presented by the renowned Scientist, Dr Indra Arumugam, Associate Director, ISRO Telemetry, Tracking and Command Network. The speaker delivered a lecture based on her achievement in ISRO. ISRO Telemetry, Tracking and Command Network (ISTRAC), Bengaluru is entrusted with the major responsibility to provide tracking support for all the satellite and launch vehicle missions of ISRO. The major objectives of the centre are: carrying out mission operations of all operational remote sensing and scientific satellites, providing Telemetry, Tracking and Command (TTC) services from launch vehicle lift-off till injection of satellite into orbit and to estimate its preliminary orbit in space and hardware and software developmental activities that enhance the capabilities of ISTRAC for providing flawless TTC and Mission Operations services. Kalpana Chawla Memorial lecture was open to all students from various streams in engineering making it interdisciplinary by nature. The talk shall help all students gain an insight into the working of ISRO.

GOOGLE IT

The contest consisted of two rounds, the first one being a paper-pen round, in which the participants were given a set of questions to be solved in limited time. The top ten participants from the first round, made it to the second, where they had to battle each other for the two prizes. All the people who witnessed the event were enthusiastically waiting to find answers to the brilliant questions.

TECHNICAL TALK

The talk was conducted for duration of 1 hour. The speaker informed the participants about what is IoT, IoT architecture and hardware architecture, Connectivity, 5G and IoT and IoT Applications.

Kiran is Engineering Manager at Intel, Bangalore managing RF KPI, Antenna, EMI/EMC and Graphics Platform Architecture teams. He is responsible for driving innovation and platform design for latest Intel chipset. He led the validation team for Apple Smart watch product and currently working with top laptop OEMs on platform design. Prior to joining Intel, Kiran created and led RF/modem Applications Engineering organization at Qualcomm, Bangalore. During this time, he ensured successful launch of many wireless products from top tier OEMs like Oppo, Vivo, Samsung to name a few. Earlier career positions include hardware design engineer for 2G/3G modem reference designs at Qualcomm, San Diego. Kiran has 16+ years of experience.
in wireless system design primarily on cellular technologies (2G-5G) and holds a Masters degree in Electrical Engineering with specialization in Wireless RF System Design from University of Kansas.

TECHNICAL VISIT TO IISc BENGALURU
The main focus of the technical visit was the Centre for Nano Science and Engineering (CeNSE). Nanotechnology is helping to considerably improve, even revolutionize, many technology and industry sectors. The Centre for Nano Science and Engineering (CeNSE) pursue interdisciplinary research across several disciplines with a focus on nanoscale systems. Current research topics include, but are not limited to nanoelectronics, MEMS/NEMS, nanomaterials and devices, photonics, nano-biotechnology, solar cells and computational nano-engineering.

Since nanoscale systems play a vital role in several sectors, the CeNSE department was chosen to visit.
The CeNSE department was thoroughly explored and the student visitors were explained in detail about the characterisation and fabrication of nano scale devices.
One segment of fabrication i.e dry and wet etching units was shown and the electrical, mechanical and optical characterization units of nano scale devices were also explored.
The clean room in IISc was also shown and the classification of clean rooms (Class 10 in IISc) was briefed about to the students.
One day: Workshop on Introduction to Deep Learning using Tensorflow
Opportunity to enroll yourself in Deep learning workshop as a part of Pravega 2019. (Technicno-cultural fest of IISc.) "Hands on Introduction to Deep Learning using Tensorflow". This will be a practical Hands Onsession and will be requiring the familiarity of programming language.

One day: Japan Habba Tech Fair
Japan Habba Tech Fair, where representatives from The University of Tokyo, Saitama University, Kyushu University and others will deliver presentations on a variety of topics. Representatives from the Japanese Government will describe the official government policy in Japan, and Mr Yoshino Hiroshi of the University of Tokyo, India Office will describe opportunities for Higher Education. It will also provide Job opportunities with various participating companies in Japan. The start-up can find this platform to pitch their idea in front of industry experts from Japan.

Virtualization - a key driver for IoT and 5G
The session will provide technological and standards progress, and initiatives for IoT, and 5G. Sample use cases and emerging of ecosystem cloud based solutions will be discussed. The session will address how virtualization will play an important part in accelerating the adoption of IoT and 5G and services roll-out.

Open Day Stall at ECE department IISc
Open Day is the occasion where the Indian Institute of Science opens its doors to the general public to visit, learn, ask and understand the research-culture here. We organised IEEE quiz and winner received exciting gifts.

Blockchain, energy, and provenance, some promising opportunities
In the decade since the launch of blockchain for bitcoin a wide variety of other use cases have been proposed for many sectors. In the area of provenance, proof of origin of a product or service, the developments are highly promising. This presentation will examine what is special about blockchain, what is needed for successful blockchain use cases, and some examples of work currently underway.

Deep learning model on clouds: Build your startup

Interactive session with Prof. Vwani Roychowdhury, UCLA
Vwani Roychowdhury is a Professor of Electrical and Computer Engineering at UCLA and received his BTech and PhD degrees in Electrical Engineering from IIT Kanpur and Stanford University, respectively. Prof. Roychowdhury's expertise lies in combining tools from a number of disciplines, including computer science, engineering, information theory, mathematics, and physics, and solving fundamentally problems in multiple disciplines. His research interests have spanned a diverse set of topics related to combinatorics and theoretical computer science, Artificial Neural Networks, nanoelectronics and device modeling, quantum computing, quantum information and cryptography, the physics of information processing and computation, Bioinformatics, and more recently, brain inspired machine learning and brain modeling. He has published more than 250 journal and conference papers, and coauthored several books. He has mentored more than 25 Ph.D. students and 20 post-doctoral fellows and is always seeking collaborations with problem solvers and seekers. He also cofounded four silicon valley startups; one of these, NetSeer.com, was founded in Jan. 2017, pioneered the unsupervised distillation of Concept Graphs from billions of documents, raised upwards of 45M US dollars in investment and was acquired in February 2017.

How to Publish a Technical Paper with IEEE
The authorship workshop titled “How to Publish a Technical Paper with IEEE.” The workshop offered advice on everything from the IEEE publishing process to basic writing tips and how to submit a manuscript.

The goal of the workshop was to enable engineers, faculty, researchers, and authors to advance technology and their careers by enhancing their ability to get published and share their research with the scholarly community.
community. The event is free to technology professionals with an interest in learning how to publish with IEEE.

Evolution of Cellular Wireless Technology: 1G to 5G

Over the last four decades (1980-2020), cellular wireless technology has revolutionized the communication industry and transformed the lives of people. From its infancy, with the advent of 1G (AMPS), to the pinnacle, with the successful deployment of 5G (mmWave), cellular wireless communication overcame many challenges. Dr. Gudem the development of multiple generations of cellular transceivers from the dawn of 3G to the dusk of 4G. In this seminar, Dr. Dr. Gudem take the audience through an intimate journey that highlights the many successes and a few missteps over his two-decade career in the cellular wireless industry.
IEEE BANGALORE SECTION REPORT OF THE ACTIVITIES DURING THE YEAR 2019

JCE IEEE Student Branch, Belgavi

Faculty Development Program on Audio Visual Teaching Aids on 28th Jan 2019
Department of Electronics and Communication of Jain College of Engineering Belagavi in association of IEEE Student Branch organised 3 days Faculty Development Program on Audio Visual Teaching Aids from 28/1/2019 to 30/1/2019. The resource person Prof. K.P. Punagin retired Principal KLE MSSCET Belagavi introduced Active Presenter7 Tool and briefed its benefits in teaching learning. Dr. K.G. Vishwanath Principal and Director welcomed the gathering. Dr. Krupa Rasane, Professor and Head, Department of Electronics and Communication introduced the resource person. Prof. Salma Shahapur proposed the vote of thanks during the inaugural function. The staff of various department participated and made the workshop grand success.

Robotics Workshop on 1st & 2nd March 2019
A workshop on Robotics was conducted on 1st and 2nd of March 2019 by IEEE JCE SB especially for 4th Semester Students to get basic knowledge of robotics and to start designing and assembling a level 1 wired robot and a Bluetooth controlled wireless robot. A total of 20 teams (80 students) had participated in the workshop. The workshop was conducted by resource person Prof. Ganesh Awati. The session started with the presentation on Robotics and the kit components followed by assembling the kit procedure wise. The resource person provided information regarding the compatibility of the various components and how the components can be reused. The participants thoroughly enjoyed the session. He also encouraged the students to be at par with the latest treads and key technologies used in robotics domain.

We express our sincere thanks to our branch counselor Dr. Krupa Rasane for encouraging the students to participate in such an event and the team to put in efforts and make it a success and looking forward to participate in such various other events.

International Women’s Day celebration and IEEE Inauguration function on March 19th 2019
JCE IEEE and Women in Engineering (WIE) Student Branch in association with the Departmental Staff And Student Association ECHO of Electronics and Communication Engineering department of Jain college of Engineering, Belagavi, celebrated International Women’s day on March 19th 2019. On this day the new office bearers for IEEE student branch for 2019 were also inducted.

The chief guest Dr. Aarati Bhandare, Dental Surgeon and a social Activist, Belagavi, spoke on the importance of conservation of water and rain water harvesting. She said that man and women complement each other in all walks of life.

Dr. K G. Vishwanath, Principal and Director, JCE, Belagavi, gave the presidential remarks.

Head of ECE department and IEEE branch counselor Dr.Krupa R Rasane, addressed the gathering and stressed on the importance of role of women in engineering.

IEEE student chairperson Miss. Rutuja Kelkar shared her plans of events to be conducted in the current academic year 2019.


Head of ECE department and IEEE branch counselor Dr.Krupa R Rasane, addressed the gathering and stressed on the importance of PCB Design.

Dr. K G. Vishwanath, Principal and Director, JCE, Belagavi, gave the presidential remarks.

The event was coordinated by Prof. Vinaykumar Bagali, Prof. Ravikumar K. and Prof. Shivanand C. and final year students of ECE department.

HACKITON - 2K19 27th- 29th April 2019
Department of Electronics and Communication, Engineering of Jain College of Engineering, Belagavi in association with ECHO & JCE IEEE student branch, organized a 3 days event namely HackITon - 2K19 27th- 29th April 2019. The primary goal of the HackITon was to bring out the creativity of the students.
and boost their confidence. The students were expected to solve some of the complex problem statements in the span of just 3 days. There were 32 teams from at least 7 different colleges and also the teams were interdisciplinary, comprising students from different engineering backgrounds. The required components to implement the design were provided by the organizers themselves. The components included simple microcontrollers to advanced single board computers.

On the final day of HackITon (i.e. 29th April 2019) along with valedictory there was a special talk by Mr. Pratik Yagnik from IKP knowledge park, Bangalore on "Entrepreneurship" to help participants to further take up the prototypes and turn them into potential products.
The event was sponsored by several organizations like VTU FOSS group, IEEE Bangalore sections, K-Tech innovation Hub powered by IKP, Vayavya Labs, TIMES Fact Belgaum, Prajwal Photography and Robokits India Pvt. Ltd.

