

IEEE HYDERABAD SECTION REPORT 2016

PART A - SECTION SUMMARY

A.1 Executive Summary –

- Section Executive Committee Member List

Section Executive Committee			
Designations	Name	Organisation	Membership No
Chairman	M Lakshminarayana	Retd. DLRL	0573006
Vice-Chairman	PVS Maruthi Rao	Vidcentum R&D Ltd	41249040
Secretary	Madhumita Chakravarti	RCI	80401554
Treasurer	Sreenivas Jasti	TCS	41250549
Industrial Relations Chair	P Lakshmana Rao	Retd. DLRL	40296160
Conference Committee Chair	Satish Chaparala	Retd. IDPL	6807036
Web Master	Shatrunjay Rawat	IIT Hyderabad	40083036
Student Activities Chair	Venkatramram Reddy	Getanjali College	85031602
News Letter Editor	Kannan Rajagopalan	Retd. BHEL R&D	40159914
Awards Committee Chair	N V Rao	Retd. DMRL	04649539
Membership Development Chair	Madhav Negi	Associate Director Solutions	41570141
Skill Connect Chair	Ravi Shankar	IIT, VLABS	92134939
Past Chair	Koduri Srinivas	Retd. NRSC	41274471
Computer Society Chapter			
Chairman	Sudhakar Kolluru	TCS	93031723
Vice-Chairman	Sujoy Bhattacharya	Consultant	92115803
Secretary	G R Gangadharan	IDRBT	90530299
Treasurer	Vinit Kumar	TCS	92020956
PES/IAS/PELS Society Joint Chapter			
Chairman	Kuppa Gopala Krishna	Consultant	80168118
Vice-Chairman	K.Santosh Kumar	BSNL	92146216
Secretary	R U Srujana	M J CET	90476558
Treasurer	C Rachappa	TRANSCO	91269380
COMSOC/SP Society Joint Chapter			
Chairman	N. Venkatesh	Redpine Signals	41506407
Vice-Chairman	GVV Sharma	IIT Hyderabad	90539415
Secretary	Kasyapa Balemarthy	OFS Optics	90286547
Treasurer	Sanjeev Nimishakavi	Qualcomm	80250684
Member	D Naga Raju	Matrusri Engineering College	92937395
MTT/AP/EMC Society Joint Chapter			
Chairman	Yogesh Kumar Verma	RCI	90392860
Vice-Chairman	K C James Raju	HCU	41329001

Secretary	D. Rama Krishna	ECE Dept, OU	92130488
Treasurer	Prashant Mishra	RCI	92525515
Computational Intelligence Society Chapter			
Chairman	Naresh Kumar	NRSA	92101512
Vice-Chair	A Swarna Bai	RCI	90356439
Secretary/Treasurer	Dr T Hitendra Sarma	Faculty	91168866
Education Society Chapter			
Chairman	Nookala Srinivasa Rao	Matrusri Engg College	85017068
Vice-Chair	Venkatesh Choppella	IIIT Hyderabad	92015287
Photonics Society Chapter			
Chairman	P. Venkata Ramana	Vasavi College of Engineering	92479354
Vice-Chairman	K. Indusekhar	RCI	92486559
Secretary/Treasurer	Pradeep Kumar	RCI	92530547
EDS/CAS Joint Chapter			
Chairman	Kaleem Fatima	MJCET	41424639
Vice-Chairman	Arifuddin Sohel	MJCET	90871309
Technology and Engineering Management Society			
Chairman	Jose R	TCS	91129303
Vice-Chairman	J S Kalavendi	SITS Nalgonda Dist	08126252
WIE Affinity Group			
Chairperson	Vijayalakshmi Biradar	Vignan Institute of Technology and Science	92478983
Vice-Chairman	M. Sowmya	HCL	92110418
Young Professionals Affinity Group			
Chairman	Vinit Kumar Gunjan	Faculty	92020956
Secretary	Fazil Sajeer	Qualcomm	90292082
VIZAG BAY SUB SECTION			
Chairman	S. Lakshminarayana		80536573
Vice-Chairman	Abraham Varughese	NSTL, Visakhapatnam	92536131
Secretary	T.S.N. Murty	JNTUK at Vijayanagaram	90399100
Treasurer	Satheesh Patchikolla	MVGR College of Engg	93723412
Member	K.V. Sriram, CEO	Andhra Electronics, Kakinada	80722944
Guntur SUB SECTION			
Chairman	P.Siddaiah	Acarya Nagarjuna University College	93001934
Secretary	P V RamanaRao		80016980
Member	Lalitha S V N L	K L University	90306032
Member	Ramadevi Neerukonda	BAPATLA Engg.College	92937329
Member	K. N. Rao	PSCMR CET	80538863

IEEE India Council & R10 Committee Representation

- R10 Award Committee Chair: V Prasad Kodali
- R10 Industry Relationship Chair : MGPL Narayana
- India Council Vice Chair- Technical and Professional Activities : Amit Kumar
- Member, Board of IEEE Young Professionals: Preeti Kovvali

• Section Activity Highlights

IEEE Hyderabad is one of the most active sections in R10. The section has 9 Chapters and two affinity groups.

The section along with its Chapters and Affinity Groups conducted more than 250 technical and administrative events and the month-wise break-up of the events are given below

