

Activity Report 2013

A. Executive Summary

Highlights of our activities during 2013 include the continuing growth of the Section membership, a strong engagement with IEEE globally and in Region 10, and a large influx of volunteers.

New operating units, such as our Vehicular Technology Chapter and the Swinburne Student Branch, show that we are growing both geographically and technically. An inter-section Joint Chapter on Oceanic Engineering, supported by Victorian Section, has recently come into operation. Preparations are well underway for an IEEE Student Branch at Deakin University. And we are exploring the possibility of establishing a Systems, Man and Cybernetics Chapter, based at the Deakin Waurin Ponds campus.

Apart from new chapters, we have been able to maintain and revitalise our existing chapter complement, assisted by an influx of new volunteers. This has made it possible to manage the new requirement that Chapter Officers can serve a maximum of six years in any single role. My thanks in particular to Rob Slaviero and Robin Lisner for having found successors following their long-standing tenures as Chapter Chairs of the Signal Processing and PES Chapters, respectively.

In our Student Branches, we continue to benefit from the enthusiasm and commitment of our undergraduate and postgraduate members. Our practice is now to hold at least one Section Committee meeting per year at each of the universities where we have a student branch. Students from the host university routinely attend such meetings, sometimes in surprisingly large numbers.

Our Section Committee meetings commonly attract attendances of twenty-five or more. Such numbers include visitors and 'observers', but they nonetheless demonstrate a widespread interest in Section affairs. This enthusiasm is reflected in our recruiting. Our membership continues to grow at modest but steady rate. This year, Higher Grade Membership has for the first time passed the 2,000 mark.

We have begun to experiment with the use of conferences to increase our engagement with visiting IEEE members. We have several such conferences scheduled for the Section in 2014, including some in Tasmania. In fact, next holds promise as one of the best years yet for our Section, including our Tasmanian Sub-Section. In May this year, we were honoured to have Region 10 Director, Professor Toshio Fukuda, visit Geelong, where he is an honorary professor at Deakin University.

In July, IEEE President Dr Peter Staecker attended the very successful IGARRS conference, held in Melbourne. During his visit, Peter spent an evening with Section volunteers, and also attended a dinner for IEEE Fellows, held at the University of Melbourne.

This is my second and final annual report as Chair of IEEE Victorian Section, and it has been a wonderful experience. I extend my thanks to 2013 Vice-Chair Eddie Custovic for his excellent outreach work, and to the whole Section Committee for their support. I congratulate Tony Gascoigne on his election as incoming Chair; I am confident he will do a great job in 2014.

GREG ADAMSON

Section Chair 2012, 2013

g.adamson@ieee.org

B. Financial Statements

IEEE VICTORIAN SECTION		
2013 CONSOLIDATED OPERATING (P& L) STATEMENT		
	(2013)	(2012)
Receipts		
Meetings & Social	425	2,464
Student Activities	2,020	140
Rebate from IEEE HQ	11,305	11,027
IEEE Societies	912	459
IEEE Region 10	0	0
IEEE Australia Council	0	0
Sections Congress (SC'11) Subsidies	0	713
Bank Interest	4,087	7,747
Miscellaneous receipts	0	25
Sub-total	18,749	22,575
Extra-ordinary Society Income	1,078	38,267
Total	19,827	60,842
Expenditure		
Meetings & Social	11,654	11,864
Publication Expenses	159	522
Student Activities	9,063	4,651
Grants & Awards	2,000	4,327
Travel & Accommodation	0	0
Conferences/Workshops	0	0
Sections Congress (SC'11) Expenses	0	0
Australia Council levy	0	0
Postage, printing, supplies & miscellaneous	2,534	771
	25,410	22,136
Surplus / deficit without extra-ordinary income	-6,661	439
Surplus / deficit with extra-ordinary income	-5,583	38,706

C. Activity Review, 2013

Election Report. Nominations were called for the Section Executive Committee in September 2013. All positions other than Section Vice-Chair and Assistant Treasurer were contested - the largest slate of candidates in the history of the Section. The elected officers for 2014 are as follows:-

Chair - Anthony E. Gascoigne

Vice-Chair – Alan L. Harvey

Secretary – Golnar Khomami

Treasurer – Enn Vinnal

Asst. Treasurer – (vacant)

Annual General Meeting. The Annual General Meeting of IEEE Victorian Section was held at the Metropolitan Hotel, William Street, Melbourne, on 11th December 2013. Seventy-nine (79) persons attended, including IEEE Members and their partners and invited Guests. Roughly one-third of the attendees were IEEE Student and Graduate Student Members and their partners. We were also pleased to have the company of several representatives from our colleague organisations, Engineers Australia and The Institution of Engineering and Technology.

Membership Development. The Section grew at a steady but not spectacular rate during 2013. Final membership statistics are now being analysed and will be used to develop publicity and recruitment strategies during 2014. We are particularly keen to recruit more members from Industry, Consultants and the Defence and Government sectors.

