

**SECTION REPORT 2015****PART A - SECTION SUMMARY****A.1 Executive Summary****Section Executive Committee 2015 Member List**

No	Name	Position
1	Mr. Atindra Banerjee	Section Chair
2	Mr. Anthony Lobo	Section Vice Chair
3	Prof. Shabbir Merchant	Section Vice Chair
4	Mr. Aiyappan Pillai	Section Secretary
5	Prof Surya Doolla	Section Treasurer
6	Mr. Ashok D Jagatia	Immediate Past Chair
7	Prof. Narendra Bawane	Member, SMC Society Chair
8	Dr. B Satyanarayana	Technical & Professional Activities Chair
9	Mr. Anand Gharpure	Member, YP Chair, Webmaster
10	Prof (Ms) Ashwini Kotrashetti	Member
11	Mr. Abhay A. Phansikar	Member
12	Prof. (Mrs.) Babita Jain	Member
13	Prof. Venkatesh Kamat	Member
14	Prof (Ms) Anjali Deshpande	Member, WIE Chair
15	Dr. Zia Saquib	Member, Industry Relations Chair
16	Prof. Kiran Talele	Member, Student Activities Chair
17	Prof Vinit Kotak	Member, Membership Development Chair
18	Prof. Sanjay Pawar	Member, Communications Society Chapter Chair

**Section Highlights** <http://ieeebombay.org/events2015/>**Conferences and MAJOR events**

- IEEE Bombay Section Signature Conference - Sep 2015
- Rooftop Solar Survey Project
- SIGHT Vidushi Program (2 Phases)
- Internship and Entrepreneurial Workshops

**Technically Sponsored Events**

IEEE Bombay Section technically co-sponsored the following events

- International Conference on Nascent Technologies in the Engineering Field (ICNTE) : 09 – 10 Jan 2015 in Fr. C. Rodrigues Institute of Technology, Vashi
- International Conference on Communication, Information & Computing Technology (ICCICT): 15 – 17 Jan 2015 in Sardar Patel Institute of Technology, Mumbai
- International Conference on Technologies for Sustainable Development (ICTSD) : 04 – 06 Feb 2015 in Don Bosco Institute of Technology, Mumbai

## Other – SKEP Marathon – 2 Phases

- Technical/Professional Activities : SKEP (Skill and Knowledge Enhancement Program)  
The program was initiated in 2013 and is now a flagship event of the section. The events are either wholly sponsored by the section or co-sponsored by society chapters/affinity groups. It has grown from strength to strength with 2015 seeing the program extend to towns outside Mumbai. In the marathon format, 36 (12 + 24) sessions were organized in academic as well as research institutions in two waves. The highlight of the program is the practical orientation of sessions, mostly conducted by Industry experts.

## Section, Chapter and Affinity Group Activities Summary

(L-31 Summary – Details available on VTools reporting)

	Chapter Name/Section	Technical	Admin/ Social
1	BOMBAY SECTION	32	10
2	Computer Society	6	
3	Communications Society	7	
4	AP/ED Chapter	20	
5	SMC Chapter	3	
6	Signal Processing	13	
7	IA/PE/IM Chapter	11	
8	MTTS Chapter	8	
9	TEMS	5	
10	Life Members Affinity Group	3	1
11	YP - GOLD	15	
12	WIE	4	
13	Bombay SIGHT Pratham	2	1
	Total	129	12

(Please see Section B.3 below for more details of Chapter activities along with L-31 report summary)

## Awards

### Awards received by the Section

- Certificate of Recognition received by Mr. Atindra Banerjee, Chair, Bombay Section from IEEE Member Recruitment and Recovery Committee for outstanding achievement in member retention for the section during 2015
- Certificate of Recognition received by Dr. Vinit Kotak, Membership Development Chair, Bombay Section from IEEE Member Recruitment and Recovery Committee for outstanding achievement in member retention for the section during 2015

### Awards presented by the Section

- Outstanding Volunteering Awards - 5

- Sponsorship of members and student members to attend conferences – 7

## Section Representation at IEEE, R10 and India Council

- Section Vice Chair (Mr. Anthony Lobo) 2015 TAB representative to IEEE Membership Recruitment & Recovery Committee (MRRC) and 2015 R-10 representative to IEEE MGA Admissions & Advancement Committee (A&A)
- 2 Section officers (Mr. Anthony Lobo, Mr. Quraish Bakir) and 1 Senior Member (Dr. Preeti Bajaj) on India Council Execom (Webmaster, Secretary and Vice Chair for Student Activities) in addition to Section Chair (ex-officio Member)
- Section Vice Chair (Mr. Anthony Lobo) one of 3 India Council volunteers on R10 India Membership Task Force
- Section Vice Chair and Secretary (Mr. Anthony Lobo & Mr. Aiyappan)- volunteers in the MGA India Strategic Initiative

## Financial Report 2015

L-50 submitted on 18 February 2016 along with other compliance documents

COA	INCOME	
2.5	Conference Revenue	2,80,115.00
3.1	Rebate from IEEE HQ	18,84,661.00
3.2	Region Receipts	2,79,395.00
3.3	Sections or Councils	5,29,349.00
3.34	IEEE HQ & Societies (GIEEE)	15,02,259.00
3.45	Non-IEEE CB Account Interest	4,82,147.00
3.7	Other Receipts	6,78,374.69
	EXPENSES	
4.1	Meetings & Social Events Expense	1,98,679.00
4.5	Conference Expenses	5,04,902.00
4.7	Professional Activities Expense	8,39,135.00
4.8	Student Activities Expense	7,72,356.00
5.2	Travel Expense	2,19,548.00
5.5	Support to Sections/Chapters Expense	16,865.00
5.6	Other Management & General Expenses	40,520.00

Additional separate provision made for taxation due in 2016

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

The data provided below is true as of December 2015. There have been many member development initiatives leading to retention as well as growth.

