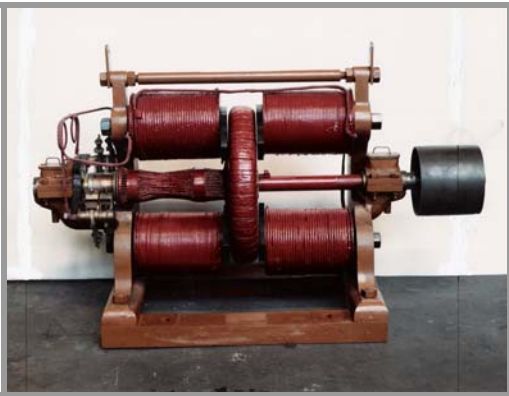**ieee victorian section**

ANNUAL REPORT 2012

IEEE

THE WAY THINGS WERE: This Gramme-armature dynamo was first installed as a lighting supply in Gillespie's Flour Mill, Kensington, Vic. in 1887. The machine is believed to have been designed by Sigmund Schuckert, later of Siemens-Schuckert fame. It was found by Mr John White in 1980 and restored by him. It is now on display at the Bob White Electrix workshop in Geelong.

Photo courtesy Bob White Electrix.

CONTENTS

Section and Chapter Officers

Financial Accounts

Listing of Section Events

Chairman's Report

Greg Adamson

OUTSTANDING results for 2012 included the launching of a Student Branch at Swinburne University of Technology, the creation of a Vehicular Technology chapter, a new series of Tutorial Workshops, and co-sponsoring a multi-national conference on Technology and Society in Asia. But for me, the really satisfying result was to see many new volunteers joining our Section, Chapter and Student Branch committees, making their respective contributions with new ideas and a serious commitment to IEEE.

Membership for the end of December for the past three years has grown from 1,942 and 1,936 in 2010 and 2011, to 2,007 in 2012. Australia represents the seventh largest country in terms of IEEE membership, and Victoria makes up approximately 25% of the national total. Our chapters and affinity groups have convened an excellent range of Technical and Special Interest meetings, consistent with our recent practice of organising around 50 activities per year. The latter include those run in collaboration with Engineers Australia and other learned societies.

We have had expressions of interest in the formation of a Systems, Man and Cybernetics chapter, and it is possible that this new venture will proceed during 2013. We currently have fourteen specialist chapters in our Section. Our six Student Branches had a very active year, all organising interesting and successful activities. Around 70 people attended a social event marking the foundation of the Swinburne Student Branch. A series of hands-on tutorial workshops was launched by La Trobe University and La Trobe Student Branch, with later support from Monash Student Branch and VU Student Branch, both of whom hosted similar events.

A major initiative for our Section was the co-sponsoring of an international conference, "Technology and Society in Asia", jointly with IEEE Singapore Section and the IEEE Society on Social Implications of Technology (SSIT). This was the first time we have engaged in an inter-section activity of this type outside Australia, with the complexities of such an enterprise reflected in a small financial loss. Nevertheless, in networking terms, the conference was an outstanding success. Invited speakers included Infosys founder NL Narayana Murthy, and former Japan head of nuclear safety, Prof Kenkichi Hirose. Their presentations were highlights of the conference.

At home, we had our own highly effective networking events: a student dinner in September 2012, and our Annual Dinner in December. Special thanks to long-time volunteer Anthony Gascoigne for organising these activities, which we hope to repeat in the coming year.

During 2013 I will continue as Chair, along with undertaking the role of Vice-President of IEEE SSIT. Within the Section, priorities include supporting activities in Tasmania, engaging longer-term members to train our newer volunteers, and building the public profile of IEEE in Victoria. I want to extend my sincere thanks to all our members and active volunteers who have made 2012 a notable and successful year, and my task such an enjoyable one.

 GREG ADAMSON

Section Chair 2012

g.adamson@ieee.org

ACTIVITY REVIEW 2012

_____

Election Report

NOMINATIONS were called for the Section Executive Committee in September 2012. Since no position received more than one nomination, no formal elections were required. The positions and nominees who will serve on the Executive Committee in 2013 are as follows:

- Chair – Greg Adamson

- Vice-Chair – Edhem Custovic

- Secretary – Emran Amin

- Treasurer – Enn Vinnal

- Asst. Treasurer – Anthony Gascoigne

Congratulations to each of the successful candidates. Also, thanks are due to all outgoing members of the 2012 Committee for their valuable service during the past year.

Annual General Meeting

THE Annual General Meeting of IEEE Victorian Section was held at the Metropolitan Hotel, William Street, Melbourne, on 12th December, 2012. About sixty (60) IEEE Members and their partners and invited Guests attended, including many student members. A brief review of section activities was presented by Section Chair Greg Adamson, augmented by a summary of financial results by Section Treasurer Enn Vinnal.

