

GUJARAT Section Report 2016

PART A - SECTION SUMMARY

A.1 Executive Summary

Section Executive Committee Member List 2016

Chair	Y P Kosta
Vice Chair	R B Jadeja
Secretary	Manik Lal Das
Treasurer	Haresh Sabhadia
Past Chair	Anil K Roy
Technical Activity Chair	Sanjay Chaudhary
Educational Activity Chair	Suman Mitra
Humanitarian Activity Chair	Deepak Mathur
Membership Development Chair	Anil K Roy
Professional Activity Chair	Kiran Amin Student
Activity Chair	Anjali Diwan
WiE Activity Chair	Usha Mehta

Section Highlights

1. Following leadership positions held by our volunteers
 - a. Chair-Elect, India Council - Deepak Mathur
 - b. Treasurer, India Council – Anil K Roy
 - c. 2016 Member, MGA Ad Hoc Committee -Geo-Unit Vitality Dashboard project - Anil K. Roy

2. Anil Roy was invited by IEEE Sensors Council to Conference Capturing for IEEE SENSORS 2016.

Major Events

Co-sponsored National Seminar on New Trends in Signal Processing 2016 (NeTSiP'16) (October 20-21, 2016)

The 2016 National Seminar on New Trends in Signal Processing (NeTSiP-2016) features talks by leading researchers in signal processing that highlight these trends, spanning across the sub-fields of speech, image, audio, and video processing, biometrics, media security, bioinformatics, and communications. NeTSiP-2016 seeks to accelerate research and development in signal processing by creating opportunities for upcoming researchers to network and exchange ideas with established leaders and through panel discussions that highlight emerging challenges and opportunities. Students, faculties, scientists, and engineers are invited to participate in NeTSiP-2016 to attend the presentations and to interact with the experts. The program features talks by leading researchers in signal processing domain that highlight recent developments and new trends in the sub-fields of speech, image, audio, and video processing, biometrics, media security, bioinformatics, and communications. In addition, it also provides a unique opportunity for young researchers and students to interact, network and exchange ideas with established leaders.

The plenary talk for NeTSiP-2016 will feature Prof. Yoram Bresler, professor, ECE Dept., University of Illinois, USA. Prof. Bresler is an IEEE Fellow and also on the editorial board of IEEE Journal on Selected Topics in Signal Processing. His current research interests include compressed sensing, multi-dimensional and statistical signal processing and their applications to inverse problems in imaging, and computed tomography and magnetic resonance imaging, in particular. Prof. Tulay Adali, Distinguished Professor, CSEE Dept, UMBC will deliver a keynote address. Prof. Adali is a Fellow of the IEEE and the AIMBE, a Fulbright Scholar, recipient of 2013 University System of Maryland Regents' Award for Research, and an NSF CAREER Award.

Speakers

Prof. Yoram Bresler, IEEE Fellow, University of Illinois, Urbana-Champaign, USA

Prof. Tulay Adali, Fellow IEEE, Professor, UMBC, USA

Prof. Suprava Patnaik, Associate Professor, Xavier Institute of Engineering, Mumbai

Prof. Sumantra Dutta Roy, Associate Professor, IIT Delhi

Prof. Uttama Lehiri, Associate Professor, IIT Gandhinagar

Prof. Ashvini Deshpande, Associate Professor, Cummins College of Engineering, Pune

Prof. Anand Darji, Asst. Professor, SVNIT, Surat

Major Chapter Activities

CIS Winter School on Computational Intelligence, March 1-5, 2016, DA-IICT, Gandhinagar

The main aim of this winter school is to provide a platform for young and aspiring researchers (from both academia and industry) to get an exposure on the recent developments in the domain of Computational Intelligence (CI). The winter school focuses on the following areas: neural networks, fuzzy systems, memetic computing, evolutionary and nature inspired computing method and their applications in diverse areas such as IOT and image processing. The school provided an opportunity for participants to interact with eminent experts in these areas and exchange ideas.