**Project Exhibition (Hobby Level 04th April, 2019)**
IEEE student branch, Department of Electronics and Communication, Engineering of Jain College of Engineering, Belagavi conducted a Project Exhibition for 4th semester students on Wednesday 04th April, 2019. The judges of the event and HOD E&C engineering did the honors of inaugurating the project exhibition and congratulated the students for their innovative ideas.
The projects were guided and judged by the staff members of JCE and the following were adjusted as best projects among total 70 projects which were exhibited. The projects such as wireless networking, obstacle avoidance

**ELECTRONICS PREMIER LEAGUE May (2nd week), 2019**
The active participation of the students from the EC branch made it a very successful event. The matches were conducted with all the teams present on ground. It was an auspicious day to start the game.
The Event was conducted in the morning, it began at 9 am when all the participants gathered in the ground. The teams were well organized and bold names and came in with a spirit of great confidence.
There were six teams, the matches among these teams were scheduled accordingly. Each team gave their best and tried to over throw the others.
IEEE Student Branch Manipal

Offline coding competition called “Pandemonium” on 28th to 31st January 2019
Pandemium was a 3-day team offline coding competition with a slight twist and a tinge of mystery. A total of 60 participants came in pairs and solo. Multiple sets of questions with easy, medium, hard questions each of various points. Participants had to rack up as many points as they could within the time limit. Those who played smart advanced to the second round which consisted of even tougher constraints for the participants as well as a live leader board. After elimination, the final two teams were selected for a 2v2 face-off.

Paper Presentation on 31st January 2019
Paper Presentation was one of the flagship events of IEEE SBM in our Tech Week Arcane. The participants had to write a review paper based on the existing research done on the topic of “Invisibility Cloak”. The final submission of the review papers happened on 31st January, 2019. The 16 papers were assessed based on the depth of study, references and organization of content. The review papers were assessed by Professor Mahesha MG of Physics department of MIT, Manipal.

Make-a-Thon “Project Ultron” on 2nd February 2019
IEEE Student Branch Manipal’s first, full-scale Make-a-thon event was held on February 2, 2019. Hackathon, “an event in which students from electronics to coding, collaborate intensively on projects.”. The primary goal of this event was to raise awareness of technical talent at MIT and foster a competitive, yet cooperative, and congenial culture for talented individuals. It also allowed participants to connect with faculty, and work in labs on campus, and most importantly, with each other. Hackathons give developers an opportunity to come together, work collaboratively, tackle problems, and compete for fame and glory.

IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (2019 IEEE DISCOVER) on 11th and 12th August 2019
Student members of IEEE STUDENT BRANCH MANIPAL volunteered as “Student Volunteers” in the Discover 2019 Conference. The “Student Volunteers” contributed in organizing, publicizing and in the operation of the conference.

Working Committee Meeting on 23rd September 2019
In the first meeting of the academic year 2019-20, the newly elected Board members introduced themselves to the Working Committee members and the WC members shared their summer break experiences. This was followed by a discussion on the upcoming events of IEEE SBM and the action plan for the current semester.

IEEE DAY 2019 on 1st October 2019
The IEEE DAY started with the release of a grand video that described about the wide spectra of events conducted by the IEEE SBM in the year 2018-19. The events comprised of many exciting workshops, TechWeek 2019 and much more. For further interaction with WC and to get to know their Mancomm and Board properly, a beach trip to Hoode was organized. On the beach several activities were done. A fun-filled Kabaddi match was played between Mancomm members and WC members. A TDS test was done on the water sample taken from the sea, initially the maximum limit of the meter was crossed, after decanting and filtering multiple times the limit reached somewhere around 5000 ppm, and a noticeable change in turbidity was observed. Everyone thoroughly enjoyed this day, and the feedback was positive.
Blind Coding
NIE IEEE Student Branch organized 'Blind Coding', a coding competition as a part of Ankura, '19. The event held on the 3rd of April 2019, consisted of 2 stages. In the first stage, the participants had to debug the error in the given code and then execute the program. In the second stage, they had to write the program for the given questions and then execute it. It was a mind-boggling event for all the coders attended.

Dhriti-A Social Initiative
The social initiative was conducted at kaliyuva mane, which is an exemplary school housing many children. Initially, children were shown a Bluetooth controlled bot followed by a demonstration of basic science experiments and were explained the phenomenon behind them. Later on, they were made to do some fun activities like solving puzzles, constructing words from the given letters and enacting.

INDUSTRIAL VISIT TO CISCO
The NIE IEEE Student Branch organised an Industrial Visit to Cisco Systems, Cessna Business Park, Bangalore on the 4th of October 2019. The session began with an introduction to Cisco, its strategies and guiding principles by Ms. Aradhana Prakash and Ms. Kala Mysore. Following the introduction, Mr. Nicholson Stanes gave a glimpse of the smart cities initiative by Cisco in association with various other similar companies. The final session prior to the lunch break was a talk on the emerging technologies employed by Cisco, taken by Mr. Maneesh Malhotra and Mr. Ramamurthy. The visit was concluded with a tour of the establishment. It was extremely informative and presented the students with wonderful opportunities.

Code Labs
Code Labs was a workshop on Python organized by NIE IEEE Computer Society to teach Basic python programming. It was conducted on the 6th and 7th of September, with over 56 participants from different colleges. The participants realized the simplicity of using Python for programming and expressed a desire to learn advanced concepts. A HackerRank competition was organized at the end to test the skills the participants acquired in the workshop.

Amazon Web Services
NIE IEEE Computer Society conducted a 2-day workshop on AMAZON WEB SERVICES on 9th and 10th February 2019 at NIE, Mysore. The workshop was attended by 50 participants on a first-come, first-serve basis and was enthusiastically commenced on 9th February. The first day dealt with topics such as cloud, virtualization, DNS, EC2 while the second day had hands-on experience around exciting areas of SSH, Apache, SSL, S3, etc. The workshop was conducted my Milan Menezes and the aura of knowledge and experience was well accepted and appreciated by all the participants.

TECH TALK ON MACHINE LEARNING
Almost all the smart devices today are driven by machine learning algorithms. To give us a deeper insight on the what and how’s of machine learning, a tech talk on ‘Machine Learning’ was organized as a part of Adroit’19. The resource person for the talk was Suma Kandkur, Business Product Manager at NOKIA. She took us through the various domains of machine learning and how it is being applied today to make our lives easier. She explained the key terminologies in machine learning and neural networks and how training datasets help optimize the models built. The participants were truly fascinated by the various
projects being undertaken by NOKIA in the domain of machine learning for a better ‘connectivity’ in the future.
IEEE NMAM Institute of Technology_NITTE - STB34551

IEEE Technical Quiz
IEEE STB34551 has organised IEEE Technical Quiz for all IEEE Members on 20 March 2019. 21 members were attendend and formed 7 groups A-G. Sudhesh Holla V, P Sai Vamsi and Darshan N has organised this Event by giving Questions to the Participants on the screen using PPT. IEEE Technical questions, IEEE Advanced technology and humanity related fifty questions were asked. IEEE Student Branch Counselor Dr. Sairam announced the results and later certificates were issued.

Smart Services Systems
A technical talk on "Smart Services Systems" by Dr.Vittal Prabhu of Penn state university and a Fulbright-Nehru fellow at 11AM on 23rd April 2019 in Shambavi seminar hall organised by IEEE student branch NMAMIT Nitte (STB34551). Dr.Niranjan N Chiplunkar Principal, NMAMIT Nitte welcome the gathering. Dr. Sudesh Bekal, Dean (R&D) introduced the chief guest. 45 IEEE student members of PG and UG, Dr.K V S S S Sairam, Professor and IEEE student branch counselor were present during the session. Dr. Vittal Prabhu admired the audience regarding the specific applications of Smart services systems in the new era. Dr. Niranjan N Chiplunkar Principal, NMAMIT Nitte presented the vote of thanks. The event was completed by 1PM.

I2 CONECCCT 2019
I2 CONECCCT 2019 was organised by PESITM Technology Shivmogga in association with IEEE Bangalore section and IEEE manglore sub section, 14 IEEE student teams were participated in the events such as technical seminars, industrial open challenges, coding challenges, project exhibition and startup ideas. NMAMIT Nitte has won the best college award.

IEEE SIGHT GROUP (#19-025) Inauguration & Technical Talk on Data Science & Machine Learning
Department of Electronics and Communication in association with IEEE Student Branch, NMAMIT, Nitte (STB34551) organized the IEEE SIGHT GROUP (#19-025) Inauguration and Technical Talk on Data Science & Machine Learning dated on 23rd October 2019 in Shambhavi Seminar Hall. Chief Guest Mr. Abhishek Appaji, Asst Prof, BMSCE, JointSec & SIGHT IEEE Bangalore Section, IEEE PES/TEMS, Startup Mentor, Cofounder, Partner, TEDxBMSCE, Dr. Niranjan N. Chiplunkar, Principal, Dr. Rekha Bhandarkar, Professor and Head of the E&C Department and Dr. K.V.S.S.S.Sairam, Professor and IEEE Student Branch Counselor were preside over the function. Dr. Sairam welcomed the dignitaries, HODs, Faculty, IEEE Student Members and presented the IEEE SIGHT IGNITE video on this occasion. Mr. Abhishek Appaji has inaugurated the IEEE SIGHT GROUP NMAMIT NITTE (#19-025) and presented the IEEE SIGHT Seed Money Cheque of US$250 to Dr. Niranjan N. Chiplunkar, Principal, Dr. Rekha Bhandarkar, Professor and Head of the E&C Department, Dr. K.V.S.S.S.Sairam, Professor E&C Department and IEEE Student Branch Counselor. Dr. Niranjan N. Chiplunkar, addressed the gathering and mentioned that the IEEE students should do more projects by using the IEEE SIGHT Innovative and Informative Platform. Mr. Abhishek Appaji was presented the scope of Building a locally-focused community of engineers for global development in IEEE SIGHT with technology for sustainable development. He also presented the technical talk on Data Science & Machine Learning, Hype Cycle for Emerging Technology and Data Science Applications too. Dr. Rekha Bhandarkar was presented the memento to Mr. Abhishek Appaji as a token of appreciation and in sighted the significance of IEEE SIGHT to the gathering. 25 IEEE Members and 75 Non IEEE Members were presented during the program. Dr. K.V.S.S.S.Sairam, Professor E&C Department and IEEE Student Branch Counselor proposed the vote of Thanks.
Robotics Workshop (28-09-2019)
One-day Workshop is organised by IEEE Robotics and Automation Society of IEEE PESIT Student Branch where instructors from industry were invited to train the students on basics of Robotics which included Programming of Robot, Platform available for Robotics, Python for Robotics and many other. Demonstration of various moving robots was done on the same day. Students from 1st and 2nd years of various engineering disciplines took part in the event.