	BOMBAY		INDIA		% w.r.t. INDIA	
	2014	2015	2014	2015	2014	2015
<b>Life Fellow</b>	5	7	24	24	21%	25%
<b>Fellow</b>	6	8	42	44	17%	18%
<b>Life Sr Mem</b>	11	10	106	114	10%	9%
<b>Sr Memb</b>	168	177	1555	1684	11%	11%
<b>Life Member</b>	5	7	24	28	21%	25%
<b>Member</b>	1439	1859	12184	12423	12%	15%
<b>Assoc. Mem.</b>	86	53	547	501	16%	9%
<b>Gr. St. Mem.</b>	954	704	6217	5191	15%	14%
<b>Hi Grd. Total</b>	2675	2814	20702	20011	13%	14%
<b>St. Mem.</b>	4928	4606	27551	26710	18%	17%
<b>Grand Total</b>	7603	7420	48253	46721	16%	16%

## B.2 Chapter Activities

- Total number of Chapters in the Section - 10
- Number of Chapters formed in the current year - none
- Number of Active Chapters (Chapters who have reported required number of meetings during the year) - 10
- Summary of Chapter activities chapter wise with attachment table / information

## B.3 Major Section and Chapter Activities

[https://meetings.vtools.ieee.org/meeting\\_report/list/174292?page=1](https://meetings.vtools.ieee.org/meeting_report/list/174292?page=1)

No	Event	Date	OU
1	Future of Logic Nano CMOS Technology - BOMBAY AP03/ED15 CHAPTER	12-Jan-15	AP/ED
2	Towards large-scale electrical characterization of graphene - BOMBAY AP03/ED...	15-Jan-15	AP/ED
3	Guest lecture on Recent Trends in Optical Devices and Fiber Optics for II se...	16-Jan-15	YP
4	10th Meeting of Execom of 2014 - BOMBAY SECTION	17-Jan-15	Excom
5	Characterising organic semiconductors with soft x-rays - BOMBAY AP03/ED15 CH...	22-Jan-15	AP/ED

6	National Workshop on Java EE7 for Enterprise Application Development - BOMBA...	27-Jan-15	CS
7	Core Java Technologies - BOMBAY C16 CHAPTER	28-Jan-15	CS
8	Band gap and polarization engineered III-nitrides UV LEDs - BOMBAY AP03/ED15...	28-Jan-15	AP/ED
9	Java Programming - BOMBAY C16 CHAPTER	29-Jan-15	CS
10	Advanced Java Concepts - BOMBAY C16 CHAPTER	30-Jan-15	CS
11	Novel fundamentals in java - BOMBAY C16 CHAPTER	31-Jan-15	CS
12	Motivational Talk on Entrepreneurship by Mr.Saket Salpekar, CEO Technobizz N...	31-Jan-15	YP
13	11th Meeting of Execom of 2014 - BOMBAY SECTION	31-Jan-15	Excom
14	EGM - BOMBAY SECTION	31-Jan-15	BS
15	Doping-Free Alternatives for Passivated Back Contacts in Silicon - BOMBAY AP...	02-Feb-15	AP/ED
16	Guest Lecture on "Static Controllable Switches & Its Application - BOMBAY ...	09-Feb-15	YP
17	Expert Lecture - BOMBAY SECTION	09-Feb-15	BS
18	Expert Lecture - BOMBAY SECTION	09-Feb-15	BS
19	Technical Paper Presentation - BOMBAY WOMEN IN ENGINEERING AFFINITY GROUP	11-Feb-15	WIE
20	Real-time Simulation of Electrical Systems - BOMBAY PE31/IA34 CHAPTER	12-Feb-15	PE/IA
21	Reliability and Robustness Challenges in IC and Embedded System Design – H...	13-Feb-15	AP/ED
22	IEEE Computer Society Membership and Member Development - BOMBAY C16 CHAPTER...	18-Feb-15	CS
23	Beyond Methyl Ammonium Lead Iodide: multidimensional perovskites..... - BOMB...	19-Feb-15	AP/ED
24	Orientation Programme on IEEE Membership and Benefits - BOMBAY SP01 CHAPTER	20-Feb-15	SP
25	1st Meeting of Execom of 2015 - BOMBAY SECTION	21-Feb-15	Excom
26	Engineering Physics: Fundamentals and Modern Applications - BOMBAY SP01 CHAP...	03-Mar-15	SP
27	Role of Tower Companies in Telecom Growth & Challenges in Deployment of New ...	04-Mar-15	SP
28	Designing high-performance organic transistors.... - BOMBAY AP03/ED15 CHAPTE...	04-Mar-15	AP/ED
29	Interactive Session on Importance of Higher Studies - BOMBAY SP01 CHAPTER	10-Mar-15	SP
30	Interactive Session on Importance of Higher Studies - BOMBAY SP01 CHAPTER	10-Mar-15	SP
31	EDS Distinguished Seminar: Piezoelectric Actuator Renaissanc - BOMBAY SECTIO...	12-Mar-15	AP/ED
32	Skill and Knowledge Enhancement Program-15 - BOMBAY SECTION	14-Mar-15	BS
33	Skill and Knowledge Enhancement Program-15 - BOMBAY SECTION	14-Mar-15	BS
34	SKEP Nashik Shining the torch = the Engineer's connect with Professional Eth...	14-Mar-15	BS
35	Skill and Knowledge Enhancement Program-15 - BOMBAY SECTION	14-Mar-15	BS
36	SKEP Nashik : Sustainability - where does it touch engineering and developme...	14-Mar-15	BS