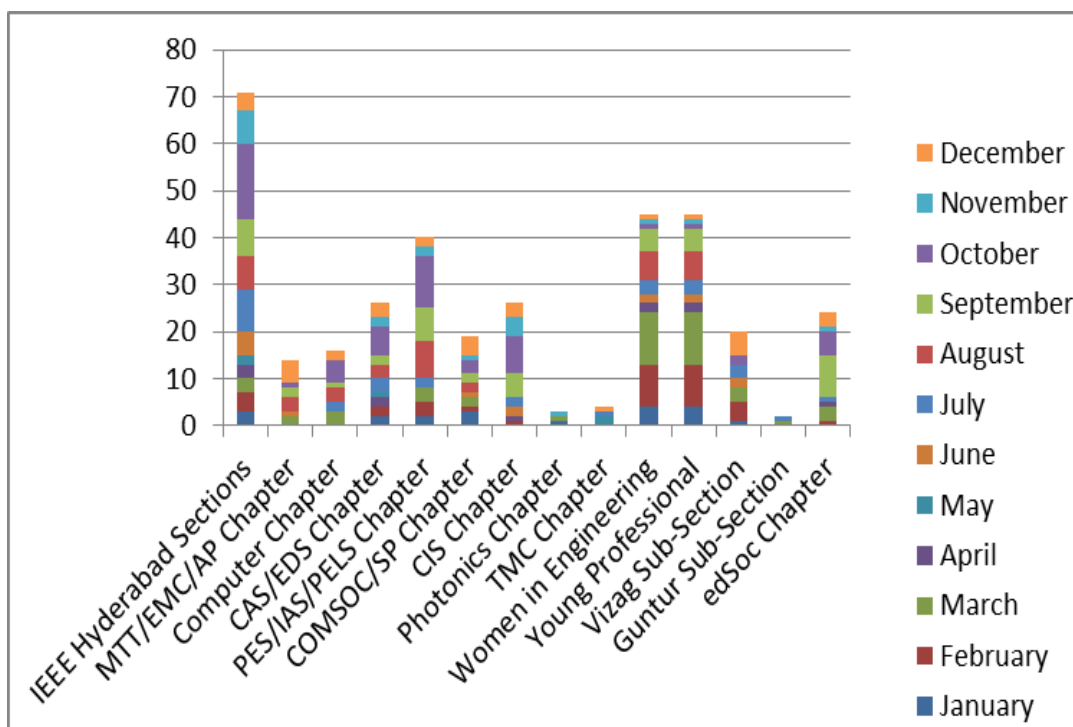


Figure 1: Month-wise distribution of Section Activities

In addition to these events, Student Branches reported around 283 events most of which have been conducted in association with the Section Executive Committee or Chapter Members.

Significant Highlights of Section Technical & Professional Activities

SECTION FLAGSHIP EVENTS		
Sl. No	Events Conducted	Section in association with
1	Alexander Graham Bell Memorial Lecture by Dr. Manish Kothari, VP, Qualcomm	COMSOC/SP Joint Chapter
2	Dr. A S Rao Memorial Seminar on 'Make in India' by M N Vidya Shankar, President IESA	IR Committee & PES/IAS/PELS Joint Chapter
3	Faraday Memorial Lecture by Prakash.B.Nayak	PES/IAS/PELS Joint Chapter
4	John Bardeen Memorial Lecture	CIS Chapter
5	J C Bose Memorial Lecture by Ajay Poddar, FIEEE, Synergy, USA	MTT/AP/EMC Joint Chapter
6	PhD Forum : 42 PhD Scholars joined	CAS/EDS Joint Chapter
7	Monthly SEC Meetings, AGM, SAGM	Section
8	Supported Subsection Programs at Vijag, Guntur, Ananthapuramu and Warangal with Section Representations	Sub-Sections
MAJOR SECTION EVENTS OF 2016		
1	Symposium on IoT and IEEE Standards	Section
2	International Women's Day Celebration	Section, WIEAG
3	Career Guidance and Opportunities for Women	Section with WIE AG
4	An Overview of Positioning Systems – GAGAN & IRNSS	Section IR Committee
5	One Day Workshop on UAV and Drones	Section IR Committee
6	DL on Phased array and reflector antenna at RCI	Section with MTT/AP/EMC
7	Symposium on IoT and IEEE Standards	
8	2-Day workshop on Internet of Things	Section
9	International Conference on VLSI Design, HICC, Hyderabad,	Section Technical Sponsorship and participation
10	All India Computer Society Congress, IIIT, Hyderabad,	YP Affinity Group, Computer Society
11	Technology Entrepreneurship Summit 2016, IIIT, Hyderabad	Section with India Council
12	Skill Connect Program successfully completed with 39 students ➤ 15 JAVA Workshop May to Nov'16 ➤ 13 C Workshop June to Nov'16	Hyderabad Section
13	7 Students' Transition and Elevation	YPAG

	Program (STEP)	
14	WIE Zonal Congress	WIEAG
15	Student Branch Counsellors Meet	Students' Activity Committee
16	Section Student Congress	Students' Activity
PERTICIPATION IN NATIONAL & INTERNATIONAL EVENTS		
1	R10 : 50 Years Celebration representation ➤ Secretary, WIE Global Summit 2016 ➤ Participation in SYWL Congress ➤ Display of Exhibits in SYWLC	Section Financial and organising support to Bangalore Section
2	WIE International Summit, Pune	WIEAG
3	Representation in All India SWYC, Jaipur	Section, WIEAG, YPAG and SAC
4	WIE International Summit, Pune	Section Technical Sponsorship and participation
5	All India Computer Society Congress	Section, CS Chapter, YP
6	IEEE Technology Entrepreneur's Summit on 18th December, 2016	Hyderabad Section, YPAG with MGA
6	Representation at TENSYP, Bali	YPAG
SIGHT EVENTS		
1	Awareness on Power Line Safety 1. Video released in YouTube 2. Lecture Session in SSC 3. Field trips conducted at Hyderabad, Janagaon and Pargi	PES/IAS/PELS Joint Chapter Funded by IAS
2	Workshop on Self Defence	WIE
3	Lift the Children	SB
4	Awareness Sessions on HAM Radio	EdS Chapter
5	Visit to Devnar School for blinds	SB
6	Imparting Enlightenment on Engineering Education 1. AP Tribal Junior College, Araku 2. AP residential Tribal Junior College, Paderu	Vijag Bay Sub-Section
SECTION MAJOR INITIATIVES IN 2016		
1	Future Directions Committee Formed under the leadership of C Satish. Section Mission, Vision and Objective under review of the committee	Special Committee Formation
2	Ananthapuram Sub-Section Formed	Sub-Section Formation
3	Hyderabad Section SIGHT Formed	SIGHT Initiative
4	Petition filed for CIS/GRS Joint Chapter	