During the evening, Cash Awards were presented to the two winners of the Student Paper Travel Grant Competition (see details under Student Paper Awards, overleaf). Also, Certificates of Commendation were presented to outstanding Student volunteers and others who made a notable contribution to section affairs during 2012.

Special thanks are due to all who assisted in the organisation and running of the AGM, and especially Ee Hui Lim and Mehrnaz Shoustarian.

Membership Development

THE Section membership growth during the past year is shown in the table below. Victorian Section now has twelve (12) IEEE Fellows, which is *twice* the number of just three years ago, and more in keeping with academic and professional attainments in Victoria and Tasmania. Seventeen (17) Members were elevated to Senior Member grade, indicating a favourable response to our "SM" promotional programs; and the Graduate Student Member grade continues to attract young graduates, displaying a growth of 17% in 2012.

Both Associate Member grade and Student membership decreased during the year, reflecting the known volatility of both groups. Overall, the aggregate membership increased by about 4%.

It is expected that the new SUT Student Branch, and the recently announced VTS Chapter, will both have a positive influence on the Section membership during 2013 (see details given elsewhere in this Activity Review).

MEMBER GRADE	2011	2012	% Change
Fellow	10	12	+20
Senior Member	121	138	+14
Member	1370	1397	+2.0
Grad.Stud.Mem.	243	284	+17
Assoc. Member	69	58	-16
Stud. Member	123	118	-4.1
TOTALS:	**1936**	**2007**	**+3.7**

Conferences

THERE were no IEEE Conferences held in Melbourne during the year under review. In 2013, we look forward to the IEEE Eighth International Conferences on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP 2013). This conference will be held at the Langham Hotel, Melbourne, from 02 - 05 April, 2013.

Fish Dish a la Metropolitan Hotel

Chapters

LATE in 2012, we received approval for a new Victorian Section Chapter affiliated with the Vehicular Technology Society (VTS). There are now fourteen (14) technical chapters within IEEE Victorian Section.

The Section Committee has identified Vehicular Technology as one of the strategic growth sectors of the IEEE as a Learned Society. There have already been strong expressions of support for the new chapter from both academic/research organisations and industry. Activities already planned and/or undertaken by the new chapter are described in a later section of this Annual Report.

In other chapter news, The Education Chapter and the Electromagnetic Compatibility Chapter both held the requisite number of technical meetings during the year, after several years of marginal or zero activity. Activity reports by these chapters are found in a later segment of this Annual Report. We look forward to the further contributions of these subunits during 2013.

All our Chapters are constantly in need of active volunteer support. If you have specialist interests and are able to assist in the planning and organisation of technical activities, your Chapter will be very pleased to hear from you! If there is currently no Victorian Chapter operating in your field of interest, there are often other means of approach available. Members in such a situation are urged to discuss their ideas with a member of the Section Executive (see contact details appended to this Annual Report).

Student Branches

WE are pleased to record the formation in August 2012 of an IEEE Student Branch at Swinburne University of Technology (SUT), based at the Hawthorn campus. There are now six (6) Student Branches within the geographic boundaries of IEEE Victorian Section. A summary of activity in each of these Branches appears in a later section of this Annual Report.

Students continue to participate widely in IEEE Victorian Section affairs, and in recognition of this fact, an informal dinner for Student Officers was held in Melbourne in September 2012. This event allowed volunteers from the various student branches to become better acquainted. Also, students had an opportunity to discuss their activities with senior members of the Section Committee, in a low-key social environment. The dinner was deemed a notable success and is likely to become a calendar event in future years.

A further student initiative during 2012 was the launching of a series of tutorial workshops on practical topics not normally covered (in any depth) in the conventional undergraduate program. Initially led by La Trobe Student Branch, several other Student Branches are now planning similar workshops in 2013. The Student Activities Coordinator, Victorian Section, will provide coordination and advisory services in this ongoing project. Further details are given in the Student Branches segment of this Annual Report.

Student Paper Awards

THE Student Paper Travel Grant competition provides financial support to IEEE Student Member authors wishing to present accepted papers at IEEE (or approved non-IEEE) conferences. Due to minor administrative difficulties, there was only one such competition held during 2012 (normally two), and two awards were made to partly compensate for this. The successful authors and their papers were:-

Isuru Wijesundera (University of Melbourne), for "A Computationally Efficient Framework for Stochastic Prediction of Flood Propagation";

Md. Kamal Hossain (Deakin University), for "Multi-Layer Implantable Antenna for Closed-Loop Deep-Brain Stimulation System".

The above authors received cash grants of $850 each. The judging panel once again commented

favourably on the generally high standard of entries received in this competition.

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, and the Hooper Memorial Prize presentations at La Trobe University.

Although the Section is not by its nature and constitution a grants-giving body, we are pleased to make limited contributions in selected areas, consistent with our own strategic objectives, where our Bylaws and our available financial resources permit.

