

**IEEE VICTORIAN SECTION (R00543)****Section Activity Report, 2015****A. Executive Summary**

Highlights of 2015 include an unprecedented level of technical activity in the Section, the planning, preparation and conduct of a major new project by our WIE Group, and the introduction of several new policy initiatives.

Early in the year we hosted a visit by IEEE-EMC Distinguished Lecturer Dr John D. Norgard from NASA in Houston, Texas, USA. Dr Norgard spoke on space vehicle design, particularly the problems of achieving electromagnetic compatibility between the many modules and subsystems in modern spacecraft. That this lecture attracted widespread interest would be an understatement - the auditorium was packed to the rafters with over 100 persons present. Clearly, the magic and romance of deep-space exploration has not lost its appeal!

In July we sponsored three of our Student members to attend the IEEE Region 10 International Student Congress held in Colombo, Sri Lanka. These congresses are always popular with our students and this year's event was no exception. It was evident from the very positive reports received on their return that it had been a valuable learning experience for all concerned.

In August, our Women in Engineering Affinity Group held their long-planned "Energised Fashion" Runway at RMIT University. Twelve (12) professional models paraded in an exhibition of original e-designs created by WIE members and their friends. There were over 200 persons present. The event was preceded by many months of meticulous planning and preparation.

Our Systems Man and Cybernetics Chapter was judged "Best Subunit" for the year, based on their tally of twenty-two (22) well-managed technical events covering a very broad range of theoretical and practical topics. The WIE Affinity Group was the runner-up in this inter-group assessment with eighteen (18) events..

And while SMC and WIE were the star performers, almost all our Chapters and Affinity Groups have performed well, and some exceptionally well. As a result we recorded over 100 technical events for the year, an all-time record for Victorian Section.

On a less conventional note, we recently called for expressions of interest in forming Special Interest Groups in the Section. Such groups will allow members with similar interests and professional experience to collaborate on practical "hands-on" development projects. The emphasis will be on the existing needs and opportunities of industry and community life, rather than research for the future. Our initial publicity met with an encouraging response and implementation of this program will proceed in 2016.

Another recent initiative was the launch of a new Conference Travel Grant aimed at members working in Industry or Government, or otherwise employed outside the Academic/Research sector. Our aim is to encourage a greater degree of participation in IEEE conferences by our Industry members. In this case the response to date has been somewhat equivocal, but we consider that continuation of this scheme is warranted for the immediate future.

From this brief overview, I have shown that our Section activities are not limited to conventional lectures, seminars, workshops and conferences, although these remain our “core business”. But also, that we are constantly striving to launch out in new directions, to plumb new depths. And such diversity is possible only through the very considerable fund of talent, energy, and commitment that we have available in our volunteer numbers.

Since this is my final Report as Section Chairman, I close by thanking my colleagues, Vice-Chair Alan Harvey, Section Treasurer Enn Vinnal, and Section Secretary Nishad Mendis, for their help and support. I’m also pleased to acknowledge the incoming executive team led by Eddie Custovic as Section Chair and Golnar Khomami as Vice-Chair, and I wish them every success.

*Anthony E. Gascoigne  
Section Chair, 2014/2015  
IEEE Victorian Section*

## **B. Financial Overview**

During the past twelve months we have seen a continuation of the very heavy expenditure arising from our burgeoning technical program. We have also had substantial outlays for Section Prizes and Awards, and Volunteer Travel and Accommodation. To date, we have been able to meet such peak demands largely from Section reserves. But we well realise that our current financial strategies are not sustainable for an indefinite period, and a change in direction will definitely be required in the near future.

In 2016, we will carefully examine our cost structures with a view to the elimination of unnecessary and excessive expenses. We will also proactively seek new sources of income to augment our current heavy dependence on “passive” sources, such as HQ Rebates and bank interest.

Consolidated financial accounts for 2015 are attached to this report.

## **C. Review of Section Activities, 2015**

**Election Report.** Nominations were called for the 2016 Section Executive Committee in October 2015. Three Officer positions were contested, those of Chair, Assistant Secretary and Assistant Treasurer. As a result of the secret ballot elections held in November 2015, the officers for 2016 will be as listed as below:

**Chair** – Edhem Custovic  
**Vice-Chair** – Golnar Khomami  
**Treasurer** – Enn Vinnal  
**Assistant Treasurer** – Mehrnaz Shoushtarian  
**Secretary** – Nishad Mendis  
**Assistant Secretary** – Elspeth McKay  
**Immediate Past Chair** – Anthony Gascoigne

The voter turnout on this occasion was 8%, somewhat higher than in the previous two Section elections. Thanks are due to all outgoing members of the 2015 Committee for their valuable service during the past year. A special “thank you” also to the Nominations & Elections Committee, ably led by Ms Annick Boghossian.