Chapters. The majority of our Chapters operated at acceptable levels of technical activity. Particular mention is made of the recently formed Vehicular Technology Chapter, the Computer Chapter and the Signal Processing Chapter, all of which returned outstanding results. The VTS Chapter also engaged in some very useful inter-university collaboration. We now have fifteen (15) chapters in the Section, including the SSIT and OES Joint Chapters. The OES Joint Chapter is managed by North Australia Section.

Affinity Groups. The Women in Engineering Affinity Group was active during the year and participated in a range of Section activities. The GOLD (Young Professionals) Affinity Group held only one dinner meeting, but this single event was deemed a notable success. The YP's have planned a somewhat more comprehensive program for 2014. Preparations are underway for the formation of a Life Members Affinity Group (LMAG) and we expect this initiative to proceed during the coming year.

Conferences. IEEE conferences and symposia held in Melbourne during 2013 include: The 8th International Conference on Industrial Electronics & Applications (ICIEA); The 8th International Conference on Intelligent Sensors & Sensor Networks (ISSNIP); The 20th International Conference on Image Processing (ICIP); The 12th International Conference on Network & System Security; and The Geoscience & Remote Sensing Symposium. Victorian Section was a Technical Co-Sponsor for ISSSNIP 2013.

Section Website. During the year there was an unauthorised intrusion into the Section website. This has disrupted our web publicity and caused a great deal of inconvenience. The site has been repaired on a temporary basis but is in need of further rebuilding. We hope to complete this work during H1 2014.

Student Branches. Preparatory work for an IEEE Student Branch at Deakin University in Geelong was completed during 2013. We have recently received approval for formation of this new unit. There are now seven (7) Student Branches active in Victorian Section. Monash University Student Branch was deemed the outstanding student group for the year, but in fact all Branches have exhibited a commendable degree of commitment and initiative.

Student Paper Awards. During 2013, two (2) awards were made to the winners of our Student Paper Travel Grant competition. This competition offers financial support to IEEE Student Member authors who present accepted papers at IEEE conferences, or approved non-IEEE conferences. The standard of papers submitted continued at the commendably high level of recent years.

Sponsorship and Prizes. The Section continued its support of Student Project work at several universities. Grants were made in support of the Endeavour program at the University of Melbourne, the EnGenius exhibition at RMIT University, the Hooper Memorial Prize presentations at La Trobe University, and a similar award at Swinburne University of Technology.

Newsletter. Four (4) issues of the Section newsletter *Uplink* were published during 2013. We include technical, historical and general interest articles. One of the themes of recent years is to highlight notable past achievements in Australia, in IEEE-relevant fields of engineering.

D. Outlook and Goals for 2014

The general outlook for Victorian Section is quite bright. We have range of administrative and other problems requiring attention, but most of these are expected to yield to careful planning and a methodical approach. Specific goals for 2014 identified by the Section Executive include:-

Re-vitalising the Tasmanian Sub-Section

Rebuilding the Section website

Setting up an Internship Program for Graduate Student Members, initially on a trial basis

Raising the overall standard of professionalism and activity levels in our Technical Chapters

Establishing a Life Member Affinity Group

Establishing an Industry Forum consultative group

Investigating the practicability of IEEE activities in regional centres

E. List of Section Activities

During 2013, nearly 50 technical and social events were held in Victorian Section. A consolidated listing of events is given below.

16-12-2013 OPTICAL FIBRES FOR COMMUNICATION: PAST, PRESENT AND FUTURE (Room D714, Building D, Footscray Park Campus, Victoria University)

11-12-2013 The AGM Dinner 2013 (The Metropolitan Hotel, 1st Floor, 263 William Street, Melbourne)

03-12-2013 Émilie du Châtelet and Mary Somerville: Heroines of Mathematical Science (Telstra Conference Centre, Level 1 / 242 Exhibition St (crn Lonsdale St & Exhibition St); 5:30pm start for a 6pm-7pm lecture)

02-12-2013 Speech Signal basics through an historical overview of Speech Codecs (Room D231, Building D, Footscray Park Campus, Victoria University)

25-11-2013 World's Most Positive Countries 2013 (Theatre 3, Level 2, Business and Economics Building, 111 Barry St., The University of Melbourne)

18-11-2013 Hot Career Advice from EXPERTS for recent Engineering Graduates (Green Pepper Restaurant, 18 Bourke Street, Melbourne)

11-10-2013 Population-based Algorithm Portfolio for Numerical Optimization (Room 10.08.03, RMIT)

01-10-2013 Electrical Causes of Commercial, Residential and Vehicular Fires (Room E7, Bldg 72, Monash University Clayton)

19-09-2013 Information Embedding: From Theory to Practice (Meeting Rooms A&B, Engineers Australia Building, 21 Bedford Street, North Melbourne)

12-09-2013 A Perspective on Innovation (Theatre 1, Allan Gilbert Building, University of Melbourne, Grattan St, Carlton)

11-09-2013 Today's High Capacity Satellite Solutions (Swanston Academic Building, 445 Swanston Street, Melbourne VIC 3000, RMIT University Room: Building 80, Level 10, Room 17)