Uplink

FOUR (4) issues of the Section newsletter *Uplink* were published during 2012, including a Special Issue marking the centenary of formation of the Institute of Radio Engineers (IRE) in 1912, one of the two founding societies of the IEEE. The influence of the early radio engineers on present day IEEE technologies has been quite profound. Likewise, the organisational structure of the IEEE owes much to its IRE antecedents.

Uplink is edited by Alan Harvey and produced by Peter Barrett 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 at the end of this Annual Report.

Section Administration

THE rapid growth in recent years in the number of volunteers active in the Section has continued in the year under review. And, while this is an excellent thing in itself that prompts a very positive view of our future, it also brings inevitable problems in regard to the training and guidance of the new volunteers, many of whom have no previous experience of IEEE affairs. The Section Committee is acutely aware of this problem, and plans to invest in Leadership Training and purpose-developed Handbooks and Reference material, directed

particularly at our incoming Section Officers and volunteers, and also having a more general application within the Section.

Of course, we continue to seek new recruits, since there are always many more tasks requiring attention than people to perform them!

IEEE members wishing to become involved in Section or Chapter affairs are encouraged to visit the IEEE Centre of Leadership Excellence at http://www.ieee.org/go/cle to observe the many different volunteer roles available. Prospective volunteers in Victoria and Tasmania should contact the Section by email to contact@ieeevic.org).

IEEE Region 10 Activities

APART from the regular annual meeting of the IEEE Region 10 Committee, at which Victorian Section was represented by Section Chairman Greg Adamson, there were no Regional activities of note during 2012. Details of the Technology and Society in Asia Conference, jointly hosted by Victorian and Singapore Sections, are given elsewhere in this Activity Review.

IEEE Global

THERE were no major global activities of the IEEE in which we participated during 2012. We now look forward to the next Sections Congress, to be held in Amsterdam, Netherlands, in August 2014.

At the last such Congress held in San Francisco, CA, in 2011, more than 1000 delegates attended, together with the IEEE President and several Vice-Presidents, the Regional Director, and senior IEEE staff members.
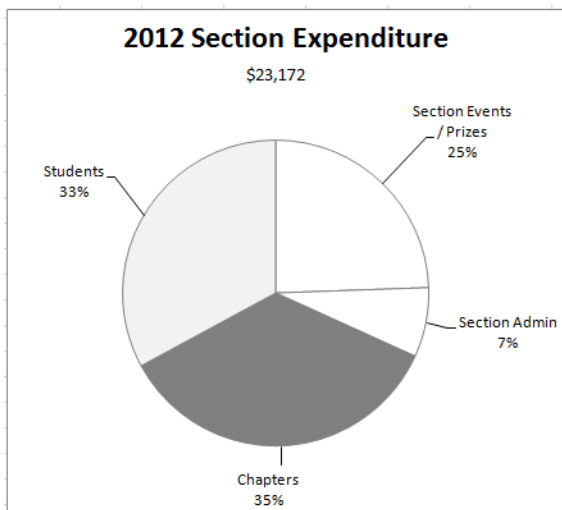
Sections Congresses are convened every three (3) years and provide one of the principal mechanisms for worldwide collaboration and interaction within the IEEE. Also, many delegates benefit from the workshops and discussion sessions held at this forum.

SECTION FINANCES

A BRIEF summary of Victorian Section finances is given in the table opposite. For further details, please refer to the Consolidated Section Accounts appended to this Annual Report.

Financial results for 2012 show a small operating loss. Both expenditure and revenue were less than in the previous year, by 17% and 14% respectively.

Total expenditure for the year was $23,172, which reflects continuing strong activity throughout the Section. This expenditure benefited Students, Chapters, and Section activities in almost equal shares (see chart below).

2012 Section Expenditure
$23,172

Total revenue for the year was $22,602, some 0.3% less than expenditure, resulting in a cash deficit of $571. Our main sources of revenue were the Rebate received from IEEE Headquarters, and Interest earned from our bank deposits, a situation that has prevailed for many years. Due to low interest rates and a weakening Australian dollar, earnings from our fixed-term deposits decreased by 17%, while the IEEE rebate increased by just 8%.

Bank interest rates are expected to remain low in the near term, but currency movements affecting our rebate receipts are more difficult to predict with confidence.

In 2012, the MTT/AP Chapter acquired funds in the amount of $38,267, being the IEEE share of a surplus generated by the Asia-Pacific Microwave Conference held in Melbourne in 2011. Without this extra-ordinary item, the year-on-year change to the aggregate cash balance would have been just -0.3%.

In summary, the Section had a nearly balanced budget in 2012 and thus maintained its financial reserves to a level consistent with our ongoing operating strategies.

The Section will be again be examining prospective new sources of income to support and augment traditional sources. We will also continue to raise the general level of business awareness in our programs and activities, throughout the Section.

