

IEEE BOMBAY Section Report 2008 for Region 10

SECTION SUMMARY

A.1 Executive Summary

- Major events and achievements in the year

www.ieee.org/bombay

IEEE Bombay Section was formed in 1976 along with Delhi and Bangalore sections from the erstwhile India Section. Upto mid 2008 it held the position of the largest Section in India for over 8 years consistently and is confident of regaining that position. It has 78 Student branches many of which are among the top ten in the region and among the leading student branches in the world.

In 2007, Bombay Section received the **Best large Section Award** for the 3rd time. The Section has been commended by Region 10 on several occasions since 1998 and received the consistent sustained growth award at the 2006 R-10 meet in ChiangMai.

In 2008, the Section was honoured to have visits from the Director of Region 10, Prof **Janina Mazierska**, **Dr Rangachar Kasturi**, President of IEEE Computer Society, **Dr. William Gruver**, FIEE, Director IEEE Division X and member of IEEE MGA Board (RAB), **Dr Graeme Gwilliam**, R-10 Life Members Coordinator and **Dr Richard Gowen**, President IEEE Foundation, **Ms Celia Desmond**, Past Secretary of IEEE and DL of IEEE Communications Society.

The Section also played a key support role to **Ms Rachel Berrington**, MLS, Manager, IEEE Client Services for the "IEEE: Innovation through Research", The First Nationwide IEEE User Education Programme in India on 19 September, 2008 at FC Kohli Auditorium, Indian Institute of Technology, Bombay

One of the highlights of the year was the **IEEE Job Fair** held on 23 February 2008 coorganised by the Section and the Bombay Chapter of the Technology Mgmt Council (EMS) at which over 400 students attended and 150 received job offers. A large and successful membership drive was also conducted since the privilege was only for members. Much interest was shown by the TMC group of IEEE in this pathbreaking event which is planned again for 2009.

The other unique event was the R-10 SSVR aided event in Tuesday, 26th September, 2008 "**National Workshop on IEEE In Rural Area**" conducted at Annasaheb Waghire Jr. College, Otur, Junnar, near Pune and organized by the Bombay WIE Affinity Group.

During the year a number of events were held, comprising 46 technical talks, workshops, symposia and conferences, across the Bombay Section including the sub-sections of Madhya Pradesh and Pune. (**Details on website & attached pdf**)

The Executive Committee of the Bombay Section has held 10 meetings during the year. Over 150 Technical, Professional & Administrative Meetings were held by the Section and subsections, Chapters & Affinity groups.

A.2 Financial Report

A brief highlight of the income/expense and balance

IEEE BOMBAY SECTION

Major Income and Expense Heads over last 3 years

Head	Amount in Rs.			Expenses as % of Reba			% of Exp
	2006	2007	2008	2006	2007	2008	2008
Rebate from IEEE HQ	1,615,854	1,010,215	1,241,688				
Total Expenses	1,494,295	1,655,606	1,520,885	92%	164%	122%	100%
Student Activities	582,460	425,984	367,886	36%	42%	30%	24%
Professional Activities	79,735	384,807	305,143	5%	38%	25%	20%
Conference Expenses	100,000	50,000	76,700	6%	5%	6%	5%
Section/Chapter Support	253,775	565,122	377,737	16%	56%	30%	25%
Meetings and Social Events	79,923	89,729	79,083	5%	9%	6%	5%
Others (Travel, IC Bulletin, ECI)	398,402	139,964	228,870	25%	14%	18%	15%

Section also receives interest on existing bank deposits to supplement resources for Section technical activities

A.3 List of Section Officer and Executive Committee Members

Executive Committee 2008

Chairman Prof U B Desai
Imm Past Chair Prof M M Shah
Vice Chairman Raju R Hira
Secretary Anthony Lobo
Treasurer Ashok Jagatia

Members

Dr M V Pitke
A K Banerjee
H Kalyanasundaram
Prof V Ramgopal Rao
Prof Arun Chandorkar
Prof Prachi Gharpure
Prof R K Shevgaonkar
Dr Shrikant Parikh
Dr Preeti S Bajaj
Prof Rajesh Ingle
Prof Unmesh A Rane

Permanent Invitees (Past Chairs)