37	Invited talk on "RESILIENT CONTROL UNDER DENIAL-OF-SERVICE ATTACK" - BOMBAY ...	17-Mar-15	PE/IA
38	Guest Lecture - BOMBAY SECTION	18-Mar-15	BS
39	Structure-preserving model reduction of physical network systems - BOMBAY PE...	19-Mar-15	PE/IA
40	Indus-2 X-ray LIGA beamline for high aspect ratio microfabrication... - BOMB...	24-Mar-15	AP/ED
41	Industrial Visit to QDnet Technologies, Andheri - BOMBAY SP01 CHAPTER	25-Mar-15	SP
42	IEEE EDS Bombay Chapter Distinguished Seminar - BOMBAY AP03/ED15 CHAPTER	26-Mar-15	AP/ED
43	LMAG Expert Talk for members - BOMBAY LIFE MEMBER AFFINITY GROUP	29-Mar-15	LMAG
44	Expert Technical Talk - BOMBAY MTT17 CHAPTER	08-Apr-15	MTTS
45	X-ray imaging of spin injection into copper.... - BOMBAY AP03/ED15 CHAPTER	10-Apr-15	AP/ED
46	2nd Meeting of Execom of 2015 - BOMBAY SECTION	11-Apr-15	Excom
47	Interconnection & Packaging Solutions for Microsystems - BOMBAY AP03/ED15 C...	16-Apr-15	AP/ED
48	Distinguished Lecture - BOMBAY MTT17 CHAPTER	04-May-15	MTTS
49	SIGHT Vidushi Rural Skiling Program - BOMBAY SECTION	07-May-15	SIGHT
50	Optomechanics with superconducting quantum circuits - BOMBAY AP03/ED15 CHAPT...	13-May-15	AP/ED
51	3rd Meeting of Execom of 2015 - BOMBAY SECTION	16-May-15	BS
52	4th Meeting of Execom of 2015 - BOMBAY SECTION	27-Jun-15	BS
53	Demand Side Management - BOMBAY PE31/IA34 CHAPTER	01-Jul-15	PE/IA
54	SKEP Malegaon:Printed Antennas in Cellular Mobile Handsets - BOMBAY MTT17 CH...	03-Jul-15	MTTS
55	SKEP Baramati: IT for Telecom - BOMBAY COM19 CHAPTER	03-Jul-15	COM
56	SKEP Baramati: Introduction to Embedded Systems and Opportunities - BOMBAY S...	03-Jul-15	BS
57	SKEP Baramati: Analog and Digital Signal Processing - BOMBAY SECTION	03-Jul-15	BS
58	SKEP Indapur: Writing a technical paper with introduction to scientific word...	03-Jul-15	SMC
59	SKEP Malegaon : Sustainability - where does it touch engineering and develop...	03-Jul-15	TM
60	Expert Lecture - BOMBAY MTT17 CHAPTER	03-Jul-15	MTTS
61	SKEP Malegaon : Microstrip RF Filters: Design to Implementation - BOMBAY MTT...	03-Jul-15	MTTS
62	SKEP Baramati: Communications Transport Networks - BOMBAY COM19 CHAPTER	03-Jul-15	COM
63	SKEP Indapur: Building Solutions for Industrial Automation - BOMBAY SECTION	03-Jul-15	SMC
64	SKEP Baramati: Wireless and Optical Networks - BOMBAY COM19 CHAPTER	03-Jul-15	COM
65	SKEP Indapur: Innovation and Entrepreneurship - BOMBAY YOUNG PROFESSIONALS A...	03-Jul-15	YP
66	SKEP Malegaon: Professional Ethics - BOMBAY TM14 CHAPTER	03-Jul-15	TM
67	SKEP Baramati: Writing a technical paper with introduction to scientific wor...	04-Jul-15	WIE
68	SKEP Malegaon: Analog and Digital Signal Processing - BOMBAY SP01 CHAPTER	04-Jul-15	SP
69	SKEP Malegaon: Wireless and Optical Networks - BOMBAY COM19 CHAPTER	04-Jul-15	COM