Item	Amount $	Change from 2010
Revenue	22,602	-14%
Expenditure	23,172	-17%
Operating surplus/deficit	-571	$973 less deficit
Aggregate cash at bank	199,793	+22% (*)
Bank interest earned	7,431	-17%
IEEE HQ rebates received	11,037	+8%

Victorian Section financial results in summary.
(*) reflects additional funds acquired by the MTT / AP Chapter.

In closing, I acknowledge the contribution of Tony Gascoigne, the Assistant Treasurer and Immediate Past Section Treasurer, whose assistance and advice have been invaluable.

ENN VINNAL,

2012 Section Treasurer

TASMANIAN SUB-SECTION

_____

OUR Tasmanian Sub-Section was largely inactive during 2012.

In the coming year, we hope to proceed further with moves for an IEEE Student Branch at the University of Tasmania. We also plan to run at least part of our technical program outside Hobart, to serve a wider cross section of Tasmanian engineers and IT professionals.

PAULO DE SOUZA

Chair, Tasmanian Sub-Section

PRISTINE BEAUTY: Cradle Mountain, Tasmania, from Dove Lake.

Photo: Ee Hui Lim

TOP: Student Paper Award winners Md. Kamal Hossain (L) and Isuru Wijesundera with Section Chair Greg Adamson.

BOTTOM: Professor Laurie Cahill with La Trobe University postgraduate students Golnar Khomami (L) and Alex Stumpf.

TOP: Edhem Custovic 'entertains the crowd' while receiving his Commendation Certificate for work with La Trobe Student Branch.

BOTTOM: Lively discourse at the Annual General Meeting and Dinner.

CHAPTERS & GROUPS

_____

Circuits & Systems/Solid-State Circuits, Joint Chapter

During 2012 the CAS Chapter held two technical seminars and organised one tour of inspection. Outline details are given below.

2012-05-23: Our first event was a presentation by Dr Daniel Taft from the hearing aid company Blamey & Saunders, Melbourne. His topic was "Australian-Invented Digital Signal Processing and End-User Applications for Hearing Aids". This was a very interesting and informative talk that described original local developments in hearing aid design. An attentive audience of over 20 persons attended. The venue was RMIT University.

2012-10-09: The second talk, "Aspects of Computer Based Handwritten Document Recognition", was given at Deakin University, Burwood, and was organised jointly with the SSIT Chapter. The presenter was Dr Alan Harvey. Reliable recognition of handwritten words can be a formidable task, particularly when the lexicon is unconstrained, but improved algorithms and greater computing power have led to steady improvements in performance. Modern techniques include slope detection (both vertical and horizontal), and various forms of text segmentation. Processing can be either online or offline. We had 16 attend this lecture, which was relayed live to the Deakin Waurn Ponds campus in Geelong.

Other activities of the Chapter during the year included organising a tour of the Australian Synchrotron facility in Clayton for RMIT Students (see separate report of the RMIT Student Branch).

As part of my duties as Section Vice Chair, a monthly meeting of the Section Committee was chaired and two Section Planning Meetings were convened.

ALAN HARVEY, Chapter Chair

#

Communications Chapter

IN 2012 the chapter organised two technical seminars and one promotional event.

2012-08-01: The first event was a seminar by Dr. Kerry Hinton, Deputy Director of the Centre for Energy Efficient Telecommunications at the University of Melbourne. Dr. Hinton's presentation was entitled "Network Energy Efficiency: Will telecommunications be Sustainable?". He addressed the issues of power consumption in the Internet, including the predicted growth from the "Internet of Things" and Cloud Computing. Twenty-eight people attended this lecture.

2012-08-31: The Chapter, together with the University of Melbourne Student Branch, jointly held a promotional barbecue for undergraduate students, postgraduate students and staff of the university. The event was very well attended and our guests included the Victorian Section Chair and the Head of the Department of Electrical and Electronics Engineering at UniMelb. Three books were given away as "lucky draw" prizes and this gesture was very well received by the students. The total attendance was 50.

2012-10-18: In the final event for the year, we organised a lecture by Thor North, Senior Associate at Freehills Patent Attorneys. His talk was entitled, "Patenting the Next Killer App: Would Your invention Stand the Novelty and Inventiveness Tests?". Mr. North highlighted the significance of the two key attributes required in all successful patent applications, "novelty" and "inventive". Twenty people attended.

PAUL FITZPATRICK, Chapter Chair

#

Computational Intelligence Chapter

CIS Chapter held two events during 2012.

2012-07-11: This public lecture by Prof Seth Bullock of the University of Southhampton, UK, had the title, "Would 'worse' simulations fuel 'better' science policies?" It was held at the RMIT city campus.

2012-09-05: The second event was a lecture by Dr Xiaodong Li of RMIT University on the topic, "Swarm Intelligence". It was held at the Engineers Australia Building in North Melbourne.