Blockchain workshop (24-08-2019)
Phase I of Blockchain workshop was organised for enthusiasts of blockchain. Basics of blockchain, its applications and cryptocurrency topics were covered

Techquilla Quiz 3.0
Quiz on various technical and non technical topics has been organised by IEEE PESIT Student Branch where students from different disciplines and branches participated. Cash prizes and certificates were given to winners. Registration was FREE for all the students.

Robotics Workshop (14-04-2019)
IEEE Robotics and Automation society of Bangalore section and IEEE PESIT South Campus Student Branch hosted a one-day workshop in series of event on Robotics. In the workshop, hands-on training was provided to the participants and they were given Takeaway kits containing basic sensors and metal chassis. Participants from different colleges participated in a group of 2-3. It was a complete one-day session where participants were trained to design a line follower robot, obstacle detector robot and a robot which can be controlled using a bluetooth module.

Hombrew Innovation Camps (02-02-2019)
Homebrew Innovation Camps under IEEE STB was inaugurated which invited students to work on their domain of interest by forming a group of 8-10 and show some productive results in given period of time. To invite the students of the college to know about working groups under IEEE STB and start working collectively.

Codathon 2.0 (08-03-2019)
Codathon 2.0 was a Women’s day celebration held by IEEE PESIT SOUTH CAMPUS STUDENTBRANCH in association with HACKEREARTH. It was an online coding competition for the exploration of programmers by analyzing real-life problems and using those skills to solve them. It was an intra college competition in which more than 60 participants participated and based on the final scores, top 3 were awarded cash prizes and certificates of achievement. The agenda was to motivate the students towards competitive coding and make them understand how exactly they can solve real life problems by using their coding skills.
IEEE BANGALORE SECTION REPORT OF THE ACTIVITIES DURING THE YEAR 2019

Workshop on “Basic Electrical Engineering” on 03/01/2019
IEEE student branch chapter-SaIT organized one day Workshop on Basic Electrical Engineering in the campus premises. The Speaker was Dr. Sridhar S, Prof & Head, Dept of EEE, CI Tech, Bengaluru, Presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru, welcome speech by Dr. C.V. Ravishankar, Head of the Department, Electronics and Communication, Sambhram Institute of Technology, Bengaluru. The event was conducted successfully with the participation of 164 students. The workshop had many informative presentation and ideas to solve the problem from the examination point of view. The workshop morning session was from 11 am -1pm, topics covered were on KVL, KCL, Single phase, 3-phase motors. Afternoon session was from 2pm -4pm, topics covered were induction motors, transformers, domestic wiring. Workshop ended with Valedictory function presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru.

Technical Talk on “Equalization Techniques for High Data Rates in Large Core Plastic Optical Fibers (POFs)” on 06/02/2019
IEEE student branch chapter-SaIT organized one day Technical Talk on topic “Equalization Techniques for High Data Rates in Large Core Plastic Optical Fibers (POFs)”. The Speaker was Prof. Sandeep Roy, Research Scholar, IIT Bombay, and Presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru, welcome speech by Dr. C.V. Ravishankar, Head of the Department, Electronics and Communication, Sambhram Institute of Technology, Bengaluru. The event was conducted successfully with the participation of around 400 students. The session was from 11 am -1pm, topics covered were on how POFs compete with copper wires, coaxial cables, glass optical fibers, and wireless, and they require a transmitter, receiver, cables, and connectors similar to those used in glass optical-fiber links. The session also was useful about the recent trends and applications involved in plastic optical fibers. Technical talk ended with Valedictory function presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru.

Technical Talk& Drug Free India Awareness Program on 19/02/2019
IEEE student branch chapter-SaIT organized one day Technical Talk on topic “Career Opportunities in Armed Forces for Technical Graduates”. The Speaker was Col. K A Ramachandra, and Presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru, welcome speech by Dr. C.V. Ravishankar, Head of the Department, Electronics and Communication, Sambhram Institute of Technology, Bengaluru. The event was conducted successfully with the participation of around 400 students. The session was from 11 am -12pm, topics covered were on career opportunities in armed forces for engineers. His session also enlightened about how the students can decide during their 12th grade itself to make career in armed forces. From 12pm to 1 pm we also supported “Drug Free India Live program,” organized by Art of Living to bring awareness and to support Drug free India moment. Technical talk ended with Valedictory function presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru.

Seminar on “How to build your Career in IT World” on 20/02/2019
IEEE student branch chapter-SaIT organized one day seminar on topic “How to build your Career in IT World”. The Speakers were Mr. Vineet Mittal, Start-ups Mentor and Mr. Rakesh, High Profile GUI Product Developer and Presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru, welcome speech by Dr. C.V. Ravishankar, Head of the Department, Electronics and Communication, Sambhram Institute of Technology, Bengaluru. The event was conducted successfully with the participation of around 400 students. The session was from 11 am -1pm, topics covered were on career opportunities in IT world. They gave us an insight of how young engineers must groom their skills before completion of their graduation. They also guided the students by conducting regular online sessions and assignments to work on to improve their coding skills. Seminar ended with Valedictory function presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru.
IEEE student branch chapter-SaIT organized SDP on topic “Recent Trends in Network Security & Cryptography”. The Speaker was Dr. Jaidhar C D, Dept. of IT, NITK, Suratkaland Presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru, welcome speech by Dr. C.V. Ravishankar, Head of the Department, Electronics and Communication, Sambhram Institute of Technology, Bengaluru. The event was conducted successfully with the participation of around 50 students. The session was from 11 am -4pm on 22nd and 23rd February, 2019, hands-on session on network security and cryptography was carried out for all the participants. The session was interactive as several topics were discussed related to recent trends in network security and cryptography. SDP ended with Valedictory function presided by Dr. H.G. Chandarakanth, Principal, Sambhram Institute of Technology, Bengaluru.
Alumni Meet
Alumni meet is one the important phase in which the students would come back and make their memories come alive. IEEE WIE of SIT conducted an event, which would entertain the women and children of the alumnus of SIT. It was a great event and all the children had a great time. There were 4 events which saw a great turnout. In the meantime, there was an event for elderly people.

Aryan School
IEEE-SITSB conducted a 2 days' workshop in Aryan School on 19th and 20th July 2019. In the workshop, students gained hands-on experience in using basic electronic sensors, Arduino, raspberry pi and other electronic components. The Workshop was headed by Dinesh Navada, Gopinath B M, Manasa K J.

Hackerrank
IEEE conducted HackerRank contest called happy codeIEEEing exclusively for IEEE members. It’s an online test for 3 hours. This event consists of three levels those are easy, medium and hard and the participant have to attend all the three rounds to win the contest. This has become a good platform for learning. This contest helped many of them to develop interest in coding. This contest was conducted on 2 days.

IdEEEas
IdEEEas SIT SB conducted the national level symposium on 25th October, at media center. Students from various colleges all over the country registered themselves to participate in different events organized under IdEEEas ’19 Registration was followed by inaugural function. Dr. T Srinivas, Professor, ECE, IISC was the chief guest of IdEEEas 2k19. With the inauguration of Photonics society this time was very special. The event started at 9.00 am by lightening the lamp by Dr. T Srinivas, Dr. K.V Suresh, Branch counselor, Dr. N.R Sunitha, WIE counselor, Dr. T Chandrika, Photonics counselor, Mr. Gowtham M P, IEEE chairman, Ms. Harshita, WIE chairman.

AAVISHKAR
This event was hobby project competition. Many Innovative projects were done by different colleges and one who was the best won first prize.

RECTIFIER
Hardware debugging is an art. Problems related to hardware were posed to the participants. Design issues were also considered and were addressed by the participants. The event had a participation of teams.

LaTeX Workshop
LaTeX software is the most important one for doing the report and reports for major and mini projects. In that view, we at IEEE conducted an event and called up on Mr. Mruthyunjaya who readily accepted and we are great ful for him. The event started with the installation and was a huge success. All the participants were given the certificates. Templates of the documents were given by Mr. Mruthyunjaya.
IEEE BANGALORE SECTION REPORT OF THE ACTIVITIES DURING THE YEAR 2019
VVIET IEEE STUDENT BRANCH – STB 08181

TECHQUIZ
We the VVIET IEEE members, had organized a fun event called “UDAAN”. The idea was to give interactive platform to students and to explore the innovative learning of students and to develop marketing skills. VVIET IEEE student branch had organized competition called “TECHQUIZ” as the part of National Science day celebration on 2nd March 2019. The idea was to give interactive platform to students and expanding Students knowledge in ‘TECHNICAL FIELD’ and ‘General Awareness’, this competition also explored the innovative learning of students.
This competition consisted of two rounds, in first round, 255 members participated where online quiz was conducted for individual students related to technical and non-technical aspects and 30 active participants were selected for second round. Second round was visual round. Chandan N was the winner. He was awarded with goodies and certificates.

Student Leadership Program
On Account of IEEEsta-The Annual Fest, The VVIET IEEE Student branch in association with IEEE Bangalore section Young Professionals had organized a student leadership program on 14th April 2019. The IEEE family of VVIET shared a productive Sunday by creating a wonderful learning experience. The Program was designed and conducted to bring out the ability of the student in Fields of Management and Entrepreneurship. The program had the diverse design of events starting from an enthusiastic ice-breaking activity, the demonstration of cognitive abilities through Survival of fittest, Conflict Management, Lean canvas presenting a solution to the problems in their visibility and finally with an activity UDAAN. The program involved the reflection, analysis, and presentation of different abilities like Leadership skills, Critical Observation, Creative analysis, Conflict resolution, Innovative solution, and Team Work. Students learned and appreciated the initiative of learning as an experience that would make a larger impact on their personality.

ORIENTATION DAY
The competition was based on product development where each of the team mates were assigned with a particular role to play which reflected their leadership qualities, marketing skills and networking abilities. Overall this fun event was successful and the winners were awarded with goodies.

Artificial Intelligence
VVIET IEEE Student Branch conducted guest lecture on “Artificial Intelligence” on 20th of September 2019. The resource person for the event was Mr. Basavaraj. The resource person gave more information to the students on present technologies as well as the future technologies. The program was started with invocation song, then the HOD of ECE department, VVIET Dr. Bindu A Thomas welcomed the chief guest of the program. Then the students were given the introduction about the chief guest Mr. Basavaraj C H. The main part of the program was started, and the resource person got connected with the students very well. His lecture was so lively and interactive. He shared his knowledge of his research about different technologies in the field of agriculture, automobiles, smart security, defense, Artificial Intelligence, ergonomics and many more. He also encouraged students to get involved in research field and to serve our nation by contributing in the development of technology. His lecture was very informative and the students learnt a lot new things.

BARAHA
VVIET IEEE Student Branch, WIE affinity group had organized “BARAHA” and "Caption Writing” competition as a part of woman’s day celebration. The idea was to bring out the view of students towards ‘FEMINISM’ and ‘NATURE’. In Baraha students were asked to write a poem on the concept ‘FEMINISM’ and in caption writing students had to write a caption for the given picture based on the theme ‘NATURE’. Participants shared their poems and captions with the audience. Best poem and caption were awarded with goodies and certificates. The duration of the event was 2 hrs. Students were given an opportunity to showcase their writing skills and creativity.