70	SKEP Indapur : Sustainability - where does it touch engineering and developm...	04-Jul-15	TM
71	SKEP Baramati: Innovation and Entrepreneurship - BOMBAY YOUNG PROFESSIONALS ...	04-Jul-15	YP
72	SKEP Baramati: Advances in Control Systems - BOMBAY SMC28 CHAPTER	04-Jul-15	SMC
73	SKEP Malegaon: Trends and Technologies of VLSI Devices - BOMBAY SP01 CHAPTER...	04-Jul-15	SP
74	SKEP Malegaon: IT for Telecom - BOMBAY COM19 CHAPTER	04-Jul-15	COM
75	SKEP Indapur : Professional Ethics - BOMBAY TM14 CHAPTER	04-Jul-15	TM
76	SKEP Baramati: Introduction to Embedded Systems and Opportunities - BOMBAY S...	04-Jul-15	BS
77	Workshop on Photoshop, Illustrator, Corel Draw & InDesign - BOMBAY SP01 CHAP...	07-Jul-15	SP
78	SIGHT Vidushi Rural Skilling Program - BOMBAY SECTION	24-Jul-15	SIGHT
79	Workshop on NI MYRIO Hardware for Round 1 winners of Nagpur in Niyantra unde...	25-Jul-15	YP
80	5th Meeting of Execom of 2015 - BOMBAY SECTION	25-Jul-15	Excom
81	PROFESSIONAL ETHICS - BOMBAY SP01 CHAPTER	25-Jul-15	SP
82	Latex Typesetting - BOMBAY SP01 CHAPTER	30-Jul-15	SP
83	A Technical Talk on cracking GD, PI in Campus Interviews under IEEE on 03/08...	03-Aug-15	YP
84	An IEEE Student Awareness Activity for B.E First Year conducted on 03/08/15 ...	03-Aug-15	YP
85	Industrial visit to Goa. - BOMBAY SP01 CHAPTER	06-Aug-15	SP
86	Know your College - BOMBAY SECTION	10-Aug-15	BS
87	Technical Talk - BOMBAY MTT17 CHAPTER	13-Aug-15	MTTS
88	How to Write a Quality Technical Paper and Where to Publish within IEEE - BO...	18-Aug-15	SP
89	Inauguration of VPCOE IEEE Women in Engineering Affinity Group - BOMBAY WOME...	24-Aug-15	WIE
90	IEEE Bombay Section Branch Counselor and Students Chair Meet - 2015 - BOMBAY...	28-Aug-15	BS
91	6th Meeting of Execom of 2015 - BOMBAY SECTION	28-Aug-15	Excom
92	Arduino Robotics - BOMBAY SECTION	30-Aug-15	BS
93	Industry Talk on Microgrids - BOMBAY PE31/IA34 CHAPTER	01-Sep-15	PE/IA
94	Hands – on workshop on HAM RADIO - BOMBAY MTT17 CHAPTER	05-Sep-15	MTTS
95	a Guest Lecture of Dr.R.M.Patrikar,VNIT,Nagpur on Micro-Electro-MechanicalSy...	05-Sep-15	YP
96	IEEE India Council Executive Committee cum Extra Ordinary General Body Meeti...	06-Sep-15	Excom
97	IEEE AP/ED Bombay Chapter Seminar - BOMBAY AP03/ED15 CHAPTER	09-Sep-15	AP/ED
98	JAVA SWING WORKSHOP - BOMBAY SECTION	11-Sep-15	BS
99	HAM Radio Workshop - BOMBAY WOMEN IN ENGINEERING AFFINITY GROUP	12-Sep-15	WIE
100	7th Meeting of Execom of 2015 - BOMBAY SECTION	12-Sep-15	Excom
101	LMAG Execom meeting - BOMBAY LIFE MEMBER AFFINITY GROUP	12-Sep-15	LMAG
102	Section AGM with Tech Talk on "50 years of Moore's Law" - BOMBAY	12-Sep-15	BS

	SECTION		
103	SKEP : Sustainability - where does it touch engineering and development - BO...	16-Sep-15	TM
104	Career Guidance Lecture - BOMBAY SECTION	19-Sep-15	BS
105	VPCOE Baramati IEEE Special Interest Group on Humanitarian Technology inaugu...	21-Sep-15	SIGHT
106	CLOUD COMPUTING - BOMBAY SECTION	24-Sep-15	BS
107	Patent Drafting - BOMBAY SECTION	25-Sep-15	BS
108	Android Workshop - BOMBAY SECTION	26-Sep-15	BS
109	Building Energy Management - BOMBAY PE31/IA34 CHAPTER	30-Sep-15	PE/IA
110	LINUX Workshop - BOMBAY SECTION	30-Sep-15	BS
111	Donation To Orphanage (IEEE DRIEMS) - BOMBAY SECTION	01-Oct-15	BS
112	Proteus workshop - BOMBAY SECTION	05-Oct-15	BS
113	Web Development Workshop - BOMBAY SECTION	05-Oct-15	BS
114	Arduino Rev 1.0 Workshop (IEEE DRIEMS) - BOMBAY SECTION	06-Oct-15	BS
115	IEEE DAY 2015 (IEEE DRIEMS) - BOMBAY SECTION	06-Oct-15	BS
116	8th Meeting of Execom of 2015 with Tech Talk - BOMBAY SECTION	10-Oct-15	BS
117	IEEE India Strategic Initiative – Internship Program - BOMBAY YOUNG PROFES...	10-Oct-15	YP
118	YP Affinity Group Meeting - BOMBAY YOUNG PROFESSIONALS AFFINITY GROUP	10-Oct-15	YP
119	IEEE India Strategic Initiative – Entrepreneurship Program - BOMBAY YOUNG ...	11-Oct-15	YP
120	IEEE Young Professionals awareness session - BOMBAY YOUNG PROFESSIONALS AFFI...	17-Oct-15	YP
121	IEEE AP/ED Talk Next Generation Gallium Nitride Devices - BOMBAY AP03/ED15 C...	27-Oct-15	AP/ED
122	Soft, Bioresorbable Optoelectronic Interfaces to the Brain - BOMBAY AP03/ED1...	03-Nov-15	AP/ED
123	9th Meeting of Execom of 2015 with Tech Talk - BOMBAY SECTION	21-Nov-15	BS
124	Industry Talk on Lighting - BOMBAY PE31/IA34 CHAPTER	23-Nov-15	PE/IA
125	Internship & Entrepreneurship Workshops organized under IEEE India Strategic...	09-Dec-15	YP
126	Internship & Entrepreneurship Workshops organized under IEEE India Strategic...	09-Dec-15	YP
127	Low-cost Sensors for Drinking Water Quality Monitoring - BOMBAY AP03/ED15 ...	14-Dec-15	AP/ED
128	Transparent Conductors and Array-Based Biosensors.... - BOMBAY AP03/ED15 CHA...	15-Dec-15	AP/ED
129	introduction to Electronics Warefare - BOMBAY COM19 CHAPTER	15-Dec-15	COM
130	The Future of Energy: Smart grid and Beyond - BOMBAY PE31/IA34 CHAPTER	16-Dec-15	PE/IA
131	Top Communication Technologies in Near Future - BOMBAY COM19 CHAPTER	17-Dec-15	COM
132	Engineered Surface Defects: New Approaches..... - BOMBAY AP03/ED15 CHAPTER	17-Dec-15	AP/ED
133	10th Meeting of Execom of 2015 - BOMBAY SECTION	17-Dec-15	BS
134	Special Tutorial on Power Electronics Design - BOMBAY PE31/IA34 CHAPTER	21-Dec-15	PE/IA