**Annual General Meeting.** The Annual General Meeting of IEEE Victorian Section was held at the Metropolitan Hotel, William Street, Melbourne, on 9th December 2015. Forty-nine (49) persons attended, including IEEE Members and their partners and invited Guests. Many Student and Graduate Student members and their partners were present. Dr Mehrnaz Shoushtarian, EMBS Chapter Chair, served as compere and MC. She performed very well in this role, despite being recruited at very short notice.

A highlight of the evening was a brief musical recital by Ms Harmony Yu, a student at La Trobe University, who plays the *erhu*, a traditional two-stringed Chinese instrument played with a bow. This performance was very well received.

In accordance with our established practice, Cash Awards were presented to the two winners of the Student Paper Travel Grant Competition (see details under Student Paper Awards, below). Also, Certificates of Commendation were presented to outstanding Student volunteers and others who made a notable contribution to Section affairs during 2015

Special thanks are due to Ms Nalika Dona, Dr Ee Hui Lim and all others who assisted in the organisation and running of the AGM.

**Membership Development & Promotion.** The Section has not grown as strongly as expected during 2015. Final membership statistics are currently being analysed and will be used to develop our publicity and recruitment strategies in the coming year. We are particularly keen to recruit more members from Industry, and detailed strategies to achieve this objective will be implemented during 2016.

We are pleased to note that the number of IEEE Fellows in the Section increased substantially from 1st January 2015, with five (5) new members in this grade, including Prof. Jean Armstrong, our first female Fellow. These 2015 grade elevations were announced late in 2014, but were not included in previous membership reports.

During the coming year, we intend to produce a set of promotional brochures covering a range of section activities and special interests (see attached example). These will be made available in both soft and hard copy on the Section website, and on social media. Also, special projects and other initiatives undertaken by our WIE Affinity Group and other subunits will continue to have a positive impact on Section membership.

**Chapters.** For the second consecutive year, the general activity level of our technical chapters increased markedly over that of the previous year. During 2015 there were over one-hundred (100) technical events in total - an increase of about 50% over the 70 events recorded in 2014, which was itself an all-time record for the Section.

The star performer was the Systems, Man & Cybernetics Chapter with twenty-two (22) technical meetings, followed by EMBS Chapter with nineteen (19) meetings. Both chapters were distinguished by the diversity of the topics covered and the general quality of the

presentations. The overall average of our fifteen chapters was more than five (5) events each. All but one of our chapters satisfied the MGA “compliance” rule (two or more technical activities). The defaulting subunit has leadership issues and appropriate corrective action will be taken by the Section Committee early in 2016.

During the year we were pleased to welcome a number of IEEE Distinguished Lecturers, including Dr John D. Norgard from NASA, Houston; Prof. Ram Achar from Carleton University, Ottawa, Canada; and Prof. Albert Wang from The University of California, Irvine. The Norgard lecture covered NASA’s present and planned future programs in Deep Space Exploration and was a particular “hit” with the very large audience present.

**Affinity Groups.** All three (3) Affinity Groups were active during the year and collectively displayed a commendable degree of commitment and enthusiasm in their respective roles. The outstanding performer was the Women in Engineering group, with eighteen (18) technical, educational and special-interest events. They were followed by the Life Members group and the Young Professionals group. All three affinity groups collaborated well with each other and with the technical chapters of the Section.

As mentioned in the Chairman’s summary, a feature of the WIE program was the long-planned Energised Fashion Runway held at RMIT University in August 2015. Over 250 persons attended this event in which twelve (12) professional models paraded in a display of original e-designs created by WIE members and their friends. The project was supported by a generous grant from The National Science Foundation, Australia. Other features of the WIE year were a Hackathon held in November 2015, and a multitude of instructional workshops, visits to schools and universities, and other proactive initiatives.

**Technical Activities Support Unit.** Technical activities are our “core business” as an IEEE Section. Since, in the past, our technical subunits have not always operated as effectively and consistently as might be desired, in 2014 a new Technical Activities Support Unit (TASU) was established with the aim of raising the general standards of operation. The following brief extract from the Terms of Reference of the new Unit outlines its primary functions and responsibilities:

- Subject to IEEE Policies and Procedures and declared Section Objectives and Strategies, provide consulting and advisory services for all Chapters and Affinity Groups in the Section.
- Monitor activities with regard to Ethical and Fiduciary issues and ensure that all Subunit Officers are fully aware of their obligations in such matters.
- Create and maintain records of operating performance based on such data, metrics and statistics as may be deemed appropriate for the purpose.

