

2008 IEEE Singapore Section Report

PART A - SECTION SUMMARY

A.1 Executive Summary

The year of 2008 was another eventful and successful year for the Section with various technical and social activities held by the Section and the Chapters. This report presents all the activities held within the Section and her entities.

The Section and its Chapters/Affinity Groups successfully reported the data on office bearers, activities organized and financial status to the IEEE HQ before the deadline. The Section and its Chapters/Affinity Groups therefore received a 10% timeliness bonus of the 2008 Section Rebate for 2007 activities. The Section was also qualified for the Activity Bonus of US\$200 for reporting at least 10 meetings. 18 Chapters in Singapore were qualified for the Chapter Rebate of US\$200 for reporting at least two meetings of the technical category. The Affinity Groups, GOLD and WIE were also qualified for the Affinity Group Rebate of US\$200 each. The Student Branches received a rebate of US\$1,308. In addition, 13 Chapters were qualified for the Activity Bonus of US\$75 for reporting 6 or more technical meetings/activities.

In early 2008, the MOU between the IEEE and Institution of Engineers Singapore (IES) was renewed for another 3 years, until December 2010. The MOU was intended to encourage the exchange and dissemination of technical information, and to promote understanding and cooperation among the members of the two institutions.

This year the Section also made significant efforts to improve social and education activities by working with the World Scientific Publisher and the Singapore Science Centre. The e-broadcast was used to advertise the various privileges and discounts offered through these partnerships.

The year 2008 welcomed 1996 IEEE President Tom Cain and the 2008 Director of R7, Ms Ferial El-Hawary to Singapore. Tom Cain delivered a very interesting seminar on "Why join IEEE and benefits for student members" at NUS. The seminar was attended by more than 100 students.

July 2008 saw the birth of the fourth student branch in Singapore at the University of Newcastle. The other three student branches are at NUS, NTU and JCU. All the student branches are actively involved in various activities under the IEEE banner.

Various plans for the year 2009 was discussed and initiated in order to continue the growth of the Section despite the glooming economic crisis. These include the formation of Higher Grade Members Elevating Committee in support of IEEE R10 effort to help members to up-grade and recommend Fellow Candidates to IEEE Fellow Committee.

A.2 Financial Report

Our consolidated financial position continues to remain healthy. Our assets, mainly cash balances held by the Section/Chapters and loans to conference accounts, totalling about S\$1M, have been fairly stable for the last 3 years. This level of reserve is not excessive as the Section is composed of 26 sub-entities, each recognized as a full-fledged IEEE Organizational Unit in terms of its privilege to organize events and to manage its own finance. The Section is registered under the category of Trade Association with the Registry of Societies of Singapore. This status allows the Section/Chapters to generate surplus revenues from organizing their activities such as running conferences and short courses, but requires the Section/Chapters to pay income tax.

In June 2008, the Section submitted all the necessary documentation to the IEEE Operations Auditors to conduct the audit. The audit report completed in September 2008 gave an excellent assessment of our record-keeping. The Section had accurately prepared the L50 financial report. Total revenues and expenses, as reflected in the L50 financial report, agreed with the supporting documentation. The Section's Minutes were complete and included appropriate details. The bank statements, receipts and deposits agreed with the Section's account. The IEEE rebates were deposited in the Section's account on a timely basis. The Section's conference revenues were properly reflected in the L50 financial report.

Please see the attached file, 2008 Financial Report for R10-IEEE Singapore Section.

A.3 List of Section Officers and Executive Committee Members

IEEE Singapore Section Executive Committee Members

Dr Lalit Kumar Goel	Section Chairman
Dr Ping Lam So	Section Vice-Chairman
Dr Rajnish Gupta	Section Secretary
Dr Don Mahinda Vilathgamuwa	Section Treasurer
Dr Cher Ming Tan	Section Immediate Past Chairman (also Awards and Recognitions Sub-Committee Chairman)
Dr Thomas Liew	Educational Activity, Membership Development Activity, and Professional Career Activity Sub-Committee Chairman
Dr Sabu Emmanuel	Student Activities Sub-Committee Chairman
Dr Sanjay Kumar Bose	E-Communication Sub-Committee Chairman

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

The current total membership of the IEEE Singapore Section is 2692, and the distribution of the different membership grades is shown below:

IEEE Current Grade Description	Number of Members
Affiliates	16
Associate Members	76
Student Members	135
Graduate Student Members	279
Life Members	5
Life Seniors	2
Members	1828
Senior Members	337
Fellows	14

In order to address the slow decline in membership of IEEE in the Singapore Section, the following membership drive efforts were carried out by the Section.

(i) Membership Development Desk

A prominent membership development desk was set up at the following conferences (with plans underway for doing this for conferences in 2009 as well).