P R Bapat
Quraish Bakir
Dr F C Kohli
R Muralidharan
Prof B R Prabhu
Dr C G Ravi
Dr S C Sahasrabudhe
K J Sheth
H S Sonawala
K S Sonawala
Prof Juzer M Vasi

GOLD Affinity Group :

Chairman Prof Vineet Kotak

Women in Engg Affinity Group :

Chairman Prof (Ms) Sanjivani Shah

Life Members Affinity Group :

Chairman Dr P B Parikh

Chapter Chairs

Communications Society	Ashok Jagatia
PES/IAS	Prof Datta J Doke
AP/EDS	Dr Arun Chandorkar
Computer Society	Dr M V Anantkrishnan
Engineering Management Society (TMC)	Dr Shrikant Parikh
Instrumentation and Measurement Society	Prof Ashok Gaikwad
Digital Signal Processing Society	Prof A S Tavildar
Systems, Man & Cybernetics Society	Mayank Pande

Subsections Chair:

Pune Subsection :	Dr Mandar J Khurjekar
MP Subsection	Dr Manohar Chandwani

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

- Effort in Membership Development

As a special outreach to students and in an effort to take up Membership Development and Value Add for Members, a JOB FAIR was organized under the banner of the TMC Chapter on 23 February 2008. This was a great success with over 400 students participating and 150+ job offers being generated. A full report was provided in the R-10 Newsletter of June 2008. The entry to the event was only for members and as a result 115 new members were created at the site.

- Evidence of retention of members

The statistics for end 2007 indicate membership of 5627 members with 3933 students and 464 Graduate Student members. HG membership included 98 senior members, 15 Life senior members, 6 Fellows and 4 Life Fellow Members, 7 Life members and 960 Member grade.

In 2008 there is a total of 5942 members with 4019 students and 430 Graduate Student members. HG membership in all comprises 116 senior members, 10 Fellows and 1220 Member grade. Associate members are 147.

There is a modest **increase in membership** and the demographics are an indication of the maturity of membership and the longevity of the Section.

The challenge still is to balance High Grade with Student Membership.

- GOLD, WIE and Life Members Affinity Group Activities

The GOLD group conducted periodic professional talks for members.

Life Members Affinity group hosted the Region Life Members Coordinator, Graeme Gwilliam and President of the IEEE Foundation, Dr Richard Gowen during two meetings in February 2008

The WIE Group however has also been active during the year with Seminar on technical paper writing, training to rural students electronics as well as well as hobby kits. Their main activity was the IEEE in Rural Areas Seminar in September 2008.

The L-31 reporting details much of their activity.

B.2 Professional and Continuing Education Activities

- *Continuing Educational activities including conferences, technical event, training courses should be summarized and reported*

Bombay Section has a depth of technical resources and was able to conduct more than a dozen technical and professional offerings for members. These are detailed on the website highlighted in the **accompanying secretary's report to the Bombay Section AGM upto Dec 8, 2008** (pdf). The six additional items are as follows :

23rd December, 2008, 1130 hrs
"The High-K/Metal Gate Technology"
by : Dr. Mukesh V. Khare, Ph.D. , IBM , USA
Venue: Nano Conference Room, IIT Bombay
Jointly with AP/ED Chapter

18th December, 2008, 1600 hrs
"Solid-State Lighting and Water Purification"
by : Prof Colin Humphreys, Department of Materials Science and Metallurgy,
University of Cambridge, Cambridge, UK
Venue: GG Conference Room, 2nd Floor, GG Building, Department of Electrical Engg.,
IIT Bombay Jointly with AP/ED Chapter

15th-17th Decemeber, 2008
"IEEE Advanced Networks and Telecommunication Systems (ANTS) conference
focussing on Telecommunications" Programme
Venue: F C Kohli Auditorium , IIT Bombay
Jointly with IEEE ComSoc Chapter

15th December, 2008,
"Internet 3.0: The Next Generation Internet Architecture"
by : Raj Jain, Ph.D., Fellow of IEEE, Fellow of ACM, Professor of Computer Science
and Engineering, Washington University in St. Louis, MO 63130, USA
Venue: SPIT (Sardar Patel Institute of Technology), Andheri West
Jointly with ComSoc Chapter

