IEEE Bangalore Section

Annual Report for the year 2014

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IEEE Bangalore Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary

A.1.1. Section Executive Committee Member List:

Chairman : Mr. A Ravikiran, Teritree Technologies Private Limited
Vice-Chair : Prof. Debabrata Das, IIIT-Bangalore
Mr. Sudeendra Kaushil, HCL Technology
Treasurer : Dr. R V Siva Reddy
Secretary : Mr. Puneet Kumar Mishra, ISRO

Committee Members:

1. Dr T Srinivas, IISc
2. Dr. Siva Yellampalli, UTL Technologies
3. Dr. Suersh Janghamshetti, BEC, Bagalkot
4. Mr. Gowtham Prasad, Microsoft
5. Mr. Nitin Keshav, Accenture
6. Mr. Kesav Bapat, Agilent Technologies
7. Mr. Dileep Parchuri, Intel
8. M. B.N. Pal, Shristi ESDM
9. Mr. Vishwas Joise, Xilent Technology
10. Dr. Preeta Sharan, Oxford Engineering College
11. Mr. Keshav Bapat, Agilent Technology

Immediate Past Chairs: Mr. Hitesh Mehta
Mr.V.V.Srinivasan

A.1.2. Section Highlights

2014 was the year of many unique initiatives and brought many laurels to Bangalore section. Section won the MGA Outstanding Large Section award and R10 Distinguished Large Section Award for the year 2013. Further, section also received an appreciation letter from MGA for its SIMPLE Program.

During AGM of 2014, Chairman of IEEE Bangalore section outlined initiatives, plans and goals for the Section. Combined with data from membership feedback coupled with active, dynamic and young volunteers, Section has been able to deliver on many of its plans and conducted more than 200 activities with the help of society chapters and student branches.

Section successfully bid for bringing IEEE SmartTech Workshop (Metro Area Workshop) to Bangalore. This was the First time IEEE SmartTech workshop was held outside US. Further section successfully hosted IEEE President's Visit and India Council Meeting. Section was successful in conducting Product Leadership workshop, App Development

workshop, Lean Startup workshop, Women in Electromagnetics Workshop, and Industry Leaders Meeting. These events were a true success for the relentless efforts of volunteers.

Professional activities garnered speed with the newly formed collaboration (MoU) with Swissnex and Visvesvarya Industrial & Technological Museum (VITM). These collaboration efforts are for member benefits as it opens up new horizons in the field of technology and management. Further, section has successfully organized a workshop on Product Leadership for the benefit of professional members. Section commitment towards AIYEHUM and its commendable success has been well recognized. This year it was conducted at R10 level.

In order to recognize members and with an aim to have at least 50 IEEE Fellows in Bangalore section by year 2017, Section organized a unique workshops called 'Fellow Identification and Nomination Exercise (FINE)'. Dr. Panos, Chair, IEEE Fellows elevation committee conducted the workshop. This workshop was huge success with 100 eligible senior members attending the same. Further, as part of 50 years of IEEE Fellowship, section felicitated all the Fellows of Bangalore Section.

On technical front, section organized a dedicated workshop namely IEEE SmartTech Workshop on IoT and Bigdata. Nearly 250 people across India attended the same. In a unique initiative, by clubbing IEEE membership charges in Registration fee, section was able to induct 111 new IEEE Members.

To celebrate IEEE day on larger scale section decided to provide support of Rs 5000 to each Student branch celebrating the same. 20 Student Branches have celebrated the IEEE Day with section support.

As part of Industry initiative section hosted a panel discussion on "Technology Innovation and Market opportunities" and formed a CTO Forum consisting of Indian and Multinational Companies, Government Labs, and representation from Academic Institutions.

Student activities have been cherry on the cake for Section for long Student Leadership Congress and BR Vardan Paper contest were the main events of the section. Various student branches have conducted more than 100 events this year.

With advancements to social media, Section has invested time and resources to keep its section website updated, Twitter chatter ongoing and Facebook feeds active. This has enabled many of our members to stay connected. Event registrations have been streamlined by using online payment gateways and pilot runs to record events and host it on our website were undertaken. Section has also put resource to consolidate Bangalore section History in Video form.

Section is happy to share that two initiative of section viz. Internship Portal and Insurance Scheme for member benefits have been appreciated a lot and will now be implemented at India level.

NEW INITIATIVES:

This year section has started following new initiatives:

1. IEEE SmartTech Workshop
2. Product Leadership Workshop
3. IEEE Fusion on line technical Magazine
4. Support of Rs. 5000 to each student branch to celebrate IEEE Day
5. Start of Small Student Branch Award with prize money of Rs. 10,000
6. Cash Award of Rs. 1000 to each member who have been granted a patent
7. Enhancement in Cash reward for Publishing IEEE Journal/Transaction paper from Rs 1000 to Rs. 2000
8. Enhancement in Annual Support from Rs. 10000 to 15000 to each Student Branch for conducting at least 1 technical activity
9. Start of Annual Support of Rs. 25000 to society chapter for conducting at least 1 technical activity.
10. Inter Collegiate Cultural competition during AGM
11. Volunteers Day for rejuvenating
12. Chapter Chair's meet
13. CTO Forum for Industry Collaboration
14. IEEE Bangalore Section History Video
15. Internship Portal, which is now India Initiative
16. App Development Workshop for High School Children
17. IEEE Authorship workshop
18. VITM collaboration for engaging younger minds

A.1.3. Major Events (International, National)

A.1.3.1. IEEE President's Visit:

IEEE President visited the section on Oct 14, 2015. Section has organized a meeting of IEEE President with Director, ISRO Satellite Centre, in which he congratulated ISRO for its successful Mars Mission. He discussed in detail how IEEE and ISRO can work together. After meeting, he was shown to various ISRO labs and facilities. A technical Talk was arranged in IISc, where he delivered a lecture on "IEEE & Future Technological Challenges". After this Talk a Dinner meeting with ExeCom members of IEEE Bangalore section was arranged. During the discussion President lauded the various effort and initiatives of Bangalore section specially the grand success of IEEE SmartTech Workshop.

A.1.3.2. IEEE India council meeting:

Bangalore section hosted IEEE India council meeting in month of October.

A.1.3.3. IEEE SmartTech Workshop:

IEEE Bangalore Section conducted first non-U.S. IEEE SmartTech Metro Area Workshop on26th& 27th September at Hotel Lalit Ashok, Bangalore. IEEE SmartTech Workshop provided participants a unique learning experience with topics on the cuttingedge of technical innovation today. This two day workshop was focused on providing an opportunity for participants to learn first-hand from the field experts. This workshop was a springboard to a deeper understanding of technology and its myriad applications and potential for innovation.

Inaugural Photo of IEEE Smart Tech Workshop

Participants in Inaugural Session & Keynote Address

Workshop covered two technology domains: IoT and Bigdata & Analytics. There were 97participant for Bigdata & Analytics track and 123 participants for IoT track. Shri. Ravikiran A. was general chair, Shri. B.N. Pal was workshop Chair and Shri. Puneet Kumar Mishra was Convener of the workshop. Conference was sponsored by C-DoT. The technical program comprised of 1 Inaugural Address, 3 Distinguished Keynote Talks, 11 Technical sessions in IoT Track , and 8 Technical Session in Bigdata & Analytics Track. A Special session on Career development was also arranged for the participants of both the tracks. We were veryfortunate to have the following Distinguished Speakers:

1. Prof. Sadagopan, IIIT-Bangalore
2. Dr. Sarat Chandra, C-DAC
3. Prof. Debabrata Das, IIIT-Bangalore
4. Prof. Yogesh Simhan, IISc, Bangalore
5. Shri. Syam Madanpalli, iRam Tchnologies
6. Smt. Geeta Manjunath, Xerox
7. Shri. Vijay Kumar Kabbin, Wipro Technologies
8. Shri. L.R. Bhat, CISCO
9. Shri. Kaushank Khandwala, IIM Bangalore
10. Shri. Ashwani Garg, Intel
11. Shri. Krishna Prasad, CISCO
12. Shri. Raghvendra Saboo, Yuvera Technologies
13. Mr. Navneet Agrawal,
14. Mr. Gurinder Singh, IISc
15. Mohammad Hussain Naseem,
16. Shri. B N Pal, Shristi ESDM
17. Shri. Ravikiran A., Teritree technologies
18. Shri. Ravi Koulagi,CISCO
19. Shri. Venktesh, IESA
20. Shri. Arvind Tewari, TiE
21. Shri. Vijaykant Naddur, Tationem

An overwhelming 220 participants registered for the workshop. It was a truly Pan India workshop in which 40 % participants were from outside Karnataka. Participant's profiles were CEOs, CTOs, Directors, Professors, research scholars, and students. This conference was mainly organized for working professionals, hence participation from students were restricted to 30%. Due to huge participation we were forced to close the registrations on

Sep 5, 2014. To encourage non-IEEE members to become IEEE Members, membership was bundled in the registration fees. 111 new IEEE memberships across India were created with this innovative initiative. At the end of the workshop, certificates were given to the participants and workshop material was shared online. Workshop was huge success and participants requested to organize more workshops in near future.

A.1.3.4. Product Leadership Workshop

IEEE Bangalore Section and The Institute of Product Leadership, a premier Bangalore based product management institute jointly held a one day workshop on the foundation and essentials of product management. The event was held at Mathan Hotel, Bangalore. The event had an entry fee to cover the workshop fees. The event received extensive response from members and there were 40 registrations. All the participants were professional members from organizations like Siemens, Philips, L&T, ABB, Accenture and start-ups. The workshop was delivered by Mr. Pinkesh Shah, Dean of the institute who in his previous tenure was the VP of Products at Symantec Corporation. The workshop was split into lectures, group activities, sample surveys etc. All participants received course material which is exhaustive book on product management and a course credit certificate which can be used against a full time master's program at the product management institute. The event also generated many new IEEE members.

A.1.3.5. Fellow Identification & Nomination Exercise (FINE) Workshop

Fellow Identification & Nomination Exercise (FINE) Workshop was conducted by IEEE Bangalore Section on December 20th, 2014 at Hotel Matthan, Bangalore. The objective of this workshop was to make aware the eligible senior members about the Fellows Elevation process, nomination guidelines, and minimum eligibility requirements for becoming an IEEE Fellow. Bangalore being hub of World class R&D activities in IT, Space, Aerospace, Defense and Semiconductor industries and World class Academic Institutes like IISc, IIIT-B, NIAS, NIMHANS, and JNCASR has excellent pool of researchers, scientists, practitioners, educators and Technical leaders. Among them many deserve to be in IEEE Fellow Grade. IEEE Bangalore section is targeting minimum 50 IEEE Fellows in section by 2017.In this connection this workshop was organized and Dr. Panos, Chair, IEEE Fellows elevation committee & Dr. Prasad Kodali, Member, IEEE Fellows elevation committee were invited to conduct the workshop.

Participation in the workshop was excellent and nearly 100 eligible Senior Members attended the workshop. Dr. Panos gave a detailed Talk on "Fellows Nomination Process-Reality, Myths and Tips". He emphasized the need of proper selection of nomination category (Practitioner, Educator, Technical Leader, and Research Engineer / Scientist) based on one's contribution. He also emphasized the need of Technical Society evaluation and its roll. He suggested for providing quality references and restricting it to 5-7. Active

Association with the society chapters of your field is an added advantage as the society evaluators will know the candidate and will provide correct feedback.

Section ExeCom Members along with Dr. Panos & Dr. KodaliDr. Panos delivering the Talk

It was an interactive session and participants were encouraged to ask questions and Dr. Panos clarified their doubts. Dr. Prasad Kodali, gave specific inputs for the elevation process by practical examples. Welcome address was given by Prof. D. Das, Vice-Chair, IEEE Bangalore Section and vote of thanks was proposed by Puneet Kumar Mishra, Secretary, IEEE Bangalore Section. IEEE Bangalore section chair, briefed the participants about various initiatives taken by Bangalore section. Total 29 Senior Members were identified as potential candidate for Fellows grade elevation. Section offered them all kind of support needed for the nomination.

A.1.3.6. B.R. Vardan-2014 National Level Paper Presentation Contest

BR Vardhan is a national level paper contest which is conducted annually by IEEE Bangalore Section. This year, BMSCE IEEE Student Branch was given the opportunity to host it on 8th November, 2014. The participants were given 8 minutes to present their paper and 4 minutes for the Q/A session. The guest of honors and judges for the contest were:

Dr. G Ramesh, Head of Department, Micro-air Vehicle Unit, NAL
Dr. VPS Naidu, Senior Scientist, Micro-air Vehicle Unit, NAL
Dr. Shyam Vasudev Rao, Founder, Forus Healthcare Pvt. Ltd.
Mr. B.N. Pal, Industry Chair, Bangalore Section
Prof. T.D. Senthil Kumar, MSRIT

A.1.3.7. Lean Start-up Workshop

This workshop was held at IIM-Bangalore on 13th December 2014 and was intended to provide an understanding of the Lean startup methodology and how to use it to develop products/services that customers want. Drawing from the simple design of iterative lean startup methods, Lean canvas helps in being action focused and validate business ideas systematically in order to create successful business opportunities. It was

based on the belief that business plans are too static and take too much time and effort to complete and in addition require many un-validated assumptions based on secondary data. The workshop also provided an exposure to effectual entrepreneurship, a theory that looked at the decision making principles of expert entrepreneurs. The Lean Approach to starting up was first popularized as an organizational metaphor by Eric Ries in his popular book The Lean Startup, although the idea was anticipated by Steve Blank in his book Four Steps to Epiphany. In the past few years the Lean Approach has emerged as a popular way of managing the uncertainty that startups are exposed to and equip with them greater agility.

A.1.3.8. Android App Development Workshop

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 17-19 2014. 30Students from Kendriya Vidyalaya, Delhi Public School, Bishop Cotton Boys School, Sri Kumaran Children's Home, Jain PU College etc participated in the course. IEEE volunteers handled the classes. Akash tablets which were used by the students for app development were donated to the museum by IEEE India Office. There were six sessions with 2 sessions per day. The event was appreciated by everyone. The event detail was featured in daily newspaper. Indian Express featured us on the front page through which the success of the event can be realized. A snap of it is attached above.

YOUNG INNOVATORS: Proud creators flaunt their Android app Jarvis, which can capture photos and videos and even make a call. (Right) Class 12 boy Jayanth R displays the cricketing app developed by him, which has found many takers

Session 1: Introduction to Android by Shri Satish Patel, Texas Instruments

Session 2: Algorithms, Flowcharts, Programming fundamentals, Data Structures, Loops: by Aravind M A (Indian Institute of Science)

Introduction to AppInventor followed by Practical session on demo app CAT by putting mustache for Cat by Vijay, IBM.

Session 3: Demo of App development on Car using App Inventor followed by Practical session on Car App by Aditya Prabhu (Benz)

Session 4: Discussion with students about developing their own app. Student project for developing of following four apps

1. Music app (Playing music of different instruments)
2. Hand Cricket
3. BBMP APP (Garbage, Pothole, Pipe leakage etc)
4. Jarvis (app based on voice command)

Hands on session on developing apps By Aravind M A (Indian Institute of Science)By Aravind M A (Indian Institute of Science)

Session 5: Coding for apps(Eclipse),Google Play store by Amit Suarna(Android Group)

Session 6: Development of App & Demo of Student Project followed by distribution of certificates& Digit magazine to students and mementoes for volunteers. By Aravind M A(Indian Institute of Science) & Amit Suarna(Android Group)
Resource persons: Divya Kumari (Deloitte), Aravind MA (IISc Bangalore), Amit Suarna(Android Group), Aditya Prabhu (Benz), Satish Patel (Texas Instruments), Vikram Sharma (Intel).

A.1.3.9.Women In Electromganetics Workshop

An international Workshop on Women in Electromagnetics was organized by IEEE Bangalore Section, WIE Bangalore Section and supported by IEEE Antennas and Propagation Society on 7th and 8th of March 2014 at the Indian Institute of Science, Bangalore. Nearly 50 people attended the workshop. Following sessions were organized during the workshop:

1. How Maxwell came to conclusion that light was electromagnetic in nature? By Dr. T.K. Sarkar, University of Cyracuse, President IEEE-APS
2. Fundamentals of EMI/EMC by Dr. Gunashekaran, IISc
3. RF Systems in Mars Orbiter Mission by Ramalakshmi, ISRO
4. Present EMI and EMC Scenario, by Dr. D R C Pande, LRDE
5. Computational/Numerical Methods of Analysis of Electromagnetic Problems by Dr. Magdalena Salazar-Palma, Universidad Carlos III de Madrid, Spain
6. Terahertz by Dr. N V S N Sarma, NIT Warrangal
7. Networking Session by Dr. Parveen Wahid, University of Central Florida, USA
8. Recent Developments in Radar Systems by Meena Dasan, LRDE

A.1.3.10. Volunteers Day

IEEE Bangalore section organized a Volunteers day to induct and bring in new volunteers to contribute for the advancement of technology on January18, 2015 at Ramada hotel, Bangalore. The aim of this meeting was to identify and develop a pool of volunteers who can run various section initiatives in view of numerous initiatives started by section. Mr. Ravikiran Annaswamy, Chair, IEEE Bangalore section gave a brief introduction about the events organized in 2014 followed by the motto of the volunteers meet. Session started with figuring out the problems faced by students, student branches and volunteers. Volunteers were made to discuss in groups about the problems and come up with their

solution. Total 50 issues were identified. All the Problems, issues and observations were discussed in detail and were documented by Mr. Puneet Kumar Mishra, Secretary, IEEE Bangalore Section.

All achievements, all earned riches, have their beginning in an idea. For the advancement of technology, IEEE Bangalore section welcomed the new ideas from the volunteers present over there. The same teams discussed about the new ideas and voted for best three ideas. Those new ideas will be the new initiatives from the Bangalore section for the year 2015. This was followed by a networking lunch. Post lunch session was taken up by Mr. Tathagat Verma who gave an inspirational talk on leadership by explaining his adventures journey to the Antarctica. Draft Calendar of events of Bangalore section for the year 2015 was shared with volunteers. There was an open discussion for the volunteers to add events in the calendar. The events were planed and finalized with the specific dates. This event was a huge success with 55 volunteers attending the same and proposing nearly 25 new initiatives.

Section has successfully organised/supported Following Major events

1. DLT on "SMART Power Flow Controller for Smart Grid Applications" by Dr. Kalyan Sen in association with VITM

A.1.4. Major Chapter Activities

1. Total 116 events conducted in the form of Workshops, Technical Talks and DLs by different chapters of Bangalore section
2. President, IEEE MTT Society visited section and met SIGHT representative
3. South Asia Chapter Chairs Meet of IEEE EDS society Chapter
4. 2nd IEEE International Microwave and RF Conference IMaRC 2014Conference from 15th to 17thDec, 2013 atHotel Vivanta By Taj Bangalore
5. The IEEE Electrical Design of Advanced Packaging and Systems (EDAPS) Symposium on 14-16th Dec at WTC,Bangalore
6. Different chapters provided technical sponsorships to 6 International conferences.

A.1.5. Major Student and Affinity Group Activities

A.1.5.1. Major Student Activities

Bangalore Section has been in the forefront for conducting various activities for benefit of its student members. Over 100+ activities were conducted by the section with the help of various student branches.

Branch Counselor's Meet 2014

IEEE Bangalore Section organized the Branch Councillors Meet on 13th April, 2014. Branch Councillors and Office Bearers from all over the section were invited to discuss various issues and address the Student Branches on various issues related to the section. The meet was held at University Visvesvaraya College of Engineering, Bangalore and saw participation from around 20 colleges. The main highlight of the event was that the Internship Portal IeeeINTERNS and the section magazine FUSION were inaugurated. Also a bid was called on for the Flagship events for the Section, BRV Vardhan Paper presentation competition and the Student Leadership Congress.

Student Leadership Congress

The Student Leadership Congress, a cream of all events ofBangalore Section is an annual event conducted for thestudent members of the section. The students are pouredwith the experiences of Leadership, Team Building,Volunteering and a number of other soft skills with anessence of recent trends in technology. This year it was held at Basaveshwar Engineering College, Bagalkot. With an aim ofinculcating higher potential and enthusiasm among themembers, the team took up the event with a combinedtheme of Leadership, Career, IEEE Volunteering, andTechnology. Student members from all overKarnataka responded for the event with an interest andhope of getting more than expected. The event went on well and was successful with excellent feedbackfrom the participants. Total 100 students from 15 student branches attended the congress.