Speakers

Aruna Tiwari, IIT, Indore, India
Bijaya Ketan Panigrahi, IIT, Delhi, India
Jacek Zurada, University of Louisville, USA
Jagannathan Sarangapani, Missouri University of Science and Technology, USA
N Sundarajan, NTU, Singapore
Nikhil R. Pal, ISI, Kolkata, India
Ong Yew Soon, NTU, Singapore
Ponnuthurai Nagaratnam Suganthan, NTU, Singapore
Sanjay Srivastava, DA-IICT, Gandhinagar, India
Suman Mitra, DA-IICT, Gandhinagar, India
Suresh Sundaram, NTU, Singapore
Sushmita Mitra, ISI, Kolkata, India
Swagatam Das, ISI, Kolkata, India
Venkatesh Babu, IISc, Bangalore, India

Major Student and Affinity Group Activities

Sampark 2016

Gujarat Section organized ‘Sampark 2016’ on 14th February 2016, which was represented by student members from all student branches of the section. These events provide an excellent opportunity for students to discuss various IEEE related issues with the section ExCom and plan their activity for the year. This annual event also provides an opportunity to student members of Gujarat Section to plan and organize the events as per their own technical and professional need.

IEEE Gujarat Section has been organizing this annual event since last 10 years. The first Sampark was organized in 2006 in Gandhinagar. This is one of the most unique events organized for the students and by the students with a tagline “Reach Out and Engage”. This gives all student branches an opportunity to interact with other members of the section, to learn the best practices form other student branches, to plan for the year in tandem and to demand from the section.



Group Photo of Sampark 2016

PART B-ORGANIZATIONAL ACTIVITIES

IEEE Gujarat Section's Annual Event Report list for the year 2016

SECTION LEVEL EVENTS

Event	Date	No. of Attendees
Administrative/Non-Technical		
Section Executive Committee Meeting	12/25/2016	11
Student Branch Counselor Meet	2/14/2016	20
Section Executive Committee Meeting	7/10/2016	8
WIE LDCE Inauguration	4/26/2016	39
Student Branch Counselors Meet	7/31/2016	10
Technical		
Campus party Road Show	8/12/2016	59
SAMPARK 2016	2/14/2016	222
Emerging Research Trends in Engineering-2016	12/2/2016	47
IEEE event on Internship & Entrepreneurship Development Program	9/12/2016	210
Robo Soccer - A real time platform for applying Computational Intelligence Workshop	3/30/2016	140
Expert Talk entitled Role of RF Engineer in Telecom and Broadcast Industry •	8/2/2016	85
Hackathon	3/5/2016	70
MSP430 Hackathon	10/4/2016	68
Seminar on Industrial IoT	8/12/2016	50

B.2 Chapter Activities

Total number of Chapters in the Section

There are 12 chapters in our section.

Number of Chapters formed in the current year

One new chapter was added in the year 2016, which is Sensors Council chapter (Date of approval: 25 October 2016)

Summary of Chapter activities chapter wise for the year 2016

Joint Chapter of IAS, IES and PELS (IE13/IA34/PEL35)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	IEEE : Answer to Everything	10/21/2016	35
2	Farewell, New-Committee Meeting for Activity Plan	1/21/2016	26
3	Membership Drive	10/5/2016	16
4	IEEE and IAS Orientation Programme	8/10/2016	100
Technical			
1	Debate Competition : War of Words	9/25/2016	30
2	Smart Cities Hack-a-thon	10/21/2016	73
3	Talk on Where Engineering Leads?	4/1/2016	50
4	Power Electronics based Wind Energy Systems, their control, issues and achievements	1/30/2016	170

PES Chapter (PE31)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	PES Chapter Executive Committee Meeting	7/14/2016	9
2	PES Chapter Executive Committee Meeting	2/11/2016	20
Technical			
1	Project Competition for 2nd year EE Students	11/26/2016	58
2	Students' Technical Awareness Conference	9/17/2016	369
3	Seminar on Intellectual Property - Why / How to Patent?	12/8/2016	375
4	STTP on Network Experimentation	11/21/2016	70
5	Technical Visit to Switch Global Expo 2016	10/7/2016	61
6	One day Hands on session on HAM Radio-Practical Insight	9/8/2016	163
7	A workshop on research, presentation	8/3/2016	120

	and writing skills		
8	SIG Activity on MATLAB	7/25/2016	26
9	Workshop: IoT with Raspberry Pi	8/6/2016	23
10	STTP on Digital Design on FPGA & Peripheral Interfacing	5/9/2016	46