- **Major International/National Conferences conducted by Section**

1. **All India Computer Society Congress** organized by CS Chapter and YP AG, 15 – 17 Dec 2016
2. **IEEE Technology Entrepreneur's Summit** on 18th December, 2016 in T-Hub, Hyderabad.
3. **30th International Conference on VLSI Design and 16th International Conference on Embedded Systems VLSID 2017** at HICC Hyderabad, India 7-11 January 2017

- **Major Chapter and AG activities**

Chapter	Summary of Activities
MTT/AP/EMC Chapter	14 Technical Programs, J C Bose Memorial Lecture
PES/IAS/PELS Chapter	40 Programs including Faraday Memorial Lecture and SIGHT Programs
Computer Society Chapter	16 Programs and All India Computer Society Congress
Com-Soc/SP Chapter	19 Technical Programs
CIS Chapter	26 Technical Programs including John Bardeen Memorial Lecture
Photonics Society Chapter	DL (1), 2 Lecture Programs
EDS/CAS Joint Chapter	26 Technical Programs including DLs and PhD Forum
Education Society Chapter	21 Technical and Administrative Programs
Technical Management	4 Lecture Programs
Young Professional AG	45 Technical Programs, STEP and Administrative Programs
WIE Affinity Group	45 Technical, Administrative Programs and SIGHT Programs
Vizag Bay Sub-section	20 Technical and Administrative Programs
Guntur Sub-Section	2 Technical Programs and 2 Administrative Programs

- **Major Section level student, WIE-AG and YP-AG Activities**

- Section Student Congress 2016
- Branch Counselors Meet
- IEEE WIE Global Meet Participation as Secretary
- R10 50 Years Celebration SYWLC 2016, Bengaluru
- One Day Workshop on Career Guidance & Opportunities for Women
- Technical Colloquium
- 7 STEP Events across Section
- Imparting Enlightenment in Engineering Education for Tribal Girl Students
- R10 WIE International Summit, 2016, Pune
- AISYWC 2016 jaipur
- All India Computer Society Congress, 2016
- Technology Entrepreneurship Summit, 2016
- Total Numbers of Events Conducted by about 40 Student Branches : 283

- **Awards & Recognition Activities**

- **Award Received from IEEE Society Head Quarters**

- MTTs Best Chapter Award, MTT/AP/EMC Joint Chapter
- IAS most Vibrant Chapter: IAS/PES/PELS Joint Chapter
- IEEE Computer Society Richard Merwin Student Scholarship
 - Akshita Gulati (VBIT)
 - G. Naveen Reddy (GRIET)

- **Award Received from IEEE MGA**

- Young Professional Achievement Award: Preeti Kovvali

- **Award(s) received from R10**

- R10 Outstanding Large Section Award : Hyderabad Section
- Darrel Chong Award 2016 under Silver Category for SBs
 - MVSR Engineering College &
 - Muffakham Jah College of Engineering and Technology

- **Award constituted by the section**

- Vibrant Student Branch Award: Aurora's Engineering College
- Upcoming Student Branch Award: Lakireddy Balireddy College of Engineering
- All 2016 outgoing section officers on completion of their services were given a Certificate of Appreciation.

A.2 Financial Report –

Income (As on December 31st, 2016)	: INR 6,421,436.00
Expenses (As on December 31st, 2016)	: INR 6,149,281.00
Excess of Income over Expenditure	: INR 272,154.00

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

Over the last 3 years, following is the trend of memberships

Year	F	SM	M	GSM	AM	Higher grade Sub-Total	Student Member	TOTAL
2016	8	191	1502	622	39	2362	4064	6426
2015	7	147	1496	460	84	2,194	2935	5129
2014	7	139	1460	521	48	2,175	3677	5852

Initiatives taken to retain and improve membership:

- We have appointed a Chair for membership activities.
- As part of every event, 5-30 minutes slot given to specifically talk about membership.
- STEP events held in seven different places across all zones in the Section. Specific chapter activities from all the chapters, WIE AG etc.
- One hour was dedicated for membership development in the Section Student's congress. After that there was a sharp increase in student membership.
- Dedicated membership development event were organized as part of CIS and ComSoc Chapter activities.

B.2 Chapter Activities

- Total number of Chapters in the Section: 9
- Number of Chapters formed in the current year: Petition filed for joint Chapter of CIS and GRS. The Chapter is approved in January 2017.
- Hyderabad Section SIGHT formed in 2016
- Number of Active Chapters (Chapters who have reported required number of meetings during the year):
 - All the Chapters reported required number of meetings during 2016
 - Summary of Chapter activities

Chapter	Summary of Activities
MTT/AP/EMC Joint Chapter	14 Technical Programs, J C Bose Memorial Lecture
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CIS Chapter	26 Technical Programs including John Bardeen Memorial Lecture
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EDS/CAS Joint Chapter	26 Technical Programs, DLs and PhD Forum
Education Society Chapter	21 Technical and Administrative Programs
Technical Management	4 Lecture Programs
Vizag Bay Sub-section	20 Technical and Administrative Programs
Guntur Sub-Section	2 Technical and 2 Administrative Programs

Major Chapter activities conducted in 2016 are listed below:

I. MTT/AP/EMC Joint Chapter

i.	Antenna Systems for Next Generation Navigational and High Frequency Satellites	28-12-16
ii.	Advanced Antenna Systems for 21st Century Satellite Communications	27-12-16
iii.	Advanced Antenna Systems for 21st Century Satellite Communications	22-12-16
iv.	Phased Arrays and Reflector Antennas for Advanced Satellite Communication Payloads	11-06-16
v.	Workshop on GNSS & its Applications	19-10-16
vi.	2016 IEEE MTT-S SB Talk	02-12-16
vii.	JC Bose Memorial Lecture	02-12-16
viii.	GPPEC-SB-15721-MTTS Technical Talk	06-08-16
ix.	GPPEC-SB-15721-MTTS-Memory Boosters	17-09-16
x.	GPPEC-SB-Poster Presentation	06-08-16
xi.	GPPEC-SB 15721-Technical Talk	06-08-16
xii.	Technical Talk on "CMOS & BiCMOS Based RFIC Designs"	10-09-16
xiii.	Technical talk on "Radar Track Algorithms"	22-03-16
xiv.	Professional talk on "Initiation of Radar Track under Low Observable Conditions"	22-03-16