135	Tutorial on Generalized Design of PE Converter - BOMBAY PE31/IA34 CHAPTER	22-Dec-15	PE/IA
136	Expert Talk - BOMBAY MTT17 CHAPTER	22-Dec-15	MTTS
137	Tutorial on Gallium and Arsenide device in power electronics - BOMBAY PE31/I...	23-Dec-15	PE/IA

## B.4 Student Activities

Student activities were covered under the SKEP initiatives as well as the Student Branch Officers meets. The regular events such as IEEE 360 degrees, Technical Paper Presentation etc. were conducted across student branches

Total number of Student branches in the Section as of Sep 2015– 132. The list is appended below:

No	Student Branch
1	Acropolis Institute of Technology and Research SB
2	All India Shri Shivaj Mem Soc Inst of Info Tech
3	Amrutvahini College of Engineering SB
4	Atharva College of Engineering SB
5	Bansal Inst Research & Tech SB
6	Bharat College of Engineering SB
7	Bharati Vidyapeeths Col of Eng For Women SB
8	Bhilai Inst Of Tech Durg SB
9	Birla Institute of Tech and Science Pilani-Goa SB
10	Central India Institute of Tech - Indore SB
11	Cummins College of Engineering For Women SB
12	D Y Patil College of Engineering SB
13	D.K.T.E.'s Textile & Engin Inst Ichalakaranji SB
14	Datta Meghe College of Engineering SB
15	Dilkap Research Inst of Eng & Man Studies, SB
16	Don Bosco Inst of Tech SB
17	Dwarkadas J Sanghvi College Of Engineering SB
18	Fr Conceicao Rodrigues College of Engineering SB
19	Fr Conceicao Rodrigues Inst of Tech SB
20	G H Rasoni College of Engineering SB
21	Goa College of Engineering SB
22	Godavari College of Engineering - Jalgaon SB
23	Government College of Engineering Amravati SB
24	Gyan Ganga College of Technology SB
25	Gyan Ganga Inst of Tech & Management - Bhopal SB
26	Gyan Ganga Inst of Tech and Management Jabalpur SB

27	IES College of Technology - Bhopal SB
28	IPS Academy - Inst of Eng & Sciences SB
29	Indian Inst of Technology- Bombay SB
30	Inst of Engineering & Tech SB
31	Jabalpur Engineering College
32	Jawahar Education Society'S Ac Patil Col of Engrg
33	Jawaharlal Nehru Engineering College
34	Jhulelal Institute of Technology, Nagpur SB
35	Jspm'S Rajarshi Sharu College of Eng SB
36	K K Wagh Inst of Engg- Edu & Research SB
37	K.C. College of Engineering SB
38	Kavikulguru Inst of Tech & Sci SB
39	Kit's College of Engineering SB
40	Kj Somaiya College of Engineering SB
41	Kj Somaiya Inst of Engrg & Information Tech SB
42	Konkan Gyanpeeth College of Engr-Karjat SB
43	Lakshmi Narain College Of Tech SB
44	Late G. N. Sapkal College of Engineering, SB
45	Lokmanya Tilak College of Engineering SB
46	M H Saboo Siddik College Of Engineering SB
47	MBES College of Engineering - Ambajogai SB
48	MGM College Of Eng & Tech SB
49	Mahakal Institute of Technology SB
50	Maharashtra Academy of Engineering SB
51	Maharashtra Inst of Tech SB
52	Manoharbai Patel Inst of Eng & Tech, Gondia
53	Mansarovar Inst of Science and Tech SB
54	Maulana Azad National Inst of Tech SB
55	Mbm Engineering College/Jodhpur Univ
56	Mct Rajeev Gandhi Inst of Tech SB
57	Medi-Caps Inst of Tech & Mgmt SB
58	Met's Bhujbal Knowledge City SB
59	Modern Educ Soc College of Engineering SB
60	Narsee Monjee Inst of Mgnt/High Studies- Shirpur SB
61	Nashik Dist Maratha Vidya Prasarak Samaj'S C.O.E.
62	National Institute of Technology - Raipur SB
63	National Institute of Technology Goa SB
64	O.P. Jindal Institute Technology SB
65	Oriental University, Indore SB
66	P E S Modern College Of Engineering
67	Padmabhushan Vasantdada Patil Coll Of Eng