Joint Chapter of MTT & AP societies (MTT17/AP03)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	Executive Committee Meeting for participation in IMaRC 2016	11/26/2016	15
Technical			
1	Half day seminar on microwave communication	4/23/2016	55
2	Satellite Communications: Antenna Design Challenges	3/5/2016	65
3	Research Methodology	9/19/2016	35
4	Half Day seminar on Satellite Communication	8/27/2016	50

Computer Society Chapter (C16)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	Meeting for Technical co-sponsorship support to an Event	11/28/2016	8
2	Meeting for Financial Planning for Upcoming Events	3/25/2016	9
Technical			
1	AVR Hands on Training	10/15/2016	65
2	Android App Development Workshop	10/14/2016	61
3	Python Workshop	2/20/2016	52
4	Talk on Technology, Engineers, Society	3/18/2016	103
5	Talk on Future of Research and Engineering Education in ICT	3/7/2016	63
6	Web Programming Workshop	4/17/2016	46

SPS Chapter (SP01)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	Ex-Com meeting of SPS Chapter of IEEE Gujarat Section for NeTSiP 2016	10/15/2016	3
2	Ex-Com meeting of SPS Chapter of IEEE Gujarat Section	2/13/2016	5

Technical

1	One Week STTP on Digital Image and Signal Processing	11/19/2016	28
2	New Trends in Signal Processing 2016 (NeTSiP'16)	10/20-21/2016	79
3	Expert Talk on Wide Area Aerial Imagery	3/14/2016	65
4	Summer School on Speech Signal Processing 2016	7/4/2016	139
5	A Two day Workshop on Hardware Virtualization	4/12/2016	45
6	Hands-on Workshop on RC Plane Design	3/25/2016	42
7	Two-day Workshop on Applications of DSP Processors using TMS320C6	4/12/2016	19
8	Recent Trends in Soft Computing and Image Processing Applications	3/5/2016	84
9	Workshop on Machine Learning and its Applications	1/22/2016	130

CIS Chapter (CIS11)

Sr. No.	Event	Date	No. of Attendees
Administrative/Non-Technical			
1	CIS Ex Com Meeting	8/29/2016	5
2	CIS Winter School 2016	6/9/2016	7
Technical			
1	Half day workshop on statistical tools for computational intelligence	12/8/2016	30
2	CIS Winter School - Emerging Research Trends in Computational Intelligence - Theory and Applications	3/1/2016	45

B.3 Students Activities

Total number of Student branches in the Section: 21

Number of Student branches formed in the current year: 1

Summary of Student branch activities student branch wise

Sr.	Student Branch	Date
ADIT		
1	IEEE Workshop on "Android App Development"	01/04/2016
2	IEEE Seminar on "Virtual DSO"	29/03/2016
3	IEEE Workshop on "Android App Development"	04/03/2016 to 06/03/2016
4	IEEE Seminar on "IOT & Big Data"	20/07/2016