II. PES/IAS/PELS Joint Chapter

Lecture Programs:

- i. Program on "Dealing with Fatal Electrical Accidents in Telangana (D-FEAT)"
- ii. Power Colloquium on 3rd August
- iii. Faraday Memorial Lecture on "Transformation of Electric Grid for Efficient Distribution of Energy & Reduce Green House Gas Emission"
- iv. Technical Tutorial on "Low Voltage DC. Power Distribution & Micro Grids"
- v. Second field visit "Study Rural Electrical Systems" on 14th Feb
- vi. Technical Lecture on "EARTHING AND EARTH FAULT PROTECTION" 10th March
- vii. Techno-Oasis Program
- viii. Joined the IEEE CIS for "Cuckoo Search Algorithm based Environmental Economic Dispatch of Power on Micro grids with Distributed Generation" by Dr.Kumarappan on 22nd Oct
- ix. Dr. A. S.Rao Memorial Seminar on Make in India: Opportunities and Challenges 23-08-2016
- x. Distinguished Lecture on "Role of HVDC, FACTS/ Power Electronics in The Future Smart Grid" 23-12-2016

- xi. Talk on Wireless power transfer 15-10-2016
- xii. IEEE Solutions Website Launch 21-10-2016
- xiii. Technical Talk on “INTERNET OF THINGS” 15th Oct
- xiv. Talk on “Importance of Solar Energy” 6th Oct

Overhead Power-line Safety Awareness Program

- i. Train the Trainer Program conducted on 2nd October
- ii. Awareness Lecture in Section Student Congress
- iii. Community program conducted successfully for Farmers at Janagaon on 5th November
 - a. Mobilized 50 farmers and provided logistic support- venue, hosting and transport
 - b. Student branch volunteers of Vagdevi Engineering college actively participated.
- iv. Awareness program on 12th Nov @Pargi

III. COMSOC/SP Joint Chapter

Event	Speaker	Date
Technical talk: ‘5G Communications’	Abhinav Kumar, IITH	29/Jan
Workshop: “Building devices for the IoT with WyzBee”	Milan Tandel, Redpine	29/Jan
Technical talk: “Wireless Technology for Indoor Positioning”	N Venkatesh	30/Jan
Workshop: Digital Design through Arduino	GVV Sharma, IITH	20/Feb
Workshop: “Wireless Communication in the IoT with WyzBee”	Milan/Rajasekhar, Redpine	11/Mar
Technical talk: “The Invisible Network”	Kasyapa Balemarthy	12/Mar
Technical talk: “Digital Signal Processing for Speech”	Sanjeev Nimishakavi	12/Mar
Technical talk: “Digital Modulation”	GVV Sharma, IITH	12/Mar
6 th Annual AG Bell Memorial Lecture: “Internet of Everything – Technical Challenges and Innovation Opportunities”	Manish Kothari, VP, Qualcomm	24/Mar
Workshop: “Matrix Analysis through Octave”	GVV Sharma, IITH	9/Apr
Inaugural of Comsoc Student Chapter at CVR College of Engineering	N Venkatesh	12/Apr
Technical talk: “Medical Equipment Hardware and Software Design”	Christina DeMur	25/June
Technical talk, and inauguration of Comsoc SB	Sanjeev N	6/Aug

Colloquium: “Advances in Wireless for Healthcare”	N Venkatesh	17/Sep
Medical IoT Workshop	Multiple	12/Nov
Communications Hackathon – Data Detect Challenge	NA	8/Dec
Distinguished Lecturer Event – Signal Processing Society	Dr. Hamid Krim	13/Dec
DL Social Event – Dinner with Hamid Krim	NA	13/Dec

IV. Computer Society Chapter

<u>Events</u>	<u>Date</u>
i. Technical Talk - The Pandemic of Falsity on the World Wide Web and Plausible Cures from Machine Learning and Knowledge Representation Perspectives	8-Jan-2016
ii. Service Now Conference at West-in Hotel, Hyderabad	16-Feb-2016
iii. A Talk on IEEE Computer Society and its Benefits	5-Mar-2016
iv. Hands-on Workshop on Photoshop & Web development	6-Mar-2016
v. Cyber Space Defense Summit	29-Mar-2016
vi. GRE Prep Talk	29-July-2016
vii. 3D Printing Workshop	6-Aug-2016
viii. GPREC-STB-15721-Computer Society-Chapter-Technical Talk	6-Aug-2016
ix. GPREC-STB-15721-Computer society chapter-Poster presentation	13-Aug-2016
x. XtremeHack Event	9-Sept-2016
xi. Effective CRM using Social Engagement and Machine Learning	1-Oct-2016
xii. IEEE Computer society Student chapter-Website contest at GPREC	4-Oct-2016
xiii. Technical Talk on Evolving Technologies at GPREC	4-Oct-2016
xiv. Computer Society-Technical Talk-Cutting edge technologies at GPREC	20-Oct-2016
xv. All India Computer Society Congress (AICSC) 2016 at IIIT Hyderabad	15-Dec to 17 Dec 2016
xvi. HTML Design Workshop	20-Dec-2016



On 6th March, Hands-on Workshop on Photoshop & Web development at Annamacharya institute of Technology & Sciences-Rajampet in collaboration with the YPAG

V. Photonics Society Chapter

- i. Invited Lecture: 19 February 2016 on “MICRO OPTICAL RING RESONATORS” by Prof Utpal Das, Professor, Dept. of Electrical Engineering, & CELP/Photonics Sc. & Engg., Program, IIT, Kanpur.
- ii. Invited Lecture: 17 Mar, 2016 on Optical Fiber technology - Its application for Communications and Sensors by Dr Jagannath Nayak, Director, CHESS, DRDO
- iii. IEEE Distinguished Lecture: 01 Aug 2016 on Semiconductor nanowires for optoelectronic and energy applications by Prof H H Tan, The Australian National University, Canberra, ACT 2601, Australia
- iv. SPIE-IEEE Workshop on Photonics: 14 Nov 2016 by Dr T Krishna Murthy, LEOS, ISRO, Bangalore, P V Ramana, VCE, Hyderabad, Mr KSS Rao, CHESS, Hyderabad, Dr M Sree Ramana, RCI, Hyderabad, Dr Syed Azeemuddin, IIIT, Hyderabad