Training on DISASTER MANAGEMENT and CPR
On Account of Inaugural ceremony of IEEEsta-The Annual Fest, The VVIET IEEE student branch (STB18081) in association with IEEE Bangalore section, organized the Hub-Level “Training on Disaster Management and CPR” event in The Vidya Vikas Institute of Engineering and Technology, Mysore on 13th April 2019 from 9:30am-12:30pm. The first hour was engaged by Dr. Rajesh, an state award winner.
creating awareness among the student members about civil defence and The following session was demonstrated by the Master Trainer Mr. Sunand Sampath. The attendees were trained on various factors to be taken care of during an emergency situation as a fellow public. The program was immensely successful about responsibility as a public with the civic sense to volunteer in an emergency situation. The trainer detailed their real-time experiences with the basics of civil defence and Disaster Management. The Demonstration of CPR through Manikin and the self-explanatory videos was extremely useful in understanding the nuances of Human condition in an emergency. The session was interactive and students queries was impactful in understanding the concerns and their interest to gain the skills

Ergonomics

VVIET IEEE Student Branch, WIE Affinity Group had conducted Guest Lecture on “Ergonomics”. The resource person for the event was Mr. Basavraj C H. The resource person started the lecture by introducing the topic. Later he discussed about the applications in various fields and research opportunities in the field of Ergonomics.
MANGALORE SUB-SECTION
## Major Events

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<th>S.No.</th>
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<td>TEDx NITK Surathkal</td>
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<td>2.</td>
<td>28&lt;sup&gt;th&lt;/sup&gt; Jan – 12&lt;sup&gt;th&lt;/sup&gt; Feb 2019</td>
<td>ARCANE Tech Week MIT</td>
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<td>3.</td>
<td>30&lt;sup&gt;th&lt;/sup&gt; Mar 2019</td>
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<td>4.</td>
<td>11&lt;sup&gt;th&lt;/sup&gt; May 2019</td>
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<td>5.</td>
<td>11&lt;sup&gt;th&lt;/sup&gt; – 12&lt;sup&gt;th&lt;/sup&gt; Aug 2019</td>
<td>IEEE DISCOVER, MIT</td>
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<td>6.</td>
<td>17&lt;sup&gt;th&lt;/sup&gt; – 18&lt;sup&gt;th&lt;/sup&gt; Aug 2019</td>
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<td>7.</td>
<td>23&lt;sup&gt;rd&lt;/sup&gt; – 24&lt;sup&gt;th&lt;/sup&gt; Aug 2019</td>
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<td>10.</td>
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<td>11.</td>
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<td>IEEE Day Celebrations &amp; Late Dr. K. M. Hebbar Memorial Lecture</td>
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<td>12.</td>
<td>19&lt;sup&gt;th&lt;/sup&gt; Oct 2019</td>
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<td>13.</td>
<td>24&lt;sup&gt;th&lt;/sup&gt; Oct 2019</td>
<td>Industrial Internet of Things (IIoT), SMVITM</td>
</tr>
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</table>
1. TEDx NITK Surathkal: 18th Jan 2019
NITK Surathkal hosted the TEDxNITK 2019 event on 18th January 2019. The event was co-sponsored by IEEE NITK and IEEE Mangalore sub-section and the event was open to IEEE student members of IEEE MSS. About 800 students and faculty members attended the event. 10 IEEE student members from neighboring engineering colleges of IEEE MSS also attended the event.

TEDxNITK 2019 - eminent speakers:
- Harish Shivaramakrishnan, Engineer and Musician
- Anto Philip, Entrepreneur
- Malika Verma, Psychoanalytic Psychotherapist
- G S Madhusudhan, Technical Lead, Team Shakti
- Lakshmi Selvakumaran, Team Lead, Green Tails
- Gaurav Godhwani, Director, CivicDataLab
- Manisha Gera Baswani, Artist
- Lt. Cdr. Pratibha Jamwal, Crew on INSV Tarini

2. ARCANTE TECH WEEK, MIT, Manipal 28th Jan – 3rd Feb 2019
IEEE Student Branch Manipal organized its flagship event, Tech Week Arcane from 28th Jan to 3rd Feb 2019 which was sponsored technically as well as financially by IEEE MSS. The aim of this event was to disclose one’s vast stretch of imaginations and unveil the hidden skillset of all tech enthusiasts. The various events conducted as part of the tech-week are as follows:
- Pandemonium – offline coding event to test coding and problem solving skills
- Obscurus – online competitive coding contest hosted on HackerRank
- RL Workshop – Introductory workshop on Neural Reinforcement Learning
- Electroquest – An innovative quiz session based on the basics of bot making
- Bird Box – Participants as a team need to get through a challenging maze
- ElectroHunt - Treasure hunt based event to simulate a circuit based on the components found
- Paper Presentation – To present a paper in front of a panel of expert judges
- Project Ultron – To make something that brings a difference in the world
- The Virtual Vinci - The creative minds portray their imaginations using the tools of art and design.
- Quiztac toe – The pop culture based trivial knowledge and logical skills to win the game of tic tac toe.

3. VCET Student Branch Inauguration: 30th March, 2019
The inaugural function of IEEE student branch was held on 30/03/2019 at Vivekananda College of Engineering and Technology Puttur. A technical talk on “Research leading to entrepreneurship” was delivered by Dr. Manohar M Pai, chair of IEEE Mangalore sub-section.
IEEE VCET student branch was inaugurated by lighting the lamp and unveiling the branch logo. Chief guest Dr. Manohar Pai, chair IEEE Mangalore Sub-Section encouraged the students with his
warm and motivational words. President of the function Sri Ravikrishna D. Kallaje praised and motivated members. VCET branch counsellor Dr. Raghavendra S. spoke about the initiation of student branch and participation of students. Student branch chair Mr. Sooryanarayana presented the event list. Dr Roshan Joy Martis, Senior Member of IEEE and Professor in the department of Electronics and Communication Engineering administered the oath of Ethics to the newly inducted student members of IEEE VCET Student Branch.

Student member Ms. Jesmitha Menezes thanked all the IEEE executive committee members, Principal, HODs, Teaching and non-Teaching staff and students with a hearty vote of thanks.

4. PESITM Student Branch Inauguration & 1²CONECCT 11th May, 2019

The IEEE Student Branch of PESITM was inaugurated on 11th May, 2019 at PES institute of Technology and Management, Shivamogga. Prof Jagadeesha S N, Head of the Computer Science department welcomed the gathering and Prof Manohar Pai, Chair, IEEE Mangalore Subsection inaugurated the IEEE Students branch of the PESITM. He addressed the gathering and informed that IEEE is a global society of technocrats and students working in the field of Electrical, Electronics and IT related branches. It brings the new research being carried out to the interested community in the form of journals. It also conducts various conferences throughout the world and helps in discussing the various ideas, concepts and innovations by researchers at large. He expressed his happiness that PESITM students have also joined the IEEE community.

1²CONECCT, the 5th Industry Institute Conclave on Electronics, Computational and Communication Technologies was organized by IEEE Student Branch PESITM on May 11, 2019. It was a one day event organized for students of PESITM and various other Institutes. 1²CONECCT is a conclave of industries and institutes, and provides the platform to showcase projects and ideas. This event was a conclave of industry

The conclave was inaugurated by Sri Rajashekar S, Secretary IEEE Bangalore. In his address, he highlighted the importance of organizing such types of events for the benefit of student community. He also informed that, students will be able to exhibit their creativity and problem solving skills along with building their network along as well as team building.

Mr. Rajat Duggal, Specialist R&D Nokia, served as the Chief Guest and delivered an invited talk on 5G network post inauguration. Prof Chaitanya Kumar M V, Principal, PESITM presided over the function. Prof. Chitanya Kumar M V, Principal, PESITM presided over the function and expressed satisfaction over starting of the IEEE PESITM students branch and hoped that the branch will conduct many
activities and expand the knowledge horizons of the students community. Dr. Likewin Thomas, Branch counselor presented the vote of thanks.

Renowned members from IEEE MSS were present to witness this mega event. They also served as the jury members for different activities organized under the banner of I2CONECCT. Among them were, Prof Annappa, NITK Surathkal, Prof U C Niranjan, Director of Research & Training, Manipal Dot Net Pvt. Ltd, Prof Poornalatha G, MIT, Manipal, Prof Abhishek Appaji, BMS Bangalore, Prof Ujjwal, MIT Manipal and Prof Tanweer, MIT Manipal.

This conclave was the fifth in a series organized by IEEE MSS. The Conclave was featured with plenary talks and invited papers by distinguished researchers and technologists as well as Poster presentation, Problem-solving for Industry Open Challenges, Coding Challenge powered by Code Chef, and Project exhibition. The conclave focused on sharing the successful stories of young entrepreneurs and the challenges they faced in the fields of Electronics, Computing and Communication. Peer-reviewed accepted papers were published in the Conference proceedings. The programme motivated the young minds in right direction. Around 200 participants from 13 Engineering Colleges from all over the state participated in the programme. All of these colleges participated actively in all the events. At the end of the day, total points gained was evaluated based on the performance and NITTE Karkala was crowned with the best college award.

**5. 2019 IEEE DISCOVER: 11th & 12th August 2019**

Flagship Event of IEEE Mangalore Sub Section, 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (DISCOVER) was hosted by Manipal Institute of Technology in association with IEEE Bangalore Section. DISCOVER provided an excellent forum for discussion and exchanging information on a wide variety of topics, representing the latest developments and future trends.
KEY NOTE SPEAKERS

1. Prof. Arkady Zaslavsky
   Professor of Distributed Systems & Security, School of Information Technology, Melbourne, Australia, delivered a keynote on Bringing IoT and AI together to enable realtime awareness

2. Prof. Navakanta Bhat
   Professor, Indian Institute of Science, Bangalore, delivered a keynote on Sensor Diversity and Scaling: New Paradigm for Emerging Electronics

3. Prof. Sheldon S. Williamson
   Professor and Canada Research Chair in Electric Energy Storage Systems for Transportation, delivered a keynote on Electric Energy Storage Systems and Smart Charging Infrastructures for Transportation Electrification and Autonomous E-mobility

2019 IEEE DISCOVER Papers status

| Number of papers received from all over the globe | 189 |
| Number of countries from where papers were received | 8 |
| Number of papers selected after peer review | 60 |

To develop skills in software tools for research, the following pre-conference tutorials were arranged on 10th August, 2019 and was attended by more than 150 participants

1. RF Tutorial by KarMIC Design
2. Demystifying deep learning using MATLAB by MathWorks, Bangalore

6. IEEE R10 Conference Leadership Program: 17th to 18th August 2019, Goa

IEEE R10 organized ‘IEEE Region 10 Conference Leadership Program’ to train volunteers from the sections of Region 10. The aim of this conference is to train volunteers who shall be able to organize and guide IEEE conferences efficiently and effectively ensuring the quality as per IEEE standard in their respective sections. A training on Conference Leadership to train on quality aspects of IEEE conferences. This is useful for those who conduct/review conferences where Section is a Technical Co-sponsor. Prof. Annappa, is nominated by IEEE MSS attended this conference
7. **NCASEM : 23rd to 24th August 2019**

The National Conference titled “National Conference on Advances in Science, Engineering and Management – 2019 (NCASEM – 2019) was held at Vivekananda College of Engineering and Technology jointly by all the departments in association with IEEE VCET Student Branch, Indian Society for Technical Education (ISTE) and Vishveshvaraya Center for Application of Science and Technology. IEEE MSS extended a financial support of Rs.10,000 to this conference. A total of 83 research papers were accepted for presentation in the conference, based on the ratings and the descriptive comments provided by the reviewers. Keynote address on the topic “Trends in Science, Engineering and Management” was given by Dr. U.C Niranjan & “Solution for Global Warming- Scarcity of Water in India” was delivered by Dr. Kiran G. Shirlal.