14th December, 2008, 1000 hrs
"Distinguished lecture on Distributed Intelligence and view of the IEEE and its
Division X" by : Dr. William Gruver, FIEEE, Past President SMCS and Director
Division X of the IEEE
Venue: SPIT (Sardar Patel Institute of Technology), Andheri West
Jointly with SMCS Chapter

13th December, 2008, 1900 hrs
"Dr Gruver presentation on IEEE DivX"

by : Dr. William Gruver, FIEEE, Past President SMCS and Director Division X of the
IEEE Venue: Yacht Club , Colaba , Mumbai 400005
Jointly with SMCS Chapter

SUMMARY

• AP/ED	14	
• COMSOC	9	
• COMPSOC	2	
• TMC (EMS)	1	
• SMC	5	
• PES	3	incl Rural workshops
• Instr & Meas.	1	
• Affinity Groups		
– WIE	6	
– Life Members	2	
PUNE	1	
JOINT/Sec CoSponsor	2	
TOTAL	46	

B.3 Students Activities

- Active Student Branches activity

Bombay Section now has 78 student branches, second in the world only to Madras Section.

Bombay's individual student branches on the world top 30 include International Institute of Information Technology, Pune, Maharashtra Academy of Engineering Alandi, SS Gajanan Maharaj College of Engineering Shegaon, Thadomal Shahani Engineering College and others.

Several Student Branches were active through the year, with organisation of Industrial visits and holding of technical events. To foster student participation, Student Counselor meets were organized by our Student Activities Chair in Bombay and other centres. The Section has a liberal grants programme to support their activities. This is dependent on their membership strength and there is a cap on the number of grants per year.

- Recruitment of student members

Students are the lifeblood of the Section and presently comprise more than 75 percent of the membership and have sustained the membership figures for the year for the Section. Considerable spontaneous interest in IEEE membership is found, especially among the newer branches and several of the more mature groups in terms of longevity. The numbers speak for themselves.

2006 student members 4611 2007 Student members 3933 (add 464 GSM)

- Student paper contest

The Section encourages and supports technical events and paper contests among the Student Branches and internally within their own units.

The Section also coordinates the India Council MV Chauhan Student Paper and Project contest every year.

A Student Project Contest was held by the Systems Man & Cybernetics Chapter in Oct 2008.

B.4 E-mail and Newsletter Activities, Home Page

- Number of hard print Newsletter N.A. (only electronic)

- Number of electronic Newsletters

Bombay Section's Electronic Mailer reaches out to all high grade members to keep them abreast of current and forthcoming events. This is run on the IEEE Electronic Mailing List

We also profitably use the e-Notice facility to connect with the entire section membership or targeted segments like students, or Chapter groups as necessary.

In addition individual Student branch newsletters are published by respective units.

- Section, Chapters and Student Branches Web Pages

www.ieee.org/bombay has been running for over 9 years, webmaster Mr Quraish Bakir, Past Chair of IEEE Bombay

Chapter websites of COMSOC, IAS/PES, EMS

Most Student Branches maintain their own webpages. Thakur Engineering College and Thadomal Shahani Engineering College have been regularly winning international awards. VESIT has won the international IEEE award for student branch website for three years running.

B.5 Awards

- Award program available and the list of winners

SMC Chapter held its first Project contest for students in October and November 2008 and gave awards to Ms Darshana Salvi and other two winners.

B.6 Chapter Activities

- Summary of Chapter Activities

Chapter Activities

Bombay Section comprises 10 chapters, inclusive of two joint chapters, which have conducted various activities in their spheres.

While all chapters have been active, in particular, the Communications Society Chapter and the joint Chapter of Antennas and Propagation Society and the Electron Devices Chapter have been very active this year in organizing technical talks and seminars for the Section. The IAS/PES has taken the initiative of rural awareness of technology and organizing seminars to introduce latest trends in technology.

The technical activities presented above are entirely arranged through the various chapters in the Section.

PART C – GOALS AND PLANS

C.1 Goals

Bombay Section would like to make itself more relevant to Industry and corporates as well as provide value add to members. There is much to be gained from close interaction with the engineering and IT industry and some enlightened corporates and government bodies are known to encourage professional affiliation.