YP Interface Meeting

Realizing the importance of elevation of student members to graduate members, we thought of targeting the right audience. We made use of Student Leadership Congress as a platform to have an orientation session which aims at membership retention which has always been section's prime concern. Active student leaders from throughout the state gathered in BEC Bagalkot were given a brief intro about the membership benefits after graduation on 7th Nov 2014. Quite a few activities were conducted by Vishwas Jois, Nipun Manral and Anirudh Parvatikar. Along with this, we have mentored the student volunteers for the success of this event. And we hope to have a huge increase in of YP members through this event since all the participants have assured to renew their membership and also promote membership retention in their respective student branch as well. Student

Leadership Congress 2014 paved way for better interaction between student community and Young Professionals community. Nearly 130 SB Leaders from across Karnataka attended the same.

Other Important Student Activities were:

I. Analog Design Summer School
II. Workshop on ARM Cortex-M3 Micro Controller
III. Research Methodologies and Latex skills along with IISc SB

A.1.5.2. Affinity Group Activities

IEEE YP Bangalore has been in the forefront in conceptualizing and organizing events for the benefit of young professional members since its inception. WIE Bangalore is also equally vibrant in conceptualizing events for the benefits of Women in Engineering affinity group members. Following the summary of activities:

1. 3 Events in the form of workshops, technical talks, paper presentations and community service programs were conducted by WIE affinity Group
2. 10events were conducted by YP affinity Group

A.1.6 Awards

- **MGA Outstanding Large Section Award**

Section received the MGA Outstanding Large Section Award for the year 2013 for its focused approach on elevation of members to Senior Member grade for purposes of membership development. The Section was able to elevate 188 members to Senior Member grade in the year 2013; more than 74% rise in a single calendar year. The IEEE Bangalore Section had numerous activities for IEEE Day (1 October 2013), including Cybertron - an IEEE R10 level online treasure hunt. The event was based on the e-quiz pattern and was funded together by the IEEE Bangalore Section and IEEE Region 10 Electronics Communications & Information Management (ECIM) Team. The event had 269 participants from various sections of India, Pakistan, Japan, and other Region 10 countries.

- **R10 Distinguished Large Section Award**

The Region 10 has selected Bangalore Section as the 2013 Region 10 Distinguished Large Section Award based on the report summarizing excellent activities performed by section. Award consists of a citation and cash bonus of US$ 1000. This award will be presented to the section in R10 annual meeting going to be held at Dhaka.

- **IEEE MGA Innovation Award:** To AIYEHUM team for “inspiring, enabling, and connecting young scientists and engineers to solve real-world challenges, applying science and technology, and building relationships between industry and academia”.

In addition to this section/Section Chapter/section members received following awards:

- Section got **Certificate of Appreciation** for SIMPLE Program in recognition of exceptional effort towards a significant number of senior members elevation in 2013 by Vice President, IEEE MGA.
- **2014 IEEE EMBS Outstanding Chapter Club Award** to EMBS Bangalore Chapter
- **2014 IEEE PES Runners Up Outstanding Chapter** to PES Bangalore Chapter
- **2014 IEEE Photonics Society- Senior Member Initiative award** to Photonics society Bangalore chapter
- Dr Sujatha from BMSCE for **Outstanding Branch Counselor Award**
- Mr.Fleming Dackson Gudagunti of The Oxford college of engineering has won **2nd runner up award in IEEE R10 paper competition** 2014 PG level for his project on "Photonic Crystal Based Biosensor For Early Stage Detection of Cervical Cancer"
- Kartik Prabhu, 2nd Place recruiter in R10 for 2014 **IEEE Member-Get-a-Member Award**
- Mukta Bannur, 4th Place recruiter in R10 for 2014 **IEEE Member-Get-a-Member Award**

A.2Financial Report

The Institute of Electrical and Electronics Engineers
(IEEE- Bangalore Section)
Balance Sheet as at 31st December 2014

	Schedule	31-Dec-14	31-Dec-13
I. SOURCES OF FUNDS			
1)Funds and Reserves			
Corpus		20,000	20,000
Uncommitted Funds			
General Reserve	1	93,50,195	76,08,598
Total		**93,70,195**	**76,28,598**
II.APPLICATION OF FUNDS			
Current Assets, Loans and Advances			
(a) Fixed Deposits	3	52,66,284	40,87,401
(b) Cash and Banks Balances	4	39,06,593	33,44,041
(c) Advances and other receivables	5	2,02,374	1,80,946
(d) Prepaid Expenses- CONECCT			1,20,210
Less: Current Liabilities and provisions	2	(5,057)	(1,04,000)
Net Current Assets			
Total		**93,70,195**	**76,28,598**
Summary of significant accounting policies	10		

The accompanying schedules are an integral part of the financial statements

For Usha and Associates
FRN 013099S
Chartered Accountants

Usha.S.C
Proprietor
Membership No. : 224749
Place: Bangalore
Date: 05.02.2015

For IEEE Bangalore Section

Ravikiran A.
Chairman

Puneeth Mishra
Secretary

R V Siva Reddy
Treasurer

(IEEE- Bangalore Section)

Income and Expenditure Account for the year ended 31st December 2014

	Schedule	31-Dec-14	31-Dec-13
		Rs.	Rs.
Income			
IEEE Headquarters Rebate and Support		60,48,606	5,85,539
CONNECT Conference Income		4,33,094.3	2,83,750
AIYEHUM Sponsorship		-	1,00,000
Smart Tech Workshop		20,84,035	1,89,165
Product Management Workshop		1,11,980	-
Women in Electromatics Workshop		17,000	-
Other sponsorship income		2,43,794	-
Interest on SB accounts		6,382	24,140
Interest on Fixed Deposits(including accrued interest)		6,80,658	7,87,686
Excess provision written off		75,366	1,99,171
IEEE EDAPS - 2014 Conference (CPMT) – Income		18,01,610	
Total (I)		**1,15,02,526**	**21,69,451**
Expenses			
Section Support	6	16,71,419	3,02,148
Student Activity Expenditure	7	13,94,201	3,55,543
Programme and Event Expenditure	8	27,06,845	6,37,944
AIYEHUM Project Assistance and Event		-	2,43,932
IEEE CONNECT		13,12,939	12,68,382
Annual General Meeting Expenditure		8,16,444	7,39,008
Other Adminstrative and General Expenditure	9	3,48,737	2,48,191
IEEE EDAPS - 2014 Conference (CPMT) – Expenses		15,10,343	
Total (II)		**97,60,928**	**37,95,148**
Excess of Income Over Expenditure transferred to General Fund		**17,41,597**	**-16,25,697**
Summary of significant accounting policies	10		

The accompanying schedules are an integral part of the financial statements

For Usha and Associates
FRN 013099S
Chartered Accountants
Usha.S.C
Proprietor
Membership No. : 224749
Place: Bangalore
Date: 05.02.2015

For IEEE Bangalore Section

Ravikiran A.	**Puneet K Mishra**	**R V Siva Reddy**
Chairman	Secretary	Treasurer

IEEE-Bangalore Section

Schedules to financial statements for the year ended 31 December 2014

IEEE Bangalore Section is society of Electrical and Electronics Engineers registered under the Karnataka Societies Registration Act,1960 with the registration number BLU-S707-2006-07

10.Summary of significant accounting policies and notes to accounts

1. Basis of preparation

The financial statements are drawn up based on historical costs and mercantile basis of acounting has been followed.

2.Recognition of Income

Sponsorship, registration fee for events and rebate are recognised on the basis of receipts and as per the bank advice available. Conference expenditure and Income will be recognised in Profit & Loss in the year in which the Conference is held.

3.Committed Funds

The registration fees and sponsorship received with a specific instruction and understanding that are to be paid to other Chapters/Society and earmarked Events/Conference/Projects are grouped as Committed Funds.

4. Miscellaneous

i) The Society has kept all the unutilised amounts in the form of bank balances and term deposits with scheduled banks, which are in conformity with section 11(5) of the Income Tax Act,1961

ii) Fixed Deposits are disclosed including accrued interest net of Tax Deducted at Source.

iii) Previous years' figures have been regrouped, wherever necessary.

For Usha and Associates
FRN 013099S
Chartered Accountants

For IEEE Bangalore Section

Usha.S.C	**Ravi Kiran A.**	**Puneet K Mishra**	**R V Siva Reddy**
Proprietor	Chairman	Secretary	Treasurer

Membership No. : 224749

Place: Bangalore
Date: 05.02.2015

IEEE-Bangalore Section

Schedules to financial statements for the year ended 31 December 2014

1. General Reserve

	31-Dec-14 Rs.	31-Dec-13 Rs.
Excess of Income over Expenditure		
Balance as per last financial statements	76,08,598	92,34,295
Add: Surplus /(Deficit) for the period	17,41,597	(16,25,697)
Surplus carried to Balance Sheet	**93,50,195**	**76,08,598**

2.Other current liabilities and Provisions

	31-Dec-14 Rs.	31-Dec-13 Rs.
CONECCT 2014 Registration Fee: received in advance	-	1,03,750
TDS payable	1,000	-
Creditors for expenses	4,057	250
	5,057	**1,04,000**

IEEE-Bangalore Section

Schedules to financial statements for the year ended 31 December 2014

3.Fixed Deposits

	31-Dec-14 Rs.	31-Dec-13 Rs.
Corporation Bank KCC-106	25,77,918	23,84,317
Corporation Bank KCC-107	18,41,370	17,03,084
Corporation Bank FD KCCC/01/140046	8,46,996	-
Total	**52,66,284**	**40,87,401**

4.Cash and Bank Balances

		31-Dec-14 Rs.	31-Dec-13 Rs.
i	**Balances with banks**		
	On savings bank accounts		
	Canara Bank A/C No.10153	1,73,578	1,78,432
	Corporation Bank A/C No.080007	37,33,015	31,65,609
		39,06,593	**33,44,041**

5 Advances and other receivables

	31-Dec-14 Rs.	31-Dec-13 Rs.
TDS receivable:		
TDS refund	1,11,004	89,437
Current year	91,370	91,509
Total	**2,02,374**	**1,80,946**

IEEE-Bangalore Section

Schedules to financial statements for the year ended 31 December 2014

6.Section Support

		31-Dec-14 Rs.	31-Dec-13 Rs.
i	IEEE Computers Society	-	17,950
ii	IEEE Control System Society	-	20,000
iii	IEEE Gold Affinity Group-Step Event	46,721	2,17,333
iv	R10 Project	18,324	14,865
v	IEEE EMBS Chapter	-	32,000
vi	Ambedkar Institute of Technology	10,000	-
vii	IEEE Aerospace and electrical systems	20,000	-
viii	IEEE Ants 2013	6,10,800	-
ix	IEEE Circuits and Systems Society	28,888	-
x	IEEE Communication Society Bangalore chapter	24,410	-
xi	IEEE Consumer Electronics Society	12,470	-
xii	IEEE ED/SSC	61,390	-
xiii	IEEE Mangalore Subsection	67,325	-
xiv	IEEE Engineering Medicine & Biology Society	2,12,415	-
xv	IEEE GRSS Chapter	2,88,315	-
xvi	IEEE IISC IASIE	46,043	-
xvii	IEEE Khargpur Section	15,000	-
xviii	IEEE Photonic Society Bangalore Chapter	73,403	-
xix	IEEE Project RVCE College	90,915	-
xx	IEEE Sensors council	45,000	-
		16,71,419	**3,02,148**

7. Programme and Event Expenditure			
		31-Dec-14	**31-Dec-13**
		Rs.	**Rs.**
i	Awards and Prizes- All Events	1,41,417	68,500
ii	All India Student Congress Meeting	22,274	-
iii	Analog Design Summer School	81,575	-
iv	Branch counsellor seminar Meeting	6,250	20,000
v	SIMPLE Event	-	1,05,656
vi	A&A Meeting	-	16,630
vii	BRV Contest	16,000	10,000
viii	PM Session	-	21,604
ix	R10 Congress Meet	2,600	75,650
x	Student Leadership Congress	21,664	98,553
xi	TISP 2013	-	42,578
xii	WIE Professional Event	-	80,000
xiii	Other Technical Lecture, Workshops & Meetings	743	79,206
xiv	North Karnataka Hub Event	-	6,000
xv	IEEE India Council Meeting	-	13,567
xvi	Data Science Workshop	39,393	-
xvii	Fine workshop 2014	1,21,019	-
xviii	IEEE Adcom and IPL Meeting	2,342	-
xix	IEEE Fellow Event	53,360	-
xx	IEEE Fusion	1,859	-
xxi	Product Management Workshop	4,70,007	-
xxii	Reliance J10 Meeting	10,714	-
xxiii	Section Congress 2014	2,04,814	-
xxiv	Smart tech workshop	13,52,564	-
xxv	Workshop on Low power VLSI Design	15,105	-
xxvi	YP Spark 2014	69,257	-
xxvii	IEEE SP chapter	28,888	
xxviii	IEEE SSIT ES Joint Bangalore Chapter	45,000	
		27,06,845	**6,37,944**

8. Student Activity Expenditure			
		31-Dec-14	31-Dec-13
		Rs.	Rs.
i	BIT IEEE Student Branch	13,925	15,000
ii	IEEE BMSCE Student Branch	16,810	15,000
iii	IEEE DSCE Student Branch	7,563	
iv	IEEE Student Branch NITK Suratkal	95,700	46,043
v	IEEE GIT	15,000	15,000
vi	IEEE KSIT	15,000	-
vii	IEEE MSC Student Branch	6,630	-
viii	IEEE MIT	24,410	-
ix	IEEE NIE Student Branch	15,000	-
x	ISGT Asia 2013 student support	3,05,400	-
xi	IEEE Reva ITM	39,940	-
xii	IEEE SIT Student chapter	20,000	-
xiii	IEEE SJCE Student Branch	92,085	15,000
xiv	IEEE Student Branch @ vemana IT	15,000	-
xv	IEEE Student Branch AIT	15,000	10,000
xvi	IEEE Student Branch Bagalkot	24,895	-
xvii	IEEE Student Branch of PESCE Mandya	59,179	-
xviii	IEEE Student Branch PESIT	15,470	10,000
xix	IEEE Student Branch WIET	20,000	15,000
xx	IEEE Student IISC	2,75,122	15,000
xxi	IEEE TOCE Student Branch	76,035	-
xxii	IEEE UVCE	83,233	22,000
xxiii	IEEE – VITM	7,400	-
xxiv	IEEE SB SEIT	-	7,500
xxv	IEEE Student Branch ASE	-	15,000
xxvi	IEEE Student Branch KLE	-	30,000
xxvii	IEEE Student Branch Kuvempu Univ	-	10,000
xxviii	IEEE Student Branch - MCE Hassan	-	15,000
xxix	IEEE Student Branch - oxford college	-	15,000
xxvi	IEEE Student Branch – PESCE	-	15,000
xxvii	IEEE Student Branch – Sahyadri	-	10,000
xxviii	IEEE Student Branch SKJIT	-	10,000
xxix	IEEE Student Branch Vivekananda IT	-	10,000
xxx	IEEE Student branch canara college	-	15,000
xxxi	IEEE Student MS Engg college	-	10,000
xxxii	IEEE RNSIT	1,06,516	15,000
xxxiii	IEEE Power & Energy Society	28,888	-

9.Other Administrative and General Expenditure			
		31-Dec-14	**31-Dec-13**
		Rs.	**Rs.**
i	Execom Meeting Expenses	35,430	32,284
ii	Audit and Professional Fee	1,50,219	89,500
iii	Bank Charges	2,158	5,206
iv	Telephone and internet charges	52,833	26,324
v	Website renewal,purchase and development	36,807	6,294
vi	Postage and Courier	-	1,117
vii	Balances not recoverable written off	-	29,729
viii	Printing and Stationery	1,728	8,037
ix	Govt Fees and Expenses for Society Annual Returns	-	49,700
x	Miscellaneous expenses	556	-
xi	Travelling expenditure	27,785	-
xii	IEEE President Visit Expenditure	41,221	-
		3,48,737	**2,48,191**

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

This year Main focus was there to encourage senior members to elevate them in IEEE Fellows Grade. IEEE Bangalore section is targeting minimum 50 IEEE Fellows in section by 2017. In this connection FINE workshop was arranged. Further, we are proud to inform that IEEE Bangalore Section has entered in the league of select few sections having more than 450 Senior Member. It is to be noted that despite 25% increase in Membership dues Senior Member and Member Grade membership is increased by 2.26 and 4.8% respectively. Overall reduction is due to reduction in Students & Graduate Student Membership.

IEEE Grade	2012	2013	2014	% Growth
Life Fellow	3	4	5	25%
Fellow	16	15	14	(6.66%)
Honorary Member		1	1	0%
Life Senior	18	19	24	26.31%
Life Member	3	3	2	(33.33)%
Senior Member	254	442	452	2.26%
Member	2078	1940	2033	4. 8%
Graduate Member	800	903	855	(5.31)%
Student Member	3760	4184	3850	(7.9)%
Associate Member	91	101	110	8.9%
Affiliate	51	37	49	32.40%
Total	**7074**	**7649**	**7395**	**(3.32)%**

During AGM 2014 on 9th Feb 2014, Section felicitated the newly Elevated Fellow Grade Member Prof. B.S. Sunder Rajan with a Silver Plaque.

B 1.1 IEEE Fellows Felicitation Program

To celebrate 50 years of IEEE Fellowship, section organized an event to felicitate IEEE Fellows from Bangalore section on 6th July 2014. The event was attended by 90+ members and 15 IEEE Fellows. It was a great honour and privilege to felicitate IEEE Fellows from our section. Shri. K. Ramkrishna, Director-Elect, R10 was kind enough to grace the occasion. Dr. Kukjin, Chair, Awards &recognition committee, R10 shared his vision for R10 on the sidelines of program. Program was concluded with Networking Lunch.

B.2 Chapter Activities

B.2.1 Number of Chapters

Bangalore section has total 24 society chapters and affinity groups. Following 4 Chapters have been formed this year:

I. Aerospace & Electronic Society Chapter
II. Sensors council chapter
III. Society for social implication of technology + Educaiton society Joint Chapter
IV. CPMT Chapter
V. Robotics & Automation Society Chapter

B.2.2 Summary of Activities of Different Chapters

B.2.2.1 IEEE Aerospace & Electronic Society Bangalore Chapter

Inauguration: After a long wait by the aerospace community, the IEEE Aerospace and Electronic Systems Society (AESS) Chapter under IEEE Bangalore Chapter was inaugurated on 17th May 2014 at Golden Jubilee Seminar Hall, ECE Department, IISc Bangalore, by Dr. Surendra Pal, a Distinguished fellow of IEEE, a Distinguished Scientist and a former Prof Satish Dhawan Professor & Senior Advisor Satellite Navigation Programme at ISRO; and Prof. A Arrokiaswamy who is an ex- NAL and ADA Scientist with vast experience in flight vehicle design, testing and analysis and currently the HoD of Aeronautical Engineering Department at the Dayanand Sagar College of Engineering Bangalore. Dr. Pal delivered the key note speech on "Paradigm of Indian Aerospace", in which he addressed the details of aviation and navigation information mentioned in the Indian mythology and literature, followed by the history of Indian Aerospace industry till date. The second talk was on "Current and Future Technological Challenges in Commercial Aviation" by Prof. A Arrokiaswamy , Where Prof. Arrokiaswamy presented the currently trends in the aerospace materials and technologies and also explained the challenges in using the latest technologies.

Technical Talks: A Technical talk on "Assignment Algorithms for Efficient Enumeration of Target Tracking Hypotheses" on 26th August 2014 by Dr. T. Kirubarajan (Kiruba), a Distinguished Engineering Professor in the Electrical and Computer Engineering Department at McMaster University, Hamilton, Ontario, where he holds the Canada Research Chair in Information Fusion and serves as the Associate Chair for Graduate Studies. His research interests are in estimation, target tracking, and multisource information fusion

with application to defense, communications, and biomedical engineering. He has published about 400 articles in these research areas, in addition to one book and four edited volumes.

Future Plans:

1. Conduct a workshop on recent trends in the areas of AESS.
2. Form at least one student chapter &
3. Conduct aero-modelling competition for students
4. Conduct Webinar/Lecture on the AES related areas.