KEVIN KORB, Chapter Chair

#

Computer Chapter

EARLY in 2012, we were pleased to host the visit to Victoria of Dr David Alan Grier, president-elect (2013) of the IEEE Computer Society. We organised several technical talks and visits for Dr Grier. Our main activities for the year are summarized below.

2012-02-23: The Greening of Data Centres (23/02/2012) – Attendees 14

2012-03-08/09: Crowdsourcing and the expanding modes of computation. This was a multi-venue lecture series spread over two days – at the Metropolitan Hotel, Melbourne, Monash University, RMIT University and the University of Melbourne, respectively. The total attendance at these four locations was 174.

2012-04-10: Applications of Video and Audio Analytics (10/04/2012) – Attendees 14

[date] Technical co-sponsorship and Paper Review, ICCSE 2012, The 7th International Conference on Computer Science and Education– Attendees 90

2012-07-31: Industry Event: Practitioner's Night (31/07/2012 - Jointly with Engineers Australia) – Attendees 72

2012-08-15: The Problem with Big Data (15/08/2012) – Attendees 13

[date] Organizing the international visit of IEEE Computer Society, Malaysia to Victoria for collaboration in research, international conference and international technical talks to and from Australia - Malaysia.

2012-10-03: Collaborating With the Crowd: Social Media and Web 2.0 for public sector engagement. (03/10/2012 - Jointly with Engineers Australia) – Attendees 32

2012-12-30?? Signal and image processing methods in preservation of cultural heritage (30/12/2012) – Attendees 14

2012-12-30??: Exploring information terrain (30/12/2012) – Attendees 32

Overall, it has been a successful year for IEEE VIC Computer Society Chapter, with a group of dedicated volunteers working together to set and achieve the goals. Our 2013 program is already taking shape, and we hope to include a major international conference in Melbourne, organised jointly with the Computer Chapter of IEEE Malaysia Section.

Further details of our 2012 activities and our plans for 2013 are found on the Chapter website at www.ieee.org.

NASIR HASSAN, Chapter Chair

#

Education Chapter

AFTER an inactive period of several years, the IEEE Education Society Chapter resumed operations in November 2012 at a special general meeting of Chapter members, when Paul Junor of RMIT University was formally installed as Chapter Chair.

2012-11-27: Our first and only chapter activity for the year was a joint meeting with Engineers Australia at Engineering House, North Melbourne, when Professor Roger Hadgraft of RMIT University presented on the topic "Reinventing the University". There were twenty (20) present at this lecture.

Planning is currently underway for a comprehensive program of activities in 2013. We currently have fifty-five active members registered in the Chapter, and of course, we will warmly welcome additions to this number.

All members of the IEEE Education Society resident in Victoria/Tasmania automatically become members of the Victorian Section Education Chapter. Also, we are always happy to hear from prospective new volunteers willing to contribute to the running of the chapter.

PAUL JUNOR, Chapter Chair

#

Electromagnetic Compatibility Chapter

WE held three technical events during 2012.

2012-02-23: "Decoupling PCB's for EMC and Functionality in the Real World". Attendance 20.

2012-05-02: "Opportunities in the Risk Management of EMC and Developing Immunity Testing to Cover Intermodulation". Seventeen people attended this event.

2012-10-03: "Impact of Skew on Radiation from High Speed Differential Signal Pairs". The attendance at this event was 18.

Our Chapter is always looking for new volunteers, so if you are interested in the theory or practice of EMC

and associated issues, we will be very pleased to hear from you.

MARK MIFSUD, Chapter Chair.

#

Engineering in Medicine & Biology Chapter

EMBS Chapter organised two presentations in 2012.

2012-03-27: The first event was a lecture held at Monash University, Clayton, on the topic, "Advances in Multi-Electrode Recording Technology and Implications in Research". The presenter was Mr. Kian Torab, Technical Specialist at Blackrock Microsystems, Inc., USA. Attendees were given an in-depth review of recent advances in the field of electro-physiology based on clinical (human) studies, and also on large and small animal research.

This was a free public seminar supported by both IEEE Victorian Section and the Monash Vision Group.

2012-11-19: The second presentation was by Prof David Liley from Cortical Dynamics Ltd and Swinburne University and was held at Engineers Australia, Victoria Division, in North Melbourne. Over a number of years, Prof Liley has developed a mean-field modelling approach to the analysis of large-scale electrical activity of the brain. This has found important utility in the characterisation of anaesthesia from electroencephalograms. The talk outlined the model, its translation into the Brain Anaesthesia Response depth-of-anaesthesia monitor (BAR Monitor), and its perceived advantages compared to existing approaches. Clinical trials performed as at the date of the presentation have given promising results. This talk was organised jointly with the Signal Processing Chapter.

SAMAN HAGHGOOIE, Chapter Chair

#

Microwave Theory & Techniques/Antennas & Propagation, Joint Chapter

MTT/AP Chapter held three technical talks in 2012.