- 3-5 Jun 2008 IEEE ICIEA 2008, Industrial Electronics Chapter
- 3-6 Jun 2008 IEEE CIS/RAM 2008, SMC Chapter
- 7-11 Jul 2008 IEEE IPFA 2008, Rel/CPMT/ED Chapter
- 21-24 Sep 2008 IEEE ICMIT 2008, EMS Chapter
- 24-27 Nov 2008 IEEE ICSET 2008, IA/PEL Chapter
- 8-11 Dec 2008 IEEE IPGC 2008, LEO Chapter
- 8-11 Dec 2008 IEEE IEEM 2008, EMS Chapter

(ii) Member-Get-Member (MGM) Incentives

The following incentive schemes were proposed:-

- Recruit 1 or more professional members: \$15 each
- Recruit 2-4 students: \$5.00
- Recruit 5-7 students: \$10.00
- Recruit 8 students or more: \$15.00

One voucher with the amount earned will be mailed to each successful recruiter and will be valid towards IEEE dues, IEEE Society fees, IEEE products and services; or, at your option, the value of the voucher may be donated to the IEEE Foundation. IEEE credit vouchers are not redeemable for cash and will expire on 31 December.

B.2 Professional and Continuing Education Activities

Organizing and co-sponsoring conferences has been one of the most important technical activities of the Section and its Chapters. These conferences provide an avenue for bringing technology experts from all over the world to Singapore. In addition, the conferences also generate surplus revenues in most cases, which will in one way or another be redirected as member benefits to our members. The surplus also helps to finance the activities organized by the Section and Chapters. A complete list of conferences organized in 2008 / being organized for 2009 is as follows:

1. The IEEE International Nanoelectronics Conference (NEC 2008), 24-27 March 2008, Shanghai, China, co-organized by LEO Chapter, Singapore Section.
2. The 3rd IEEE Conference on Industrial Electronics and Applications (ICIEA 2008), 3-5 June 2008, Singapore, co-organized by IE Chapter, Singapore Section.
3. The IEEE International Conference on Cybernetics and Intelligent Systems, and the IEEE International Conference on Robotics, Automation and Mechatronics (CIS/RAM 2008), 3-6 June 2008, Chengdu, China, co-organized by SMC Chapter, RA Chapter, Singapore Section.
4. The IEEE International Conference on eHealth – Networking, Applications and Services (Healthcom 2008), 7-9 July 2008, Singapore, co-organized by Institute for Infocomm Research, Alexandra Hospital, Communications Chapter, EMB Chapter, Computer Chapter, MTT/AP Chapter, Signal Processing Chapter, Singapore Section.
5. The IEEE International Conference on Management of Innovation and Technology (ICMIT 2008), 21-24 September 2008, Thailand, co-organized by EM Chapter, EM Society, Singapore Section.
6. The IEEE International Conference on Systems, Man, and Cybernetics (SMC 2008), 12-15 October 2008, Singapore, organized by IEEE SMC Society.
7. The IEEE International Conference on Sustainable Energy Technologies (ICSET 2008), 24-27 November 2008, Singapore, co-organized by IA/PEL Chapter, Singapore Section.
8. The IEEE International Photonics Global Conference (IPGC 2008), 8-11 December 2008, Singapore, co-organized by LEO Chapter, Singapore Section.
9. The 10th Electronics Packaging Technology Conference, 9 – 12 December 2008, Singapore, co-organized by Rel/CPMT/ED Chapter, IEEE CPMT Society, Singapore Section.
10. Asia-Pacific Microwave Conference 2009, 7-10 Dec 2009, co-organized by MTT/AP Chapter, EMC Chapter.
11. The 11th IEEE International Conference on Communication Systems, 19-21 November, 2008, co-organized by Communications Chapter, Singapore Section.
12. The 4th IEEE Conference on Industrial Electronics and Applications, 25-27 May 2009, co-organized by Industrial Electronics Chapter, Singapore Section.
13. IEEE International Conference on Industrial Engineering and Engineering Management, 8–11 Dec 2009, co-organized by EMS Chapter, Singapore Section.
14. 2009 IEEE Radio-Frequency Integration Technology (RFIT) Symposium, 9–11 Dec 2009, co-organized by MTT/AP Chapter, SSC Chapter.
15. IEEE TENCON 2009, 23-26 November 2009, co-organized by Singapore Section, Region 10.
16. The 12th International Symposium on Integrated Circuits, 14–16 Dec 2009, co-organized by Nanyang Technological University, Singapore Section.