B.2.2.2 IEEE CAS Bangalore chapter

IEEE CAS Society Bangalore Chapter conducted a total of eleven events during the year 2014. These events included 9 seminars and 2 workshops:

1. Seminar on "Abstractions and Formalisms for Analog CAD" by Dr. Pallab Dasgupta, Dept. of Computer Science & Engineering, IIT Kharagpur, Jan 9, 2014
2. Seminar on "Phase-based computing using self-sustaining nonlinear oscillators" by Prof. Jaijeet Roychowdhury, Department of EECS, University of California, Berkeley, Jan 9, 2014
3. One-day workshop on "Introduction to MSP430 Microcontroller" by Vaibhav Ostwal, Jan 18, 2014
4. Seminar on "Signal and Image Processing Research Activity at Spectrum Lab" by Dr. Chandra Sekhar Seelamantula, Department of Electrical Engineering, Indian Institute of Science, Bangalore, January 24, 2014.
5. Seminar on "Research in Analog/RF systems at IISc," talks by Prof. Gaurab Banerjee, Department of Electrical Communication Engineering, IISc Bangalore, and his four students providing a brief overview of the current and planned research in Analog/RF systems, March 26, 2014
6. TIIEC 2014 - Texas Instruments India Educators' Conference 2014, which featured paper presentations and exhibits of working projects supported by Texas Instruments in their Analog Design Contest, April 4-5 2014
7. Seminar on "On-Chip Electrostatic Discharge Protection: Essentials and Research Opportunities" by Prof. Mayank Shrivastava, Department of Electrical Communication Engineering, IISc Bangalore, April 16, 2014
8. Seminar on "Leveraging Periodicity in Human Mobility for Next Place Prediction" by Bhaskar Prabhala, Penn State University, May 29, 2014
9. One-day training program on "Introduction to UNIX Shell by C.P. Ravikumar, Nov 4, 2014
10. Seminar on "Advanced Computational Imaging: Super-Resolution and 3D Acquisition Using Active Illumination" by Dr. Panos Papamichalis, Associate Dean for Academic Affairs and Professor of the Electrical Engineering Department at Southern Methodist University, Dallas, Texas, December 18, 2014
11. Seminar on "Signal Processing Meets Optics: Theory, Design and Inference for Computational Imaging" by Dr Kaushik Mitra, Dept of EE, IIT Madras, Dec 18, 2014.
12. The society has offered technical support the conference VLSI-SATA 2015, which will be held during Jan 2015 at Amrita Vishwavidyapeetham, Bangalore, 2015.

B.2.2.3 IEEE Communication Society Chapter

Workshops

SDN Workshop at CMR Institute of Technology

IEEE Communications Society Bangalore Chapter in support with IEEE India Staff hosted a 2 day workshop on Software Defined Networks (SDN) in August 2014 in Bangalore, India. One of the key highlight of this event was bringing in technology leaders from the industry working on SDN along with a tutorial session to discuss this next generation paradigm change. The workshop was a great success with topics covering a very wide spectrum of technical possibilities in SDN & NFV with 100 plus engineers from Industry, Academia, Research groups and Entrepreneurs attending the workshop. As part of the workshop, the participants also got introduced to the world wide IEEE Initiatives on SDN and got enrolled for the various Research and Working group initiatives under IEEE SDN Technical Committee.

Amateur Radio Workshop at BMS College of Engineering

2 day Amateur/HAM Radio workshop was conducted at BMS College of Engineering, Bangalore in Sep 2014. Amateur's radio (ham radio) started as a hobby in 19th century and is exists even today. When cell phones, regular phones, the internet and other systems are down or overloaded, amateur radio still gets the message through. Amateur Radio frequencies are the last remaining place in the usable radio spectrum where an individual can develop and experiment with wireless communications. Hams not only can make and modify their equipment, but create whole new ways to do things. Prof Miroslav Skoric, Faculty of Technical Sciences, University of Novi Sad, Serbia, from IEEE Region 6 having 20 years of practice in the amateur radio digital communications, maintaining various types of amateur radio bulletin board systems with VHF/HF radio frequency and Internet inputs/outputs was the distinguished speaker/trainer for this workshop. The workshop included the following sessions:

- Introduction to Linux
- Introduction to Amateur radio
- Description of Packet radio, Repeaters etc.,
- E-mail servers, Satellite modes
- Hardware (Modems)

- Softwares (Windows, Linux, DOS)
- Amateur Data Communications at Academic Institutions
- Lab Test, Video Clips
- Educative project, National / International collaborations

Big Data and Smart Devices – Challenges and Opportunities Workshop

IEEE Communications Society Bangalore Chapter organized IEEE workshop focused on Smart Devices-Internet of Things (IoT) and Big data which was hosted at Wipro Auditorium on 20th and 21st November. Driven passionately by organizing committee, the workshop saw leaders from across industries and academia come and share their views on the technologies. The aim of the workshop was to give an overview of different tools and technologies and harness the benefits of big data analytics for efficient planning and management of data exploding from smart devices and IoT. By employing big data analytics, companies can achieve and maintain the levels of satisfaction desired by customers and by regulators. The workshop included tutorials on Big Data from Center for Development of Advanced Computing (C-DAC) and Smart Devices (IoT) from Robert Bosch Centre of Cyber Physical Systems (RBCCPS, IISc) and Chief Technology Office, Wipro.

IEEE Workshop keynote: In this presentation on Smart Devices and Internet of Things, Santhosh Kumar Madathil of Chief Technology Officer, Wipro, describes the world at 2020 and presents how Smart Devices form the heart of digital disruptions.

Big Data Science: In this workshop, Yogesh Simmhan of IISc presented how Science had been pushing the boundaries of Big Data and how the Big Data advances are based on foundational Computer Science concepts.

Tutorial on Big Data Analytics Tools: This Big Data Tools Analytics workshop was conducted by Prahlada Rao B.B, Karuna Prasad, Swapnil Srivastava, and Ramesh Naidu of Centre for Development of Advanced Computing C-DAC Bangalore. The workshop discussed about the opportunities and challenges of Big Data and Smart Devices.

IoT Big Small Data Systems: Balamuralidhar P, Principal Scientist, TCS Innovation Labs, Bangalore, gave a detailed and deep insight about the Internet of Things.

Smart Water: In this presentation Amit Merchant of IBM speaks about smarter Water Management. He analyses the multiple water challenges in India, and how IT can play a role in transforming the water management.

Network Device Architecture and possible protocol for IoT: In this workshop, Haribabu, CDAC, Bangalore, explains about the goals related to the Internet of Things.

Sensing Algorithms for Wearable IoT/Devices: In this workshop, Dr. Vinod Pathangay, Senior Architect, Smart Devices Group, Chief Technology Office, Wipro Technologies, explains about the sensing capability of a wearable Smart Device through Inertial, Physiological, and Visual monitoring.**Astrid Zuurbier** of The Netherlands Organization for Scientific Research gave a detailed overview of how NWO engages with the international ecosystem in advanced technology areas

Conferences

SPCOM 2014: IEEE Communications Society Bangalore Chapter technically co-sponsored SPCOM 2014 at IISc, Bangalore in July 2014. The 2014 edition of SPCOM features three plenary and thirty-eight invited speakers fromaround the world. Six tutorials on topics of current interest have been organized on the first day of the conference. We also accepted 91 contributed papers this time, the finalacceptance rate being about 22%. The proceedings of the conference have been madeavailable in CD form, and will also be accessible via IEEEXplore.

Transcending Asian Borders (TAB) 2014: Transcending Asian Borders (TAB) 2014, International conference was conducted in Bangalore highlighting trade, Information and Business opportunities in Asian and Arab region. This was organized by Asian Arab Chamber of Commerce and IEEE Bangalore Section participated as the Knowledge partner for this conference. TAB 2014 had over 500 delegates, Ambassadors, Foreign Direct Investors, Young Entrepreneurs, Government officials, CEO's, Bureaucrats, Decision makers. With over 10 countries participating, delegates will witness a series of industry's best speakers inspire and instruct our delegates on business opportunities in the respective countries. Ravi Kiran, Chair of IEEE Bangalore Chapter was one of the speaker/panelist in the conference. This also gave us an opportunity to discucc IEEE activities with Ambassador of Bosnia & Herzegovina

IEEE Student Engagements/ Tech Talks:IEEE Awareness & Student engagement programs along with Tech Talks were organized by IEEE Communications Society Bangalore Chapter at the following centers this year

- Electromagnetic Spectrum, Landscape of Wireless Communications by Mr. Radhakrishna Arvapally, Lead Architect, Alcatel-Lucent at IIIT-Bangalore in June 2014
- Wireless route optimization in IEEE 802.11s and Path Selection by Dr. Soma Pandey at BMS College of Engineering in Oct 2014
- IEEE Student benefits and awareness programs conducted by Munir Mohammed at Amrutha College of Engineering, Brindavan College of Engineering, HKBK College of Engineering, Kristu Jayanthi Institute and Cambridge Institute of Technology in 2014
- Future of Technology by Dr. Roberto De Marca, IEEE President at IISc, Bangalore

Industry Relations

IEEE Communications Society Bangalore Chapter has extended the engagement with multiple industries such as Alcatel-Lucent, Wipro Technologies, IBM India and Ericsson Research India. Industry Relationships:

- 2 way dialogs with the industry focussing on what the industry wants to achieve with IEEE engagement
- Inducting Industry professionals to be part of ComSoc Chapter ExeCom
- Tech Talks at Academic Institutions by Industry professionals 1/month to bridge gap between Industry and Academia
- Industry outreaches encouraging various levels of engagement with IEEE and Society activities

B.2.2.4 IEEE Control System Society Bangalore Chapter

IEEE Control Systems Society Bengaluru was actively involved in multiple activities for the year jointly collaborating with the academic institutions.

Technical Talks and Symposium

On November 14, 2014 the society chapter along with CMR Institute of Technology, Bengaluru, jointly organized a half-day Symposium on Networked Control Systems.The symposium focused on the Industrial Internet, Big Data and Analytics, and the attended cyber security challenges. The symposium concluded with an insight into the latest developments in connectivity in the aerospace industry.

Session 1: Industrial Internet & Controls by Mr. Brent Brunell, Technology Leader, GE Global Research Center, USA

Session 2: Cyber Security in Industrial Automation and Control Systems, by Mr. Akilur Rahman, Head of ABB Corporate Research Center, India

Session 3: Connected Aircraft by Mr. Bharathan Aravamudhan, Senior Marketing Manager, Honeywell Aerospace

The event was attended by thirty control system professionals from industries, and academicians, researchers and students from institutes in and around Bengaluru. Mr. Jayadeep, CEO, and the management of CMR Group of Institutions offered to extend support for many such activities of IEEE in general and of IEEE-CSS in particular.

Technical Proposals

The members of the Control System Society put in a proposal through Control Systems Society Outreach Fund for conducting a "Faculty Development workshop on Modern Control with Hands-on MATLAB Sessions". The 5 Days workshop is planned to take the participants, majorly teachers and students, through a guided tour of control systems. The extensive use of MATLAB in control is all too well known. These lectures which are hence coupled with hands-on sessions with MATLAB are expected to dispel the myth (among those who are open and willing to give it a try!) that control is a tough nut to crack and is only for the geeks! Talks by control practitioners are aimed at annihilating the fear that control is daunting to practice.

B.2.2.5 IEEE CPMT Bangalore Chapter

IEEE CPMT Bangalore chapter was formed again after being in existence from 2004-2011. The key driver to re-convene and drive chapter activities was driven by the return of EDAPS (now as a conference, rather than a workshop) to Bangalore, India after 9 years.

Chapter had one invited talk in Dec. 2014 (at IISC) by Prof. Christian Schuster from Hamburg University of Technology (TUHH) on "Electromagnetic Interference in Digital Systems". The IEEE Electrical Design of Advanced Packaging and Systems (EDAPS) Symposium has been one of the main events in the Asia Pacific region with a focus on the electrical design of chip, package and systems for electronics applications. For more than a decade, this symposium has attracted world class researchers from both academia and industry to share their state-of-the-art results in chip, package and printed circuit board design and measurements. The symposium consists of keynote and invited talks from experts, paper presentations, industry exhibition, tutorials and an informal social setting for networking.

This year, the conference was held in Bangalore, India from the 14th-16th Dec. The Symposium was held at The World Trade Center seminar hall and the catering and social programmes were hosted at the Sheraton Bangalore hotel. The conference programme included a banquet dinner for all attendees and a social event & tour. A few highlights of the symposium are below. The expected balance in the CPMT account (after availing Rs. 25,000 chapter grant and Rs. 20,000 inauguration grant) is approx. Rs. 3,00,000 as of 2014 Dec. 31.Next year's (2015) plans include invited talks from Gaurang Choksi, Intel USA and Dale Becker, IBM Research, USA. Additionally a 1-day workshop on packaging is planned in the North of India after June 2015. Formation of a pan-India CPMT chapter and collaboration with other societies (EMC, Circuits & Systems etc.) are being explored.

2.2.6 IEEE EDS/SSCS BANGALORE CHAPTER

Courses

The Bangalore Chapter had a busy year organizing many events. The first event of the year was short course by Prof Vijay Arora, an IEEE EDS Distinguished Lecturer, on Nano-electronics held at the Indian Institute of Science in February. The chapter arranged for all the logistics including printing Prof Arora's book made available at cost price to the audience. The course was well attended by professionals and students from Bangalore. A full day course was offered by Prof Arora, on the following day, at Don Bosco Institute of Technology, Bangalore who was the main sponsor. This attracted an audience of 122 participants including students and teachers. The chapter also issued a certificate to the participants.

Talks

The chapter arranged for three talks which was well received by the technical audience. First in the series was a talk on circuit design aspects of the IBM Mainframe server in the month of May. The talk was delivered by Dr. James Warnock, IBM Distinguished Engineer and an IEEE Fellow. The next talk was a very interesting talk which was on smart renewable energy micro-grid. This was a platform for a start up in Bangalore to project their work to the elite technical audience in Bangalore. The talk included a demo by the CEO, Ganesh Shankar. This attracted an excellent attendance of nearly 40 members, covering students, professionals and professors in Bangalore. This was an ideal example of a win-win strategy for both the startup and the chapter. This also helped advertise the need to become a member of the IEEE EDS/SSCS chapters. The final talk for the year was in Dec on RFIC design by Prof Sanjay Raman, an elected Fellow of IEEE, from Verginia Tech in Arlington. The talk was well attended by 32 professionals, 25 of which were IEEE members. The chapter also hosted Prof Raman for a full day, enabling him to interact with students and professors on Indian Institute of Science, Bangalore.

Conferences

VDAT 2014

The chapter was technical co-sponsors of two International conferences in 2014. The first was VLSI Design and Test (VDAT) which was held in PSG College Coimbatore, the primary sponsor. Many high quality publications were received and a fraction were accepted for publication in the conference proceedings. The conference hosted EIGHT invited talks from reputed personalities from industry and academia. The conference has gained international visibility over the years and the chapter is pleased to be a co-sponsor.

ICEE-2014

The second conference, International Conference on Emerging Electronics, was held in the month December at Indian Institute of Science Bangalore. The Bangalore chapter was pleased to be a technical co-sponsor of this upcoming conference. The highlight of the conference was the public lectures by Dr Stuart Parkin:- IBM Fellow and Prof. Rao. R. Tummala :- Distinguished and Endowed Chair Professor and Founding Director of 3D Systems Research Center, an NSF National Engineering Research center at Georgia Tech.

South Asia Chapter Chairs Meet

The chapter also used the conference to host the EDS South Asia chapters meet. This was well represented by chairs/ members from IEEE EDS from all over India. A number of important issues were discussed including, increasing membership, chapter's social impact and plagiarism. The action items have been identified and being worked on currently

Awards

The chapter was awarded the chapter of the year for 2014

Future Plans

The chapter plans to bring industry and academia closer in Bangalore to provide a platform for them interact with each other. The chapter will also focus on organizing DLs and MQs in coordination with other IEEE EDS chapters in Bangalore.

B.2.2.7 IEEE EMB Society Bangalore Chapter

TWO DAY HANDS ON WORKSHOP ON APPLICATION DEVELOPMENT ON MEDICAL IMAGING USING OPEN SOURCE PLATFORM ITK &VTK (JANUARY 17TH & 18TH 2014)

The IEEE EMBS MSRIT Chapter of the IEEE EMBS Bangalore Chapter in association with M.S.Ramaiah Institute of Technology(MSRIT), Bangalore, organized the workshop which was held on 17th and 18th of January, 2014 at the MSRIT campus The event was conducted by Mr. S. Nandish of Manipal Centre for Information Science and by Mr. Faisal Ali. Hands on ITK algorithms on Filtering using median filters, on Segmentation using the feature extraction concept and on Rigid and Non-rigid Registrations .VTK algorithms on Volume Rendering was also discussed.

STANFORD INDIA BIODESIGN WORKSHO (FEBRUARY 7TH-8TH 2014)

IEEE EMBS Bangalore Chapter, IEEE EMBS MSRIT Student Chapter in association with InnAccel and Stanford India Biodesign conducted a two day workshop at the MSRIT campus on medical device design which witnessed participants from Engineering, Medical and Business backgrounds come together to learn the basis of medical device design. The workshop's strategic focus was in the areas of ENT, orthopedics, general medicine, chest medicine and ophthalmology. A total of 32 participants were divided into 6 teams (5-7 members each) with each team consisting of doctors, engineers and management skilled people. Each team was assigned a mentor from a group of facilitators which included Jagdish Chaturvedi(SIB 2012), Adithya Pasupuleti(SIB 2013), Nitesh Jangir(SIB 2013) and Ramakrishna Pappu(InnAccel). Each team was sent for a clinical immersion for a period of two hours at the M.S.Ramaiah Teaching Hospital in any one of the areas which included General Medicine, ENT OPD, Chest Medicine, Orthopedics and Ophthalmology. Each team at the hospital made extensive observations in the respective fields guided by the team doctors who explained the details of the doctor-patient interactions. The non-medical participants gained an insight into the doctor-patient interaction as many volunteered to play the role of a patient with the team doctors making their assessments about the tests and other details. This gave an opportunity for all to make demographic observations during such interactions and test procedures.

TWO DAYS WORKSHOP ON BIOMATERIALS AND BIOMECHANICS (FEBRUARY 12TH-13T 2014)

The Department of Medical Electronics, M.S.Ramaiah Institute of Technology in association with India Platform under TEQUIP-II organized a two day seminar on "Biomaterials & Biomechanics" at the MSRIT campus on 12th and 13th of February, 2014. Apart from the faculty of MSRIT and other engineering colleges in Bangalore, the Industrialists and the pre-final year students of Medical Electronics, MSRIT were present. The two Distinguished Lecture Programs held on 12th February was organized by IEEE EMBS MSRIT Student Chapter.The Guests of Honor for this event were Mr. Prashant K. Sharma of University Medical Center Groningen, Netherlands and Dr. Dieter Lukoschus of University of Applied Sciences, Gelsenkirchen, Germany. Dr. S. Y. Kulkarni, Principal, MSRIT, Dr. N. Sriraam, HoD, Medical Electronics, MSRIT and Mr. Mukund Rao, Professor Emeritus, Medical Electronics welcomed the Guests of Honor.

DISTINGUISHED LECTURE PROGRAMME IN TRENDS IN BIOMEDICAL ENGINEERING SCIENCES AND IN MEDICINE (MARCH 4TH 2014):

The IEEE EMB Bangalore Chapter in association with IEEE EMBS MSRIT Student Chapter along with the Department of Medical Electronics, MSRIT organized a Distinguished Lecture Programme by Dr. Atam P Dhawan from New Jersey Institute of Technology, USA on 4th March, 2014 at the MSRIT campus. The talk mainly focused on the emerging trends in biomedical engineering. Dr. Dhawan gave a glimpse of the global healthcare challenges ahead like hypertension and heart diseases. He stressed on the immediate need of health monitoring devices which can be afforded by all. He briefed the audience about the current concerns such as quality of life, lack of health monitoring and village healthcare in a country like India. He emphasized the effect multidisciplinary research could have in the healthcare sector. He also gave an idea about the challenges that lie ahead including brain computer interface, point-of-care healthcare technologies, bio nano-sensors, bioelectronics, neuro prostheses and surgical robots.