2012-02-15: Dr Heinz Wipf from Swiss Air Navigation Services Ltd presented the first talk and the title of his talk was "Navigation Signals and Antenna Measurements in Multipath. Twenty-three people attended the talk.

2012-06-01: The second talk was presented by Prof. Kwok Wa Leung from City University of Hong Kong. The title of his talk was "Transparent Antennas: From 2D to 3D". Twenty-six people attended this presentation.

2012-11-22: Dr Arun K. Bhattacharyya from Northrop Grumman Corporation presented the third talk, "Floquet Modal-Based Analysis of Finite and Infinite Phased Array". Thirteen people attended the talk.

KAMRAN GHORBANI, Chapter Chair

#

Photonics Chapter

WE organised four technical seminars during 2012, all of which held at Monash University, Clayton Campus.

2012-02-27: "GaN-Based Nanocolumn Emitters and Related Technologies". Presented by Prof. Katsumi Kishino of Sphia University and Sophia Nanotechnology Centre, Tokyo, Japan.

2012-06-15: "Silicon Electronic-Photonic Integrated Circuits". Presented by Prof. Woo-Young Coi, Dept. of Electrical and Electronic Engineering, Yonsei University, Seoul, Korea.

2012-08-30: "Green Photonics: harnessing solar light with nano-antennas". Presented by Prof. Min Gu, Director of the Centre for Micro-Photonics at Swinburne University of Technology, Hawthorn, Victoria.

2012-12-06: "Ultra-High Capacity Optical Transmission Systems". Presented by Prof. Andrew Ellis, Head, Transmission and Sensors Group, Tyndall National Institute, Cork, Ireland.

Our Chapter is planning a similar number of activities for 2013. We are always looking for new volunteers, so if you are interested in Photonics and related fields, we will be very pleased to hear from you.

MALIN PREMARATNE, Chapter Chair

#

Power and Energy Chapter

DURING 2012, PES chapter ran two events designed to give members fresh insights into important current trends in the electric energy field.

2012-08-28: The first of these was a lecture titled "The Changing Face of the National Electricity Market in

Australia". This was an update on the ever-changing face of the formally structured electricity market in Australia. The presenter was Paul McArdle, Managing Director at Global-Roam Pty Ltd. Mr McArdle outlined the complexities of the market-driven electricity supply industry in Australia, and the far-reaching impact of business decision making. Strategies for new infrastructure must necessarily cater for the de-commissioning of old plant. This event was held at Engineers Australia in North Melbourne. Thirty-one persons attended.

2012-11-13: Also of special interest was a presentation by Frank Bodi and Ee Hui Lim from Silcar's Mission Critical Assets Group, entitled "AC versus DC Power Distribution – A 21st Century Perspective". The presenters revisited one of the fundamental issues going back to the dawn of the electricity supply industry: should electric power be distributed in AC or DC form? The 21st century perspective is very different from that of earlier times, not least because of the proliferation of computers and other modern technological devices. Such loads presently convert the incoming AC power to DC, so why not provide the power in DC form in the first place? The presenters were very well versed on their topic and gave a highly engaging overview. This event was held at Monash University, Clayton. There were 37 attendees.

For 2013, PES chapter is currently planning a program of activities including: power system recovery after significant disruption; continuous monitoring in a 'smart grid' environment; and electrical fire risk. A site visit will also be on our program.

ROBIN LISNER, Chapter Chair

#

Signal Processing Chapter

2012 was the eleventh year of operation for the Signal Processing Chapter of IEEE Victorian Section, being formed in December 2001. The Chapter was responsible for organising or co-organising 6 activities, including technical lectures by international and local experts as well as a site tour.

2012-5-12: The first event of the year was a Tour of the Victorian Telecommunications Museum in Hawthorn, (joint with Engineers Australia and hosted by EA's Frank Novacco). This very popular tour has been run several times in recent years. It no doubt will continue to appear on our Chapter calendar from time to time.

2012-08-01: "How is Environmental Noise Perceived and How Should it be Measured in Spite of Established Practice?". This lecture was given by Dr Keith Adams of Lochard Ltd.

2012-09-05: "Swarm Intelligence", by Dr Xiaodong Li of RMIT University. (This event was organised jointly with CIS Chapter).

2012-09-24: "Learning to See: Complex Visual Processing in Insects and Implications for Machine Vision", by Prof Adrian Dyer, RMIT University.

2012-11-19: "The BAR Monitor: A Model Based Method for Monitoring Brain Function", by Prof David Liley, adjunct professor at Swinburne University of Technology and Managing Director of Cortical Dynamics Pty Ltd., Hawthorn, Vic. (Joint with EMBS Chapter)

2012-12-04: "Twenty Years of Sphere Decoding", By Prof Emanuele Viterbo, Monash University.