68	Padmashree Dr D Y Patil Inst Of Eng & Tech
69	Padmashri Dr Vithalrao Vikhe Patil Coll
70	Padre Conceicao College Of Engrg
71	Parshvanath College Of Engrg
72	Patel Group of Institutions - Indore, SB
73	Peoples Education Society Coll of Engineering SB
74	Pillais Inst Of Info Tech Eng ,Media Studies & Research
75	Pimpri Chinchwad College Of Engineering
76	Priyadarshini Coll Of Eng & Architec
77	Priyadarshini Institute of Eng & Tech, Nagpur SB
78	R.C. Patel Institute of Technology, Shipur SB
79	Rajarambapu Inst Of Tech SB
80	Rajiv Gandhi Col of Eng, Res & Tech, Chandrapur SB
81	Ramrao Adik Inst Of Tech
82	Rizvi College Of Engineering
83	Rungta College Of Engineering & Tech SB
84	Rungta Group of Colleges SB
85	S. B. Jain Institute of Tech Nagpur SB
86	SND Coll of Eng and Res Center Babhulgaon SB
87	SOET, ITM University Gwalior, SB
88	SSBT College of Engrg & Tech SB Jalgaon
89	Sagar Institute of Research & Tech SB
90	Sagar Institute of Science & Technology SB
91	Sanghvi Institute of Management & Science SB
92	Sanjay Education Society'S College Of
93	Sanjiwani Rural Educ Soc College Of Eng
94	Sant Gadge Baba Amravati University SB
95	Saraswati College of Engineering SB
96	Sardar Patel College Of Engineering
97	Shah & Anchor Kutchhi Engrg College
98	Sharadchandra Pawar College of Eng SB
99	Shri G S Inst Of Tech & Science
100	Shri Ramdeobaba Kamla Nehru Eng College
101	Shri Sant Gajanan Maharaj College Of Eng
102	Shri Shankarachary Inst of Prof Mgmnt and Tech SB
103	Shri Vaishnav Inst Of Tech & Sci
104	Shrimati Indira Gandhi College Of Eng
105	Sies Graduate School Of Tech Sb
106	Sinhgad College Of Engineering
107	Sinhgad Institute of Technology-Lonavala SB

108	Sipna's College of Eng & Tech - Amravati SB
109	Sri Aurobindo Institute of Technology SB
110	St Francis Inst Of Tech - Mt Poincur
111	St John College Of Eng & Tech SB
112	Sushila Devi Bansal College of Technology SB
113	Swami Vivekanand College of Engineering SB
114	TIT College Bhopal SB
115	Technocrats Instute of Tech, Bhopal SB
116	Terna Engineering College
117	Thadomal Shahani Eng College SB
118	Thakur College Of Eng & Tech
119	Truba College of Engineering and Technology SB
120	Universal College of Engineering, SB
121	Usha Mittal Inst Of Tech
122	VES Institute of Technology
123	Veermata Jijabai Technical Inst
124	Vidarbha Youth Welfare Soc Coll Of Eng Sb
125	Vidya Pratishthan's College of Eng - Baramati SB
126	Vidyalankar Inst Of Tech
127	Vidyavardhini'S College Of Engrg & Tech Sb
128	Vishwakarma Inst Of Tech
129	Visvesvaraya Nat'L Institute Of Tech
130	Watumull Inst Of Elect Eng & Comp Tech
131	Xavier Inst Of Engineering
132	Yeshwantrao Chavan College Of Engineering

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

#### Major Student Activities 2015

- International Conference on Nascent Technologies in the Engineering Field (ICNTE) : 09 – 10 Jan 2015 in Fr. C. Rodrigues Institute of Technology, Vashi
- International Conference on Communication, Information & Computing Technology (ICCICT): 15 – 17 Jan 2015 in Sardar Patel Institute of Technology, Mumbai
- International Conference on Technologies for Sustainable Development (ICTSD) : 04 – 06 Feb 2015 in Don Bosco Institute of Technology, Mumbai
- IEEE 360 Degrees Fest by UMIT in Feb 15

### B.5 Affinity Group Activities

#### YP Events

A brief on key events conducted under the IEEE India Strategic Initiative is given below

### **IEEE India Student Internship Preparation Program:**

- The event is focused towards the preparation of IEEE Student members towards Internships and handling them well.
- A 4 - 6 Hour program with topics on Interviews, Choosing good internships, Resume Preparation, Internship Platform, Skills Development, Current Trends and Technologies and a Panel Discussion to ask questions on what industry looks for in a student intern.
- Audience: 420+ at Bombay
- Audience: 550+ at Nagpur

### **IEEE India Entrepreneurship Development Program:**

- The event is focused towards the preparation of IEEE Young Professionals and Student Members to engage in startup related activities and Entrepreneurship.
- A 4 Hour program with topics on Why a startup, Startup legalities, Entrepreneur experience sharing, funding and revenues, incubation programs, business models followed by a panel discussion on entrepreneurship.
- Audience: 40+ at Bombay
- Audience: 120+ at Nagpur

### **Benefits:**

- Both the programs / initiatives are the need of the hour for IEEE members and would yield in higher member engagement across student as well as Young Professionals.
- Students as well as Young Professionals get exposure to industry and enable networking with industry experts across domains.