DLP Talk on Smart Phone Imaging of the Eye (22 April , 2014)

IEEE EMB Bangalore Chapter, IEEE EMBS MSRIT Student Chapter in association with IEEE Bangalore Section organized Distinguished Lecture Program(DLP) Talk on "Smart phone Imaging of the Eye" on 22nd April at M.S.Ramaiah Institute of Technology(MSRIT), Bangalore. Dr. Mahesh Shanmugham, Head, Vitreoretinal & Ocular Oncology Services, Sankara Eye Hospitals, Bangalore, India delivered the lecture. Dr Sriraam,Chair,EMB Bangalore Chapter welcomed the guest of honor as well as other audience for this talk

Dr. Mahesh gave an overview on the structure of eyes, its anatomy and the clinical procedure that is being carried out in a typical hospital environment .Dr. Mahesh addressed certain key issues like how a digital camera or a smart-phone can replace costly diagnostic devices if used with proper techniques. He illustrated their effectiveness using various images and videos taken during his research. He explained few issues with smart phone used as a direct ophthalmoscope which included uncontrollable LED light intensity, low level illumination to view retina and non-focused LED flash beams during imaging of the eye. He also explained the benefits and limitations of direct ophthalmoscope. He stressed on its limitations which included that no recording was available and that it is a monoocular instrument. He also asked the audience to ponder

about the issues faced during examination using this device. He explained the concept of Contact Retinal Imaging in brief. The DLP talk was well attended by 168 participants from academics (both Engineering and Medical), industries, doctors and general public. During the Q&A, Dr Shanmugam shared his views as well challenges towards incorporating the mobile based evaluation of eye imaging. The forum gave an wonderful opportunity for the audience and showed the path for bridging the gap between the medical and engineering domains. Dr Sriraam finally talked the speakers and other participants from Sankara Hospital. The session ended with a high tea.

KAIVARA PROJECT TRIP:

To provide fluoride free water to the village Dr. Arjunan Isaac from Department of Community Medicine, M.S.Ramaiah Medical College has set up a Reverse Osmosis plant which eliminates the fluoride content in the water (community defluoridation). This plant separates the clean water from the fluoride water. About 70% of the water is purified and the remaining 30% is used for domestic purpose like washing, bathing, etc. The clean water is sold out to the villagers at the cost of Rs.5 per 25 liters of water. Currently the water is being distributed to 250 households. The plant is now self sustained to bear the cost of electricity, electricians and other maintenance costs. Future works include Scope for improvement with Telemedicine intervention with the laboratory samples and patient referral system, Digitization of Patient record, providing them with alternative methods either by a backup or generate other sources of electricity will solve some challenges.

Distinguished Lecture Program by Dr.Padmaja Kankipati and Mr. PrashantSingh :

The Centre for Medical Electronics & Computing, IEEE EMB Bangalore Chapter in association with IEEE EMBS MSRIT Student Chapter, M S Ramaiah Advanced Learning Centre, Specialized Mobility Operations &Innovations (SMOI) and Medical Electronics Department, MSRIT, Bangalore organized a Distinguished Lecture Program on Wheeled Mobility & Seating on 4th July 2014 at the MSRIT campus. The event aimed at providing a brief about the various options available for the seating and Mobility Assistive Technology (MST) enhancements for the differently able. The event was attended by many doctors, faculty and students of MSRIT. Dr. PadmajaKankipati of University of Pittsburgh and Mr. Prashant Singh of University of Akron both associated with SMOI hosted the event. Various seating options, cushions, backrests and positioning systems along with wheelchairs were on display. They explained how the functional,physical& environmental needs of the patients play a very important role to provide an effective mobility solution.

Hands-on Training Program on 'Medical Image Processing & Analysis using MATLAB (31 July-02 August 2014)

The field of Medical Imaging advances so rapidly that all of those working on it, Scientist, Engineers, Physicians, Educators, and Students, need to frequently update their knowledge to stay abreast of developments. Medical Images are not self-explanatory; however their interpretation requires professional skills with planned training. Both automatic & semi-automatic analysis algorithms have the advantage of repeatedly performing task of image analysis with constant quality, hence relieving the medical

expert from the tedious and fatiguing parts of the interpretation task. The advantage in applying image analysis in a medical application is immediately visible as it saves time or increases the reliability of an interpretation task needed to carry out an appropriate medical procedure. This workshop was intended for academic community in teaching & research, as well as practicing engineers, consultants, and programmers, as well as those in the graphics field, medical imaging professionals, multimedia specialists and students, who use image processing as a tool and developed a deeper understanding and create custom solutions to imaging problems in their field.

Hands-on Training Program on Scientific Computing using Open source Software-SCILAB for Signal & Image Processing Applications (26-28 June 2014)

MATLAB is high level technical computing software that has been widely in use among engineering community. It took vital place in many engineering course syllabus, particularly in Electrical and Electronics branches. There are many institutions they can't afford the licensing fee and started looking for alternate open source software equivalent to MATLAB®. SCILAB is an open source equivalent to MATLAB and it can be easily downloaded from http://www.scilab.org. SCILAB was developed by INRIA (France) for system control and signal processing applications. It is also a vector based program. SCILAB package also includes SCICOS which is an open source alternative to SIMULINK. The minimal package does not include subject specific toolboxes and are to be downloaded separately. Though SCILAB has all features of MATLAB but very limited user group due to its less attractive GUI (Graphical User Interface), it doesn't provide highly interactive environment like MATLAB. Another reason for less usage is about the SCILAB help and tutorial features are limited, unlike MATLAB. So the self learning is little tough in the case of SCILAB. The planned training program has enabled the user to quickly learn SCILAB software.

TWO DAY HANDS ON WORKSHOP ON APPLICATION DEVELOPMENT ON MEDICAL IMAGING USING OPEN SOURCE PLATFORM ITK &VTK(OCTOBER 15& 16TH 2014)

The IEEE EMBS MSRIT Chapter of the IEEE EMBS Bangalore Chapter in association with M.S. Ramaiah Institute of Technology(MSRIT), Bangalore, organized the workshop which was held on 17th and 18th of January, 2014 at the MSRIT campus The event was conducted by Mr. S. Nandish of Manipal Centre for Information Science and by Mr. Faisal Ali. Hands on ITK algorithms on Filtering using median filters, on Segmentation using the feature extraction concept and on Rigid and Non-rigid Registrations .VTK algorithms on Volume Rendering was also discussed.

B.2.2.8 IEEE GEOSCIENCE & REMOTE SENSING SOCIETY BANGALORE CHAPTER

Bangalore Section IEEE Geoscience and Remote Sensing Society Chapter (BSIEEEGRSSC) is now two years old.

Activities in 2014

The details of various events organized, during January to December 2014, by this chapter are provided below. IEEE GRSS Distinguished Lectures (DL): In 2014, Bangalore Section IEEE GRSS Chapter has organized three DL talks respectively by Professor Lorenzo Bruzzone (on 27 January 2014), Dr. H. K. Ramapriyan (on 11 November 2014), and Professor Akira Hirose (on 8 December 2014). All these three events took place at the Indian Statistical Institute-Bangalore Centre.

Lectures by Eminent Academics: Besides IEEE DL talks, this young chapter has also arranged four additional lectures in association with the International Association of Mathematical Geosciences. These lectures were delivered by Professor Vera Pawlsky-Glahn of University of Girona, Spain, Professor Jose Egozcue of University of Barcelona, Spain, Professor Katsuaki Koike of Kyoto University, Japan, and Professor Wolfgang-Martin Boerner of University of Illinois-Chicago, USA. These four lectures were given at the Systems Science and Informatics Unit (SSIU) of Indian Statistical Institute-Bangalore Centre, India on 15 October 2014, 20 October 2014, and 3 December 2014.

Workshop: One-Day Workshop on 'Spatial Information Analytics: Mathematical Morphological Interpolations and Pattern Recognition', was organized on 28 February 2014, at PES University, Bangalore, India. Number of audience participated was 30.

Internship: With fund available from IEEE GRSS and from IEEE Bangalore Section for the year 2014, we could invite three third year B.Tech students from NIT-Karnataka to spend two months (May-July 2014) as interns.

Professor Lorenzo Bruzzone (Left), Dr. H. K. Ramapriyan (Middle), and Professor Akira Hirose (Right).

Activities Planned for 2015

Besides meeting the objectives of this chapter, we continue organizing meetings among Bangalore Section IEEE GRSS members to plan: (1) Two-Week Summer School on 'Mathematical Morphology in Geosciences', has been planned for March-April 2015, and

the number of participants is restricted to 40. This Summer School would be organized with the funding already available from the Department of Science and Technology (DST), India in association with the Bangalore Section IEEE GRSS Chapter, the International Association for Mathematical Geosciences, and the Indian statistical Institute-Bangalore Centre. (2) In India, many youngsters who have been doing cutting edge research related to remote sensing and geoscience lacking skills to convert those results to the style and standard required to publish them in IEEE GRSS journals. As such there is no significant number of publications from Indian Researchers in IEEE TGRS, IEEE GRSL, IEEE JSTARS. By creating awareness, we are of the view the authorship number would increase and in turn the IEEE GRSS membership number. We would like to conduct a one-day Workshop on 'Writing papers for IEEE GRSS Technical Periodicals" Attracting Indian Scientists to Pursue PhD studies". This workshop is to create awareness about the importance and impacts on publishing in IEEE GRSS flagship journals among engineering students, PhD scholars, young scientists and researchers and faculty members. The IEEE GRSS membership number from Indian Space Research Organization (ISRO) and its allied centres is not upto the mark. Many researchers at ISRO, NRSC, SAC, DRDO—who have done significant work related to Remote Sensing and Geosciences—have now been very keen in pursuing PhD studies for professional growth. We have already seen some success in getting those scientists registering for PhD programs. Such a move would also impact the GRSS membership number.

B.2.2.9 IEEE MTT and AP-S Joint Chapter

IEEE IMaRC 2014: The second edition of the IEEE International Microwave and RF Conference (IMaRC) 2014 was held in Bangalore between 15th and 17th of December 2014. The event continued the spirit of IMaRC, maintain high technical standards, address important issues in the microwave community, and network the region to the world. Inauguration of the conference was held on the 15th December evening covering two keynote address. The conference included learned plenary lectures, renowned keynote speakers, a detailed program of oral and poster presentations, workshops, social functions and an unsurpassed exhibition showcasing the latest products and services.

The Technical Programme Committee received 250 papers out of which 108 papers were selected for oral and poster sessions spread over two days. The technical programme also included 2 distinguished Microwave Lectures, 7 talks on Industry focus, 2 invited talks on Mars Orbiter Mission and 2 special talks. The conference was attended by 225 participants, which included a good number of international participants. An exhibition with 20 stalls was in place. On the 16th Dec evening there was a cultural programme in the evening which was followed by a banquet lecture by the MTT president.

Technical Talks:

1. **"A Compact Multi-Band Array Design Using Vertical Integration in a Common Shared Aperture", by** Dr. Krishna Naishadham, School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, USA at the Golden Jubilee Seminar Hall, ECE Dept, IISc, on the 15.10.2014
2. **"ULTRA WIDEBAND ANTENNAS"**by Prof. Tapan Sarkar, Syracuse University, President Antennas & Propogation Society, on the 8th Jan 2014 at the IETE Bangalore Office.

DistinguishedMicrowave Lectures (DML):"Distinguished Lecture on Software Defined Radio" by Jeffrey Pawlan (Pawlan Communications, San Jose CA, USA) on the 1 Jan 2014. Venue: Golden Jubilee Seminar Hall, ECE Dept, IISc

Distinguished Lectures: "Efficient Shaped Beam Synthesis in Phased Arrays and Reflectors" By Arun K. Bhattacharyya, IEEE APS Distinguished Lecturer on 10th October 2014 at IISc.

B.2.2.10 EEE Nanotechnology Council & Sensors Council Bangalore Chapter

IEEE Nanotechnology Council and Sensors Council (NC & SC) is formed with an aim to provide a forum for students and enthusiasts to come together and get benefited by sharing knowledge in the areas of Nanotechnology and Sensors. The council conducts technical talks, workshops which help to update oneself with ongoing research. Experts in the fields of nanotechnology and sensors will be invited to give technical talks. It helps the younger research students to interact with the experts and enhance their knowledge. Apart from having sound theoretical knowledge, becoming familiar with tools for fabrication and characterization is very much important in accelerating research. So along with technical talks, the council conducts workshops to provide an opportunity to get familiarized with tools and methodologies which are helpful in conducting various experiments.

About the Workshop: 2nd IEEE Workshop on Nanotechnology and Sensors was conducted during 25 - 27 September, 2014 at Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore. The intention of the workshop was to provide an opportunity to the participants to know in detail about Nanotechnology and Sensors. Talks were given by experts on topics like nanoelectronics, sensors, nanomaterials, device fabrication and characterization. Apart from the lectures by professors, there was hands on training on softwares like COMSOL, Coventorware and TCAD. Also there was a lab tour to the fabrication and characterization facilities at CeNSE.

Lectures: Topics that were covered through various lectures during the workshop are:

- Nanodevices in electronics
- Nanomaterials in photonics
- MEMS based sensors and Signal processing

Invited Speakers

- Prof. Siva Umapathy-*Research Methodologies I*
- Prof. Navakant Bhat-*Bio-sensors*
- Prof. Shankar Kumar Selvaraja-*Photonics*
- Prof. Srinivasan Raghavan-*GaN HEMT Devices*
- Prof. Rudra Pratap-*Research Methodologies II*
- Prof. Prosenjit Sen-*Microsystems Packaging*
- Prof. Sai Siva Gorthi-*Opto-fluidics and Imaging*
- Prof. M.M.Nayak-*MEMS Sensors*
- Prof. S.Mohan-*Research Methodologies III*
- Prof. Digbijoy Nath-*GaN Devices and Detectors*
- Prof. Praveen C Ramamurthy-*Photovoltaic Devices*
- Prof. G.K.Ananthasuresh-*MEMS Signal Processing*

B.2.2.11IEEE PESBangalore Chapter

Major activities

Month	**Activity**	
January	Inauguration of PES Student branch chapter & Tech. talk, MSRIT	7-Jan
	International conference tech Sponsor, ICAECT 2014 MIT Manipal	22-Jan
	Tech Talk on Power System Automation, NITK Surathkal	23-Jan
February	AGM, Hotel Atria	2-Feb
	Tech Talk on SCADA Systems, MSRIT	21-Feb
March	International conference tech co-sponsor, PESTSE 2014, Amrita University	13-Mar
	Tech Talk on Power System Optimization, VVIET, Mysore	29-Mar
August	Tutorial on Smart Grid and Sustainable Energy by Prof. Saifur Rahman, VA Tech	13-Aug
September	Distinguished Lecture Program, SRLDC, Dr. Jay Giri, Alstom	10-Sep
	Annual workshop, GE, Bangalore	11-Sep
	BNMIT Talk	18-Sep
November	Karnataka Outreach Event – Interaction with Students/Faculty at Bagalkot	14-Nov
	Women in Engineering Event – Royal Orchid central, Manipal Centre	22-Nov
December	Research Scholars meet – Royal Orchid central, Manipal Centre	6-Dec

Other

Networking dinner during Annual workshop	11-Sep
EXECOM Dinner with Prof. Saifur Rahman	5-Dec
IEEE PES Bangalore AGM – Jan 4, 2015	

Awards:
Outstanding Chapter: Runner up by IEEE PES
Outstanding chapter of Bangalore section

B.2.2.12IEEE Photonics Society Bangalore Chapter

Date	Venue	Topic/Event	Speaker(s)
04-Jan-14	IISc	Silicon Photonics, half-day workshop	Amit Khanna, GENT Univ, Belgium
20-Feb-14	BMSIT, Inaug of Students Branch	MOEMS for sensors	T. Srinivas
22-Feb-14	GITAM, Vizag	WS on OFC and Photonics, two talks on MOEMS and Photonic Bandgap structures	
01-Mar-14	Kerala Univ, Trivandrum	WS on Recent trends in Photonics, Talks on MOEMS and Photonic integrated circuits	T Srinivas
13-Mar-14	Vemana Inst of Tech, Student Branch Inauguration	MOEMS	
14-Mar-14	IISc	Computational Photonics, Workshop	T.Srinivas, Preet Sharan James B Cole: Tsukuba Univ, Murugesan V:IISc,B.K Das, IIT Madras
21-Mar-14	Vignan Inst of tech., Behrampur	Optical Engg and Photonics, two-day FDP	T. Srinivas
23-Mar-14	SMIT, Behrampur	optical Engg and IEEE, half-day	T. Srinivas
23-Mar-14	National Inst of Science and technology, Behrampur	Photonic Bandgap Structures	T Srinivas
29-Mar-14	Kakatiya University College of Engg, Warangal	Photonic Integrated Circuits for Comm and Sensor Applications, Invited talk	T.Srinvas
04-Apr-14	AIT Chikmagalur	Recent trends in Bio Photonics(Key note address)	PC Srikanth
06-Apr-14	Bangalore	Survivability issues in WDM optical networks(Key note address in International Conference on Emerging Trends in Engineering and Technology	PC Srikanth
25-Apr-14	IISc	Micro-nano-photonics, half day WS	J Nayak, RCI Hyd, T Srinivas, IISc
26-Apr-14	IISc	Micro nano technologies, half day WS	J. Nayak, RCI, Gopal Hegde, IISc
27-Apr-14	Bangalore	LASERS in Medicine(Key note address in International Conference on Electronics, Communication ,Computer Science and Information Technology	PC Srikanth
29-Apr-14	NIT Trichy	High speed optical comm and networks	T Srinivas
29-Apr-14	JJ College of Engg, Trichy	optical comm and networks	T Srinivas

30-Apr-14	IISc	Quantum Engg, half-day event	Bhanu Prakash Das, Indian Institute of Astro Physics, Debabrata Goswami, IIT Kanpur
30-Apr-14	MSRIT	Light Runner, one-day WS	Papanna Reddy, Shivaleela, T.Srinivas, Hitesh Mehta
08-May-14	IISc	Multilayer Structures of fiber and integrated optics, talk	Vipul Rustogi, IIT Roorkee
18-May-14	Bangalore	Optical Communication (Key note address in International Conference on Emerging Trends in Engineering and Technology)	PC Srikanth
22-May-14	IISc	Photonics for Energy and Security, talk	Bala Pesala, Sameer, Chennai
08-Jun-14	Bangalore	Application of LASER (Key note address in International Conference on Emerging Trends in Engineering Technology)	PC Srikanth
19-Jun-14	RCI Hyderabad	M0EMS sensors for Inertial Navigation applications.	T.Srinvas
22-Jun-14	Bangalore	Recent Advances in Laser Technology Key note address in International Conference on Emerging Trends in Engineering Technology)	PC Srikanth
14-Jul-14	Malnad College of Engg., Hassan	Optical Engineering, one-week FDP on Recent Technological Innovations	Pradeep Sarkar IITKanpur, Sudipto Mukhopadhyaya IITKgp, Lab Sessions by Qualnet, T.Srinivas, Shivaleela,Preeta Sharan, Indumathi, PC Srikanth,
23-Aug-14	IISc	Optical Signal Processing, talk	Deepa Venkitesh, IITM
28-Aug-14	NIT Trichy	Dynamically reconfigurableoptical networks	T. Srinivas
04-Sep-14	Madanapalle Inst of Technology	Optical Comm and networks	Visit by T Srinivas
08-Sep-14	NITK Suratkal	Photonics, Optical communication Systems and Networks, 3-day Short Term Training Program	K.Thyagarajan, IITD, Tsrinivas, IISc, Muralidhar Kulkarni, NITK, PC Srikanth, MCE Hassan, G Umesh, NITK
15-Sep-14	IIIT Kadapa, RG Univ of Knowledge Technology, talk on Engineers Day	Optical communication and Networking	Visit by T Srinivas
20-Sep-14	BMS Int of Tech., Bangalore	Optical Communications and Networks, Workshop on	T Srinivas, PC Srikanth, BSNL

23-Sep-14	Sai Vidya Inst of Tech., Bangalore	Optical Sensors, Biomedical applications of, one-day workshop	T.Srinivas, Preeta Sharan, Narayan K
11-Oct-14	REVA	Optical MIMO systems using few mode fibers, Invited talk in ICAECC	T.Srinivas
22-Nov-14	VTU PG Center, Muddenahalli	Photonic Integrated Circuits and Nano technology,half-day program	T Srinivas and Gopal Hegde
24-Nov-14	SJMIT, Chitradurga	Recent Advances in Optical Networks	PC Srikanth
27-Nov-14	SJCE Mysore	Quantum Informaiton and Computing, Int conference on Contemporary Comuting and Information	T Srinivas, Invited Talk
28-Nov-14	IISc	Photo-acoustics, talk	Samir K Sarkar, U of Twenti, Netherlands
06-Dec-14	The Oxford College of Engg, Bangalore	Talk on MOEMS	T Srinivas
16-Dec-14	IIT Kharagpur	Photonics 2014, Major biannual Conf in India, Invited talk on MOEM Sensors	T Srinivas
17-Dec-14	Gandhi Institute of Tech, Bhubhaneswar	Talk on MOEMS	Visit by T Srinivas
20-Dec-14	RS College of Engg., Warangal	MOEMS, keynote talk,Int Conf on Comm. VLSI and Embeded Systems	Visit by T Srinivas
22-Dec-14	Dehradun Inst of Tech	MOEMS, invited talk	T. Srinivas, SPIE Visiting lecturer

B.2.2.13IEEE Sensors Council Bangalore chapter

IEEE Sensors Council meeting was held on 30th June 2014 and the responsibility of the chairing the council chapter was given to Dr. Natarajan. Several IEEE members expressed interest and joined the council. Discussions were done to plan the activities under the council and suggestions were taken from all the members. A second meeting was held on 13-10-2014 at Indian Institute of Science campus. Discussions were made to implement the suggestion taken in the previous meeting and to begin some technical activities under the sensors council. As a first activity a one day workshop was conducted on "Sensors for Robotics" at M S Ramaiah Institute of Technology on 15th November 2014. The technical coordination and support from Dr. T Srinivas was really appreciating as he was very helpful in terms of identifying the speakers and planning the sessions. The workshop was well organized and had 39 registrants from various colleges like AIT, SJCIT, Reva University, SVIT and MSRIT. A few of the participants were also from industry background. The workshop was inaugurated by Dr. Surendra Paul, Senior IEEE Fellow, Former Director, ISRO & Former IETE president. The guest of honour for the workshop was Dr. Venkateswaran Narayanan, University Relation Manager, ABB Global Services

Ltd, Bangalore. Both the guests appreciated the activities conducted by the sensors council and delivered talks on the significance of sensors and their usage in Robotics. Along with these five technical lectures were arranged for duration of 1 hour 15 minutes to cover various theoretical aspects of Sensors and their usage in the design of robotic applications, opportunities and challenges in Sensors domain, different categories of robots, Robotics Service Intelligence Unit etc.