In the event, TASU has been a great success and has contributed directly to the unprecedented levels of technical activity achieved during the past two years. TASU is managed by Rob Slaviero, a past Section Chair and founding Chapter Chair, whose knowledge and experience have been key factors in the results achieved.

**Student Branches.** Victorian Section has seven (7) IEEE Student Branches and most of these reported satisfactory levels of activity during 2015. In an end-of-year assessment by the Victorian Section Executive, The University of Melbourne Student Branch was deemed the Outstanding Student Unit for 2015. But in fact, several of our SB’s have exhibited very high

levels of commitment and initiative, and this evenness of performance in the top-ranking group must be emphasised.

In April 2015, we held an Introductory Student Workshop in which student members were introduced to the general organisation and operations of the Section. The particular duties and responsibilities of IEEE Student Branch officers and volunteers were highlighted. This workshop was first convened in 2014 and has now also been made a calendar event.

In July, we sponsored three of our Student members to attend the IEEE Region 10 International Student Congress held in Colombo, Sri Lanka. These congresses are always popular with our students, and it was evident from the reports received from our delegates on their return that it had been a valuable learning experience for all concerned.

In October, an informal dinner for Student Officers was held in Melbourne. This is now a regular calendar event that allows volunteers from the various student branches to become better acquainted. Also, students have an opportunity to discuss their activities with senior members of the Section Committee, in a low-key social setting.

Although the Student Mentoring scheme first introduced in 2014 has not been particularly successful, an improved and updated version of this scheme is under consideration for near-term implementation. The challenge here is to provide ample opportunities for experiential learning without imposing unduly on the limited time availability of students, who are already heavily burdened by their study and research commitments.

**Student Paper Travel Grants.** The Student Paper Travel Grant competition provides financial support to IEEE Student Members and Graduate Student Members who present accepted papers at IEEE (or approved non-IEEE) conferences. In 2015 there were two such competitions, one in each half-year.

In the first round of the competition, the successful lead-author was Ms Negin Shariati of RMIT University, for a paper titled “Highly Sensitive FM Frequency Scavenger Integrated in Building Materials”. The lead-author in the second round was Ms Sahar Sabbaghi of Swinburne University of Technology, for a paper titled “Automated Colour Identification in Melanocytic Lesions”.

Although there were fewer papers submitted than in 2014, the general standard of the submissions remained at the commendably high level of recent years.

**Sponsorship & Prizes.** The Section is pleased to make limited contributions in selected areas wherever our available financial resources permit, and subject always to our constitution and bylaws. During 2015 we supported the Endeavour program at the University of Melbourne, the Engenius Awards and Exhibition at RMIT University, and the Engineering Awards program at La Trobe University. We expect to continue our sponsorship of these events during 2016.

**Uplink.** Three issues of the Section newsletter *Uplink* were published during 2015. This publication is one of our main channels of publicity and communication in the Section. We publish articles on technical, professional and historical topics likely to be of interest to Victorian Section readers; also reports on significant events and activities in the Section. .

*Uplink* is edited by Dr Alan Harvey and produced by Marie van der Klooster and other volunteers. Regular and occasional contributions to this publication are always in demand, and photographs of local events of interest to IEEE members are particularly welcome.

Contributed material should be sent to Dr Harvey at the contact email address given on the Section website.

**Personnel.** During the year Mr Nissanga (Nishad) Mendis joined the Section Committee as Section Secretary, this position having been left unfilled since the last Section election. We also welcomed Mr Graeme Madigan as EMC Chapter Representative and Dr Sasan Adibi and Mr Sergio Freschi as members-at-large. Dr Adibi is a researcher in e-health, and we are very pleased to have a specialist in this burgeoning new field of technology on our committee.

Ms Annick Boghossian resigned as Computer Chapter Chair and has been granted 12 months leave of absence from the committee on maternity leave. We extend our best wishes to Ms Boghossian and thank her for her excellent work with the computer chapter. We look forward to her further involvement in Section affairs in the future.

**IEEE Region 10.** The Annual General Meeting of IEEE Region 10 was held in Dhaka, Bangladesh, in March 2015. The Section was represented by Section Chairman Anthony Gascoigne. This meeting was largely routine in nature, but there were some interesting segments, notably the two presentations by Past R10 Directors Lawrence Wong and Janina Mazierska, who each raised matters of strategic importance for further consideration by attendees. We also heard brief electoral presentations by the two contenders for IEEE President-Elect 2016, Fred Mintzer and Karen Bartleson. Apart from Regional business, the Dhaka visit also provided Australian delegates with an opportunity to convene as IEEE Australia Council.