8. **PETPES NITK: 29th to 31st August 2019**

PETPES 2019, 1st International Conference on Power Electronics application and Technology in Present Energy Scenario, was conducted by Department of Electrical and Electronics engineering NITK for three days from 29-31st August 2019 and was technically sponsored by IEEE MSS. The conference received 114 papers across the country which were reviewed by 100 prominent reviewers and selected 50 outstanding papers which had novelty in research.

First day of conference began with an inaugural function and chief guest Dr. Akshay Kumar Rathore (Concordia university monreal QC canada), Dr. Uma Maheshwara rao (director of NITK) and guest of honour Prof. Panduranga Vittal K (dean alumni affairs and institutional relations, NITK), Prof Manohara Pai M M( Chair , IEEE MSS) graced this event with their presence, and was followed by release of conference proceedings.

This conference was financially supported by TEQIP-III, golden sponsor: BOSCH, silver sponsors – Dyna fusion and OPAL-RT; Society sponsors: IEEE -Mangalore sub section, IEEE- IAS, IEEE-NITK; Technical sponsors CDAC and Mathworks,

**KEY NOTE & INDUSTRY SPEAKERS**

- Dr. Frede Blaabjerg, Aalborg University
- Dr. Akshay K Rathore, Concordia University
- Dr. Jeevanand Seshadrinath, IIT Roorkee
- Dr. B. G. Fernandes, IIT Bombay
- Shri. Chandrashekar V, CDAC, Trivandram
9. DLP & Sahyadri SB Revival : 21st October, 2019

The student branch of Sahyadri College of Engineering and Management was revamped on 21st October, 2019. As part of this, Sahyadri organized a technical talk from Prof. Basavaraj Talawar, Professor, NIT Surathkal on “Disruptive Technologies in Computing Systems”, with help of DLP programme offered by IEEE MSS. In his talk, he gave glimpses of how there will be a massive changes in the computer architecture which could disrupt the way in which computing is done. Total of about 180 students from Computer Science & Engineering, Electronics & Communication and Information Science & Engineering participated in this tech talk. IEEE MSS Chair and other executive members interacted with the students of Sahyadri SB. The Chair and Chair-elect provide overview about IEEE as well as elaborated on the importance and benefits of becoming student member of IEEE. The committee advised the SB to conduct various events.

10. AISYWC : 28th – 30th September, 2019

IEEE Hyderabad section hosted India Council event AISYWC this year from September 28th to 30th at Hyderabad. Prof.Srikanth Prabhu (MIT) was nominated by IEEE MSS and was sponsored by the Bangalore section to participate in this event. The topics discussed during this event includes education technology with entrepreneurship, social quotient and adversary quotient. The theme of this event was “women in engineering” and the contribution of women towards society, nation building, world scenarios, with repertoire of men and women contributing positively to the society were nicely presented and elaborated during the event.
IEEE Day is celebrated by organizing Lecture series in the memory of Late Prof K M Hebb (Fellow IEEE) who was a great philanthropist and teacher. He was life fellow of IEEE and a great motivator for students and faculties to be an IEEE member. IEEE Day celebration was hosted by KarMic Design Private Limited, Manipal.

The function started with the prayer by Ms. Susmitha from KarMic. Dr. Pushparaj Shetty, Vice-Chair, IEEE MSS welcomed the gathering and detailed about IEEE MSS. Dr. Niranjan U. C gave overview about IEEE day and Late Dr. K.M. Hebb Memorial Lecture. Event was inaugurated by paying floral tribute to Late Dr. K.M. Hebb photo. Mr. Madan Bilgi, Director - KarMic, talked about KarMic and its various activities. Dr. Venugopal introduced Mr. Harikrishna Bhat, the chief guest to the gathering. He gave a lecture on “My Experiences with Dr. KM Hebb, & Brief on Japan”. He was felicitated by IEEE MSS after delivering his guest talk. Dr. Manohar M Pai, Chair IEEE MSS gave presidential remarks followed by Dr. Ujjwal Verma, Joint Secretary IEEE MSS thanking each and every one responsible for the celebrations. The celebration was concluded with National Anthem followed by High Tea. The entire programme was compered by Dr. Poornalatha G, Secretary IEEE MSS.
Shri Madhwa Vadiraja Institute of Technology & Management (SMVITM), Bantakal, under the aegis of the Student Chapters of the Indian Society for Technical Education (ISTE) and IEEE Student branch organized a National Level Student Convention/Project Exhibition on Industrial Internet of Things (IIoT - 2K19) at the institute premises on 24th October 2019. This flagship event of SMVITM IEEE student branch was technically sponsored by IEEEEMSS with a financial sponsorship of Rs.10,000 to present cash prizes for the winners. More than Fifty teams from various Engineering colleges across the state exhibited their project models in the event.

The Convention cum Exhibition was inaugurated by the Chief Guest Dr. C.P Ravikumar, Director, Technical Talent Development, Texas Instruments, Bengaluru. Dr. C.P Ravikumar began his speech with how the industry has changed over the years and that the semiconductor industry is constantly going through change and the change is constant. He further said that the IT industry went through three major waves where the first one was the personal computer followed by networking which paved way for wireless communication which resulted in the next big wave, the mobile phones. He then concluded his speech, stating that the next big wave for the upcoming generations would be IIoT.

Shri Rathnakumar in his presidential address spoke about how he is proud to be a part of the fifth IIoT student convention. He said that the marks contribute to only a small percentile to what makes an engineer and the rest is how one applies the knowledge that they have gained. He further stated that the exposure that the students gain here gives them the confidence and knowledge that can help them immensely in the future. He concluded by wishing that the event would be a grand success.

Dr. Ganesh Aithal, Vice-Principal and Dr. Vasudeva, Convener – IIoT 2K19 were present on the dais. Prof. Dr. Thirumaleshwar Bhat, Principal welcomed the gathering. The event began with an invocation from Ms. Shreya Bhat, Final Year CSE. Ms. Rushali, IIoT Student Coordinator, Final Year ECE proposed the vote of thanks. The program was compeered by Mr. Trivikrama of Final CSE.
13. Keynote addresses, Technical talks and Hands-on workshops – IEEE MSS Chair-Elect, Dr. Niranjan U C

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/02/2019</td>
<td>Technical Talk</td>
<td>AJIET, Mangalore</td>
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<tr>
<td>25/02/2019</td>
<td>Computer Vision workshop</td>
<td>Mangalore University, Konaje</td>
</tr>
<tr>
<td>13/03/2019</td>
<td>Technical Talk</td>
<td>MITE, Moodabidre</td>
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<tr>
<td>01/04/2019</td>
<td>Research Colloquium</td>
<td>MAHE, Manipal</td>
</tr>
<tr>
<td>23/08/2019</td>
<td>Keynote talk in NCASEM</td>
<td>VCET, Puttur</td>
</tr>
<tr>
<td>14/11/2019</td>
<td>IEEE Day talk</td>
<td>PESITM, Shivamogga</td>
</tr>
<tr>
<td>16/11/2019</td>
<td>DST INSPIRE Talk to PUC students</td>
<td>Science Museum, Pilikula</td>
</tr>
<tr>
<td>21/11/2019</td>
<td>Keynote talk in SACAIM</td>
<td>St Aloysius College, Mangalore</td>
</tr>
</tbody>
</table>
Envision Project Proposal Presentations 11th January 2019
- Problem statements to be worked on by first years discussed
- Discussion of project feasibility
- Shortlisting of projects
- Attended by 60 student members + 10 volunteers

Dishaspoorthi 12th January 2019
- Social Outreach Initiative by IEEE-NITK for students of NITK Kannada Medium School
- Talk about career paths in STEM fields
- Attended by 100+ students of grades 8,9,10
- Gifted pens to all students

VLSI Design Workshop 12th and 13th January 2019
- VLSI Design session by Mr Aditya Kulkarni, NITK IEEE Student Branch Chairman for the year 2017-2018
- Introduced Electric for VLSI Design
- Provided insight into innovative design techniques
- Attended by 30 student members

Knowledge Sharing Session - Technical Paper Writing 14th January 2019
- Knowledge Sharing Session introducing software used in writing technical papers
- Tips and tricks regarding nuances of writing technical papers
- Attended by 20 student members

Embedathon - Hardware Hackathon on 19th and 20th January 2019
- 24 hour Embedded Systems hackathon
- Organised for student and non student members (59 teams in total, 10 finalists)
- Online screening test (on HackerEarth) followed by hardware hackathon
- Problem statement: Design a system to receive latitude, longitude and ocean temperature being transmitted by ships in the Arabian Sea using 433 MHz RF transmitters and create a mobile application to display the data in a graphical manner