VI. TEMS Chapter

- i. Organized Technical Talk titled “ Functional Programming in Racket: Programs as Data” by Dr Venkatesh Choppella, Associate Professor, IIIT Hyderabad on 27 May 16
- ii. Organized Technical Talk titled “ Developing new Businesses from Waste Materials: Role of Wisdom in Transformation” by Dr Prasad Vemuri, CEO, Vemuri Consultants Pvt Ltd, Hyderabad on 15 July 16
- iii. Organized Technical Talk titled “Robotics Process Automation” by Mr Anand Kumar, Senior Scientist, TCS Research, Pune on 12 December 16

VII. CAS/EDS Joint Chapter

Event	Speaker	Date
Technical Talk on Smartphones and Introduction to WIE	A. Swarna Bai, RCI	2/16/2016
	Arif Sohel, MJCET	
Technical Talk on Internet of Sensors	Abhay Egoor, AKT Embedded Systems Pvt. Ltd	4/7/2016
CAS Ph.D Forum	Atul Negi, UoH A.G. Krishnakanth, ams Madhav Negi, CSC Kishore Prabhala, PSK Design Center Guntur Arindam Basu, NTU, Singapore	7/16/2016
Distinguished Lecture	Arindam Basu, NTU, Singapore	7/16/2016
Technical Visit	GAETEC	8/10/2016
CAS Workshop in collaboration with CASS Malaysia and Center for nanotechnology, UoH	Nurul Amziah Md Yunus , UPM, Malaysia Fawnizu Azmadi Hussin , UTP, Malaysia Wan Zuha Wan Hasan, UPM, Malaysia Fairuz Rizal Mohamad Rashidi, UPM Malaysia Madhav Negi, CSC G. Rajaram, UoH M Ghanshyam KrishnaUoH	10/7/2016
Workshop on E Health in collaboration with CASS Indonesia	Prof. Soegjiardo, Indonesia Joginder Tanikkela, VAJRA Infratech	12/9/2016
Technical Talk on E Health	Prof. Soegjiardo, Indonesia	12/10/2016
Panel Discussion on Career Opportunities in Core Electronics Sector	K. Subbarangiah, Veda IIT N Venkatesh, Redpine Hanuma Sai, ams Semiconductors Govind Krishnan, Microsemi	12/19/2016
One day workshop on nanoelectronics	Vijay Arora, Wilkes University, USA	12/21/2016
CAS Execom Meeting	CAS Execom	Monthly

VIII. CIS Chapter

EVENTS	DATE
Computational Intelligence Technology Expo and Collaboration Hotspot (CITECH)	10-12-2016
IEEE CIS Hyderabad Section way ahead discussions	9-12-2016
IEEE CIS Chapter Distinguished Lecture Program	9-12-2016
John McCarthy Memorial Lecture Series	27-11-2016

Machine Learning on BIGDATA with HADOOP	26-11-2016
Workshop on Internet of Medical Things (IOMT)	12-11-2016
Deep Learning on THE HYPE, THE MYTH AND THE REALITY	10-11-2016
One day Workshop on GNSS & its Applications	19-10-2016
Two Day Workshop on Practical Machine Learning & Data Science	18-10-2016
IEEE Computational Intelligence Open Day	21-10-2016
A Seminar on Online Sequential Learning Algorithm with Applications to Signal Processing and Control	5-10-2016
Effective CRM using Social Engagement & Machine Learning	1-10-2016
Technical Talk on Evolutionary Optimization in Industrial Applications	21-9-2016
IEEE CIS Workshop on Data Modelling, Analysis and Visualization	14-9-2016
Intellectual Property: Creation and Management	3-9-2016
Data Analytics in Climate and Environmental Modelling	2-9-2016
Machine Learning Methods for Control Applications	27-7-2016
Two Day Workshop on Machine Learning with Python	15-7-2016
Technical Talk on Multiobjective Evolutionary Algorithms : Concepts and Real World Applications	18-6-2016
Workshop on - Cloud Big Data Analytics with Microsoft Azure Machine Learning and Power BI Tools	16-4-2016

IX. Education Society Chapter

EVENTS	DATE
i. IEEE SKILL CONNECT AWARENESS Program	29-1-2016
ii. SKILL CONNECT with 39 students (19 students chosen for JAVA Stream and 20 students for EMBEDDED-C.	28 – 2-2016
iii. HAM Radio Demos & Awareness an half day tutorial in association with NIAR-HYD	20 – 2- 2016
iv. IEEE Series of Guest Lectures : Satellite Sensors /Controls applications By Dr.S.Karunanidhi, Director ,Control Systems Lab, RCI	20 -3-2016
v. Microwave Engg & Applications a Road map ahead by Dr.M.Lakshmi Narayana, Chairman-IEEE Hyd Section	12-3-2016
vi. Industrial Study Visit organised to students of IEEE SB of Matrusri Engg College , INCOIS-KUKATPALLY-Hyd	April 2016
vii. WOMEN IN ENGG - Research opportunities one day workshop	6-8-2016

B.3 Professional and Continuing Education Activities

IEEE Hyderabad Section initiated continuing education program named ‘**Skill Connect Program**’. This 200 hour Program, at the fulcrum of academics and industry, results in hands on skills for engineering students. It is designed to enable budding engineers to grab entry level career opportunities in technology. This program also helps contribute upto 30 marks towards the college accreditation efforts. The Skill Connect Program (SCP) has had successful runs at GRIET and also at Matrusri Engineering College. The program was conducted from March to Nov 2016. 39 Students successfully completed the program.