Similarly, the Section has to offer more to Student members in terms of career planning, concrete avenues for employment as well as equipping them with complementary skills such as the soft skills of facility with written and spoken communication, leadership, resume writing, mastering job interviews and the like. For some of the colleges in the mofussil areas, technical inputs would also be in order, especially when made relevant to the world of work.

C.2 Implementation Plans

Corporates are being sounded about IEEE as a recruitment source of choice. There are plans to build a career database, and establish a screening mechanism for certifying students meeting a minimum grade.

With industry as well, the Execom is taking steps to monitor to ascertain details of which organizations are favorable to supporting staff taking up professional membership.

PART D - OTHERS

D.1 Relationship with National Societies

The IEEE India Council at the National Level has a memorandum of understanding with the Institution of Electronics and Telecommunications Engineering and several members of Bombay Section share both affiliations.

IEEE also has a representation on the Engineering Council of India (ECI) which is following up on issues of equivalence of certification and the Washington Accord as well as being a lobbying body with Government.

With the India Initiative, Bombay Section will leverage its alliances with Industry for enhancing the value of the IEEE in India.

D.2 Special Events

The Section facilitated the "IEEE: Innovation through Research" programme on 19 September, 2008 at FC Kohli Auditorium, Indian Institute of Technology, Bombay

Initial **IEEE Job Fair** was held on 23 February 2008 at which over 400 students attended and 150 received job offers.

"**National Workshop on IEEE In Rural Area**" was a unique event organized by the Bombay WIE Affinity Group on 26 September 2008.

D.3 Concern areas and suggestions

There is a need to extend the relevance of IEEE across the industrial and technical domain in India, beyond the academic and student base where IEEE has gained substantial strength.

IEEE publications need to be priced to suit the economic reach of members and target audience within the Section geography, for instance use of purchasing power parity (PPP) pricing will make IEEE journals available to a wider segment of population and enhance awareness of IEEE.

Anthony Lobo
Vice Chair
IEEE Bombay Section

for Raju Hira
Chair IEEE Bombay Section



IEEE BOMBAY SECTION

(awarded Best Large Section in R-10 2007)

ACTIVITIES IN 2008

IEEE AGM

13 December 2008

Membership Dec 2007 : November 2008 Bombay & India Council

Dec-07		HG Total		StM		Grand Total	
Membership Status							
INDIA							
Active		9085	39%	14411	61%	23496	
Bombay							
Active		1721	30%	4017	70%	5738	24%
MADRAS							
Active		1810	36%	3257	64%	5067	22%
Nov-08		HG Total		StM		Grand Total	
Membership Status							
INDIA							
Active		10160	39%	15702	61%	25862	
Bombay							
Active		1874	33%	3751	67%	5625	22%
MADRAS							
Active		2073	33%	4255	67%	6328	24%

Bombay Section & MP & Pune Subsections 12/07 : 11/08

Dec-07

Bombay		HG Total		StM		Grand Total	
Membership Status							
Active		1721	30%	4017	70%	5738	
PUNE							
Active		694	54%	595	46%	1289	22%
MP							
Active		86	74%	30	26%	116	2%

Nov-08

Bombay		HG Total		StM		Grand Total	
Membership Status							
Active		1874	33%	3751	67%	5625	
PUNE							
Active		547	51%	516	49%	1063	19%
MP							
Active		105	57%	78	43%	183	3%

Bombay : India Council : R-10 APAC : IEEE Global

% component

Nov-08

Membership Status	HG Total		StM		Grand Total			
IEEE global								
Active	322597	86%	52261	14%	374858	Loc:IEEE	HG:IEEE	St:IEEE
Region 10 APAC								
Active	50489	72%	20046	28%	70535	19%	16%	38%
INDIA								
Active	10160	39%	15702	61%	25862	7%	3%	30%
Bombay								
Active	1874	33%	3751	67%	5625	2%	1%	7%
MADRAS								
Active	2073	33%	4255	67%	6328	2%	1%	8%



Bombay Section
at R-10 meet in
Gandhinagar 2-3
Feb 2008

Section Technical Activities

SUMMARY AS ON 13 DEC (AGM)

• AP/ED	12	
• COMSOC	8	
• COMPSOC	1	
• TMC (EMS)	1	
• SMC	3	
• PES	3	incl Rural workshops
• Instr & Meas.	1	
• Affinity Groups		
– WIE	6	
– Life Members	2	
PUNE	1	
JOINT/Sec CoSpn	2	
TOTAL	39	