Eureka Workshop Series on 12th, 14th, 16th October 2019
- Series of workshops on multiple topics
- Bridge building, parachute building workshops and talk on biomimicry for students interested in the core branches of engineering.
- Tinkercad, digital electronics and nodemcu workshops for students interested in electronics.
- Sessions on Linux CTF, p5.js and problem solving for students interested in computer science.
### Other Events:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name</th>
<th>Date</th>
<th>Brief Description</th>
<th>No. of IEEE Attendees</th>
<th>No. of non-IEEE Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Body Meeting</td>
<td>7th January 2019</td>
<td>First Meet of the new year; Outlined achievements of the previous year, primarily WiTS; Discussed event to be held at NITK Kannada Medium School; Assigned coordinators for Enlighten Talk Series;</td>
<td>150</td>
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</tr>
<tr>
<td>2</td>
<td>Knowledge Sharing Session - Robotics and Motion Planning</td>
<td>9th January 2019</td>
<td>Introduction to path planning algorithms; Discussion on configuration space; Outline of path finding algorithms like A*, Dijkstra’s, etc</td>
<td>15</td>
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<tr>
<td>3</td>
<td>Talk by GyanDhan</td>
<td>Industry-Student Branch Collaboration</td>
<td>10th January 2019</td>
<td>Mr Ankit Mehra, CEO of GyanDhan provided insight into the process of applying for an MS degree; Provided information about education loans, scholarships, GRE study tips and assistantships;</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Envision Project Proposal Presentations</td>
<td>11th January 2019</td>
<td>Problem statements to be worked on by first years discussed; Discussion of project feasibility; Shortlisting of projects;</td>
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<tr>
<td>5</td>
<td>Dishaspoorthi</td>
<td>12th January 2019</td>
<td>Social Outreach Initiative by IEEE-NITK for students of NITK Kannada Medium School; Talk about career paths in STEM fields; Gifted pens to all students</td>
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<td>150</td>
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<td>6</td>
<td>VLSI Design Workshop</td>
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<td>VLSI Design session by Mr Aditya Kulkarni, NITK IEEE Student Branch Chairman for the year 2017- 2018; Introduced Electric for VLSI Design; Provided insight into innovative design techniques;</td>
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<td>7</td>
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<td>14th January 2019</td>
<td>Knowledge Sharing Session introducing software used in writing technical papers; Tips and tricks regarding nuances of writing technical papers;</td>
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<tr>
<td>#</td>
<td>Event Description</td>
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<tr>
<td>8</td>
<td>Knowledge Sharing Session - Public Key Cryptography</td>
<td>15th January 2019</td>
<td>Knowledge Sharing Session introducing Public Key Cryptography (PKC); Discussion on RSA - principal algorithm used in PKC; Applications of RSA in creating Digital Certificates; Attended by 20 student members; Subsequent sessions on Elliptic Curve Cryptography and Diffie Hellman Key Exchange to be taken up</td>
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<tr>
<td>9</td>
<td>Industry Talk Session by QPlum Software Pvt Ltd</td>
<td>16th January 2019</td>
<td>Session on Artificial Intelligence (AI) in the concept of investing; Insight into integration of AI into the investment ecosystem; Highlighted the increased role of engineers in this regard</td>
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<tr>
<td>10</td>
<td>TEDx NITK Surathkal</td>
<td>18th January 2019</td>
<td>TEDxNITK Surathkal 2019 was co-sponsored by IEEE NITK and IEEE Mangalore sub-section.</td>
<td>20</td>
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<tr>
<td>11</td>
<td>Embedathon - Hardware Hackathon</td>
<td>19th and 20th January 2019</td>
<td>Embedded Systems hackathon; Organised for student and non student members (59 teams in total, 10 finalists); Online screening test (on HackerEarth) followed by hardware hackathon; Problem statement: Design a system to receive latitude, longitude and ocean temperature being transmitted by ships in the Arabian Sea using 433 MHz RF transmitters and create a mobile application to display the data in a graphical manner</td>
<td>20</td>
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<tr>
<td>12</td>
<td>Enlighten: Effective Communication Series, Dr Sriram Ganapathy</td>
<td>8th February 2019</td>
<td>Dr. Sriram Ganapathy is an Assistant Professor at the Department of Electrical Engineering at Indian Institute of Science, Bangalore; Talk on “Speaker and Language Recognition -- From Laboratory Technologies to the Wild”; The talk was aimed at the undergraduate students.</td>
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<td>13</td>
<td>Workshop Session - IEEE Canara Engineering College</td>
<td>9th March 2019</td>
<td>Workshop for all student members of IEEE MSS as part of technical fest at IEEE CEC; Topics in Python for Machine Learning and Data Analytics; Attended by 50+ students.</td>
<td>20</td>
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<tr>
<td>No.</td>
<td>Event Description</td>
<td>Date/Details</td>
<td>Description</td>
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<tr>
<td>14</td>
<td>Enlighten: Effective Communication Series, Dr Chandra Sekhar Seelamantula</td>
<td>13th March 2019</td>
<td>Dr. Sekhar Seelamantula is an Associate Professor at the Department of Electrical Engineering at Indian Institute of Science, Bangalore; Talk on &quot;Orthogonal Projections and Shannon's Sampling Theorem&quot;; Aimed at providing an alternate view to a familiar topic to the undergraduate students.</td>
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<tr>
<td>15</td>
<td>IEEE NITK Project Expo</td>
<td>23rd to 25th March 2019</td>
<td>Displayed 30+ projects completed under IEEE technical groups as part of academic year 2018-19; Engaged members of IEEE MSS to witness projects; Showcased progress made and achievements by members of the student branch and thereby serve as an outreach of IEEE activities.</td>
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<tr>
<td>16</td>
<td>VLSI Testing Workshop by TTTC India</td>
<td>30th March 2019</td>
<td>This symposium focuses on providing participants with a basic understanding of the most recent DFT advances in logic, memory, delay and SOC testing; Speakers included researchers from Rambus and Texas Instruments Bangalore.</td>
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<tr>
<td>17</td>
<td>Annual General Body Meeting</td>
<td>2nd April 2019</td>
<td>Summarize all activities conducted in the past academic year; Outline and hand over responsibilities to the new committee of the student branch; Identify roles and responsibilities of the new committee.</td>
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<td>18</td>
<td>Talk on “Benefits of an IEEE Membership” at NMAMIT Nitte</td>
<td>21st August 2019</td>
<td>Aimed at spreading awareness about the benefits of joined IEEE as a student members</td>
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<td>19</td>
<td>PETPES 2019</td>
<td>29th - 31st August 2019</td>
<td>PETPES was a conference organized by Department of Electrical and Electronics Engineering, NITK in collaboration with IEEE Mangalore Sub-section and IEEE NITK; The keynote speakers for the conference were as follows:Dr. Frede Blaabjerg, Aalborg University, Denmark, Dr. Akshay K Rathore, Concordia University, Canada, Dr. B. G. Fernandes, IIT Bombay, Dr. J. Seshadrinath, IIT Roorkee, Dr. Chandrasekhar V, CDAC; 30+ technical papers presented by over 70 researchers from across the country.</td>
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<td>20</td>
<td>Student Branch General Body Meeting</td>
<td>4th September 2019</td>
<td>The first meeting of the academic year was held to align all members of the student branch on the goals of IEEE NITK.</td>
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<td>Event Description</td>
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<td>21</td>
<td><strong>Insight Talk Series</strong></td>
<td>1st October 2019 - IEEE Day</td>
<td>IEEE NITK’s flagship talk series was held in the last week of September, aiming at informing students at NITK about the various career opportunities available to them; 15 speakers speak about their experiences in college and internships.</td>
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<tr>
<td>22</td>
<td><strong>Enlighten Talk Series: Mr. Gajendra Singh</strong></td>
<td>1st October 2019 - IEEE Day</td>
<td>Mr. Gajendra Singh is the director of Storage Technologies Ltd; Talk on “NAND Flash and SSD Memories”, aimed at providing an insight into an emerging technology and research field to undergraduate students.</td>
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<tr>
<td>23</td>
<td><strong>Eureka workshop series</strong></td>
<td>12, 14, 16 Oct 2019</td>
<td>Series of workshops on multiple topics; Bridge building, parachute building workshops and talk on biomimicry for students interested in the core branches of engineering; Tinkercad, digital electronics and nodemcu workshops for students interested in electronics; Sessions on Linux CTF, p5.js and problem solving for students interested in computer science.</td>
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<td>24</td>
<td><strong>Knowledge Sharing Session - Fourier Transform and applications</strong></td>
<td>23 Oct 2019</td>
<td>Insight into Fourier transform logically and mathematically; Discussion on application of Fourier transform in basic signal processing; Discussion on basic linear algebra models</td>
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<td>25</td>
<td><strong>REFLECT Talk Series: WiE Affinity Group</strong></td>
<td>25 Oct – 1 Nov 2019</td>
<td>Week long program to enhance professional skills of women in NITK; Aimed to ensure that each participant was aware of available opportunities to improve their professional profile; Activities included writing professional emails, understanding long-term, and short-term goals</td>
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<tr>
<td>26</td>
<td><strong>Knowledge Sharing Session - Micro Electro Mechanical Systems</strong></td>
<td>28 Oct 2019</td>
<td>Introduction to the field of MEMS Discussion on characterization, manufacturing and application of MEMS devices in the field of engineering</td>
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<tr>
<td>Event Name</td>
<td>Event Date</td>
<td>Description</td>
<td>Number of IEEE attendees</td>
<td>Number of non-IEEE attendees</td>
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<tr>
<td>1 Tech-Talk on Disruptive</td>
<td>21-09-2019</td>
<td>The IEEE Student branch of Sahyadri organized a technical talk on 21-09-2019. Prof. Basavaraj Talawar, Professor, NIT Surathkal delivered a Technical Talk on “Disruptive Technologies in Computing Systems”. In his talk, he gave glimpses of how there will be a massive changes in the computer architecture which could disrupt the way in which computing is done. Total of about 180 students from Computer Science &amp; Engineering, Electronics &amp; Communication and Information Science &amp; Engineering participated in this tech talk.</td>
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<tr>
<td>2 IEEE Day Celebration</td>
<td>01-10-2019</td>
<td>The IEEE Student Branch of Sahyadri College of Engineering &amp; Management celebrated the IEEE day on October 1, 2019. In the formal event Principal, Dr. R Srinivasa Rao Kunte, addressed the gathering and stated the history of IEEE community, stressed on the usage of technology for the better tomorrow and also urged the gathering to join the IEEE community.</td>
<td>15</td>
<td>50</td>
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<tr>
<td>3 Game of Codes</td>
<td>01-10-2019</td>
<td>On the account of IEEE day the IEEE Student Branch of Sahyadri College of Engineering &amp; Management organized “Game of Codes”, a coding event open to all the branches. A total of 108 students had registered for the first round. The first round was a technical MCQ’s round which was hosted in HackerEarth- an coding avenue. The top 25 students of the first round then competed in the second round hosted in HackerRank, which had three coding scenarios to be solved. The best coder Hussain Muhammad Billal of 5th semester, Computer Science &amp; Engineering was then adjudged as the “King of Codes”.</td>
<td>15</td>
<td>108</td>
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</table>
Hands-on workshops on “IoT, Arduino, Raspberry Pi boards, Electronics circuits” as part of Atal Tinkering Labs established at High schools.

In continuation with the initiative started in the year 2018, the student mentors who are also the members of IEEE conducted 1-day, 2-day and 3-day workshops on basic electronic circuits, Sensors, IoT, Robo_cs, Arduino and Raspberry Pi boards etc to the interested high school and PU students of SDPT P U College, Kateel (9 February; 2 October); Government P U College (Hiridakka, Bailuru, Brahmanavara, Bidkalka_e, Haklady: 11, 12, 18, 19 February, 2 October); VKR Acharya English Medium High School, Kundapura (4, 5 October, 2019); Madhava Kriya English Medium High School, Manipal (2 October, 2019); Shri Vyasa Maharshi Vidyapeeta, Mulky (2, 3 November); Javahar Navodaya Vidyalaya, Hebri (11 October, 2019).