The key benefits of this program are:

Students acquire industry relevant competencies through additional efforts over and above the university curriculum. Competency is a holistic ability including technical communication, self-confidence and other personal traits which are learned sustainability. The program engages the students in the 4th and 5th semesters for about 6 hours a week. The program has thorough evaluations with industry experts.

CAS Ph.D Forum:

The Circuits and Systems Society of IEEE Hyderabad Section organised the CAS Ph.D forum with the objective of providing researchers with an opportunity to share, present, explore, develop their research ideas, and to receive feedback from the research community that will help them in further developing and progressing in their PhD studies.

Technical visit to GAETEC, Hyderabad:

GAETEC (Gallium Arsenide Enabling Technology Centre)Hyderabad, is an integrated GaAs foundry comprising of design, wafer fabrication and Assembly, Testing and Reliability Evaluation facilities. The visit was arranged exclusively for faculty and industry professionals only and was restricted to limited number permitted by the Centre. Participants got a good exposure to various processes involved in design and fabrication undertaken by GAETEC.

Technical lecture: “An overview of Positioning Systems-GAGAN and INRSS” on 6TH Aug 2016. The Lecture was conducted jointly with Indian Society of Geomatics (ISG). Dr Raghunath Menon K.P, Scientist at NRSC and Secretary (ISG) has coordinated the activity from ISG side.

One day workshop on “UAVs/DRONES-Technological Advances and Innovations”-Held on 5th Nov 2016. The workshop was inaugurated by the key note speaker, Mr MVKV Prasad, Director ADE, DRDO Bengaluru. His talk titled “UAV Technological advances and ground control systems”. He described the current scenario from Indian perspective and the current status of research in India and spoke about the R & D challenges to extend the capabilities of UAVs. Other speakers were BHVS Narayan Murthy Director RCI, Dr. Sanjay Burman, Director, Center for Artificial Intelligence, Dr Shanti Swarup, CTO Urmi Systems, Dr. M R Sheshadri, CEO, DELPOT, Dr Alok Mukherjee, Scientist, R&DE.

All India Computer Society Congress 2016

Held in Hyderabad on 15th December. The Congress is being organized by IEEE Computer Society Hyderabad Section and IEEE Young Professional – Hyderabad Section. The inaugural session witnessed the participation of over 200 people belonging to industry, academia etc. from every corner of the country. The Chief Guest for the event was Jean-Luc Gaudiot, President IEEE Computer Society 2017. He addressed the audience about why it is

important to be a part of the IEEE Computer Society. The guest of honor MGPL Narayana, Vice President at TCS, addressed the audience about the importance of different aspects of digital learning like artificial intelligence, cybernetics among others. The keynote speaker Dr. Atul Negi, Professor at University of Hyderabad enlightened the audience about Artificial Intelligence. The other dignitaries present in the event were Mr. Andre Oboler, DVP, IEEE Computer Society 2017, Mr. Eric Bekowitz, IEEE CS Director of Membership 2017, Ms. Angela R. Burgess, the IEEE CS Director 2017, Mr. PVS Maruthi Rao, IEEE Vice Chair, IEEE Hyderabad Section and Mr. Sudhakar Kolluru, the chair of IEEE CS Hyderabad Chapter.

Conference

30th International Conference on VLSI Design and 16th International Conference on Embedded Systems VLSID 2017 in HICC Hyderabad, India from 7-11 January, 2017

Contribution of IEEE Hyderabad Section: The IEEE Hyderabad Section and CAS/ EDS Chapter are the technical co-sponsors of the VLSID 2017. Prof. Kaleem Fatima is the IEEE Hyderabad section and CAS Liaison for the Conference. In addition Prof. P.A.Govindacharyulu, past Chair of CAS/EDS Chapter is the Publication Co-Chair of the Conference and Prof. M.B. Srinivas (past CAS/EDS Chair) and Prof. Asha Rani, JNTU, (IEEE member) are the Co-Chairs for the PhD Forum. Prof. Madhaviata, JNTU, (past CAS/EDS active member) is the Design Contest Chair. Hence there is a fair representation of IEEE members belonging to Hyderabad Section in the Conference. More over IEEE Hyderabad Section Student activity Chair, Mr. D. Venkatrami Reddy and IEEE Hyderabad section Vice Chair – P.V.S. Maruthi Rao along with Dr. Kaleem Fatima coordinated with the Conference committee towards volunteering of Student Conference.

List of Technical and Educational Programs by IEEE Hyderabad Section

Sl. No	Events Conducted	Section in association with
1	Alexander Graham Bell Memorial Lecture by Dr. Manish Kothari, VP, Qualcomm	COMSOC/SP Joint Chapter
2	Dr. A S Rao Memorial Seminar on 'Make in India' by M N Vidya Shankar, President IESA	IR Committee & PES/IAS/PELS Chapter
3	Faraday Memorial Lecture by Prakash.B.Nayak	PES/IAS/PELS Joint Chapter
4	John Bardeen Memorial Lecture	CIS Chapter
5	J C Bose Memorial Lecture by Ajay Poddar, FIEEE, Synergy, USA	MTT/AP/EMC Joint Chapter
7	Symposium on IoT and IEEE Standards	Section
8	International Women's Day Celebration	Section, WIEAG
9	Career Guidance and Opportunities for Women	Section with WIE AG
12	DL on Phased array and reflector antenna at RCI	Section with MTT/AP/EMC
13	Symposium on IoT and IEEE Standards	
14	2-Day workshop on Internet of Things	Section

Other than this a number of Flagship events, Distinguished Lecture programs, Workshops had been arranged by Chapters and Section, some of them jointly. Major programs conducted are listed below.