In addition, the MOU between the IEEE and the IES was renewed for another 3 years, until December 2010. This would further encourage the exchange and dissemination of technical information, and to promote understanding and cooperation among the members of the two institutions. On a biennial basis, IEEE and IES also give a Joint Medal of Excellence Award to recognize an individual for his/her contribution to engineering and to society, and in this manner serve to inspire the young to take up engineering as a profession.

B.3 Students Activities

The student branches in Singapore Section have been very active in serving the needs of the undergraduate student members. In July 2008, a new student branch was successfully launched at the University of Newcastle, Singapore campus. With the creation of this new student branch, the Singapore Section now has 4 student branches (NUS, NTU and JCU being the other three).

For the IEEE Region 10 Paper Writing Contest four students from the IEEE Singapore Section won prizes: Zhang Yaqiong, second prize (PG category), She Hao Yuan, third prize (PG category), Li Bingui Joel, first prize (UG category), and Jason Koh H.Z. third prize (UG category).

All the student branches are actively carrying out various programs under the IEEE banner. We are planning to start more student branches. We are in discussions with the Nanyang Polytechnic for this purpose. After the request from Singapore, the IEEE now allows student branch formation in Polytechnics.

Postgraduate Student Workshops were organized by Circuits and Systems Chapter, Control Systems Chapter, Power Engineering Chapter, and Industrial Applications / Power Electronics Joint Chapter. The workshops were aimed to promote IEEE membership to graduate students and also to create a forum for research students to present the latest findings and ideas, as well as providing a networking session for students and staff.

The IEEE Control Systems Chapter Book Prizes of S\$600 was given to outstanding NTU and NUS control option students. In addition, the IEEE Reliability/Components, Packaging & Manufacturing Technology/Electron Devices Joint Chapter supported the following book prizes for local universities and polytechnics to encourage outstanding students to excel in their field of studies:

- National University of Singapore, Electrical and Computer Engineering Department
- National University of Singapore, Department of Mechanical Engineering
- Nanyang Technological University, School of Electrical and Electronic Engineering
- Nanyang Technological University, School of Materials Science Engineering and Mechanical Engineering Department
- Nanyang Technological University, School of Mechanical and Aerospace Engineering
- Temasek Polytechnic, Diploma in Microelectronics Course
- Singapore Polytechnic, Electrical and Electronic Engineering
- Ngee Ann Polytechnic, Electrical & Computer Engineering, Microelectronics Option

B.4 E-Communication, Social & Educational Links

The Section has sent 19 broadcasts to its members. Broadcasts usually contain information on seminars, talks, conferences, job opportunities and social events that are vital for our membership. This year the e-broadcast was also used to advertise the corporate tie-up between the IEEE Singapore Section and the Singapore Science Centre. The Section website was also being updated frequently - it contains vital information relevant to the IEEE members in Singapore.

The Section made significant efforts to join hands with World Scientific Publisher and the Singapore Science Centre. The IEEE and World Scientific Partnership entitles members to a 15% discount on books by the latter, and this will be accessible by the web. In addition, the IEEE Singapore Section has become a corporate member of the Singapore Science Centre, which will enable our members to visit the Singapore Science Centre free of charge.

Many social activities that bond ties between Chapter members and their families were organized. These include theme park visits, dinner and dance functions and family nights. The Power Engineering Chapter and the Circuits and Systems Chapter also co-organized a member and family get together themed "Develop your potential in Golf and Fun Riddles". The 3-hour golf introductory session was successfully organized for Power Engineering and CAS members, their guests and families, free of charge. Seventy-two participants enjoyed the golf game.

B.5 Awards

The Section Awards and Recognition Committee have instituted the following two local awards.

- Best Chapter of Singapore Section Award
- Outstanding Volunteer Award

Reliability/ Components, Packaging & Manufacturing Technology/ Electron Devices Joint Chapter won the "2008 Best Chapter of Singapore Section" Award under keen competition from other Chapters.

The Outstanding Volunteer Award is given to an outstanding IEEE Volunteer resident in Singapore, and who has not received the award before, and who has contributed significantly to IEEE activities in the Section, its Chapters and/or its Conferences in his/her life. The winner of this Award in 2008 was Prof Xie Min from the EMS Chapter.

In addition, this year the CAS Chapter received the "Chapter-of-the-Year" award from the IEEE Circuits and Systems Society.

The 2008 IES/IEEE Joint Medal of Excellence Award was awarded to Mr. Seah Moon Ming, CEO of ST Electronics Limited for his contribution to engineering and to society.

B.6 Chapter Activities

Most of the Chapters were very active in organizing activities for their members. Out of 22 Chapters in Singapore, 18 Chapters were qualified for the Chapter Rebate of US\$200 for reporting at least two meetings of the technical category. In addition, 13 Chapters qualified for the Activity Bonus of US\$75

for reporting 6 or more technical meetings/activities. The following table shows the number of activities organized by Chapters.