5	IEEE Workshop on “Virtual Reality”	25/07/2016
6.	Celebration of “Green Day”	01/08/2016
7	IEEE Seminar on “Satellite Communication”	27/08/2016
8	IEEE Meeting	28/07/2016
9	IEEE Workshop on “LaTeX”	15/10/2016
10	IEEE Seminar on “USB DSO port programming”	18/03/2016
11	IEEE National seminar on “ Electronics 2020 and beyond”	16/07/2016
Birla Vishvakarma Mahavidyalaya		
1	Industrial visit to infochip and ISRO Ahmedabad	05/10/2016
2	Workshop on basic electronic instruments and simulation on OrCAD	20/09/2016
3	One day energy conservation awareness workshop (With GEDA)	10/09/2016
4	Industrial Visit at AMTECH Gandhinagar	06/09/2016
5	Two days workshop on VLSI system design and verification using verilog and system verilog programming languages	29/08/2016
6	Inauguration of IEEE student branch of Birla Vishvakarma Mahavidyalaya	29/08/2016
7	Industrial visit to Wanakbori Thermal Power Station, Wanakbori	23/11/2016
8	Five days STTP on Industrial Automation & Control (For 2nd year)	02/01/2017 TO 06/01/2017
9	Five days STTP on Industrial Automation & Control (For 3rd year)	24/01/2017 TO 28/01/2017
10	Workshop on Simulation of Electronics Design Software	04/02/2017
11	Workshop on Wireless Robotics	11/02/2017
DDU		
1	Being an IEEE Student Member - Opportunities & Benefits	09/08/ 2016
2	How to Crack E-yantra – 2016	11 /08/ 2016
3	Build Your First Robot	1st & 2nd /8/2016
4	eSim for Beginners	18/10/ 2016
MBICT		
1	WorkshopComputer Architecture Education	12/3/2016
2	Workshop on network simulator	16/03/2016
3	Workshop on MVC,Hibernate,JSF	30/03/2016
4	WorkshopComputer Architecture Education	12/3/2016
5	Mind Hunt(Non Tech Event)	17/3/2016
6	Blackout(Tech Event)	17/3/2016
7	Digitronics (Tech Event)	17/3/2016
8	Optredent(Non Tech Event)	17/3/2016
AU		
1	‘Does Gray Matter	26/10/106
2	IEEEXtreme	22/10/2016

3	DL Talk on IOT	20/01/2016
4	Hack Rank	16/01/2016
5	OverSEAS.	02/10/2016
6	Technology, Engineers and society	18/03/2016
7	Resume building	17/03/2016
8	Wide area Imaging	14/03/2016
9	Hack Rnk	16/06/2016
10	Mozilla Gujarat	02/04/2016
11	Web programming	17/04/2016

LD college of Engg

1	Python Workshop	25/02/ 2016
2	Raspberry Pi Workshop	26/02/ 2016
3	IEEE WIE Inauguration	26/02/ 2016
4	Amazon Cloud Based IoT Workshop	29-30/07/ 2016
5	Seminar on Industrial IoT	12/08/ 2016
6	Smart Power Grid Seminar	12/08/ 2016
7	IEEE MTTTS Video Competition	-
8	IEEE LABs Orientation	14/09/2016
9	IEEE LABs Inauguration	19/09/ 2016
10	C Programming Workshop	24/10/2016
11	MSP430 Hackathon	04-06/10/ 2016
12	IEEE Xtreme	22/10/2016

VGEC

1	Orientation	29/2/2016
2	How to do good research work	3/3/2016
3	Raspberry pi and iot	6/2/2016
4	Logo making Competation	19-09-16 to 23-09-16
5	Video making Competation	19-09-16 to 23-09-16
6	Anatronix competition	15/10/2016
7	Digitronix competition	15/10/2016
8	Membership drive	21-10-16 to 10-11-16
9	Orientation for New IEEE Members	21/12/2016

GCET

1	Embedded system design using TI's advanced microcontroller MSP430	6-7/02/2016
2	Workshop on 3D Printing	20-21/02/2016
3	Workshop on Augmented reality	20-21/02/2016
4	Workshop on Bridge Designing	20-21/02/2016
5	Workshop on Hybrid Robotics	20-21/02/2016
6	Workshop on Armature Winding	05/03/2016
7	Internet of Things (IoT) with Raspberry Pi	06/08/2106
8	Recent Trends in Information Technology	18-20/04 /2016
9	Workshop on Photoshop	18-21/04/2106
10	SIG on After Effects	4-8/10/2016

MEFGI

1	Multilevel Inverters with reduced DC link power supplies for IM drives	02-01-2016
2	Power Electronics based Wind Energy Systems, their control, issues and achievements	30-01-2016
3	IEEE Awareness camp	06-01-2016
4	Membership drive	08-01-2016