B.4 Students Activities

Student Count	Number of Student Branches
1 to 11	42
12 to 20	16
to 50	26
51 to 100	17
101 to 200	6
> 200	1
Total Number of Student Branches	108

- Total number of Active Student branches in the Section: 108
- Number of Student Branches Reporting details of the events : 40
- Number of Student branches formed in the current year: 14
- New Student Branch Chapters formed: 10
- New WIE SBAG: 5
- Number of Student branches re-instated in the current year: 16

Section level student activities (student congress, paper and other contests, awards etc)

- Section Student Congress 2016 on 22nd and 23rd Oct: 230 Student members, 33 non-members 23 Branch Counselors and 40 Engineering Colleges participated
- Total Number of activities conducted and reported by various Student Branches : 283
- R10 SYWL 2016, Bengaluru
- AISYWC 2016, Jaipur
- R10 WIE International Summit 2016,Pune
- AICSC 2016, Hyderabad
- Technology Entrepreneurship Summit 2016, Hyderabad

B.5 Affinity Group Activities

YPAG conducted 45 Technical Programs, STEP and Administrative Programs in 2016
WIEAG also conducted 45 Technical Programs, Administrative Programs and SIGHT activities. Students also participated in most of the programs conducted by the affinity groups. Apart from that YPAG and WIEAG participated in

- R10 : 50 Years Celebration
- WIE Global Summit 2016 as part of organizing committee
- Participation in SYWL Congress
- Display of Exhibits in SYWLC, Hyderabad Section August 2016
- International Women's Day Celebration
- WIE International Summit, Pune, WIEAG
- Representation in All India SWYC, Jaipur, Section, WIEAG, YPAG and SAC
- WIE International Summit, Pune
- All India Computer Society Congress CS Chapter and YPAG, 15 – 17 Dec
- Representation at TENSYP, Bali YPAG
- SIGHT activities
- IEEE Technology Entrepreneur's Summit

B.6 Awards & Recognition Activities

➤ Award Received from IEEE Society Head Quarters

- MTTs Best Chapter Award, MTT/AP/EMC Joint Chapter
- IAS most Vibrant Chapter: IAS/PES/PELS Joint Chapter
- IEEE Computer Society Richard Merwin Student Scholarship
 - Akshita Gulati (VBIT)
 - G. Naveen Reddy (GRIET)

➤ Award Received from IEEE MGA

- Young Professional Achievement Award: Preeti Kovvali

➤ Award(s) received from R10

- R10 Outstanding Large Section Award : Hyderabad Section
- Darrel Chong Award 2016 under Silver Category for SBs
 - MVSR Engineering College &
 - Muffakham Jah College of Engineering and Technology

➤ Award constituted by the section

- Vibrant Student Branch Award: Aurora's Engineering College
- Upcoming Student Branch Award: Lakireddy Balireddy College of Engineering
- All 2016 outgoing section officers on completion of their services were given a Certificate of Appreciation.

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

- Home Page of the section: www.ieeehyd.org

The section website is updated at least once every week. The website also provides up to date information about the awards and recognition received by the Section, volunteer resources, and officer information. Payment gateway for conferences have been linked with section website

- Other means of contacts with section members: IEEE LISTSERV is used for Email communications only if the members opt for section communication in their IEEE Account → Communication Preferences.
- **Newsletter:** 4 Newsletter editions have been published. One special issue on Conferences was also published.

B.8 Industry Relations

IEEE Hyderabad Section has formed Industrial relations Committee (IRC) in 2016 to bring synergy between Industry, academia, startups, Government and practicing professionals by bringing them together on to a common platform.

IRC conducted Technical talks, workshops with the help of IEEE Chapters. Government and Private organisations like NRSC, DRDO Labs, PSUs, M/S Uurmi systems, Cyient, Tatas were roped in, to conduct following programs:

- i. Technical lecture: “An overview of Positioning Systems-GAGAN and INRSS”---on 6TH AUG ‘16
- ii. Symposium on IoT and IEEE standards-18 Aug 2016 at TCS Deccan Park, Hyderabad
- iii. One day workshop on UAVs/DRONES-Technological Advances and Innovations”- Held on 5th Nov 2016 at Hotel Marigold, Hyderabad.
- iv. IRC interacted and actively participated in Conducting Dr A.S. Rao Memorial seminar by PES chapter.
- v. In addition IRC conducted programs with CIS Chapter. IRC also participated in Industrial visits with CAS/EDS Chapter
- vi. IEEE Technology Entrepreneur's Summit on 18th December, 2016 in T-Hub, Hyderabad. The initiative was supported by various IEEE societies such as IEEE Power & Energy Society, IEEE Standards Association, IEEE Hyderabad Young Professionals and IEEE Entrepreneurship.

B.9 Humanitarian Technology Activities

IEEE MTT-S SIGHT was inaugurated in Dec2015. After that there had been a number of SIGHT programs in IEEE Hyderabad Section.

- i. IAS/PES/PELS Joint Chapter took initiative in conducting ‘Awareness on Power line safety’ across the section which was funded by IA Society
 - a. A Video on this was created and released in YouTube
 - b. A special Lecture Session was conducted in Section Students’ Congress
 - c. WIE and YP volunteers were trained to spread awareness
 - d. Field trips conducted at Hyderabad, Janagaon and Pargi
- ii. Education Society conducted awareness session on HAM radio for Student Members
- iii. WIE AG conducted workshop on self-defence
- iv. Lift the Children program was conducted by Student Branch
- v. Student Branch also visited Devnar School for blinds
- vi. Vijag Sub-Section conducted programs for tribal girls on ‘Imparting Enlightenment on Engineering Education’
 - AP Tribal Junior College, Araku
 - AP residential Tribal Junior College, Paderu Vijag Bay Sub-Section

B.10 Community Activities

- **IEEE Exhibits @ BM Birla Science Centre** is a group of interactive exhibits in science and engineering created by the IEEE for pre-college students, and presented in partnership with BM Birla Science Centre. Section also works with Schools in developing IEEE Exhibits.
- **The Overhead Power-line Safety Awareness Program** was conducted with the farmers where about 70 farmers joined and they were trained.
- **One of the best practices of Hyderabad Section is that**, IEEE Members join AGM with their families. A variety of programs are conducted for family members including quiz, soft technical awareness, cultural programs etc.

PART C - OTHERS

C.1 Special Events

- Overhead Power-line Safety Program with Financial sponsorship of IAS SIGHT. One video created and up-loaded to You Tube. This program had very positive response from members and Students.
- All India Computer Society Congress. The congress could bring about 60 YP members together. YP membership improved after the Congress.
- STEP programs across the Section.