L31 Submission Status based on Web Query System as of 8 November 2008

No.	Section/Chapter/AG		Tech	Admin	Non-Tech	Total
1	Antennas & Propagation/Microwave Theory & Techniques Joint Chapter	AP03/MTT17	26	4	1	31
2	Computer Chapter	C16		4		4
3	Circuits & Systems Chapter	CAS04	17	6	3	26
4	Consumer Electronics Chapter	CE08	3	3		6
5	Computational Intelligence Chapter	CIS11	4			4
6	Communications Chapter	COM19	11			11
7	Control Systems Chapter	CS23	12			12
8	Engineering in Medicine & Biology Chapter	EMB18	2			2
9	Electromagnetic Compatibility Chapter	EMC27	13	3	1	17
10	Industry Applications/Power Electronics Joint Chapter	IA34/PEL35	1			1
11	Industrial Electronics Chapter	IE13	14	9	3	26
12	Lasers & Electro-Optics Chapter	LEO36	9	2	3	14
13	Magnetics Chapter	MAG33	2	2	1	5
14	Nanotechnology Chapter	NAN042	10	2		12
15	Oceanic Engineering Chapter	OE22	2	2	1	5
16	Power Engineering Chapter	PE31	10	3	2	15
17	Reliability/ Components, Packaging & Manufacturing Technology/ Electron Devices Joint Chapter	R07/CPMT21/ED15	4	3		7
18	Robotics & Automation Chapter	RA24	8			8
19	Singapore Section	Section		6		6
20	Systems, Man & Cybernetics Chapter	SMC28	9	3	2	14
21	Signal Processing Chapter	SP01	10	1		11
22	Solid-State Circuits Chapter	SSC37	3		1	4
23	Vehicular Technology Chapter	VT06	2			2
			172	53	18	243

PART C - GOALS AND PLANS

C.1 Goals

1. To retain existing members
2. To increase the visibility of IEEE to students in order to recruit new members
3. To increase higher grade members in Singapore

C.2 Implementation Plans

1. Membership continuation
 - a. Sending membership renewal reminder
 - Create an attractive membership renewal reminder email with list of benefits of IEEE membership
 - Send monthly email reminder 3 months before membership expire date
 - Send weekly reminder 3 weeks before membership expire date
 - Send final reminder 1 day before membership expire date
 - b. Providing rebate for early renewal applicable at the next renewal
 - This will ensure continuation of membership
 - c. Creating more membership benefits to attract renewal of membership
 - Forge partnership with educational entertainment organization like the Singapore Discovery Centre, NEWater Visitor Centre, etc.
 - d. Encourage Chapters to conduct fun activities so that members renew membership
2. IEEE publicity to students
 - a. Approach the other 4 Polytechnics in Singapore for setting up student branches
 - b. Conduct more seminars on the benefits of IEEE membership to students
 - c. Increase publicity about the student member-get-member incentives
3. Increasing higher grade members
 - a. Formation of Higher Grade Members Elevating Committee to help members to upgrade and recommend Fellow Candidates to IEEE Fellow Committee
 - b. Require participation of Chapter Chairs to recommend eligible members

PART D - OTHERS

D.1 Special Events

1. The IEEE 125th Anniversary R10 Student Congress to be held on 16 – 19 July 2009 will be organized by the IEEE NUS Student Branch. This Special Student Congress will be one of the main events which IEEE Region 10 will host in 2009 to celebrate 125 years of IEEE's successes, to leverage its prestige, to help increase its visibility and that of its members and the profession. The Congress, aimed at sculpturing global student leaders to pioneer sustainable development will be attended by around 150 students from Region 10 and across the world, screened from among the registrants based on their achievements and volunteerism in IEEE. The Congress themed "Sculpturing Student Leaders to Pioneer Sustainable Development" is aimed to:
 - Enhance interaction between student leaders of Councils, Section and Student Branches of Asia-Pacific and from other Regions of IEEE, through innovative ideas, thus increasing effective networking.
 - Carve out future leaders for IEEE from vibrant student volunteers.
 - Sharing of knowledge, best practices and innovative initiatives between Student Branches, Sections and Regions.
 - Generate inspirational and operational ideas to enrich the student environment in the future.
 - Strategies for sustainable development.
 - 125th Anniversary of IEEE: to commemorate the golden years that has passed and plan for those yet to come.

2. The Section will also organize TENCON 2009 on 23-26 November 2009. TENCON is a premier technical conference of IEEE Region 10. It provides a forum for researchers and engineers from academia and industry to present and discuss new ideas and developments in emerging areas of electrical and electronic engineering, computer science and related topics.