The Signal Processing Chapter website was maintained under the IEEE Victorian Section website (www.ieee.org/vic) and was regularly updated with the latest information. Together with Section e-mailouts and features on the main website of upcoming talks, local members were kept well informed.

A feature of the chapter website is that information, including presentation slides for past events are, presenter willing, made available on the website.

Planning is well underway for next year with two talks by visiting SPS Distinguished Lecturers (Dr Tulay Adali, University of Maryland Baltimore on "Data-Driven Analysis and Fusion of Medical Imaging Data" scheduled for 22 January 2013, and Dr Pierre Moulin, University of Illinois on "Robust Hashing and its Applications to Content Identification" or "Information Embedding: From Theory to Practice" scheduled for March 2013).

We will also be involved in two local conferences. These are: ISSNIP 2013 - IEEE Eighth International Conference on Intelligent Sensors, Sensor Networks and Information Processing, at the Langham Hotel, Melbourne on 2-5 April 2013, and ICIP 2013 – IEEE International Conference on Image Processing, at the Melbourne Convention and Exhibition Center on 15-18 September 2013).

ROBERT SLAVIERO, Chapter Chair

#

Social Implications of Technology Society, Joint Australian Chapter

SSIT Australia had a busy 2012, hosting a major international conference as well as holding four technical meetings, at widely separated venues in Melbourne, Sydney, and Geelong.

The IEEE 2012 **Technology and Society in Asia Conference** was held from the 27-29 October 2012 at the Singapore Polytechnic Graduates' Guild, Singapore City. We had three high-class keynote speakers drawing a varied audience of over sixty (60). Attendees came from India, China, Japan, Sri Lanka, The Philippines, USA and Australia, as well as Singapore. This was a co-operative venture between SSIT, IEEE Singapore Section and IEEE Victorian Section, with the latter two as the principal partners. The conference was successful in meeting certain of its objectives, although there were also aspects that can be deemed a 'learning experience' for the IEEE entities involved. For further details, please visit www.TechnologyandSocietyinAsia.org

As to our local activities, a brief summary is given below.

2012-05-05: Dr Greg Adamson spoke on "Norbert Wiener and Human Augmentation" at the Humanity-Plus Conference at the University of Melbourne.

2012-05-17: Dr Stuart Smith spoke on "Games for Health and Well-Being", at UNSW in Sydney.

2012-08-15: SSIT Committee Member Dr Michael Arnold joined a panel discussion on "Advanced Humanism", hosted by St Paul's Cathedral, Melbourne.

2012-10-09: Dr Alan Harvey presented a talk on "Using Computer Vision to Count Railway Passengers". This talk was a jointly organised by the SSIT and Circuits and Systems Chapters. The venue was at Deakin University, Burwood, with a live video link to the Deakin Waurn Ponds campus.

In other SSIT Chapter news, the blog 'The Social Interface' www.thesocialinterface.com established by Sydney committee members in conjunction with Young Lawyers of NSW continues to deliver articles and opinion pieces on topical aspects of technology and society. Dr Katina Michael of The University of Wollongong has commenced her role as Editor of the IEEE *Technology & Society* magazine. And Dr Greg Adamson was elected Vice-President of our global IEEE Society (SSIT).

The chapter will shortly conduct its planning day when we will plan technical meetings for 2013. We also aim to contribute to preparations for the **"Norbert Wiener in the 21st Century"** conference, which will be held in Boston, USA, in June 2014, for which SIT Society will be a sponsor. Further details of this planned event are found at http://www.21stcenturywiener.org/

GREG ADAMSON, Chapter Chair

#

Technology Management Chapter

OUR Chapter did not hold any events during 2012. We are always looking for new volunteers, so if you are interested in the various aspects of professional Management, particularly the management of technology and technological ventures, we will be very pleased to hear from you.

KEDAAR KALE, Chapter Chair.

#

Vehicular Technology Chapter

THE Vehicular Technology Society chapter formation in Victoria was initiated in July 2012 and approved by IEEE HQ on 18 December 2012. With the support of Section Committee, two meetings were held prior to the latter date.

2012-11-14: This was a social gathering of all active and non-active VTS members, held at Swinburne University of Technology in Hawthorn. The event was intended to publicise formation of the new chapter and encourage member support. Attendance …

2012-12-5: VTS chapter co-organised the Plug in 4 Power seminar, also held at Swinburne University of Technology. Dr Mehran Ektesabi presented a talk on the topic "Electric Vehicle Development and Rare Earth Elements". Attendance …

We are currently planning a range of chapter activities for 2013.