The speakers invited were

- Mr.Ramadas R. Nambi, Industry Consultant.
- Dr. Ashitava Ghosal, professor at Mechanical Engineering Dept, IISc.
- Rajeshwar Datta, Head Customer Services for ABB DM and LP Divisions, India
- Mr. C H Basavaraju, Director, BCS Innovations, Bangalore.

Financial assistance of Rs. 25,000/- was received form IEEE Bangalore section towards organizing this workshop.A Second activity being a One day Workshop was planned on the topic "FACTs Controllers-from concept to successful commissioning" on 19th December 2014 at M S Ramaiah Institute of Technology, Bangalore. Dr. Kalyan K. Sen, IEEE PES Distinguished Lecturer, Chief Technology Officer of Sen Engineering Solutions, Inc. delivered the talk from 2 – 6pm. The talk was very interesting and was very much appreciated by the participants

Activities planned for Jan – Dec 2015:

The activities planned tentatively for the next academic year are mentioned below

February 2015

1. Expert Lecture on "Sensors and its Applications" on 7th February 2015
2. Two day workshop on "Sensors for Automobiles" on 27th -28th February 2015

March 2015

1. Expert Lecture on "Mems Sensors – Challenges and Applications" on 14th March 2015
2. Two day workshop on "Sensors for Internet of Things" on 27th -28th March 2015
3. Expert Lecture on "Sensors for Robotics" on 21st March 2015

April 2015

1. Expert Lecture on "Sensors for Automobiles" on 4th April 2015

August 2015

1. Two day workshop on "Sensors for Robotics" during 21st – 22nd August 2015

September 2015

1. Two day Hands-on Training on "MEMS Sensors" during 11th – 12th September 2015

October 2015

1. Two day workshop on "Sensors for Wireless Sensor Networks" during 23rd -24th October 2015

November 2015

1. 3 day National Conference on "Advances in MEMS and Embedded Technology" which includes two day conference and one day preconference technical tutorial during 5th – 7th November 2015

B.2.2.14IEEE SPS Bangalore chapter

I. MAIN ACTIVITIES

1) Technical talks: Five technical talks were organized; details attached below.
2) Student travel grants: A total of 4 students were offered a travel grant of Rs. 20,000 each to present their research results at top IEEE conferences outside India. These students were selected by a travel awards committee from the applications received. The criteria for awarding the grants included the relevance of the paper to the signal processing community, quality of the paper, andthe quality of the conference.
3) An Indo-Japan student discussion meeting on Tehcnology, Society and Leadership was organized by the chapter on Sep. 3rd, 2014. About 12 IISc students and 6 Japanese students participated in the meet. It was a day-long event, including individual talks, break-out sessions, group joint-projects, open discussion sessions, and ending with a tour of the IISc campus.
4) A 1-credit course titled Introduction to GPS and Applications of Communications/Signal Processing theory in GPS receiver design was offered by members of the IEEE SPS Execom at the Thyagaraja College of Engineering, Madurai, India. (detailed syllabus attached below). The course was conducted over 3 weekends. There were theory sessions in the morning and handson Matlab sessions in the afternoon, on every day of the class. About 30 (5th semester B.Tech.) students attended this course.
5) Technical co-sponsorship and leading participation by execom members in the core organizing committee for SPCOM 2014 and on the TPC of NCC 2014.
6) Hosting of the IEEE SPS-APSIPA Winter School on Machine Intelligence and Signal Processing (http://misp.iiitd.ac.in/). The winter school is being organized by faculty at IIIT Delhi and the funds are channeled through the IEEE SPS Bangalore chapter. Also helped with publicity by broadcasting the winter school announcement to the SPS mailing lists. The authors is the Chapter Chair, IEEE Signal Processing Society, Bangalore Chapter. He is with the Dept. of ECE, Indian Institute of Science,Bangalore 560 012, India (e-mail: cmurthy@ece.iisc.ernet.in).

II. LIST OF TECHNICAL TALKS ORGANIZED

1) Title: Frequency modulated continuous wave radars: an introduction and mm-wave chip design challenges.
Date: Monday, May 26th, 2014, Speaker: Karthik Subburaj, Texas Instruments India

2) Title: Frequency modulated continuous wave radars: A gentle introduction to angle resolution and its challenges
Date: Thursday, May 29th, 2014, Speaker: Sandeep Rao, Texas Instruments India

3) Title: Time-Frequency Modulation Analysis of Autoregressive Spectrogram Models.

Date: September 9th, 2014, Speaker: Dr. Sriram Ganapathy, IBM T.J. Watson Research Center, Yorktown Heights, USA

4) Title: Open loop Nash equilibria in linear-quadraticdifference games with constraints
Date: Tuesday September 9, 2014, Speaker: Dr. Puduru Viswanadha Reddy, Postdoctoral fellow with GERAD Group for Research in DecisionAnalysis, HEC Montreal, Canada

5) Title: Design of Sparse Antenna Arrays
Date: Friday, October 17th, 2014, Speaker: Prof. Sanjit Mitra, Univ. of California, Santa Barbara, and Univ. of Southern California, USA

III. DETAILS ABOUT THE 1-CREDIT COURSE

Title: Introduction to GPS and Applications of Communications/Signal Processing theory in GPS Receiver DesignCourse offered at Thyagaraja College of Engineering,Madurai

A. Module 1, July 26, 2014
Instructors: Sreenath Narayanan + Jawahar Tangudu
Topics: GPS fundamentals, GPS Receiver Analog and Digitalsignal processing, Lab session using MATLAB

B. Module 2: Aug 2, 2014
Instructors: Sarma Gunturi + Sachin Bharadwaj
Topics: Tracking loop design, Detection theory, Lab usingMatlab

C. Module 3: Aug 9, 2014
Instructors: Anil Mani + Ganesan Thiagarajan
Topics: Position Computations, Lab session with MATLAB,Recap/Wrap-up of how GPS works, Topics covered in thecourse and Q&A.

B.2.2.15 IEEE SSIT & ES Joint Bangalore chapter

Inauguration: IEEE SSIT ES Inauguration event on 30th August 2014 at The Golden Jubilee Seminar Hall , ECE Dept, IISc Bangalore
The Spectacular event was started with a prayer by Oxford college of Engg students, followed by the lighting of the lamp by the dignitaries, Prof SS Murthy chief guest, Prof H K Anasuya Devi chairperson IEEE SSIT ES Joint Bangalore Chapter, Prof T Srinivas Chapter Chair Co –ordination. Prof SS Murthy IEEE Life Fellow, Former VC of CUK delivered the key note address on the Role of Engg Education and Social Relevance. Prof Murthy emphasized on the realities of the current educational system in Engg Colleges India, and the role of a teacher. Spoke about improving the existing facilities in the university campuses throughout, by sustainable developments, society relevance to technologies, through

academia industry interaction, user agencies, preparation for National Consortia. Prof Murthy pointed out to conduct workshops, conferences, projects and debate on the problems and solutions to the Innovative themes such as energy, waste management, campus greening, IT enabled education etc,. to create a better society and usefulness of the technology globally. The chair of IEEE Bangalore Chapter Mr Ravikiran gave a big applause to the inauguration of the event and said emphatically to provide all round support for IEEE SSIT's growth and development.

2 Day Workshop on Sustainable Technology for Educational Campuses

The IEEE SSIT ES Bengaluru chapter in association with IEEE-IISc Student Branch and National Institute of Advanced Studies (NIAS) organised a 2-day workshop on "Sustainable Technology for Educational Campuses" at the Golden Jubilee Seminar Hall, ECE Department, IISc, Bengaluru on 7th and 8th November 2014. The 2 day workshop started with the Inaugural Session that had Dr. Baldev Raj, Director, NIAS; Dr. Vamanacharya, Chairperson, KSPCB; Dr. SS Murthy, General Chair for the workshop, Dr. Vijay Kumar, Chairman ECE, IISc and , Dr. H. K. Anasuya Devi, Chair IEEE SSIT ES, as dignitaries. There were three technical Sessions on the first day.The second day resumed with the brainstorming session under the key tracks of (a) Energy, (b) Water, (c) Waste, (d) Transport, and (e) Greening of Buildings. This was followed by the day's first technical session that saw 2 key presentations, chaired by Dr Priyaranjan Mishra. Prof. MS Mohan Kumar gave an insightful talk on 'Sustainable Campus Water Management' showcasing the work carried out and implemented at IISc campus. This was followed by a talk given by Dr. H. N. Chanakya who elaborated on writing a Sustainability Project Proposal by showcasing some of the earlier work he had implemented.

B.3 Professional and Continuing Education Activities

Various professional activities are reported below:

IEEE Bangalore section has signed following 2 MoUs in the year 2014.

1. **With VITM Bangalore:** MoU is signed between IEEE BLR, VITM and IEEE India office, to bring value to IEEE professional members &VITM with the skills and competencies which are beneficial to both members. The collaboration will be in the following areas:

- **VITM-IEEE Distinguished Lecture series:** A total of four Distinguished Lectures from the STEM domain will be held at VITM premises beginning July 2014 ending July 2015.
- **App Development Course:** A Mobile App Development Course for high school students will be jointly organized by IEEE Bangalore Section and VITM.
- **Half day workshop for teachers/students**: Two half day workshops for teachers/students on TOPICS like Cloud Computing, Internet of things, Green Energy, Smart Grid, Nanotechnology, Artificial Intelligence & Robotics, Biotechnology
- **Annual Science & Technology Exposition:** This activity will be jointly organized by VITM and IEEE Bangalore section. IEEE will identify the industries who can participate in the expo. There will be focus on innovation and entrepreneurship. VITM will charge a nominal fee for the stall provided by VITM.
- **Innovative projects and annual contest for high school students:** There will be an annual contest for high-school students. Topics will be decided by both parties and students will use the Idea Lab at VITM.
- IEEE knowledge sharing on science & technology exhibits: IEEE is willing to share drawings, graphics and related specifics for science and technology exhibits on topics of current and advancing interest in these subject areas through a separate licensing agreement between IEEE and VITM.
- Long-term science and technology educational program: IEEE and VITM will together identify long-term educational programs that can be replicated at other museums under NCSM in the country.

2. **With Swissnex:** To bring value to IEEE professional members with the skills and competencies this MoU is signed with Swissnex, which has a mission of Connecting India and Switzerland in science, education, art and innovation. The collaboration will be in the following areas:

- Swissnex India and IEEE communication points of contact will exchange information regarding each others' activities in the field of innovation and start-up.

- Swissnex India and IEEE will collaborate for one (maximum two) joint project every year in the field of innovation and start-up. The project theme and financial support issues would be discussed and agreed mutually by both parties.
- Swissnex and IEEE open events: Members can attend each other's events and avail discounts on any fees raised. For this, the information regarding the participants should be provided beforehand
- IEEE senior professionals/ research scholars/fellows will be considered to be a part of the Swissnex mentors group for Swiss researchers/students and start-up's.
- Swissnex will provide feedback on the effectiveness of IEEE to the communication point of contact appointed by IEEE.

Workshops: Following Workshops were organized along with C-DAC Bangalore:

- Workshop on Hadoop And Map-Reduce For Big Data
- Think Parallel Workshop
- Workshop on Augmented Reality
- Workshop on Visualization of Bigdata

B.4 Students Activities

B.4.1.New Student Branches, Chapters, Affinity groups opened in Section Colleges

B.4.1.1 Number of Student Branches

IEEE Bangalore section has 63 student branches. This year following 4 student branches has been formed.

1. Mangalore Institute of Technology & Engineering
2. KLE Society's Institute of Technology
3. BNM Institute of Technology
4. Christ University

B.4.1.2 Formation of New WIE Student branch affinity Groups

This year following new WIF affinity groups have been formed in the colleges:

1. KSIT, WIE

B.4.1.3 Formation of New Student Branch Chapters

1. RNSIT- Robotics & Automation Society Student Branch Chapter
2. M S Ramaiah Inst Of Tech.- Power & Energy Society Student Branch Chapter

B.4.2 Section Level Student Activities

Following are the major section level activities

1. Student Leadership Congress at BEC Bagalkot on 7-8Nov 2014
2. Industrial Visits
3. YP Interface Meeting
4. Branch Councillors Meet
5. IEEE BRV Vardhan Paper Presentation Competition

Summary of Individual Student Branch is presented below:

IEEE SIT

QUIEEEZ:

IEEE SIT Student Branch has been conducting quiz competitions (QUIEEEZ) as part of introducing IEEE to the juniors. This year it was conducted on 17th Sep 2014. The questions chosen were from different fields like history, current affairs, sports, science and technology etc. Around 90 students from various branches had registered and participated in the event.

PROJECT DEVELOPMENT WORKSHOP:

IEEE student branch Tumkur hub has been conducting many events and workshops. One such workshop was conducted on 19th may 2014, regarding "Project development". K V Jyothi Prakash, Asst. Prof., Dept. of Electronics and Communication addressed the students. The gathering consisted mostly of the students of 4th semester of various branches. About 50 students from various circuit branches attended the workshop.

IdEEEas'2014:

IdEEEas is the flagship event which is a national level technical symposium organized every year by IEEE SIT. This year it was conducted on 22nd February. IdEEEas gives a modest platform for technical enthusiasts to showcase their skills and rekindle their thinking and bring out innovation.Around 450 students participated in the symposium from SIT and colleges across Karnataka.

Aavishkar:

IdEEEas 2014 gives our research-oriented friends a chance to show off their hard work and dedication. Be it Application oriented projects or just a basic project in hardware or software. Students were encouraged to come up with their small "inventions" and win the big bucks for it.

ANDROID WORKSHOP:

On November 1st and 2nd, 2014, IEEE SITSB hosted the workshop entitled 'Android app development'. Seventy six students from various branches had participated in the event.

The purpose of the workshop was to provide knowledge on basic app development on Android platform. The workshop winded off with a brief talk on how to upload an App to play store. Participants were also provided with information about some useful sites like www.stackoverflow.com etc. from which they could get their doubts clarified. The response from the participants was quite welcoming which indicated their level of enthusiasm which included a sense of accomplishment.

IEEE UVCE

WIEM:

IEEE UVCE student branch volunteered for IEEE International Workshop on Women in Electromagnetics held by IEEE Antennas and Propagation Society at Indian Institute of Science, Bangalore on 7th and 8th March 2014.

Session on Programming Tricks:

This was a session by SIG Ncode head, Bharathkumar Hegde on the shortcut methods and the tricks which covered Pointers, Macros and special functions that can be used in programming to make it much easier. It was held on 18th March. Around 40 people attended it.

Photoshop 101:

This was a workshop held on 24th March on the basics of editing an image by Adobe Photoshop organized by the design team. The workshop taught the students the functions of all main tools, merging a photo and creating a poster. The workshop also had a competition for the students to click their photos and merge it. The best one was given goodies.

Webinar on Digital Image processing:

This webinar session was held on 25th March 2014 by Sanketh S Moudgalya, an alumnus of UVCE. The session covered various topics such as DIP applications and areas of interest, 1D convolution continued to 2D and Special Edge detectors. More than 10 people attended it.

Pre-Hackathon Session:

This session was a prologue to the Hackathon workshop which covered the basics of android programming. This was held on 1st April 2014 and around 45 people attended it.

The session covered Basics of Android Development Tool (ADT), How to use ADT, Features of ADT, Developing Android apps.

IMPETUS '14:

IMPETUS '14 was held on the 4th and 5th of April, 2014 and was based on the theme of 'RESEARCH AND DEVELOPMENT' and saw a footfall of over 700 participants this year. All the seminars and events organized as part of IMPETUS '14 were centered on the theme.

The chief guests were Dr. G K Suryanarayan, Chief Scientist at NAL; Mr. Ravikiran Annaswamy, Chair, IEEE Bangalore Section and Mr. Yathish L N, CTO, Huawei Technologies India. Some of the Events of IMPETUS '14 were: QUIZZICAL, SWITCHPLAY, RECRUIT, SUMMIT, ICODE, FACE OFF, ROBOTICS and GAME THEORY. These events were accompanied by many other fun events like BUSYNESS 2.0, PRISON BREAK, SHERLOCKED and BLACK OUT which saw huge turnouts.

IEEE UVCE Alumni Meet:

On 5th April 2014, an alumni meet was held for the active alumni of IEEE UVCE in IMPETUS. An interactive session was organized where the alumni and the current Execom members put forth their opinions, shared some of their past experiences and talked about how being part of IEEE helped them. After the session, the alumni took part in Epsilon, a Cyber Treasure Hunt that was designed as part of the fun session.

Bhaag UVCE Bhaag 2.0:

Bhaag UVCE Bhaag, a treasure hunt, was the first event organized in our college on 12th August 2014. This event was exclusively for the 1st years to welcome them. All the participants were grouped up with students of other branch to get to know each other well. They got a chance to get acquainted with the common as well as less known spots of UVCE. The event saw a participation of 110 enthusiastic students.

uCode C:

Session on Basics of Programming in C was conducted by two students of ISE branch, the workshop was a boost for all the students to lay their hands on programming. Conducted on 20th August 2014, around 90 people from all branches attended the session. It covered mainly the fundamentals of C language and the organizers have planned to follow up with another workshop in the near future. Students were made aware of IEEE NCode and the coding competitions organized every month.

Game Theory 101:

Game Theory 101 was a new category of event held on 2nd September 2014. The first round was a quiz on mathematics problems based on probability and logic. The top ten teams cleared their way to the second round. There were a total of 10 different games in round two

which could be solved through strategy making and analytical reasoning. It saw a footfall of around 80 students.

Python Hands-on Workshop:

The Python Workshop was organized on 23rd August 2014 by Pycon India, an organization dedicated to develop the Python programming language skills among people. The workshop was morning to evening lasting hands-on session. It witnessed a participation of more than 150 students.

AVISHKAR MEET:

The Aavishkar Club of IEEE UVCE held a meet on 9th September 2014 to discuss on research and development. The organizers explained the preliminaries to start research in college, answering questions like where to start, what to start with etc. Also, they highlighted Project Vishisht, a program initiated by the UVCE alumni to support the ideas of students were interested members could select their field of interest andguides will be allocated to lead their research. Around 50 people attended the event.

IEEE UVCE Orientation Programme:

The IEEE UVCE membership drive for the current year 2014-2015 started off with the IEEE Orientation held in the Seminar Hall at Jnana-Jyothi Auditorium. The orientation witnessed a turnout of 200 students. Various benefits of IEEE at Global level as well as student branch level were made known to the audience. Membership retention is about 40% and membership count is 150.

TISP Volunteer Training Session:

A TISP volunteer Workshop was conducted by IEEE UVCE in association with IEEE Young Professionals on 28th September 2014. Over 30 volunteer students of IEEE UVCE were trained through various sessions and fun activities by the Young Professional volunteers so that they can go to various schools and train teachers by conducting sessions in a similar manner to enhance their teaching skills.

IBM Bluemix Session:

Four UVCE alumni from IBM conducted a session on IBM Bluemix on 12th September 2014. IBM Bluemix is the latest cloud offering from IBM which enables organizations and developers to quickly and easily create, deploy and manage applications on the cloud. The session started with a brief description on the new open source software. This was followed by a Q&A session where a lucky few won goodies. A demonstration on trending microcontroller devices like Raspberry Pi was presented. A total of 70 students attended the event.