5	Lan Gaming NFS/CS	26-02-2016 to 27-02-2016
6	Open Quiz	26-02-2016 to 27-02-2016
7	Housie	26-02-2016 to 27-02-2016
8	Power Friends	26-02-2016 to 27-02-2016
9	Return 2 Childhood	26-02-2016 to 27-02-2016
10	Photo booth	26-02-2016 to 27-02-2016
11	Skilled Hunter	26-02-2016 to 27-02-2016
12	Mini Milite.	26-02-2016 to 27-02-2016
13	Movie Mania.	26-02-2016 to 27-02-2016
14	Yeh Minute na Milige Dubera	26-02-2016 to 27-02-2016
15	Robo Soccer - A real time platform for applying Computational Intelligence Workshop	30-03-2016
16	Role of Women in Engineering & Especially in ICT Industry	22-03-2016
17	HAM RADIO – Practical Insight” & Exhibition	30-07-2016
18	IEEE event on “Internship & Entrepreneurship Development Program	12-09-2016
19	Big data & Business Intelligence	20-09-2016
20	Emerging Research Trends in Engineering-2016	02-12-2016 to 03-12-2016
21	Recent research trends in transportation and Geotechnical Engineering	05-12-2016 to 10-12-2016

B.4 Affinity Group Activities

WIE

We have three very active WIE affinity groups at i) DA-IICT student branch, ii) Nirma student branch and iii) LDRP student branch. These affinity groups have won various laurels and awards in previous years for their impact towards the objective. These are: 2010 WIE Affinity Group of the Year Award for DA-IICT SB and 2011 R10 WIE Student Branch Affinity Group of the Year for Institute of Technology, Nirma University SB. Recently our GCET student branch has applied for the affinity group of WIE.

Event	Date	No. of Attendees
Role of Women in Engineering and Especially in ICT Industry	3/22/2016	60
Udgam	9/11/2016	40
Photoshop Workshop	4/7/2016	135
Crash Course on C programming	9/24/2016	87

One Day Workshop on Leadership Qualities and Women Professionals	10/4/2016	50
One day seminar on Entrepreneurship and Health Awareness for Women in Engineering	9/17/2016	187
Seminar on Intellectual Property Rights	9/23/2016	33
Workshop on Angular js and Bootstrap	9/23/2016	36
WIE Appathon	9/10/2016	100
Optredent	3/17/2016	22
Digitronics	3/17/2016	40
Blackout	3/17/2016	74
Mind Hunt	3/17/2016	81
Cyber Security Workshop	8/6/2016	100
Eminence' 16	8/9/2016	72
Parichay' 16	8/9/2016	170
Mock Placement	8/10/2016	132
Report- Data Mining workshop, MBICT IEEE SB	9/9/2016	34
Inauguration function of WIE Student Branch Affinity Group	4/26/2016	110
Expert Lecture and Meeting for Starting WIE Student Affinity Group	3/22/2016	90
Expert Lecture	3/10/2016	61
Open Forum on Career Barriers for Woman-In-Engineering	2/6/2016	49

B.5 Awards & Recognition Activities

i) 25 teams belonging to 6 SBs from Gujarat Section got placed in the worldwide list of 2146 teams of IEEE Xtreme. Top 6 teams of Gujarat Section: SPIT–2 teams, AU–3 teams, LD College–1 team.

Student Branches whose ranks got listed are:

- 1.Sardar Patel Inst. of Technology – 6 teams
- 2.Ahmedabad University – 14 teams
- 3.LD College of Engineering – 2 teams
- 4.DA-IICT – 1 team
- 5.Vishwakarma Inst. of Technology – 1 team
- 6.G H Patel College of Engineering and Technology – 1 team

ii)

1. IEEE student branch NIRMA has bagged prestigious award at International Competition IEEEemadC (IEEE Mobile Application Development Competition) 2016.
2. IEEE LDCE student branch Mr. Kartavya Patel has bagged prestigious award in IEEE MTTS video competition by sharing top honour and prize money of 1000USD.
3. Student for ADIT was invited by Hard Tech summit organised by IEEE R 10 young professionals at NTU Singapore on 26th November 2016.
4. Students from various student branches got sponsorship from the section to attend AISYWC 2016 Jaipur.