10-09-2013 Scalable Multi-rate Speech Coder for VoIP Networks: Beyond iLBC (RMIT University, City Campus, Building 10, Level 8, Room 4 (10.08.04), Swanston Street, Melbourne)

09-09-2013 Algorithm and Architecture Co-Design for Fast Motion Estimation Video (RMIT University city campus Room 10.7.27)

04-09-2013 Technical Analysis of the NBN and its Alternatives (John Connell Auditorium, Engineers Australia, 21 Bedford Street, North Melbourne, VIC)

30-08-2013 Computer Society Industry Event 2013 (Navitas Workforce Solutions, Level 4, 206 Bourke Street, Melbourne)

15-08-2013 Learn how you can be a successful Entrepreneur in Engineering (Room 132 / Building 72, Monash University, Clayton Campus)

15-08-2013 Challenges and Benefits of building the Square Kilometre Array Telescope (Telstra Conference Centre, Level 1 242 Exhibition St Melbourne)

13-08-2013 Get to know what the industry wants from you! (Room 132 / Building 72 Monash University, Clayton Campus)

06-08-2013 Tips for a successful job hunt from a Technical Recruitment Consultant (Room 132 / Building 72, Monash University, Clayton Campus)

05-08-2013 How to become a successful researcher / academic in Australia (Room 132 / Building 72, Monash University, Clayton Campus)

29-07-2013 A Look into the Bionic Eye (Australia)

23-07-2013 Large Scale Wind Farm Operation in Australia: The MacArthur Wind Farm Project (Monash University Clayton)

04-07-2013 Career Assistance Workshop (Training Room 1, Navitas Professional, Level 3, 206-218 Bourke Street, Melbourne)

03-07- 2013 Cognitive Radio Technology: Embedding Intelligence in Radios (Ohn Connell Auditorium , Engineers Australia Building, 21 Bedford Street, North Melbourne)

26-06-2013 How to Bring Value as a Young Engineer (Building 80, Level 9, Room no. 6 , Swanston Street, RMIT University, Melbourne)

12-06-2013 Swinburne Aviation's Human Factors Research in Helicopter Operations (Room ATC-714 (Level 7), Advance Technology Centre (ATC), Swinburne University of Technology (Hawthorn))

09-06-2013 Electronics are from Venus, Mathematicians are from Mars! (Room D714, Building D, Footscray Park Campus, Victoria University)

06-06-2013 Solidworks for Engineers (Australia)

22-05-2013 IEEE VTS- Victorian Chapter Networking Event (Room 8.03 - level 8, Doug McDonell Building, University of Melbourne)

17-05-2013 Some Thoughts on the Complexity of Real-World Problems (10.08.04)

16-05-2013 Introduction to Evolutionary Game Theory (12.07.02)

15-05-2013 Regulation: A Possible Career (Richard Newton Room, Level 5, EE Engineering Bldg (193), University of Melbourne)

14-05-2013 Confessions of a Serial Entrepreneur: 30 Years of Photonic Start-ups in Academia and Industry (Theatre S10, Building 25, Monash University Clayton)

01-05-2013 Importance of Intelligent Signal Processing for Perimeter Security Systems (John Connell Auditorium, Engineers Australia Building, 21 Bedford Street, North Melbourne)

24-04-2013 Managing the Spectrum Crunch (Room 2, Level 5, Building 12, Swanston Street, City Campus, RMIT University, Melbourne.)

23-04-2013 Continuous Monitoring of Power System Assets in a Smart Grid Environment (Monash University Clayton)

18-04-2013 Graduated? Where Do You Start in the Job Market? (Doug McDonell Building (Building 168), Room 8.03, The University of Melbourne, Parkville)

12-04-2013 How to Use Technology to Efficiently Manage Your Research (EN203 (EN Building), Swinburne University of Technology (Hawthorn))

11-04-2013 Matlab tricks and tips for Intermediate users (Room 420, Beth Gleeson bld, La Trobe University, Bundoora)

10-04-2013 Green Mobility Research at CSIRO (Lecture theatre S10, Building 25, Monash University (Clayton Campus))

10-04- 2013 Advances (Innovations) in Neural Engineering. (RMITUniversity,Emily McPherson Building Building 13, Level 3, Room 7 Corner Russell & Victoria street)

05-04-2013 ANSYS Electromagnetics Hands-On Workshops (Monash University (Clayton Campus) - Engineering Computer Labs (Building 60))

05-04-2013 The Problem with Big Data (Deakin University, School of IT, Waurin Ponds Victoria)

21-03-2013 Android App Development for Beginners (ECSE Dept, Monash University, Clayton campus. [Exact Venue TBC])

26-02-2013 Microsoft and Amazon, A comparison of approaches to cloud security (Room 8.03, Doug McDonell Building, University of Melbourne)

20-02-2013 Power System Restoration After Significant Disruptions (Swinburne University, Hawthorn Campus)

22-01-2013 Data-Driven Analysis and Fusion of Medical Imaging Data (John Connell Auditorium, Engineers Australia Building, 21 Bedford Street, North Melbourne)