AISC 2014:

Five students of UVCE Aravinda S K, Chitra S Reddy, Deepika Poovaiah, Mahesh R B, Kaushik K N were selected to attend the IEEE All India Student Congress from 6th-8th October 2014 held at Nirma University, Gujarat.

IEEE DAY 2014:

IEEE day which was conducted on 12th of October was one of the huge successes in the history of IEEE UVCE. WIE team had conducted a fun event 'JUST SAY KNOW' where in participants of about 40 were present which resulted in 10 teams. Art Forum organized an event named 'TECHFUN' which was fun event.

Also a number of innovative events like round table programming, a robotics exhibition where different kinds of line follower robots were demonstrated, session on Design Thinking were conducted. All the winners were given away goodies like pen drives, t shirts and headphones.

E & E Club:

Electrical and Electronics Club organized orientation day along with an event on 15th October 2014. Event was to guess the names of latest and trending technologies looking at related pictures. This event was attended by most of the electrical and electronics students of UVCE. Around 40 students attended the event.

Poster Presentation Session:

A Poster Session was conducted by Aavishkar club before KAGADA 2014 on 20th October. The major goal of the workshop was to encourage the students and answer their questions about basics of making a technical poster. Around 40 students attended the session and it was of great help to the first year students who were new the research part of technical field.

UVCE Jaatre:

An event known as UVCE Jaatre was held on 12th November 2014. IEEE UVCE had organized a stall at this fair where students were informed about the activities and events conducted by IEEE UVCE for students and the IEEE membership FAQs were also

answered. Also at the stall, fun rapid round quizzes were held about technical topics and the winners were awarded goodies.

Sixth Sense Workshop:

A Hands-on Certified Workshop on Sixth Sense technology was organized by IEEE UVCE in association with Technophilia Systems on 1st and 2nd November 2014. This workshop was attended by over 80 students and the certified instructors oriented the students about sixth sense technology through teaching about various topics in MATLAB. By the end of the workshop the students were experienced in controlling of PowerPoint presentations, playing songs in media player, capturing photos and other tasks through hand gestures.

Microsoft India Industrial Visit:

An Industrial Visit to Microsoft India was organized for the students on 15th November 2014. 50 Students along with two faculty coordinators visited Microsoft India office at Embassy Golf Link Parks where they got an opportunity to discover the working of a software industry and learn about trending topics in the industry.

Kristen MacCartney Visit to UVCE:

IEEE UVCE along with IEEE Bangalore Section had the privilege of inviting Kristen MacCartney, University Partnership Program Manager for a talk on 30th October. An interactive session with her was organized where students from various student branches like SKSJIT, SIT Tumkur, MSRIT, BMSCE and UVCE, Bangalore attended.After her keynote address, office bearers from various student branches presented a brief overview about the activities of their respective IEEE student branches. Over 100 students attended the session.

GHC India 2014:

The Grace Hopper Celebration of Women in Computing (GHC) includes a series of conferences designed to bring the research and career interests of women in computing to the forefront. Around 14 female students from UVCE were awarded scholarships to attend the conference. The three day conference included hackathon, poster presentation competition, panels on entrepreneurship, technical topics and career advancement. The Fifth Annual Grace Hopper Celebration, India took place in Hotel Lalit Ashok from 19th to 21st November 2014.

KAGADA 14:

KAGADA 2014, the National Annual Technical Paper Symposium of IEEE UVCE was held on the 14th November 2014. A total of 30 papers were received from various colleges, out of which 10 were shortlisted in all the categories.KAGADA '14 witnessed participation from students from Mysore, Tumkur and Tamil Nadu along with top colleges from Bangalore. KAGADA saw active participation from the students in all the presentation categories like the paper presentation, poster presentation and project presentation.

STAR Programme at Kagada' 14 :

The STAR SIG of IEEE UVCE conducted a full day event for girl students of Government BBMP High School, Chikkapet. The program for the day included career counselling, workshop on MS office, poster competition on the topic 'Swacch Bharat' and small fun filled games. The event hoped to encourage the students to take up higher education and a platform to showcase their talents .The best posters, active students and talented individuals were suitably rewarded. By the end of the day, the students returned with prizes and gifts from the event.

NIE-IEEE

Ankura'14 – Our Technical Event (May 10th - 11th 2014)

Ankura is the annual even semester technical fest of the IEEE Student Chapter of the National Institute of Engineering, Mysore. Students from all over India, more so of Karnataka, joined in to revel in the extravaganza. Glued to the plentiful technical, cultural and management events, is the bliss of joy, the hope for change and the mood of innovation that truly fashion Ankura. The day one for Ankura'14 was a marathon of various technical events which were being conducted in parallel throughout the campus.

BLUEMIX DAY:

A full-fledged informative session by IBM on their cloud development platform was conducted which was a kind of successor to the workshop conducted as a pre-ankura event. Students tried out various tools and tweaks of cloud computing and also built some small apps.

STARTUP FESTIVAL

A one-of-its-kind event where budding start-ups were provided a platform where they had the power to pitch their idea to the people through keynotes and various other activities. The festival consisted of start-up product launch and start-up internship fair.

CRYSTAL JUBILEE CELEBRATION

The fifteen year anniversary for NIE IEEE STUDENT BRANCH was celebrated with full enthusiasm. The first ever edition of the NISB JOUNAL "JIJNASA" was launched to make the day memorable.

BIBLUS:

BIBLUS is a signature event of ANKURA ever since its inception. The NATIONAL LEVEL PAPER PRESENTATION was open for all branches where students were motivated to present their original ideas on an established platform. The paper "ACTIVE VEHICLE AIR POLLUTION SENSOR" written by Yuvraj Gupta, Rajneesh Dubey and Saahil Nayak bagged away the first prize and the second prize was won by the paper "REVIEW ON BRAIN COMPUTER INTERFACE AND ITS TRENDS" written by Rohith Shetty and Gurupriy Imandar.

NIE-Summer of Code (June 16th - June 22nd 2014)

Objective of Summer School was to empower students with basics of many aspects that would determine their ability to work on real-time projects.The workshops were conducted on the following topics:

* Python
* Android
* PHP
* HTML & CSS
* Programming(C/C++)
* Freeduino (Robotics)

Coding Knight (August 23rd 2014)

NISB in collaboration with IEEE Mysore Hub conducted a Hub level online programming contest “Coding Knight” which was held on 23rd August, 2014 from 10 pm to 3 am of 24th August, 2014. This online coding event was partnered with Hacker rank for coding environment.

Ice Breakers

The event icebreaker is a facilitation exercise intended to help a group of students to begin the process of forming themselves into a team.

Python Workshop (September 7th 2014)

The participation of members to this event was open to all the members of NIE-SB. The number of students who participated was more than 150, eventually making to be a successful event. The basics of Python and method of implementing GUI using Python was done in the first half of the session by the students. In the next session students were able to develop a game using Python.

Adroit'14 (Phase 1: September 20th – 21st 2014 & Phase 2: September 25th – 28th 2014)

The Adroit 2014 is the odd semester fest of NISB focused on technical finesse and workshops.

Elektronika

This was a technical competition which is the signature event for ECE and EEE students and was conducted in 2 phases.

Phase 1: Qualifiers consisted basics of electronics.

Phase 2: Finals consisted of circuit debugging.

All Challenges and tasks were awarded points. Winner at the end were be called 'Elektronika Grandmasters' and get direct entry to next year's Elektronika finals. Runners up were called 'Elektronika Wizards'.

Linux Workshop

Then Linux basics lecture, video tutorials on Linux working, bash usage in a linux environment and at last vim workshop was done in the workshop.

Tech Quiz

This event was a contest that tests the knowledge in various technical fields. Here was a thirty minute preliminary round followed by a final challenge that attracted students of every circuit branch.

Photoshop Workshop

This was a workshop to make the students well equipped with the tools of Photoshop, whether you are working on a webpage, PowerPoint presentation, or a document to be printed, Photoshop can be used to enhance your images.

Programming Aptitude Workshop

This workshop was mainly aimed at helping the students who are new to programming language, to make them comfortable programming with C language.

Pictionary

This event tested the knowledge of the participants in a very unique fashion. The participants were shown various photographs conveying a technical concept which they had to decipher as quickly as possible.

Sudoku Competition

This event was aimed at bringing out the thinking skills in students and also this event was a time pass-fun event to bring out the stress after a series of technical events and workshops.

Robotics Workshop

NISB, in collaboration with Robokraft organized 12 workshops on Robotics. This was the main event of the odd semester. The workshop was to teach the students the basics of electronics and physical computing.

Agon War of Words (September 27th 2014)

The objective of this event was to train the students in a Group Discussion or Debate, from the placements point of view.

RHoK Hackathon (September 28th 2014)

This event was conducted by RHoK – Random Hacks of Kindness Bangalore Community, which was the signature event of Adroit and it was conceptualized in 2013 as an effort to encourage humanitarian hacking in Colleges. In the recent times students at various engineering institutions have become more aware of technology. But most students develop these skill sets with focus on jobs in the industry. There is very little effort made to develop them to solve real world problems.

IEEE DAY'14 (October 12th 2014)

The IEEE day was held at Kaliyuva Mane, a product of Divya Deepa Trust. The main agenda of the event was to celebrate the anniversary of IEEE with its members and to share technical ideas. This year, IEEE day theme was "Leveraging Technology for a

Better Tomorrow". The principle task of IEEE Day was to initiate, motivate, and coordinate events.

IEEE BMSCE ROADRUNNER:

Every year BMSCE IEEE Student Branch conducts an event in UTSAV, the mega techno-cultural fest. This year IEEE BMSCE conducted the event, Roadrunner which was a line-follower-robot competition. The participants were told to bring their own materials and robots whereas we provided them with a map on which the competition took place. The event was conducted on March 29th.

LabVIEW Workshop:

BMSCE IEEE in association with Dept. of Instrumentation Technology conducted a two-day hands-on workshop on NI Lab VIEW on 13th and 14th April, 2014.

It was hosted by Shashank Hegde, a final year student of Instrumentation Technology, BMSCE. The prime objective of this workshop was to make students familiar with Lab VIEW's working environment at an early stage and give them an opportunity to work around its myriad applications.

AVG SIG:

BMSCE IEEE Student Branch came forward with an idea of forming a Special Interest Group (SIG) within the Student Branch. The aim was to start a learning group, where everybody interested could join and learn what they wanted to learn. People attend the workshop with great commitment.

IEEE XTREME:

IEEE Xtreme is a 24-Hour long online programming competition which happens every year in the month of October all over the world. The 8th edition of IEEE Xtreme was observed on 18th October, starting at 5:30 AM IST. A total of 60 students from BMSCE participated in the competition from seven different branches viz. ECE, EEE, IT, ML, MCA, ISE and CSE and from various years of study. They were divided into teams of three and allocated a unique team-name. The event started at 5:30 AM, Saturday 18th October in FDC Hall.

IEEE DAY:

The BMSCE IEEE Student Chapter celebrated IEEE day on 10th October 2014. The Session began with the formal introduction by the chairman, followed by a brief introduction of IEEE, what it is all about and what IEEE can and is offering its members around the globe. The branch's faculty mentors were introduced to the students and they spoke about IEEE and its benefits and encouraged students to volunteer and become active members of IEEE. Followed by this, there was a talk on "Smart Communication Systems" by Ms. Soma Pandey, ESVN Bangalore.

IEEE PESU

Circuithon:

A tech event was organized on 6th February wherein participants had to answer a basic quiz that will test their aptitude and technical skills. The first round had 20 questions in which the participants had to answer them in a stipulated time of 45 minutes. The event experienced an exhilarating response of over 100 students taking part. The shortlisted students which came down to 15 students qualified for the second round which involved a rigorous process to find out the finalist with the best practical knowledge.

Talk on Innovations skills:

IEEE PESIT, in association with PESIT Entrepreneurship Cell presented a Talk on Innovation Skills by Mr. Sudeendra

Koushik .The talk covered topics like - What is Innovation, How to be Innovative in real life amongst other issues bound to invigorate the budding entrepreneur in you.

Ingineer:

A flagship event conducted under Aatmatrisha' 14 [Techno-Cultural Fest of PES University] organized on 8th March. An event set to put engineering knowledge to test. The event involved multiple rounds, in which each of the rounds tested aspects of different engineering fields. The event had recorded the best turnout so far for a Technical event in Aatmatrisha 2014. The first round had over 120-130 participants battling it out in a time based questionnaire.

PRAKALPA:

'PRAKALPA' is PES University's flagship technical event. The IEEE PES University student branch had set up a stall in view of promoting IEEE and expanding the Student Branch. The Student Branch had also organized a tech based 'Treasure Hunt' to involve the students in the IEEE experience and over 65 teams of two to three members participated in the event.

Tech Quiz 3.0:

The tech quiz is one of the featured events of IEEE PES University and this year it happened on the 14th day of October, 2014. It was attended by over 80 teams consisting of two members. The quiz was conducted by the Student Branch, which featured tech based questions covering aspects of coding, aptitude and technical knowhow. Students were quoted saying the quiz as pretty challenging but also as an interesting set of brain teasing questions.

Talk on Microcontrollers and Microprocessors:

The IEEE PES University Student Branch started off the odd semester 2014 with a talk on Microcontrollers and Microprocessors, which was a huge success. The talk was given by 7th semester students, Nidhi and Arjun who actively involved the audience consisting mainly of the fresher's batch, along with students of all four years coming from different branches. The event saw 300+ students who attended this talk and they were greatly

benefitted from this as many students came up with ideas to start off with mini projects.

IEEE Android App competition: DESIGN DEVELOP DEMONSTRATE Workshop.

Where the students were given one month time to work on the app for which were assigned to them. The developers gave us weekly updates on the progress of their app and after a month, they showcased their app and one was declared winner. The winning app shall soon be launched and this will be available on Google Playstore as the official IEEE PESU app. The user will be able to login with their IEEE registration number and he can access the calendar of events of Bangalore Section and IEEE PESU SB, view our Facebook and Twitter page, photo gallery and he can contact any of the EXECOM members.

Talk on Paper Presentation:

Prof. A Srinivas, Dean of Research from the Department of ECE, who gave a talk on Paper Presentation. He gave participants an insight on how to transform ideas/projects into technical papers.

IEEE NITK

IEEE Xplore Workshop

A workshop on the use and utilities of IEEE Xplore was held in association with NITK Central Library. Mr.Dhanukumar Puttanashetti, IEEE Client Services/University Partnership Program Manager, IEEE India. He has conducted two sessions on how to use IEEE Xplore effectively. Around 200 members attended these sessions totally. The sessions were quite effective in guiding undergraduates and graduates towards methods used for literature survey and searching of research papers. The workshop was held on 17th September 2014

Mr. Yatheendranath, Strategic Partnerships, IEEE India gave a pep talk to 50 of the student members from the NITK IEEE student branch. He gave an overview regarding the organization structure of IEEE. He explained how the societies, student branches etc. are

all associated. On account of IEEE Day, he also asked a few questions regarding history of IEEE and gave away T Shirts to the prize winners.

Talk by Mr. Yatheendranath

Talk by Mrs. Pratima Amonkar from Microsoft

Under the IEEE WIE, NITK Chapter, Ms.Pratima Amonkar, Director of Academia, Microsoft, Bangalore, had been invited for a talk. She delivered a talk on "Recent trends in Technology and the role of women in technology". The talk was very insightful and the speaker also took some questions at the end of the session. The talk was held on 14th October 2014.

TECHCELERATE

This was a technical fest organized to expose the first year students to various fields of engineering through innovative games organized for them. The first 3 days had a set of events and games for the contestants to take part in, and the winners of these events were called to a final round. The event was held from 27th to 30th October 2014.

Poke Master: A spin-off of the popular video game, Pokémon, was developed and released. The game was set in NITK, featuring college landmarks.

Mines stroll: A path full of "explosive" mines was prepared. Contestants had to navigate their way across this path without touching the mines.

High Octane: This was an online car quiz. The teams were asked to select a car within a specific price range and meeting certain requirements.

Math-o-maniac: This was a competition designed to test the mathematical abilities and reaction times of the teams. The teams were asked to solve mathematical puzzles in the second round.

Arbalest: A crossbow firing arrows (cut out of hangers, did not have sharp ends) was designed by IEEE. Teams were asked to fire these "arrows" at a target and their score was noted.

Cannon Bowl: A mechanism similar to a catapult was devised to fire table tennis balls at chess pawns. In this version of bowling, the number of pawns knocked down by the teams was noted.

Puppet Master: A puppet was used to move a ball around a track. Multiple paths were available with varying levels of difficulty.

Wire Loop Chase: The teams had to move a loop along a wire without making contact.

Robo Ball: The top 4 teams considering all the above events were called to a final round. In this round they had to control a robot and use it to move a ball along a certain path within a time limit.

IEEEMIT

TESSERACT: ANNUAL EVENT OF IEEE SBM

Being one of the most active student branches in the Mangalore region, IEEE Student Branch Manipal held its annual technical extravaganza from the 7th-9th of February this year. The fest was named Tesseract V14.02. A total of 11 events were conducted with participation open to students of all branches. A sale of around 250 delegate cards was recorded by the organizing committee and the technical fest was a success albeit facing completion from the college's cultural fest. Event was organized from 7th to 9th February.

WEB DEVELOPMENT:

One of the most sought after skills in an engineer today, is web development skills was held during 3rd and 4th February and to cater to this, IEEE in association with ISTE (Indian Society for Technical Education) conducted a web development workshop, which was followed up by a web dev contest. The participants were taught both the front end and back end required to develop websites. HTML/CSS/JavaScript was used for the front end and Python for the back end.

SHELL and BASH:

This was the first workshop of its kind held in Manipal. A Shell script is a script written for automation of an operating system (Linux) and BASH is Bourne Again Shell. The participants were provided with Linux at the workshop. The workshop covered typical operations like file manipulation, program execution and printing text. The event was

conducted individually and contestants had to solve the given problem statements using Shell. It was a unique event that attracted the attention of all the Linux enthusiasts in the college.

BASIC ROBOTICS WORKSHOP:

The basic robotics workshop was conducted by IEEE SBM during February 5th and 6th 2014 to give an introduction to the students into the exciting and challenging world of robotics. All the basic aspects of building a robot were covered. Participants were also given tips for the robotics event that were held as part of Tesseract. The workshop saw a lot of participation from 1st year students. It gave them an insight into robotics and also the basic knowledge required to build a robot from scratch.

MAZE BREAKER:

Teams had to build a robot that navigates through a given maze in minimum possible time. The robot had traverse to the end via multiple paths (as in a maze). Each path had different obstacles which included rocky, sandy, grassy surfaces. The bots were required to have a mechanism to break thermocol walls in order to move forward. The event saw over 40 teams participate with ingenious bots and cutting/breaking mechanisms. The event was a success for many robotics enthusiast came forth and enjoyed the event.

XCOPTER:

This was one of the more challenging events conducted during Tesseract. Participants needed to build an RC air vehicle, where the number of rotors is left to the participant to decide. The RC copter had to finish an aerial path defined by hoops and complete it in the least time possible.

BULLS EYE:

The most challenging event of the Robotrek category was Bull's eye which was held on October 11th. The event required the participants to maneuver over an obstacle filled path, then up an inclined plane and then shoot a dart on the dart fixed in front. The event consisted of two rounds, both with same rules but differing in the arena. The very nature of the event made it quite challenging for the teams to pass through the obstacle itself. Innovative shooting mechanisms were observed on many bots throughout the competition.

COADIES:

Coadies was a fun-based multi-level coding event, which saw active participation of all the coding enthusiasts from various branches. The pattern of the rounds was not revealed to the participants and was kept as a surprise. There was no restriction on the coding language and the questions tested the logical and analytical skills of the participants with the pendulum ticking down.

RACE OF THE FALLEN:

One of the most popular events of any technical festival is the Tech Race and Race of The Fallen was the tech race conducted as part of Tesseract'14.Students were required to solve logical, aptitude questions and puzzles to clear the first round. The second round was the actual race in which participants were given cipher clues spread all over the campus held on 7th February 2014.

PAPER PRSENTATION:

Presenting papers is very important in every field, especially engineering. The Paper Presentation event conducted by during February 11th, IEEE SBM gave the students a chance to present their ideas on various topics based on some research/experiments conducted by them. Sample topics were provided to the contestants, but they were free to work on any topic they wished. Abstracts were invited from which selected students gave their presentations in front of faculty members. All the abstracts and presentations were to strictly follow the IEEE format.