Workshop on “New Age Skills for Writing Technical Papers

ISTE Student Chapter and IEEE Student Branch of SMVITM, jointly organized a two days workshop on "New Age Skill Set for Writing a Technical Paper" for the final year students on 12th and 19th February 2019. The opening remark of the session was given by Dr. Vasudeva, HOD Department of Computer Science and Engineering. He briefed about two day's workshop and also the importance of Technical writing. The first session “Paper Presentation skills in a Technical Conference and use of online tools for Literature review”, was taken by Mr. Ananda Hegde, Associate Professor, Department of Mechanical Engineering. The second session “Technical Paper writing” was taken by Mr. Sujay Raghavendra Naganna, Associate Professor, Department of Civil Engineering. The third session “Innovation in Research and IPR” was taken by Dr. K K Srinivasan, Sr. Professor, Department of Chemistry. The fourth session titled “Project Proposal” was taken by Dr. Ravindra H.J, Associate Professor and Head, Department of Physics. Second day of the workshop was conducted on 19th February. The first session was taken by Dr. Vasudeva HOD Department of Computer Science and Engineering, titled “Project Report Writing”.

The Women Empowerment Cell (WEC) of Shri Madhwa Vadiraja Ins_tute of Technology and Management, Bantakal in association with IEEE student branch celebrated International Women’s Day on 12th March, 2019 in the seminar hall of our Admin block. Ms. Anila Andrade, Associate Vice President, 99Games, Udupi was the chief guest of the program.

Invited Talk on Role of New Age Technologies in Hackathons and IT industry

An invited talk on “Role of New Age Technologies in Hackathons and IT industry” by Mr. Bharath Yaraga, VP- Cloud Practice, Niveus Solutions, Udupi was organized on 13 April 2019 at SMVITM campus by IEEE Student Branch and CodeTroopers Student club. During his address, Mr. Bharath spoke at length about the role of IoT, Cloud Computing, Blockchain technology, Agile practices in rapidly changing IT industry. He advised students to actively participate in hackathons and gameathons in order to realize the potential of new age technologies in the student age itself and thereby reducing the learning curve when they join the industry.
### Other Events:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Event name</th>
<th>Event date</th>
<th>Brief description (2 to 3 lines)</th>
<th>Number of IEEE attendees</th>
<th>Number of non-IEEE attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>New Age Skill Set for Writing a Technical Paper</td>
<td>12, 19 February, 2019</td>
<td>The program was for final year students with an objective to improve skill set of our students required to present their final year project work in a Technical paper and also to see that they acquire the right presentation skill.</td>
<td>12</td>
<td>58</td>
</tr>
<tr>
<td>2</td>
<td>International Women’s Day</td>
<td>12 March, 2019</td>
<td>The Women Empowerment Cell (WEC) in association with IEEE student branch celebrated International Women’s Day on 12th March, 2019. Ms. Anila Andrade, Associate Vice President, 99Games, Udupi was the chief guest of the program.</td>
<td>10</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>Invited Talk</td>
<td>13 April, 2019</td>
<td>An invited talk on “Role of New Age Technologies in Hackathon and IT industry” by Mr. Bharath Yaragatti, VP-Cloud Practice, Niveus Solutions, Udupi was organized on 13 April 2019. During his address, Mr. Bharath spoke at length about the role of IoT, Cloud Computing, Blockchain technology, Agile practices in rapidly changing IT industry.</td>
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<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Clash of Codes 2.0</td>
<td>13 April, 2019</td>
<td>In order to hone the programming and problem-solving skills of SMVITM students, IEEE Student Branch organized an event called Clash of Codes 2.0. The event comprised of three rounds namely Prelims, Elimination and Gambling.</td>
<td>10</td>
<td>45</td>
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<tr>
<td>5</td>
<td>A two-day workshop on “Arduino Programming”</td>
<td>27, 28 September, 2019</td>
<td>A two-day workshop on Arduino Programming was organized by IEEE Student Branch, SMVITM in order to introduce the Arduino programming to the first-year engineering students of SMVITM. To inculcate the trait of peer learning among students, the workshop was conducted by a motivated team of budding engineers from SMVITM which comprised of Mr. Suraj Shetty, Mr. Vineeth P Nayak, Mr. Shamith Joshi, Mr. Vignesh Kudva, Mr. Rakshith, Mr. Srivastha, Mr. Harish and Mr. Nikhilesh pursuing second year engineering in different streams.</td>
<td>8</td>
<td>72</td>
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<td>6</td>
<td>Keyboard Master</td>
<td>30 August, 17 September, 2019</td>
<td>IEEE Student Branch and CodeTroopers club organized an event called Keyboard Master. The event comprised of two rounds namely Elimination and Finals wherein typing skills of the students was put for competition.</td>
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<td>350</td>
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<td>7</td>
<td>Workshop on Android Programming</td>
<td>4, 5 October, 2019</td>
<td>IEEE Student Branch and ISTE student chapter of SMVITM Organized a two-day workshop on ‘Android Application Development’.</td>
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<td>8</td>
<td>Workshop on Python Programming</td>
<td>31 August – 7 September, 2019</td>
<td>IEEE SB SMVITM organized Python Workshop for the students of Atal Tinkering Lab installed schools of Udupi and Dakshina Kannada districts in conjunction with PYCON India – 2019, a premiere conference in India on using and developing the python programming language. The workshop was attended by 110 high school students of about 15 schools.</td>
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<tr>
<td>9</td>
<td>Two-day Workshop on digital circuits and Arduino boards</td>
<td>4 – 5 October, 2019</td>
<td>A two-day workshop on digital circuits and Arduino boards was organized at V K R Acharya Memorial English Medium High School, Kundapura. Students from Government High School Haklady and Government Pre-University College Bidkalkatte were also present.</td>
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<tr>
<td>10</td>
<td>Hands-on session on Arduino</td>
<td>2 October, 2019</td>
<td>SMVITM IEEE Student Members conducted a hands-on session on Arduino in Madhva Kripa English Nursery and Higher Primary School. Student had a session on introduction to Arduino and the usage of it. They also had a hands-on session where various experiments and mini projects were done like controlling single and multiple LEDs, Traffic Light, Detection of Objects using IR Sensors, Integrating IR sensor and LEDs, controlling motors, integrating motors and IR Sensors, making motors run using hand gesture and Finding distance between objects using Ultrasonic sensor.</td>
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<tr>
<td>11</td>
<td>Session on Arduino &amp; Raspberry Pi</td>
<td>2 October, 2019</td>
<td>IEEE Student members conducted a session on Arduino and Raspberry Pi which was hosted by Government Pre-University College Hiriadka to its interested students and students from Government Pre-University College Bailur joined them. Students had a session on introduction to Arduino and Raspberry Pi along with few demonstrated projects.</td>
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<tr>
<td>12</td>
<td>Introduction to Arduino and Raspberry pi</td>
<td>10 October, 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and Raspberry pi at Jawahar Navodaya Vidyalaya, Chara-Hebri where students of Herga Vital Shetty Government High School, Kuchoor were also present.</td>
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<tr>
<td>13</td>
<td>Introduction to Arduino and Sensors</td>
<td>2 October 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and sensors at SDPT High School, Kateel.</td>
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<tr>
<td>No.</td>
<td>Event Description</td>
<td>Date</td>
<td>Details</td>
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<tr>
<td>14</td>
<td>Workshop on Ideation and Projects</td>
<td>13 – 15 July, 2019</td>
<td>IEEE SB, SMVITM organized a three-day workshop on Atal tinkering Lab Initiatives where in sessions on ATL, IoT, Ideation, projects were conducted. The students &amp; teachers and mentors of different schools and from PU colleges participated in the workshop.</td>
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<tr>
<td>15</td>
<td>Hands-on workshop on Arduino and IoT</td>
<td>9 February, 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and sensors at SDPT High School, Kateel.</td>
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</tr>
<tr>
<td>16</td>
<td>Hands-on workshop on Arduino and IoT</td>
<td>11, 12, 18 February, 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and sensors at GPU College, Bailuru.</td>
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<tr>
<td>17</td>
<td>Hands-on workshop on Arduino and IoT</td>
<td>11, 12, 19, February, 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and sensors at GPU College, Hiriadka.</td>
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</tr>
<tr>
<td>18</td>
<td>Hands-on workshop on Arduino and IoT</td>
<td>23, 24 February, 2019</td>
<td>IEEE Members of SMVITM conducted a session on Introduction to Arduino and sensors at GPU College, Bidkalkatte.</td>
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</tr>
</tbody>
</table>
IEEE VCET STUDENT BRANCH

A technical talk on “Research leading to entrepreneurship”

A technical talk on “Research leading to entrepreneurship” was held by Dr. Manohar Pai, chair of IEEE Mangalore sub-section from 11.00 AM to 1.00 PM. On 30/03/2019.

Jnanasangama

Jnanasangama 2019, A National level student Conference in collaboration with IEEE was held on 11th May 2019. Dr Nagesh H.R., Professor & HOD, Department of ISE, AJ Institute of Technology, Mangalore inaugurated the conference. Sri Ravikrishna D. Kallaje, Director, Governing Council of Vivekananda College of Engineering and Technology presided over the function. 232 papers belonging to ME, EC, CS, IS, CV & MBA were received from various colleges. A total of 74 papers were selected based on the scientific merit and innovativeness from all branches for oral presentation and 100 papers were selected for poster presentation.

Students from about thirteen Engineering colleges across Karnataka and 516 students from VCET participated in the event. The conference had two competitions namely paper presentation and poster presentation. Dr. Ajith Hebbar, Professor, MITE, Mangalore, Dr. Subhramanya, Associate Professor, NMAMIT, Nitte, Karkala, Dr. Puttanna K, Assistant Professor, Dept. of MBA, Mangalore, University, Dr. Nagesh H.R., Professor, AIT, Mangalore, Dr. Shreeranga Bhat, Professor, SJEC, Mangalore were the Judges of the event. Cash prizes of Rs 2,500 and Rs 1,750 for winners of paper presentation and Rs 2,250 and Rs 1,500 for winners of poster presentation were given as first and second prizes respectively. Trophy and certificates were given to all the prize winners in each stream. Participation certificates were given to all the participants. The student participants found the event useful and it gave them a forum to present their project work and could interact with their peers.

Code-a-thon

Code-a-thon was conducted by the department of Computer Science and Engineering, Vivekananda college of Engineering and Technology, Puttur in collaboration with IEEE to extract the strong skilled programmers from the institute. Event was open for all the students from all the departments. 95 teams had participated. Each team had 2 members. Participants are posed with three levels of programs. Teams will be awarded with 5/10/20 points upon successful execution of programs of Level I/II/III respectively. Top scoring team in each category (CSE/ISE, Non-CSE/ISE, FY) will be awarded with cash prize. Next top five teams are also awarded with consolation cash prizes.

IoT workshop

IoT workshop delivered with three applications. Firstly started with Arduino IDE basic LED blink program. After LED blink program followed by DHT11 sensor that helps to display temperature and humidity readings on Blynk application. Soil moisture sensor helps to display moisture content of soil on Blynk application. Home automation project using Google assistance, it sends and receives signal through MQTT Protocol (Adafruit) interfaced with IFTTT. All developed applications are implemented on ESP8266, NoduMCU and ESP32 boards. Total 24 participates all are IEEE members.