## **WIE Events**

A course on amateur radio was conducted through a workshop in Mumbai on 12 Sep 2015. The course introduced students to MARI, Mumbai Amateur Radio Institute. Amateur radio is a community of people that uses radio transmitters and receivers to communicate with other Amateur radio operators. Amateur radio operators are often called ham radio operators or simply "hams".

Amateur (HAM) Radio is truly a hobby but often one that makes a difference especially in emergency or disaster situations. It is an activity of Self Learning, Inter-Communication & Technical Investigation carried on between Amateur Radio Operators. Amateurs talk to local friends over the radio waves using a hand-held trans-receiver, communicating digitally with packet radio to exchange personal messages or vital information in an emergency, talking to other hams anywhere in the world, or engaging in contests with other Radio Amateurs over the airwaves. The participants are made aware about the applications and rules to participate as a member of Ham Radio Community.

## **LMAG Events**

A talk by Mr. Janak Daftari on "Rain Water Harvesting in rural and urban areas" was organized. Another SKEP session was co-sponsored by LMAG

## B.6 Awards & Recognition Activities

- Award constituted by the section –
  1. Outstanding Student Volunteer Award – Vivek Motwani, Siddarth Singh
  2. Outstanding Student Branch Counsellor Award – None
  3. Outstanding Student Branch Award – VIT, Wadala
  4. Outstanding Volunteer Award – Dr. Satyanarayana

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

- Newsletter (name and number of issues in the year) –  
None
- Home Page of the section (give the URL and frequency which it is updated)  
<http://ieeebombay.org>  
Weekly updates and event based update as required. Updates can happen more than once in a day also
- Other means of contacts with section members
  1. All members email list
  2. Full Grade Members email list
  3. Student Branch Email List
  4. Execom Members Email List
  5. Contact details of Office Bearers/Chapter/Affinity Group is published on the website

## B.8 Industry Relations

- Existing relationships with Industries was reinforced by including them in section activities
- Membership growth and retention. The table below shows a comparison of higher grade member growth in Bombay section vs. India, R10 and Global IEEE. It is a matter of pride that Bombay section increased its membership across Members and senior members, amply compensating for the reduction in Associate Members as well as Graduate Student Members.

	BOMBAY		INDIA		R10	
	2014	2015	2014	2015	2014	2015
<b>Life Fellow</b>	5	7	24	24	330	346
<b>Fellow</b>	6	8	42	44	739	768
<b>Life Sr Mem.</b>	11	10	106	114	325	348

<b>Sr Mem.</b>	168	177	1555	1684	6144	6641
<b>Life Member</b>	5	7	24	28	624	686
<b>Member</b>	1439	1859	12184	12423	51376	52684
<b>Assoc. Mem.</b>	86	53	547	501	2009	1810
<b>Gr. St. Mem.</b>	954	704	6217	5191	16661	15186
<b>Hi Grd. Total</b>	2675	2814	20702	20011	78218	78478

## B.9 Humanitarian Technology Activities

### Vidushi – Empowering Rural Communities

Vidushi – a program to skill rural women was conducted in two phases. The first phase in May 2015 involved imparting computer literacy to women in the backward rural districts of the section (Junnur).

The second phase in July 2015 was a 3-day workshop (in Rajuri) to train the local women in Plumbing , Basic Electricity, Solar Energy. The programs were very well received with over 100 women participating across programs.

## B.10 Community Activities

### Rooftop Solar Project –

In June 2015, IEEE the section in collaboration with IIT Bombay, Bridge to India and Observer Research Foundation, undertook a major survey in Mumbai to estimate the rooftop solar potential in Greater Mumbai. The program had the support of the Ministry of Renewable Energy of India to support the renewable energy initiatives of the Municipal Corporation of Mumbai. The objective was to predict an indicative figure of the rooftop PV installation potential for Greater Mumbai Region (within the limits of the Bombay Municipal Corporation - BMC) and to prepare a roadmap on how to promote rooftop PV in Mumbai through policy decisions by BMC.

Student volunteers and others from the section participated with great enthusiasm to make the survey a great success. The work involved site surveys of more than 50 buildings, GIS Mapping and 3D modelling and shading analysis.

### Statistics of participating IEEE Student Members :

- Total 267 students registered at the Workshop at IIT Bombay.
- 214 students actually attended it, including students from Nashik and Baramati (interior regions of Maharashtra)

- 142 students out of the 214 gave consent to continue with the Project and they were accordingly allotted the wards for the said survey
- Finally 76 students work completed their task assigned.
- Out of these 42 had done field survey also.
- The Execom of Bombay Section declared a Honorarium to these 42 students and Certificates to all participating Volunteers.