AP/ED

January 4, 2008

“Challenges in Advanced Technologies & Enablement” Dr. David Hareme at IIT Bombay

January 9, 2008

"Advanced Logic and Memory Technologies with New Materials and Structures" - Prof. Hiroshi Iwai, Tokyo Institute of Technology, Japan at IIT Bombay

January 11, 2008

"Past and future half-centuries for semiconductor device development" Prof. Hiroshi Iwai, Tokyo Institute of Technology, Japan at IIT Bombay

WIE

January 14, 2008

Seminar on ISDN & its applications, PUNE

Mr.S.K.Saha

COMSOC

January 18, 2008

"WiMAX– A Key Wireless Broadband Technology"

Dr. Suresh Borkar, Department of ECE, Illinois Institute of
Technology, Chicago, USA

BSNL Complex Mumbai

January 29, 2008

"Spoken Term Detection: An Old Problem with A New Twist"

Zak Shafran, OGI School of Science & Engineering, at
OHSU Portland, USA

At IIT Bombay

SMC

January 31, 2008

"Recent Development in Generalization Error for Supervised Learning Problem with Applications in Model Selection and Feature Selection" - Prof Daniel S Yeung, President IEEE Systems, Man and Cybernetics Society, President of Machine Learning and Cybernetics Research Institute, Hong Kong.
at IIT Bombay

Life Members

February 7, 2008

Meeting with Dr Richard Gowen, President of IEEE Foundation & History Centre & Past President IEEE

February 10, 2008

Meeting with Mr Graeme Gwilliam Region 10 Coordinator, Life Members Affinity Group



Left : Mr Graeme Gwiliam
Life Members Affinity Group



Right : Dr Richard Gowen
IEEE Foundation

WIE

February 12, 2008

Training workshop on Tech.paper writing & reaserch methodology -
Dr. Aditya S.Abhayankar, Dr.S.Tanawade & Dr.Brahmankar, PUNE

February 13, 2008

Training workshop on Tech.paper writing & reaserch methodology -
Dr. Mrs.A.S. Warke, Dr.Londhe & Dr. Mrs.M.A.Joshi, PUNE

February 14, 2008

“Future trends in Automobile technology Dr.S.N.Sapali
“War between Microsoft & Google” Mr.Wahaj, PUNE



IEEE Bombay Section Launches the First JOB FAIR... 23rd Feb 2008
Jointly IEEE Bombay Chapter of **Technology Mgmt Council** & Bombay Section

SMC

February 29, 2008

1. Relevance of IEEE to the Upstream Hydrocarbon Industry

Mr Krishna K. Goyal

2. A journey towards, mathematics in music and beauty in engineering.

Mr. Mayank Pande

IEEE Bombay Section co-sponsor & PES/IAS

March 6-8, 2008 IEEE Conference of AI Tools in Engineering

March 6 Tutorial on AI tools Speaker: Dr. Girish Palshikar & Dr. Parag Kulkarni

March 7 Conference

Expert lecture Dr.Sunil Vadhera Dr Vijay Bhatkar FIEEE

Tutorial – “Trends in automobile steering systems with advances in electrical actuators & control” - Dr Tomy Sebastian

PUNE

March 10, 2008

“A Case study in Research Methods: Sensor Validation Using Bayesian Networks”
by Dr. Sunil Vadera

AP/ED

April 16 2008

1 "About NEMS/MEMS WORKS LLC"

2 "Nanoscale Self Assembly and Its Applications in Sensing, Memory Devices and Energy Generation" - Prof. Shubhra Gangopadhyay & Prof. Keshab Gangopadhyay, University of Missouri- Columbia

At IIT Bombay

April 21 2008

"Characterization for Advanced Semiconductor Technologies"

Dr. Subhash Kulkarni, IBM New York

At IIT Bombay

April 24, 2008

"Exploring Nanostructures for applications in various domains"

Dr. Sangeeta Narendra Kale, Dept of Electronics-Science Fergusson College, Pune

At IIT Bombay

April 28 2008

"MEMS based biosensors and polymer actuators"