C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)

Section has a special relationship with IETE/ACM/IE/ASI and conducted lecture programs jointly. The following events were jointly conducted in 2016

- Technical Talk on “CMOS & BiCMOS based RFIC designs” with IETE
- Technical talk on "Radar Track Algorithms" with IETE
- Dr. A. S.Rao Memorial Seminar on “Opportunities and Challenges in Electronics System Design and Manufacturing” organised by the PERS/IAS/PELS Chapter in association with Instrument Society of India, Hyderabad Chapter (ISOI-HC).
- Lecture titled “BCI--Brain Computer Interface vs Bio-Computational Intelligence” was delivered by distinguished CIS lecturer Prof. Chin-Teng (CT) Lin. The talk was a part of Institute for development and research in Banking Technology (IDRBT) Research Colloquium organised on Friday, 9th of December, at IDRBT, Castle Hills, Venkatadri Colony, Masab Tank, Hyderabad.

C3. Collaboration with other IEEE Sections

	Events	In collaboration with
1	WIE Global Summit 2016	R10 WIEAG and Bangalore Section
2	R10 : 50 Years Celebration representation ➤ Participation in SYWL Congress ➤ Display of Exhibits in SYWLC	R10 and Bangalore Section
3	WIE International Summit, Pune	Bombay Section
4	Representation in All India SWYC, Jaipur	India Council
5	One day workshop on Circuits and Systems with CASS Malaysia and Center for Nano-Technology, UoH	Malaysia Section
6	Workshop on e-Health in collaboration with CASS Indonesia	Indonesia Section
7	All India Computer Society Congress	IEEE Computer Society, IEEE YPAG
8	IEEE Technology Entrepreneur's Summit on 18th December, 2016	MGA

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

Section supported Chapters, Affinity Groups and Sub-Sections for conducting following events

Sl. No	Events Conducted	Chapters supported by Section
1	Alexander Graham Bell Memorial Lecture by Dr. Manish Kothari, VP, Qualcomm	COMSOC/SP Joint Chapter
2	Dr. A S Rao Memorial Seminar on 'Make in India' by M N Vidya Shankar, President IESA	IR Committee & PES/IAS/PELS
3	Faraday Memorial Lecture by Prakash. B. Nayak	PES/IAS/PELS Joint Chapter
4	John Bardeen Memorial Lecture	CIS Chapter
5	J C Bose Memorial Lecture by Ajay Poddar, FIEEE, Synergy, USA	MTT/AP/EMC Joint Chapter
6	PhD Forum : 42 PhD Scholars joined	CAS/EDS Chapter
8	Supported Subsection Programs at Vijag, Guntur, Ananthapuramu and Warangal with Section Representations	Sub-Sections
9	Symposium on IoT and IEEE Standards	Section
10	International Women's Day Celebration	WIEAG
11	Career Guidance and Opportunities for Women	WIE AG
12	An Overview of Positioning Systems – GAGAN & IRNSS	Section IR Committee
13	One Day Workshop on UAV and Drones	Section IRC
14	DL on Phased array and reflector antenna at RCI	MTT/AP/EMC Chapter
15	Symposium on IoT and IEEE Standards	Section
16	Workshop on Internet of Things	Section
17	All India Computer Society Congress, IIIT, Hyderabad,	YP Affinity Group, Computer Society
18	Technology Entrepreneurship Summit 2016, IIIT, Hyderabad	MGA
19	Skill Connect Program	Ed Society
20	7 Students' Transition and Elevation Program	YPAG
21	WIE Zonal Congress	WIEAG, Sub-Section
22	Student Branch Counsellors Meet	SAC
23	Section Student Congress	Students' Activity
24	Sub-Section Formation	Ananthapuram

Initiatives taken to retain and improve membership:

- As part of majority of section events, 5-30 minutes slot given for talk on membership.
- Talk on membership development arranged in STEP events held in seven different places across the Section.
- One hour was dedicated for membership development in the Section Student's congress. After that there was a sharp increase in student membership.
- Dedicated membership development event were organized as part of CIS and ComSoc Chapter activities.

C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)

- Face to face meetings of Section Executive Committee every month
- Encouraging the Chapters/AG (via financial support and otherwise) for organizing more than the minimum mandated number of events.
- Sponsoring active volunteers/SEC members for Conference Leadership programs within and outside of India.
- Funding (partial) for student members for presenting research papers within and outside of India.

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

Problem: Poor attendance in Chapter Programs

Probable Solution: Involving more YP volunteers in Section Executive Committee

PART D - GOALS AND PLANS

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

- Section flagship events (Faraday Memorial Lecture, A G Bell Lecture, J C Bose Memorial Lecture, PhD Forum, Section Student Congress) will be conducted with fervor in 2016 as well.
- IEEE Hyderabad Skill Connect Program initiated by the Education Society Chapter will be supported in 2017.
- Section has plans to organize National/International conferences in 2017.
- Section will continue releasing the newsletter once every quarter.
- Liaison with the income tax officials in the Indian jurisdiction regarding the tax exemption status.

D.2 Goals and Future Plans

- Sustain the momentum of the Section/Chapter/AG activities.
- Ensure the quality of conferences.
- Flagship events to be created for every Chapter/AG
- Intensive SIGHT activities in the section

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

- i. Involving Industry by adding more volunteers from Industry and organizing technical workshop and events in Industry premises
- ii. Facilitate research acumen and encourage publications
- iii. Creating better member experience
- iv. Membership Development talk to be a part of all Section Events
- v. Encourage members get at least one non-member for attending the IEEE programs

D.4. Business Plan for Sustainable Growth and Financial Stability.

- i. Organising Workshops and Conferences in association with Industry
- ii. Encouraging networking between members and non-members
- iii. More YP volunteers in Section Executive Committee



Lecture Program held at RCI, DRDO on 28th Dec on “Antenna Systems for Next Generation Navigational and High Frequency Satellites” by Sudhakar Rao, Director, R10



One day workshop on “UAVs/DRONES-Technological Advances and Innovations”-Held on 5th Nov 2016 at Hotel Marigold, Hyderabad.