## **PART C - OTHERS**

### **C.1 Relationship with National Societies**

IEEE Bombay Section annually celebrates Engineers Day in May every year jointly with the IETE (Institution of Electronics and Telecommunications Engineers)

### **C.2 Special Events**

#### **IBSS 2015**

IEEE Bombay Section conceived of the "Signature Symposia" to provide its members with a platform to share their expertise in a wide range of science, engineering and industrial research areas that the IEEE ably represents and nurtures. These Symposia will offer excellent opportunities for students, researchers and industries to foster collaboration or simply to further their knowledge in cutting-edge science, engineering and technology areas. The annual Symposia series are referred to as the IEEE Bombay Section Symposia (IBSS) and the maiden edition - IEEE Bombay Section Symposium (IBSS-2015) was organised during September 10-11, 2015.

The Symposium venue was chosen based on bids from potential host institutes spread across the geography of the section, which were expected to satisfy a number of strict criteria to enable successful organisation of the Symposium. The bids were carefully scrutinised by a committee, which chose Usha Mittal Institute of Technology, SNDT Women's University, Mumbai as the host for IBSS-2015. It was befitting that the Symposium was held at the SNDT Women's University, which is celebrating its Centenary Year.

The theme chosen for the Symposia was "Frontiers of Technologies: Fueling Prosperity of the Planet and People", reflecting well the both the Mission and Vision of IEEE. The core topics chosen for the IBSS-2015 were:

1. Sensors, instrumentation and signal processing,
2. Communication, networks and wireless technologies,
3. Microwave techniques and medical applications and
4. Cyber physical systems and smart vehicles.



Besides the keynote and the summary talks delivered in their chosen fields by highly distinguished speakers, the Symposium featured 16 high quality review talks. These sessions encompassed the core topics and were delivered by senior experts while four contributory talks were delivered by the young and active researchers. All the sessions were plenary.

Armed with success of this maiden Symposium, plans are already underway to organise the IBSS-2016 at another venue of the Section, incorporating suggestions for new core topics for the Technical Programme as well as other logistics requirements. We are hopeful that the IBSS will very soon reach to its rightful place as one of the best technical events of IEEE in India, while maintaining its signature of IEEE Bombay Section.

### **C.3 Problems to be Anticipated**

[see Section D below – Challenges & Critical Success Factors]

### **C.4 Best Practices of your section**

- 1 SKEP (Skills and Knowledge Enhancement Program) series of workshops/talks
- 2 Leadership statements of Vision/Mission at Annual General Meeting
- 3 Value add to members and professionals through topical Conferences
- 4 Robust Senior Member elevation practices
- 5 Reviving dormant student branches and initiating new branches
- 6 Engaging with Students, Student Branches and Counsellors
- 7 Active website, regular mailers on forthcoming events
- 8 Delivering value to members by providing fair opportunities to attend key IEEE events
- 9 Created a section video for use during IEEE functions.
- 10 Improved governance by
  - ✧ Succession planning incorporated in the formation of the Executive Committee
  - ✧ Adopting smooth hand-over processes
  - ✧ Publishing calendar of Execom meetings planned for the year
  - ✧ Consolidated tracking of actions from Execom meetings
  - ✧ Appointment of separate Finance and Governance committee

## **PART D - GOALS AND PLANS**

[Presentation made at Bombay Section AGM aptly sums up Goals, Plans & Challenges]

### **VISION**

- Be the most preferred Technical and Professional Association for individuals in Industry, Academia and Government
- Be the Benchmark among IEEE Sections in India

## ACTION PLAN

- Build on the momentum of the past years
- Firmly establish the new entity (IEEE Mumbai Section Welfare Association) and comply with all statutory obligations
- Operationalize good governance practices and simplify operations
- Enhance value of membership by conducting member development and empowerment programs
- Contribute positively to the communities we operate
- Thought leadership through original contributions in technical and professional areas of impact

## 4 PILLARS OF ACTION

### Governance & Operations

- Set up Advisory, Finance and Statutory Compliance Committees
- Establish governance and operations processes
- Leverage website to simplify approvals, interactions
- Member Charter
- Establish registered society Infrastructure

### Member Development and Empowerment

- To increase number of Volunteers
- Continuous Education and Skill Upgrade
- Technical Engagement, Networking & Exchange Programs
- Replicate programs across the section geography
- Rewards and Recognition
- Develop next-line office bearers, Execom members

### Relevance to the Community

- Influence Engineering education
- Enhance Industry connect
- Invigorate SIGHT, Affinity Group and all Society Chapter activities
- Student Employability initiatives
- Enhance Faculty Effectiveness
- Drive Industry – Academia collaboration
- Conduct events of Relevance – IBSS 2015, SKEP at more geographies, SKEP targeted at Professional members, IPR workshops

### Thought Leadership

- Leverage the intellectual capital of the section to Influence policies, standards

- Share Best (Next) practices
- Promote and publicize innovation
- Create an innovation manual
- Enhance Website, Social Media connect

## Challenges and Critical Success Factors

- Different regions within the section geography desirous to form sub-sections or sections
- Out reach across the complete geography of the section
- Availability of Volunteers
- Effective Virtual Collaboration tools – Tele/Video/Web conferencing facilities
- Greater commitment of time by volunteers and members
- Effective communication between the Section, India Council, R10, IEEE HQ
- Effective communication within the Section
- Members having affiliation with multiple associations leading to contention for scarce volunteering time.
- Effective collaboration between
  - Members
  - Different societies/ society chapters
  - Different Affinity Groups
  - Between all of the above