Dr. Sheetal Patil, Research Faculty Dept. of Mechanical Engg., University of Maryland USA (currently with the Centre for Excellence in Nanoelectronics, IIT-B)

At IIT Bombay

COMSOC

May 17, 2008

"40th WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY" Keynote address on ITU Theme "Connecting Persons with Disabilities: ICT Opportunities for All" - Prof (Ms) A. N. Cheeran, VJTI
At Central Railway Auditorium Mumbai
Jointly with Communications Society Chapter, IETE Mumbai Centre, IRSTE Mumbai Chapter, IET Mumbai Network, BESI Mumbai Chapter

CompSoc & Bombay Section

May 28, 2008

IEEE Focus on India

President of IEEE Computer Society Dr Rangachar Kasturi, Angela Burgess CompSoc Exec Director and Team. Meeting with Industry and Reception at Renaissance
Part of All India tour

COMSOC

June 10, 2008

"Trends in Telecommunications industry"

Celia Desmond, President of World Class – Telecommunications

At Conf Hall, Telephone House, MTNL, Dadar (W)

Jointly with Communications Society Chapter and IETE Mumbai Centre

IEEE Bombay Section

July 1 – 6, 2008

"Workshop on Linux System Administration and Networking + Build Own Linux" At Sardar Patel Institute of Technology, Andheri
Jointly with Sardar Patel Institute of Technology

WIE

July 9-12, 2008

"Embedded system - RTOS programming- RTLINUX" - Mrs. Vidya
At Pune

SMC

July 17, 2008

"Overview of Cybernetics and Systems Science" Mr Mayank Pande
"Possible applications of robotics in biology and medicine" Dr.Alice Cheeran

AP/ED

August 25, 2008

"Spin Polarized Transport & Novel Phenomena in Manganite Nanostructures"
Dr Indranil Das of SINP, Kolkata
At IIT Bombay

IEEE Bombay Section

September 19, 2008

"IEEE: Innovation through Research"
First Nationwide IEEE User Education
Programme in India by
INDEST-MHRD Consortium, GIST
Held at IIT Bombay

PES

September 20, 2008

Tutorial on gas insulated technology GIS GIL
Speaker: Dr Hermann Koch

WIE

September 26, 2008

IEEE in Rural Area
Workshop Otur, Pune

Right : Distinguished Guests at
Exhibition at WIE Otur Workshop



AP/ED

September 29, 2008

"A Case study of Basic Research and Core Technology"

Prof Robert Gallager. Professor Emeritus, MIT, USA.

At IIT Bombay

October 1, 2008

"Recent advances in Information Theory-Gaussian channels with ideal feedback"

Prof Robert Gallager. Professor Emeritus, MIT, USA.

At IIT Bombay

October 2, 2008

"Electrostatic Protection for Semiconductor Electronics"

Charvaka Duvvury, Texas Instruments

COMSOC

October 16, 2008

"Positioning in Wireless Networks and Monitoring Water Supply Distribution Systems using Wireless Sensor Networks"

Dr. Seshan Srirangarajan, Research Fellow, Intelligent Systems Center, Nanyang Technological University, Singapore

At IIT Bombay

October 23, 2008

"New Opportunities in the Digital World"

Rajesh Jain, Managing Director of Netcore Solutions Pvt Ltd, Mumbai

SNDT Mini Auditorium, Juhu Campus, Santacruz(West), Mumbai

Jointly with Communications Society Chapter and IETE Mumbai Centre

November 7, 2008

"Wireless in next generation networks"

Dr. Madhusudan V.Pitke FIEEE, Past Chair of IEEE Communications Society Chapter
ONGC , Bandra-Sion Link Road, Mumbai 400017

Jointly with Systems, Man & Cybernetics Society Chapter

AP/ED

November 11, 2008

"Low-frequency noise in advanced CMOS devices"

Prof. Felice Crupi, University of Calabria, Rende, Italy

At IIT Powai

Inst & Measurement Society Chapter

November 20-21, 2008

"Workshop on Embedded Systems Design using PIC Microcontroller"

At Pune"

COMSOC

December 8, 2008

"MANET & Sensor Network Architectures"

Dr Dhadesugoor R Vaman, PVAM University, Texas, USA

Held at Agnel Technical Education Complex Sector 9A, Vashi

Jointly with ComSoc Chapter and IETE