PARENTHESIZE:

One of the signature IEEE events, it is modelled on IEEE Xtreme/ ACM ICPC. It was an event that was eagerly awaited by all the hard core programmers in college and saw a huge amount of participation. The 6 hour long event kept the participants completely occupied. There was no restriction on the programming language, which gave even more freedom to the participants. Real world problem statements were put forth and the level of the questions was highly appreciated by the participants. It was a very successful event in all respects.

MEMBERSHIP DRIVE:

The IEEE SBM membership drive began in full swing from the 7th of November and saw a number of interested students inquiring about the same. A brief introduction about the history of the organization, the educational programs conducted the conferences and scholarship details, the resources provided to members in order ensure technical growth and in-depth knowledge, and what one can achieve by being an IEEE member was discussed. The students were informed about benefits such as invitation to 1300 annual conferences and meetings that are held worldwide , IEEE Societies , IEEE Mentoring ConnectionTM , IEEE Spectrum Magazine , IEEE XploreR Digital Library, IEEE.tv , IEEE Job Site , e-learning educational courses, IEEE awards program, scholarship and grants, and IEEE memberNet.

TEXAS INSTRUMENTS ANALOG MAKER:

Texas Instruments came back this year with the Analog Circuit Maker Competition 2014 during the month of September. The competition involved solving the given problem statement within the stipulated time of 3 hours. This involved analysis, simulation and bread board work. The competition received tremendous response from the students with over 350 participants. The students were

required on work on the TINA-TI simulation software and also brush up on their basics of analog and integrated circuits.

ROBOTREK: THE ROBOTIC CATEGORY OF TECHTATVA

IEEE SBM was responsible for the Robotrek category of TechTatva, the annual technical fest of Manipal Institute of Technology. The category invited all robotics enthusiast to test their knowledge and skills in the following three events. The events were handled by the Technical Resource Team as well as the coordination committee. The event was held during 8th to 11th October this year.

THE TRANSPORTER:

Participants had to design and build a wired/ wireless bot which could traverse through a path filled with obstacles in order to pick up blocks which were placed in a different part of the arena. After this the robot had to place the blocks in certain voids made in the arena by choosing the shortest path. The event proved quite challenging for the participants as the bot needed a functioning picking mechanism. The event saw active participation from seniors as well as juniors.

TALK ON EFFECTIVE PAPER PRESENTATION:

IEEE Student Branch Manipal aims to build technical knowledge of the students and expose them to various fields like research, paper presentations and projects. Keeping this in mind, the first major event of the semester was a talk on 'Effective Paper Presentation on Technical Topics' by Dr. Srikanth Prabhu of the Computer Science and Engineering Department. The talk received great response from the student community and was attended by students of all branches. In no time, he had the attention of the students gathered there with his persuasive oratory skills. The talk opened with a brief history of how presenting a paper on research topics became such a popular and important one. The talk focused on the basic hierarchical points in a formal paper presentation with numerous illustrations. The students were also introduced to different formats of writing a paper, and gave them various hints and tips of going about making our paper different and better than a whole lot of others.

IEEE KLS GOGTE INSTITUTE OF TECHNOLOGY

1. **PAANCHAJANYA-14:** DATE: 28, 29 ,30 MARCH:VENUE: GIT BELGAUM

Paanchajanya is the annual event at IEEE-GIT. It was conceived with the intention of bettering our techno-managerial skills. Over the years, by dramatically broadening its dimensions, it has emerged as a unique event in North Karnataka which is very eagerly awaited. Paanchanya-14 received a great response with over 700 registrations . There were a total of 20 events organized in Paachajanya-2014. Paper Presentation, Project Expo, Flipped Logic, Micromatic, Dark Cipher and Short circuit were the main technical events of the Paachnajanya-14. The events were not only restricted to technical domain, there were other events like Click, Online Treasure Hunt, War of Words , Laser Maser and many other events which saw a great response.

The first day of Paachajanya started with Mathrix followed by the inaugural. The Inaugural event was presided by Principal DR A.S.Deshpande, Head of Department of Electronics and Communication DR V R Udupi, Chief Guest Mr. Ganesh Okade and Mr Nivas Ravichandran. The inaugural was followed by a talk by Nivas Ravichandran on the topic" How to make best use of Engineering days" at Silver Jubilee Auditorium. The talk was very informative. Other events which were held after the talk were the first rounds of

War of Words, Quizzard, Dark Cipher and Laser Maser. The WIE team at IEEE GIT had organised many fun games which were held on all the three days. On the second day of Paanchajanya, the main focus was on paper presentations. There were four different categories which were held in various sessions. All the sessions were very information and soon after the soon the Judges announced the results. The qualifying rounds of Mock Press and short circuit were also held on this day. The final round of robotic events was held on the second day of Paanchajanya. On the last day of Paanchajanya, the finals of all the events were held and immediately after the events an informal valedictory was organized and prizes were distributed. All in all the event received an overwhelming response and turned out to be a grand success, adding another feather in the cap for IEEE GIT.

2. Student leadership program, Date : 6th September 2014,Venue : Silver Jubilee Auditorium, GIT Campus.

The annual membership drive event of IEEE GIT "**Student Leadership Program**" was held this month on the 6th. This was the second version of the event, the first being held in February of 2014. The event was conducted with the mission to develop effective and essential leadership skills in students and student groups through comprehensive leadership education and diverse experiences. The details of events and their respective objectives are as follows :

Personal Effectiveness Scale: This self-assessment activity was helpful to the participants in a way that their responses accurately represent their characteristic behavior or attitude. Apart from this it helped them to learn more about various techniques they would tend to use in conflict situations, particularly under stress.

Make It And Sell It…!!This activity dealt in enhancing the entrepreneurial, innovative, marketing, advertising skills. It also helped in bringing out the young entrepreneur in them.

Who Should Survive…?"Who Should Survive?" was a Group Discussion Activity. A Group Discussion is a methodology used to gauge whether the candidate has certain personality traits and skills that set him apart from the rest. Various roles were assigned to the participants to test their presence of mind and artistic humour. The event also included a brief orientation regarding IEEE which introduced the young talents a platform to bloom. The registrations were limited to 120 and a team of 20 mentors along with 13 Execoms supported by Staff coordinator and Branch counselor put their laborious efforts in making the event a grand success.

3. **SPECTRUM DAY,** DATE: 19TH SEPTEMBER,VENUE: AS27, AF 31 AT KLSGIT BELGAUM

The characteristic weekly events of IEEE GIT, also known as "Spectrum Days" were revived back this month. The concept of spectrum days had been temporarily discontinued since last year due to timing constraints. However, 19th of this month saw the reawakening of the traditional Spectrum Day. Spectrum Day is an event where the members of IEEE GIT converge to have a brainstorming session or discussion on latest emerging technologies or some other avant-garde innovations. The first spectrum day was also considered taking into account the membership drive for the upcoming year. The topic for the spectrum was the software 'Multisim'. Multisim is a spice simulator which allows designing of complex circuitries with ease and simplicity. The session were handled by Akshay Kale for the 5th Semesters and Sumit Chachadi for the

3rdSemesters.The response we got was overwhelming. We saw a total of more than 200 students participating in the session. The session covered basics of digital simulation, The SPICE module, and introduction to Multisim software. The event only covered an overview of the entire software with a promise to delve deeper in the upcoming spectrum day.

4. **IEEE DAY CELEBRATION ,** Date :9th Oct 2014, Venue : AS27 Room No
   The Student Branch Of GIT Celebrated IEEE day On 9Th of October in this year. The event was graced by the presence of the branch counsillor Prof V.P. Gejji and Department Chair Dr. Veena Desai. More than 50 student members attended the celebration. A panel discussion and debate was organised on the topic,"IS TECHNOLOGY LEADIN GUS ON THE PATH OF ADVANCEMENT OR LAZINESS". With Prof. Gejji as the Moderator, Prof Abhishek Deshmukh, Prof Subramanya .K.N, Miss Preeti Patil and Miss Sukanya were speaking for advancement. And Dr Veena Desai, Miss Pranali Shinde, Miss shweta Budihal and Mr Shreyas Gombi were Speaking in favour of Laziness. The Panel discussion took up the agenda and beautifully put forward all their statistics and points in favour of their stand. Rebuttal round saw many questions asked to both sides. Conclusing Remarks were given by the moderator, She said" Nonetheless Technology has advanced Human life , at the same time it has brought liziness and reare diseases on humans, the ball is our control as to where they should bring control and balance". Student Members of IEEE_GIT came with a small newsletter,"COGNIANZE ", whose first volume was launched through the hands of the branch councellor and department head. Later Traditional cake cutting ceremony was done and refreshments were distributed.

IEEE-BVB

IEEE Student Chapter came into existence in B.V. Bhoomaraddi, Hubli, in the year 2003 under the guidance of Prof. B. L. Desai and Branch Mentor and Prof. Dr. R. M. Banakar, as Branch Counselor. BVB-IEEE Student Branch has been organizing many technical as well as managerial events to inculcate technical and management skills in the students. These events helped students to enhance their technical skills, communication skills as well as leadership qualities, hence for the overall development of the students. Presently we have 40 active IEEE Student Members. Some of the major events organized by BVB-IEEE Team in the year 2014-15, lead by Mr. Roshankumar Sanu, Chairperson, BVB-IEEE Student Branch, are as follows.

1. Spell-a-thon
2. Texplosion
3. MathStar'14

Spell-a-thon and Texplosion were organized as a part of IEEE Day 2014. We celebrated IEEE Day on 8th of October with the theme of ***"Leveraging Technology for a Better Tomorrow"***

SPELLATHON

Spellathon-14 was an event conducted under BVB-IEEE student chapter. Spellathon event was based on the similar lines of Scripps National Spell Bee. BVB-IEEE received huge response for the event. The idea of spell bee like competition seems irrelevant to

engineering students. But keeping in mind the importance of vocabulary of a language and how it helps one to enhance, improve their fluency and mastery over a language, made BVB-IEEE to initiate this event.

Rounds and description:

- Round 1: Selection/Elimination round. 25 questions of 1M each.
- Round 2: Dictation
- Round 3: Guess the word from the video clip!
- Final round: Spell it right, fast and aloud!

No. of participants: 54

Winners:

1. Abhijeet Chitagubbi
2. Sukanya Baichwal
3. Meghana Sambranikar and Kedar Nayak

TEXPLOSION

The event Texplosion was hosted to develop and inculcate a spirit of passion towards understanding science and technology in a fun and easy way. To identify, analyze and apply general knowledge and logical reasoning. The event was designed in such a manner that it brings out the desire to compete and learn simultaneously.

ROUNDS:

1. MULTI-QUIZZINE
2. PHASE 1: RAPID FIRE
PHASE 2: PICK-N-SPEAK
3. AMAZING RACE

ROUND 1: MULTI-QUIZZINE

In this round the participants were given a set of 30 questions which comprised of Aptitude, logical reasoning, technical and current affairs.

The participants were also tested on their listening and observation skills as this round also included 3 video clips and 2 audio clips and questions were asked related to that. This is the eliminating round and only the best progress to the next round.

ROUND 2:

This round included two phases

Phase 1: Rapid fire

Phase 2: Pick-n-speak

PHASE 1: In this round the participants were given a set of 10 topics (tech trends, sports ,glam-sham, firsts, science, recent innovations, space and universe etc.) and they had choose one of them and questions were asked rapidly with a time limit of 2 minutes.

PHASE 2: This phase consisted the pick-n-speak .A topic was given to the participant and he had to express his views on the given topic. The second phase was framed so that the participants would be judged on their managerial skills, time management, communication skills, depth of knowledge and planning.

ROUND 3:

AMAZING RACE

The participants were given a technical clue which led them to their destination, where they had to perform a physical task and that would then lead them to their next destination. Physical as well as mental abilities were tested in this round. In addition to the amazing

race, the participants were made to plant saplings in the campus as a part of the final round, thus, realizing the importance of ecological responsibility and generating a 'go-green' attitude.

MATHSTAR'14

It is an event conducted every year for the high school students. We aim to develop competitive skills amongst the school children and mainly to reward their problem solving skills through simple mathematics. This year it was conducted on 16th Nov 2014.

We had invited 48 renowned high schools in and around Hubli – Dharwad. A total of 1100 students attended the competition. Dr. Ashok Shettar, Principal BVBCET, Prof B.L.Desai, Vice –Principal, BVBCET and branch mentor BVBIEEE encouraged the students whole heartedly. Prof A.B.Raju, HOD of Electrical and Electronics, graced the occasion as the chief-guest. Dr. R.M.Banakar mentor of BVBIEEE guided the students. The event was successfully organized by Karthik Prabhu, Medha kulkarni, Pritviraj Kadiyala, Deepak Desai, Shivleela, Tanmaya, Suman, Abhijeet, Amit k , Kedar

Competition was comprised of a written test consisting of 40 questions to be answered in 60 minutes. The questions were of objective type, consisting of a common day to day problem that can be solved using mathematics. The problems were mainly focused on the topics mentioned below:

- Fractions.
- Squares & Square roots.
- Profit & Loss.
- Shares.
- Simple interest.
- Basic geometry.Areas & Volumes.
- Sets.
- Equations.
- LCM & HCF.
- Speed & Distance.

B.4.3 Conference Technical Sponsorship

IEEE Bangalore Section's Technical Sponsorship Affiliation to Following International Conferences in Year 2014 (hosted in 2014 and others will be hosted in 2015): The following presentation in order of time of conference,

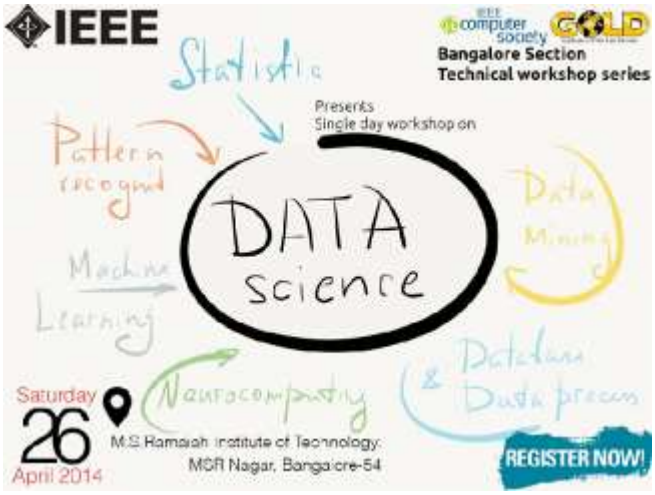
1. International Advanced Computing Conference - 2015 (IACC – 2015), 12-13TH JUNE 2015, Bangalore.
2. International Conference on Advanced Computing and Communication, (ADCOM 2014), 19-22 Sept.2014, Venue: Wipro Technologies Ltd., Electronics City, Bangalore.

3. International Conference on Circuits, Communication, Control and Computing (I4C-2014), 20-22 November 201414, Bangalore.
4. International Conference on Contemporary Computing and Informatics (IC3I 2014), 27 - 29 November 2014, Mysore, Karnataka.
5. INTERNATIONAL SYMPOSIUM ON ELECTRONIC SYSTEM DESIGN, ISED 2014, 14-17, December 2014, NIT, Suratkal, Karnataka.
6. International Conference on Eco-friendly Computing and Communication Systems, ICECCS-2014, 18-21 Dec. 2014, NIT, Suratkal, Karnataka.
7. 28th International Conference on VLSI Design & 14TH International Conference on Embedded Systems (VLSID-2015), January 3-7, 2015, Bangalore.
8. International Conference on VLSI – Systems Architecture Technology and Application (VLSI - SATA 2015), January 8-10, 2015, Bangalore.
9. RECENT AND EMERGING TRENDS IN COMPUTER AND COMPUTATIONAL SCIENCES (RETCOMP-2015), JANUARY 8-10,2015, BANGALORE.
10. International Conference on Antenna Test & Measurement Society (ATMS 2015), 3rd – 4th Feb.2015, Bangalore.
11. PARALLEL COMPUTING TECHNOLOGIES (PARCOMPTECH-2015), 20 - 21 FEB., 2015, BANGALORE

B.5 Affinity Group Activities

B.5.1 Young Professional Affinity Group

DATASCIENCE WORKSHOP – 26th April 2014



IEEE Computer Society Bangalore Chapter and IEEE Young Professionals in association with IEEE MSRIT Student Branch conducted aData Scienceworkshop on 26th April 2014 at MSRIT, Bangalore. The target audience were young professionals and research scholars. This session aimed to get attendees familiarise with some of the most frequently used paradigms in Data Science. It also emphasised on ways in which one of the hottest areas of Computer Science could be used in many ways. It also aimed at familiarising attendees with various techniques that helped transforming data into knowledge and knowledge into intelligence. This workflow was realised by by building model from available data. Clever techniques for storage and retrieving were taught as data has grown in leaps and bounds. Towards the end, text mining was covered which is one of the application areas of Data Science. Many tools and scripting languages that are often used in Data Science were explained. Program was conducted by Shri. Vijaykant Naddur and Geetha Manjunath.

TISP Program: Held on: 8th August, 2014, Venue: Vidya Vardhaka College of Engineering, Mysore
Organized by: IEEE Bangalore Section in association with IEEE Mysore Hub.

CONTEXT: Education is the key to success in life, and teachers make a lasting impact in the lives of their students and teaching profession contributes more to future of our society than any other single profession. To teach is to touch lives forever.

PROGRAM OBJECTIVE:

The Teacher In-Service Program (TISP) is a professional development workshop aimed at pre-university educators to bring exciting hands-on engineering lessons to their classroom. The objectives of this program are to

- empower section volunteers to collaborate with their local pre-university community;
- promote applied inquiry-based learning;
- enhance the level of technical literacy of pre-university educators;
- encourage pre-university students to pursue technical careers, including engineering;
- Increase the general level of technical literacy of pre-university students throughout their educational careers.

THE WORKSHOP: In connection with the same thought The IEEE Bangalore Section in association with IEEE Mysore Hub organized the Teachers In-Service Program for teachers from high schools across Mysore on august 8th at VidhyaVardhaka College of Engineering. The guests for the workshop were Dr H S Dayananda, Principal, VVCE and Dr D J Ravi, Branch Counsellor IEEE-VVCE, HOD ECE, VVCE. The workshop was delivered by IEEE Young Professional Members, Shreyas Joshi and NipunManral. The auditorium which hosted TISP program was filled with Enthusiastic teachers and IEEE volunteers. Noor AfshanFathima, Mysore Hub Leader under IEEE Bangalore Section SAC and also Chairperson, IEEE-PESCE, and Greeshma A S, Editor in chief IEEE-VVCE, welcomed everyone on the occasion. Dr H S Dayananda, Principal, VVCE gave an inspirational talk on need of teaching how to apply the learnt knowledge on many phenomenon going on around us in our daily life. He emphasised on the importance of applied learning. Dr D J Ravi, Branch Counsellor IEEE-VVCE briefed about their student branch establishment and activities.

THE ACTIVITIES: The workshop activities commenced at 9.30 am. The teachers were first divided into 6 groups where each group consisted of six teachers from different schools. They were grouped so that each teacher can interact and discuss about their styles of teaching, lesson plans and other aspects. The teachers introduced themselves to other teachers in the group and a good networking was seen. TISP Champions gave an introduction about the aim and purpose behind the program. They explained about basic concepts such as gravity, air resistance and Newton's laws of motion, application of these concepts in working of different types of parachute. Then, a booklet containing of information about parachutes and other important concepts was distributed to each one of

them. Based on these concepts, the teachers were made to build a parachute using the things that were provided. Each group was given two plastic bags, scissors, threads, and a paper cup with some weight. Two IEEE volunteers from Mysore Hub were assigned to each group to help and support the teachers in completing the activity. The time limit was 45 minutes. Initially, the teachers drew the design of parachute on a rough sheet of paper considering many constraints such as shape of the parachute, length of the thread and other scientific reasons. Then everyone involved in making parachute according to the plan which they decided. Each group made different parachute with a touch of innovation. The parachutes were initially tested inside the auditorium by dropping them from a smaller height. Later, the parachutes were collected from teachers for evaluation. Next Nipun and Shreyas gave a brief introduction about bridges. A booklet containing information about bridges and idea behind their designs was distributed to each one of them. The second activity was about building a simple bridge that could withstand some weight.

Two packets of straws, joining pins, scissors and necessary things were distributed among groups. As soon as the event started, the teachers got involved in making the best design to make a bridge with the materials provided. Since this was a much simpler task than the previous one, a new zeal in creativity was seen in the making. The involvement of IEEE volunteers was seen again as every group completed the activity successfully. The bridges were tested by keeping them between two tables and placing a weight over them. Water bottles and mobile phones were used as weights. A perfectly built bridge supported two bottles and two phones and was still looked strong. This bridge surprised everyone. Every team cheered the other teams' with loud applause.