In November 2015, Section Vice-Chair Dr Alan Harvey visited Kuala Lumpur at the invitation of the Circuits & Systems Chapter of IEEE Malaysia Section and presented a workshop study on embedded control circuits.

## **D. The Year Ahead**

During 2016, the Section will work tirelessly with our membership to increase the IEEE Victorian Section representation, influence and visibility in Australia, and more importantly, in the whole Asia-Pacific region (IEEE Region 10).

For years, IEEE Victorian Section has been an outstanding performer through our technical societies/chapters, student branches and affinity groups. We will ensure that the work of our Section, and that of individual volunteers, is rightfully recognised through a strong advocacy of nominations for regional and global awards.

The recent launch of IEEE Collabratec as a powerful tool for collaboration and interaction will play a major role in increasing membership retention as well as enabling more effective engagement with industry. With the support of our membership we will effectively utilise social media platforms, public forums and other publications to strengthen the image of IEEE

in the professional and public eyes. The needs of our members in industry are equally as important as those of students and young professionals.

We will work to increase awareness of the member benefits available, encouraging our members to take full advantage of these wherever possible.

The Section has initiated a very exciting initiative for 2016, the “Signature Event Series”. These will be high-impact and high-value workshops, perhaps three or four in number, on topics of special interest to members, or having particular relevance to their work. These workshops will become the premium “products” offered by and coordinated by the Section.

Finally, as members of this great institution, we have a responsibility to educate the general public about advances in technology and how such trends are shaping our future. We will endeavour to “grow” the presence of IEEE in Victoria and Australia by establishing stronger links with the secondary education sector, also with regional communities in Victoria and Tasmania, with industrial enterprise (small and large), and with local and state governments.



*Dr Eddie Custovic  
Section Chair 2016  
IEEE Victorian Section*

<b>IEEE VICTORIAN SECTION</b>			
<b>Balance Sheet as at 31 December 2015</b>			
		<b>2015</b>	<b>2014</b>
		<b>(\$)</b>	<b>(\$)</b>
<b>Assets</b>			
Cash at bank		169,188	195,505
Receivables	- accounts receivable	0	1,000
	- loans receivable	1,885	0
	- seed loans at call	0	4,111
	- GST tax credits	1,141	1,682
<b>Liabilities</b>			
		<b>(\$)</b>	<b>(\$)</b>
<b>Payables</b>			
	- accounts payable	342	0
	- loan repayments	0	10,000
	- ATO creditor	147	1,929
	- other creditors	0	490
<b>Provisions</b>			
	- debts (Norgard DL reimbursements)	1,885	4,111
<b>Net assets</b>		<b>169,840</b>	<b>185,768</b>
<b>Reserves</b>			
	- IEEE Reserve Allocation (IEEE Pension Func	30,804	13,072
<b>Net Assets less Section Reserve</b>		<b>139,036</b>	<b>183,817</b>

<b>IEEE VICTORIAN SECTION</b>		
<b>2015 CONSOLIDATED OPERATING (P &amp; L) STATEMENT</b>		
	<b>(2015)</b>	<b>(2014)</b>
<b>Receipts</b>		
Meetings & Social	1,700	4,303
Conferences/Workshops	9,977	29,096
Student Activities	229	600
Sections Congress (SC'14) Subsidies	0	4,172
Rebate from IEEE HQ	16,849	13,095
IEEE Societies	4,636	1,959
IEEE Region 10	3,148	939
IEEE Australia Council	700	1,950
Bank Interest	4,236	6,475
Miscellaneous receipts	0	1,432
<b>Sub-total</b>	<b>41,475</b>	<b>64,021</b>
Extra-ordinary Society Income	0	0
<b>Total</b>	<b>41,475</b>	<b>64,021</b>
<b>Expenditure</b>		
Meetings & Social	15,376	18,920
Conferences/Workshops	17,842	23,965
Student Activities	4,771	5,930
Sections Congress (SC'14) Expenses	3,618	3,757
Grants & Awards	10,946	5,432
Travel & Accommodation	3,283	5,199
Publication Expenses	61	808
IEEE Australia Council Levy	1,647	0
Postage, Printing, Supplies & Miscellaneous	3,166	815
Miscellaneous expenditure (T&SA conference loss)	416	0
<b>Sub-total</b>	<b>61,125</b>	<b>64,826</b>
Extra-ordinary Society Expenditure	0	0
<b>Total</b>	<b>61,125</b>	<b>64,826</b>
<b>Surplus / deficit without extra-ordinary item</b>	<b>-19,650</b>	<b>-805</b>
<b>Surplus / deficit with extra-ordinary items</b>	<b>-19,650</b>	<b>-805</b>

# IEEE AND YOUR University



(Cover of a planned promotional brochure)



IEEE VICTORIAN SECTION