ELAN&IIT

ELAN&IIT Hyderabad organized 2 day workshop at Vivekananda College of Engineering & Technology. A software toolkit was provided to every candidate. Participation certificate to every candidate from ELAN & NVISION IIT Hyderabad. Excellence certificate to winners of the workshop. After the workshop candidates were given a chance to participate in BrainTech Championship 2020 and get a chance to win a scholarship.

Swacch Bharat

Aims to clean up the streets, roads and infrastructure of VCET Campus and rural areas on 01/10/2019.

Atal Tinkering Lab
IoT awareness to school students was conducted by IEEE student members on 7 November 2019. School students were given a brief introduction about what IoT is, how life can get simpler with IoT, some basic applications of IoT. Also students were given a chance to work on simple led projects using Node MCU.

**Unnat Bharath Abhiyan**

Department of ECE In association with Unnat Bharath Abhiyan, IEEE, ISTE organised session on IoT projects for Chikmudnur government school on 12 November 2019. Around 78 students attended the program. EC students given awareness on Electronics and electrical devices and demonstrated IoT projects.

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**Other Events:**

<table>
<thead>
<tr>
<th>Name of the Event</th>
<th>Event date</th>
<th>Description</th>
<th>IEEE attendees</th>
<th>non-IEEE attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Keynote addressing</td>
<td>30 April 2019</td>
<td>A technical talk on “Research leading to entrepreneurship” was held by Dr. Manohar Pai, chair of IEEE Mangalore subsection from 11:00 AM to 1:00 PM.</td>
<td>78</td>
<td>44</td>
</tr>
<tr>
<td>2 IEEE VCET student branch inauguration</td>
<td>30 April 2019</td>
<td>IEEE VCET student branch was inaugurated by lighting the lamp and unveiling the branch logo. Chief guest Dr. Manohar Pai, chair IEEE mangalore subsection encouraged the students with his warm and motivational words. President of the function Sri Ravikrishna D. Kallaje praised and motivated members. VCET branch counsellor Dr. Raghavendra S. spoke about the initiation of student branch and participation of students. Student branch chair Mr. Sooryanarayana presented the event list.</td>
<td>78</td>
<td>44</td>
</tr>
<tr>
<td>3 Jnanasangama</td>
<td>11 May 2019</td>
<td>A National level student Conference: 232 papers belonging to ME, EC, CS, IS, CV &amp; MBA were received from various colleges. A total of 74 papers were selected based on the scientific merit &amp; innovativeness for oral presentation and 100 papers for poster presentation. Cash prize of Rs 2,500 and Rs 1,750 for winners of paper presentation and Rs 2,250 and Rs 1,500 for winners of poster presentation were given as first and second prizes respectively.</td>
<td>82</td>
<td>434</td>
</tr>
<tr>
<td>4 Code-A-Thon</td>
<td>14 May 2019</td>
<td>Code-a-thon was conducted by the department of Computer Science and Engineering, Vivekananda college of Engineering and Technology, Puttur in collaboration with IEEE VCET to extract the strong skilled programmers from the institute.</td>
<td>41</td>
<td>149</td>
</tr>
</tbody>
</table>
Event was open for all the students from all the departments. 95 teams had participated. Each team had 2 members. Participants are posed with three levels of programs. Teams will be awarded with 5/10/20 points upon successful execution of programs of Level I/II/III respectively. Top scoring team in each category (CSE/ISE, Non-CSE/ISE, FY) will be awarded with cash prize. Next top five teams are also awarded with consolation cash prizes.

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCASEM</td>
<td>23 August &amp; 24 August 2019</td>
<td>The National Conference titled “National Conference on Advances in Science, Engineering and Management – 2019 (NCASEM – 2019) held at Vivekananda College of Engineering and Technology jointly by all the departments in association with IEEE VCET Student Branch, Indian Society for Technical Education (ISTE) and Vishweshvarayya Center for Application of Science and Technology. The call for papers was prepared. As a result of the review process, a total of 83 research papers were accepted for presentation in the conference, based on the ratings and the descriptive comments provided by the reviewers. Keynote address on the topic “Trends in Science, Engineering and Management” by Dr. U.C Niranjan &amp; “Solution for Global Warming- Scarcity of Water in India” was delivered by Dr.Kiran G. Shirlal.</td>
</tr>
<tr>
<td>IoT workshop</td>
<td>7 September &amp; 8 September 2019</td>
<td>IoT workshop delivered with three applications. Firstly started with Arduino IDE basic LED blink program. DHT11 sensor that helps to display temperature and humidity readings on Blynk application. Soil moisture sensor helps to display moisture content of soil on Blynk application. Home automation project using Google assistance, it sends and receives signal through MQTT Protocol(Adafruit) interfaced with IFTTT. All developed applications are implemented on ESP8266, NoduMCU and ESP32 boards. Total 24 participates all are IEEE members. Workshop was delivered by Dr. Raghavendra S</td>
</tr>
<tr>
<td>Workshop on Machine learning</td>
<td>28 September &amp; 29 September 2019</td>
<td>IEEE VCET Student Branch organized 2 day workshop at Vivekananda College of Engineering &amp; Technology. A software toolkit was provided to every candidate. Participation certificate to every candidate from ELAN &amp; NVISION IIT Hyderabad. Excellence certificate to winners of the workshop. After the workshop candidates were given a chance to participate in Braintech Championship 2020 and get a chance to win a scholarship. Machine Learning was Delivered by Mr. Adgaonker Shashank</td>
</tr>
<tr>
<td>Workshop on Ethical Hacking</td>
<td>28 September &amp; 29 September 2019</td>
<td>IEEE VCET Student Branch organized 2 day workshop at Vivekananda College of Engineering &amp; Technology. A software toolkit was provided to every candidate. Participation certificate to every candidate from ELAN &amp; NVISION IIT Hyderabad. Excellence certificate to winners of the workshop. After the workshop candidates were given a chance to participate in Braintech Championship 2020 and get a chance to win a scholarship. Ethical Hacking was Delivered by Mr. Manish Bharadwaj</td>
</tr>
<tr>
<td>Workshop on Bug Bounty</td>
<td>28 September &amp; 29 September 2019</td>
<td>IEEE VCET Student Branch organized 2 day workshop at Vivekananda College of Engineering &amp; Technology. A software toolkit was provided to every candidate. Participation certificate to every candidate from ELAN &amp; NVISION IIT</td>
</tr>
<tr>
<td>Event Name</td>
<td>Date</td>
<td>Description</td>
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<td>----------------------------------------</td>
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</tr>
<tr>
<td>Swachh Bharat</td>
<td>1 October 2019</td>
<td>Aims to clean up the streets, roads and infrastructure of VCET Campus and rural areas.</td>
</tr>
<tr>
<td>IEEE day</td>
<td>1 October 2019</td>
<td>A technical talk on “Leveraging open source opportunities to build a successful career” was delivered by Dr. Mohit P. Tahiliani on IEEE Day Celebration at VCET Puttur</td>
</tr>
<tr>
<td>Atal tinkering Lab IoT Awareness Program</td>
<td>7 November 2019</td>
<td>IoT awareness to school students was conducted by IEEE student members on 7 November 2019. School students were given a brief introduction about what IoT is, how life can get simpler with IoT, some basic applications of IoT. Also students were given a chance to work on simple LED projects using Node MCU</td>
</tr>
<tr>
<td>Computer Kaliyona</td>
<td>7 November 2019</td>
<td>Association of Computer Science Engineering Student in association with UnnathBharathAbhiyan 2.0, IEEE and ISTE, VCET, Puttur organized a session on “Computer Kaliyona” for Government Higher Primary School, Padnoor students on 07/11/2019. Students are given an introduction to basics of computer and working of computer with live demonstration of various parts of computer. Around 80 students of Padnoor School participated in the event. Mrs. Radhika Shetty and Mrs. Divya, Assistant Professors, VCET coordinated the event.</td>
</tr>
<tr>
<td>Unat Bharath Abhiyan</td>
<td>12 November 2019</td>
<td>Department of ECE in association with Unnat Bharath Abhiyan, IEEE, ISTE organised session on IoT projects for Chikmudnur government school on 12 November 2019. Around 78 students attended the program. EC students given awareness on Electronics and electrical devices and demonstrated IoT projects.</td>
</tr>
<tr>
<td>Event name</td>
<td>Event date</td>
<td>Brief description</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
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<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1. IoT hands-on workshop</td>
<td>16,17 March 2019</td>
<td>To give a basic knowledge about IoT and how to develop projects in it.</td>
</tr>
<tr>
<td>2. Machine Learning hands-on workshop</td>
<td>30-31 March 2019</td>
<td>To give a basic knowledge about machine learning and how to develop projects in it.</td>
</tr>
<tr>
<td>3. Cloud computing and blockchain hands-on workshop</td>
<td>07,08 April 2019</td>
<td>To give a basic knowledge about cloud &amp; blockchain and how to develop projects in it.</td>
</tr>
<tr>
<td>4. Image &amp; speech processing hands-on workshop</td>
<td>14,15 April 2019</td>
<td>To give a basic knowledge about image &amp; speech processing and how to develop projects in it.</td>
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<tr>
<td>5. I2Connect</td>
<td>11 May 2019</td>
<td>A technical event for paper presentation, industrial open challenge, coding and project exhibition.</td>
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<tr>
<td>6. Latex hands-on workshop</td>
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<td>A hands-on workshop for working in Latex</td>
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<tr>
<td>7. IoT using cloud hands-on workshop</td>
<td>12, 13 Oct 2019</td>
<td>To give a basic knowledge about the same and how to implement projects using it.</td>
</tr>
<tr>
<td>8. Image &amp; speech processing hands-on workshop</td>
<td>12, 13 Oct 2019</td>
<td>To give a basic knowledge about image &amp; speech processing and how to develop projects in it.</td>
</tr>
<tr>
<td>9. IoT hands-on workshop</td>
<td>20, 21 Oct 2019</td>
<td>To give a basic knowledge about IoT and how to develop projects in it.</td>
</tr>
<tr>
<td>10. Machine learning hands-on workshop</td>
<td>22, 26 Oct 2019</td>
<td>To give a basic knowledge about machine learning and how to develop projects in it.</td>
</tr>
<tr>
<td>11. Mobile awareness program for Govt. school students</td>
<td>6 Nov 2019</td>
<td>To give a basic knowledge about various sectors like scholarships, higher studies, internet, etc.</td>
</tr>
<tr>
<td>12. Technofun</td>
<td>12 Nov 2019</td>
<td>A technical event to showcase your skills in technical logo making, coding, technical quiz and pick &amp; speck.</td>
</tr>
<tr>
<td>13. IEEE day</td>
<td>14 Nov 2019</td>
<td>An awareness program about IEEE by Dr. Niranjan</td>
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</tbody>
</table>