TRY ENGINEERING: After two successful events, Nipun and Shreyas congratulated everyone for their efforts. A talk on making use of the website try engineering was delivered which is useful in preparing lesson plans. The presentation undoubtedly helped teachers to understand the basic principles of Lesson Planning.

CONCLUSION: The program was concluded with vote of thanks speech by Akshath Ramesh, Chairman, IEEE-VVCE. The teachers were asked to give feedback on the program. Two teachers came forward on the occasion and thanked all the IEEE members for providing this opportunity, conveyed that the program was very innovative and helped them in knowing the aims & objectives of all subjects.

DATA SCIENCE WORKSHOP 2

IEEE Computer Society Bangalore Chapter and IEEE Young Professionals conducted a Data Science workshop on September 13th2014 at SAP Labs, Bangalore. The target audience were young professionals and research scholars. This session aimed to get attendees familiarise with some of the most frequently used paradigms in Data Science. It

also emphasised on ways in which one of the hottest areas of Computer Science could be used in many ways. It also aimed at familiarising attendees with various techniques that helped transforming data into knowledge and knowledge into intelligence. This workflow was realised by by building model from available data. Clever techniques for storage and retrieving was taught as data has grown in leaps and bounds. Towards the end, text mining was covered which is one of the application areas of Data Science. Many tools and scripting languages that are often used in Data Science were explained.

Global Entrepreneurship Summit 2014

IEEE YP at MGA level partnered with Global Entrepreneurship Summit 2014 and IEEE YP Bangalore was approached to arrange a panel discussion on Entrepreneurship as career choice for young professionals.IEEE Young Professionals Bangalore section proved it yet again by grabbing all possible opportunities to take the community higher and higher. This particular event can be considered as one of the accomplishments of IEEE Young Professional Bangalore Section for the year as it was a global event.The event took place on 10th October at Clark's Exotica Resort, Bangalore.

Moderator- Gowtham Prasad K N, IEEE Young Professionals group, BDM -Microsoft.

Panelists:

1. Anand Daniel, Principal- Accel Partners
2. Ravikiran Annaswamy, CEO- Teritree, Chairman - IEEE Bangalore Section
3. Shradha Sharma - Founder, Yourstory

Panellists touched upon topics related to Start-up eco-system, IEEE's role in Entrepreneurship, Funding, Social stigma about startups, Indian Startups and success stories, personal experiences and much more. Overall it was a success and good exposure for IEEE & IEEE Bangalore Section

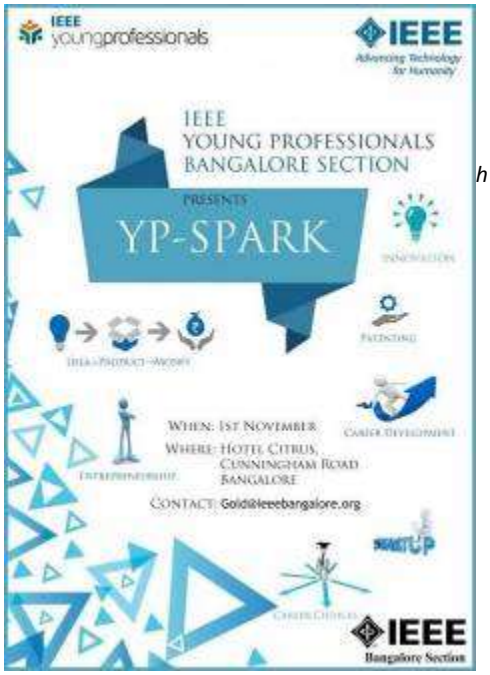
IEEE YP SPARK

In order to spread awareness about benefits of IEEE membership for young professionals we came up with a event called SPARK which ignited the flame to build a community of YOUNG PROFESSIONALS.IEEE YP-SPARK 2014 brought Innovators, Entrepreneurs, IEEE Staff and Participants under one roof. Following sessions were held during the event:

Introduction: Dr Das inspired the participants and set the context right for the event by highlighting the Importance of Career development and what young engineers should be doing in the opportunities available at the outset.

Keynote by Kristen MacCartney: Kris shared a number of success stories about Young professionals from across the world and gave a very meaningful perspective about IEEE's role in building a successful career fir a young professional.

Panel Discussion: The aim was to make delegates aware of avenues in the startup ecosystem from idea validation to investment opportunities. It also threw light on and talks about companies that support entrepreneurship, inspire employees to innovate. The takeaway for the attendee was an understandingof the ecosystem plus the resources that IEEE can provide them with, in their quest to innovate.



Workshops: The workshop was based on the below view points

1. Basic of Entrepreneurship and idea generation

--- What is entrepreneurship?

--- Setting SMART Goals?

2. Business Plan

--- Basic elements of entrepreneurship

--- Business models

--- Its all about implementation

3. IPR & Patents

We were successful in starting a new era by building a community of young professionals.

Drupal Workshop:

As part of DrupalCon India 2016, Drupal Community in association with IEEE Young Professionals Bangalore Section organized a Drupal mini camp in Bangalore on 29th Nov 2014. The goal of these events were

To spread Drupal and share knowledge among the professionals and companies who were already using/working on Drupal.Teach Drupal to as many people as possible and provide them a career opportunity(especially students).This also included people who were working on different web publishing platforms and Students who were looking for different career opportunities.This was a FREE event involving two tracks:

- One was "Drupal in a Day" specifically meant for New comers and Students. This was one day hands-on workshop which included Introduction to Drupaland the basic concepts and features provided by Drupal. By the end of the session, everyone were able to create their own Drupal website and were able to customize the site using popular modules and themes.
- The other track included different sessions related to Drupal which covered different topics spanning from intermediate to advanced topics and the targeted

audience were people who were familiar with Drupal(Developers, Site builders, themers, Business devetc,)

iOS Workshop

IEEE Young Professionals Bangalore Section conducted the second of its series of technicalworkshops, iOS Application Development Workshop in partnership with Exilant Technologies Pvt Ltd. was a 5 day long event from 26th to 30th December, 2014 which focused on Objective C programming language and basics of Mac OS X andiOS.The Objective C and iOS App development workshop covered the following topics

- Introduction to Mac OS X & iOS Architecture.
- Introduction to Frameworks & Cocoa, Xcode-Objective C
- Functions, Constructors & Memory Management
- Utilities & Collections & Data Structures
- Threading & Exception Handling
- Protocols, Categories, Properties, KVC
- Helper Objects:NSTableView, Delegates &DataSource
- Bindings ,KVC,KVO
- NSTableView with NSArrayController, MVC
- Connections, Creating First iPhone application
- Core Location, Map Kit and text Input
- Sub Classing and UI View
- View Controllers
- Notification and Rotation/Orientation
- Debugging Techniques
- Crash Analysis
- Use of Instruments

As usual, we had a great response for the workshop. Out of the 60 odd participants registered for the preliminary test, 16 got through and finally 11 people turned up for the workshop. In addition to the topics mentioned above, talks by the employees of Exilant Technologies Pvt Ltd. were organised.Overall, it was good to have got positive feedback from the participants who are looking forward for the advanced iOS8 workshop in coming days

TISP Volunteer Training session

Student volunteers from UVCE BANGALORE were trained on the functionality of student branch execom ON 28th September. Reporting of office bearers and events via vTools was briefed. Later, problem faced by the student branch was discussed and suggestions were given to overcome the problems. This session was very important to build a new set of leaders for coming years. 15 students attended the session. Program was conducted by VishwasJois & DarshanShivakumar.

B.5.2 Women In Engineering (WIE) Affinity Group

Here's a list of events organized, conducted or volunteered by members of WIE:

Women In Electromagnetics Workshop:

An international Workshop on Women in Electromagnetics was orgainized by IEEE Bangalore Section, WIE Bangalore Section and supported by IEEE Antennas and Propagation Society on 7th and 8th of March 2014 at the Indian Institute of Science, Bangalore. Nearly 50 people attended the workshop.

WIE Session on IEEE Industry Day:

A WIE session was held as part of the IEEE Industry Day celebration on 7th January at J N TATA Auditorium, Indian Institute of Science, Bangalore. The session had 3 distinguished speakers talk, which centered on the core theme of women safety and assistive technology. The session saw over 100 participants. WIE IEEE UVCE conducted a session on Technology Solutions for Women at this event whichhad eminent speakers as Dr. Ramalatha Marimuttu, Dr.Chitra Thyagarajan and Ms. Sahana J.

B.6Awards& Recognition Activities

B.6.1 Award constituted by the section

Section has constituted following awards to encourage volunteers

1. Best Society Chapter
2. Best Student volunteers
3. Best Student Branch (Large)
4. Best Student Branch (Small)-Started This Year Onwards
5. Best Student Branch counsellor
6. Outstanding Section volunteer
7. Best Student Branch Website
8. Paper Publication (in IEEE Transaction/Journal) Award
9. Patent Award for getting patent

B.6.2 Awards received from R10

1. IEEE R10 Distinguished Large Section Award
2. Mr.Fleming Dackson Gudagunti of The Oxford college of engineering has won 2nd runner up award in IEEE R10 paper competition 2014 PG level for his project on "Photonic Crystal Based Biosensor For Early Stage Detection of Cervical Cancer"
3. Kartik Prabhu, 2nd Place recruiter in R10 for 2014 IEEE Member-Get-a-Member Award
4. Mukta Bannur, 4th Place recruiter in R10 for 2014 IEEE Member-Get-a-Member Award

B.6.2 Awards received from IEEE HQ

1. IEEE MGA Outstanding Large Section Award
2. IEEE MGA Innovation Award to AIYEHUM team

3. Certificate of Appreciation for SIMPLE (Senior Member Elevation Program) from Vice President, IEEE MGA.
4. 2014 IEEE EMBS Outstanding Chapter Club Award to EMBS Bangalore Chapter
5. 2014 IEEE PES Runners Up Outstanding Chapter to PES Bangalore Chapter
6. 2014 IEEE Photonics Society- Senior Member Initiative award to Photonics society Bangalore chapter
7. Dr Sujatha from BMSCE for Outstanding Branch Counselor Award

B.7Communication Activities (Newsletter, Home Page, E-mail etc.)

B.7.1 Newsletter

Section Publishes quarterly News Letter namely IEEE Broadcast, which brings out information about major events held during the previous quarter.

B.7.2 Homepage

Section has its own webpage which is event based and updated at least every 7 days. You can reach section home page, http://bcp.ieeebangalore.org/

B.7.3 Other Means of Communication

With advancements to social media, Section has invested time and resources to keep its section website updated, **Twitter(@ieeebangalore)** chatter ongoing and **Facebook (https://www.facebook.com/IEEEBangaloreSection)** feeds active. This has enabled many of our members to stay connected. Event registrations have been streamlined by using online payment gateways and pilot runs to record events and host it on our website were undertaken.

B.8 Industry Relations

8.1 Industry Panel Discussion

As part of Industry initiative section hosted a panel discussion on “Technology Innovation and Market opportunities”. Speakers were:

1. Dr. Sanjoy Paul: Managing Director of Accenture Technology Labs India.
2. Mr. Arun Jain : Director of Sales and Marketing for India Subcontinent for Texas
3. Dr. Ishwar Parulkar: Cisco Distinguished Engineer & CTO for Mobility Group.

8.2 CTO Forum

Kick off meeting: Took place on 27th Sept Evening followed by a Dinner at Hotel Lalit Ashok, Bangalore. It was represented by Industry Leaders from Phillips, CDAC, Wipro, CDOT, Alcatel Lucent, Keysight, IEEE India office and IEEE Bangalore section Chair and Industry Chair.

B.9 Humanitarian Technology Activities

AIYEHUM 2014

All India Young Engineers Humanitarian Challenge 2014 (AIYEHUM 2014):

After 4 successful years in India, this program is now being organized to reach participants from all the Asia-Pacific (IEEE Region 10) countries. Bangalore Section is sponsoring AIyeHum 2014. IEEE Bangalore Section in collaboration with IEEE R10 announced annual Humanitarian Technology Challenge which invites students and graduates to apply science and technology for the benefit of mankind with focus on practical/on the ground / society implementations.

B.10 Community Activities

IEEE Day Celebrations

This year to increase the participation from Student Branches section has decided to provide cash support of Rs 5000 to each Student branch celebrating the same. It paid rich dividend as 20 Student Branches celebrated the IEEE Day with section support and nearly 1500 students participated in the same. With the theme of the 130th anniversary of IEEE being "Leveraging Technology for better Future", sections main event was organized at Mysore with theme of "Go Medieval and Save Power". In A unique and an innovative way entire IE EE Day was celebrated without usage of electricity be it for the lighting or sound. The Chief Guest for the day Sri Vasu, MLA of Chamaraja Constituency and the Guest of Honour for the day Mr.Sudeendra Koushik along with Dr.Bindu Thomas grace the event. Shri Sudeendra Kaushik delivered a Talk on Innovation. Nearly 130 students from IEEE Mysore Hub attended this event. Following is the detailed list of IEEE Day Celebration in various student branches.

College	Activity
SSIT Tumkur	With Orphanage children
Vemana IT	Technical Seminar on Current Trends in Technology (any)
KLS GIT Belgaum	Panel Discussion/Debate +Monthly Magazine + Clean GIT+ sharing technical Ideas
Dayanad Sagar CE	Talk +T-shirt Design + Photography + Project Proposals+Article Writing+ web page design etc.
BMSCE	Tech Talk on Wireless Mesh n/w+ Hands on workshop on Miniature Satellite-CanSat
MSRIT	Gesture controlled robotics Workshop +Photography Competition

NIE, Mysore	Hackathon, Tech Talk, Hub level Meeting
PESCE, Mandya	Industrial Visit+ Cleanliness drive+ Workshop on Aurduino
UVCE	IEEE UVCE Carnival Tech Talk+ Round Table Hackathon+ Treasure Hunt
PESIT	Tech talk & Quiz
CMRIT	Seminar on How to write an IEEE Paper
NMIT	Technical Talk+ Talk about IEEE+AGM
VVIET Mysore	"Engineers To Entrepreneurs" +"Educating the young generation about engineering"+
Reva ITM	Technical Talk On innovation
RNSIT	Technical Talk on Mars Mission

PART C - OTHERS

C. 1 Special Events: Celebration of 50 Years of IEEE Fellowship

To celebrate 50 years of IEEE Fellowship, section organized an event to felicitate IEEE Fellows from Bangalore section on 6th July 2014. The event was attended by 90+ members and 15 IEEE Fellows. It was a great honour and privilege to felicitate IEEE Fellows from our section. Shri. K. Ramkrishna, Director-Elect, R10 was kind enough to grace the occasion. Dr. Kukjin, Chair, Awards &recognition committee, R10 shared his vision for R10 on the sidelines of program. Program was concluded with Networking Lunch.

C.2 Relationship with National Societies

IEEE Bangalore section has strong collaboration with Institute of Engineers (IE) and Institute of Electronics and Telecommunication Engineers (IETE). Section co-sponsors and participate in their technical activities and invites them to participate in IEEE Bangalore section activities. Section conducts monthly ExeCom Meetings in IE premises.

C3. Collaboration with other IEEE Sections

IEEE Bangalore Section had signed a MoU as Sister section with following IEEE sections:

1. IEEE Princeton Section
2. IEE Central New Jersey Sections

C.4 Support extended to Sub-sections & Society Chapters within the Section

IEEE Bangalore Section provides following supports to Mangalore Subsection and Society Chapters within the section:

1. Yearly minimum Financial Support of Rs. 25,000 for conducting minimum 1 Technical Activity. Based on scale and usefulness to members it is increased.

2. Use of Section Bank Account to new section
3. Use of Section resources to conduct any Technical/professional activity
4. Help them to register as a non-profit society
5. Section Tollfree Bridge to conduct meetings
6. Local logistics support for Chapter DLTs (Stay, Transport, etc.)

C.5 Best Practices of the section

Section strength lies in Student Members. Section always involves and encourages Student Members to volunteer in all section activities. Section has made an ecosystem in which active student volunteers becomes part of GOLD and section activities. These active members are encouraged to become integral part of all the section activities. Further, IEEE Bangalore Section runs following unique initiatives:

1. IEEE CONNECT: Section's Annual Flagship International Conference on Electronics, Computing and Communication Technologies
2. IEEE Industry Day: Annual workshop to engage Industry & Academia
3. B.R. Vardan Student Paper Contest: Annual National paper contest to encourage students
4. Student Leadership Congress: Annual Congress to inculcate leadership qualities among students
5. SIMPLE: A program to elevate Members as Senior Members
6. Cash reward of INR 1000 (increased to Rs. 2000 this year onwards) for Publishing IEEE Journal/Transaction paper and for Elevation as Senior Members
7. Felicitation of Senior Member on Elevation to IEEE Fellow Grade
8. Cash Reward of INR 10,000 for Best Section Volunteer, Best Student Branch (Large & Small), Best Branch Counsellor, Best Student Volunteers, Best Student Branch Website
9. Seed Money of Rs. 25,000 and Rs. 15000 to newly established society chapter and students branch respectively.
10. Annual Support of Rs. 15000 and 25000 to each student branch and society chapter after conducting at least 1 technical activity.
11. Teachers in Service Program (TISP)
12. Annual WIE Workshop
13. Providing seamless information with e-mails, section website, facebook and twitter web pages
14. Annual Branch Counsellors meet

C.6 Problems anticipated and suggestions for solutions, if any

Due to increase in e-membership dues, it is anticipated that number of membership may reduce. It is suggested that along with primary membership at least 1 society chapter membership should be given free of cost to the members.

PART D - GOALS AND PLANS

IEEE Bangalore section has a vision to "Stay Relevant" to needs of IEEE members and the changing ecosystem in technology research and business.
The three key focus areas or mission are:

1. **Excellence**: in Technology and Professional work

2. **Innovation**: Leveraging power of Ideas

3. **Ecosystem: Leveraging** power of People

All activities in 2015 will be focused on achieving these three goals.

D.1 Continuation of project/activity in progress and their implementation plans

Section DLT: In Line with IEEE DLT plan section is rolling out exclusive section DLT, in which IEEE members having expertise in various fields will be identified and Data base will be published at section website. Any Student branch can request a section DLT by filling the Section DLT request form. All expenditure will be borne by section. A Section DLT request form and identification of resource persons are under progress.

D.2 Goals and Future Plans

D.2.1 Student Activities

1. Establishment of IEEE Bangalore Section Innovation Lab
2. 10 Section Sponsored workshops/Hands-on Training Session
3. Job Fair for Students

D.2.2 Technical Activities

1. 5 Bootcamps across 5 different topics spread across the year

D.2.3 Professional Activities

1. 1 Workshop on IoT & Bigdata in collaboration with C-DAC
2. 1 seminar on Product Management in collaboration with Institute of Product Management
3. Start of Certification Course

D.2.4 Industrial Relations

1. Formation of Industry Academic Council to help academia in framing their syllabus to meet present Industry requirements (Target: 5 Disciplines)
2. Celebration of Industry day
3. Start of Industry Partnership Program (Target: Min. 3 Industry partnership)

D.2.5 Chapter Co-ordination

1. Organising 2 Technology Conclave (with the participation of all Bangalore section society chapters)
2. Formation of Cloud Technology Council

D.2.6 Educational Activities

1. 5 Tutorials
2. 3 Educational Alliances

D.2.7 Conferences

1. Only Technical Sponsorship
2. Organising Section Flagship Conference IEEE CONECCT
3. Organising IEEE SmartTech Workshop

D.2.8 Membership Development

1. Start of Section DLT Series involving Fellows and Senior Members
2. Start of Mentor Program involving Fellows and Senior Members
3. 10% Growth in Membership

D.2.9 Other Important Goal

1. Funding 5 Humanitarian Project (each with Rs 25,000)
2. Starting Final Year B.Tech/M.Tech Humanitarian Project in collaboration with VTU
3. Starting Innovation award in addition to existing section award
4. Archival of IEEE Bangalore section History
5. Automation of workflows and documentation
6. Start of On-line fund transfer

D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

Loyalty Membership Program may be initiated as per following:

1. 5% discount on membership dues for Members renewing their membership continuously for 5 or More years
2. 10% discount on membership dues for Members renewing their membership continuously for 10 or More years
3. 20% Discount on membership dues for Members renewing their membership continuously for 20 or More years

In our opinion this loyalty program will add value to the membership. This will encourage the existing members to continue their membership and retain it without any break.