MEHRAN EKTESABI, Chapter Chair

#

Graduates of the Last Decade (GOLD) Affinity Group

THE GOLD Affinity Group held one technical meeting during 2012:

2012-05-14: This was a lecture titled "Supercomputer-Enabled Research in Life Science and Healthcare", presented by Dr. Matthias Reumann, head of the healthcare team at the IBM Research and Development Laboratory, Australia. The availability of modern supercomputing resources has enabled researchers to "think big" and address computational challenges in the life sciences and healthcare that could not previously have been contemplated. Dr Reumann showed how supercomputers can support research in the field of cardiac physiology and used this as an example of a scalable biophysical modeling problem. He also described research in Genome Wide Association Studies (GWAS), again using supercomputers. The event was held at IBM in Carlton. There were 10 attendees, of whom five were IEEE Members. Further information is given at:
http://www.ieeevic.org/events/getdetails.php?id=426

GOLD Victorian Section also expended considerable effort in preparing bid documents for an IEEE Region 10 GOLD/WIE Congress. But due to the very restricted timeframe, we decided not to submit our proposal on this occasion and instead will submit a fully developed sponsorship bid for the 2015 Congress.

LEILA KOUSHAEIAN, Chair, GOLD Affinity Group

#

Women in Engineering Affinity Group

The IEEE Victorian Section WIE Affinity Group s organised three events in 2012.

2012-08-01: The first event was a planning and networking dinner meeting, held at Il Gambero on the Park Restaurant in Carlton. It was very a successful event with high attendance and participation of IEEE women and friends. Engaging discussions unfolded about the types of activities the WIE could run in 2012 and beyond. As well, IEEE members were encouraged to get involved in the WIE Committee and contribute either by helping to organise and run events or by giving a technical or career-oriented talk.

2012-09-27: The second event was an evening talk by Vida Mokhtar, Director of Quality (Asia Pacific) at Cigweld. Her topic was "Women in Engineering and Global Career Opportunities". This was held at the Monash Conference Centre, Collins Street, Melbourne.

Ms Mokhtar said that in view of the economic

downturn in the USA & Europe and the contraction of Australian manufacturing industry, engineering job opportunities may appear to have become rather limited. In reality, the reverse is true, particularly when career prospects are viewed in global terms. The economic growth in Asia, combined with Australia's free market policies and high educational standards, continues to attract many international companies to our region. This results in a strong demand for Australian-educated engineers. Also, women who choose an engineering career have an excellent reputation in local industry. They are regarded as being highly talented and having an eye for detail; they also have good negotiating skills and perform well in team-based work situations.

2012-11-22: The final event for the year was an administrative WIE Affinity Group meeting held at RMIT University in Melbourne. Student Groups at Monash University, The University of Melbourne and RMIT were represented, along with their senior WIE Group colleagues. We had some very engaging discussion on a range of topics, including our plans for 2013 activities. We also shared ideas about starting a local WIE newsletter, and the logistics of distributing WIE promotional material to universities.

IRENA ATOV, Chair, WIE Affinity Group

WOMEN AT WORK: Dr Irena Atov (front right) with WIE volunteers.

STUDENT BRANCHES

_____

La Trobe University Student Branch

THE La Trobe University IEEE Student Branch organised seven (7) events during 2012. They were all held at the University's Bundoora Campus.

2012-04-04: This was a Welcome BBQ held to attract new members to the IEEE and our Branch, also to welcome the returning members from 2011.

2012-05-03: This was our first tutorial workshop for the year and was titled "Altium Designer for Beginners", presented by Arun Borgio. Twenty-four attended this workshop, the maximum number allowed by the licensing agreement. The event was very well received, and attendees came both from our student branch and the wider Victorian Section. We plan to run a similar but more advanced course on PCB design during 2013.

2012-05-17: Our distinguished guest on this occasion was Prof. Trevor Bird, CSIRO Chief Scientist and President of the IEEE Antennas & Propagation Society. Prof. Bird visited the university to inspect the next generation of HF Radars, designated TIGER-3, being developed by the Department of Electronic Engineering.

2012-06-14: Our second tutorial workshop for the year, named "Solidworks for Beginners", was an evening event held from 5.00pm to 9.00pm in the Beth Gleeson Building. Fifteen people attended (again, capacity numbers due to licensing provisions). The course director was Mr Adam Console, who has extensive experience with Solidworks and three-dimensional drafting, with Alex Stumpf acting as Assistant Tutor. Attendees included visiting students from the University of Melbourne and RMIT as well as La Trobe students, and there were three visitors from outside industry. We treated all attendees to a late dinner and drinks, courtesy of IEEE Victorian Section.

2012-07-11: This event was a technical seminar presented by Dr Pavlo (Pasha) Ponomarenko, who is a professional research associate at the University of Saskachewan in Canada. Dr Ponomarenko's topic was "A Decade of Research Using SuperDARN Radars". The seminar was attended by physicists and engineers from several departments at La Trobe and was particularly well received.

2012-08-01: Our second semester BBQ was a successful social event and a great "catch up" opportunity for our members. We had over 40 people attend, and several new members signed up for the IEEE and our Student Branch.

2012-10-04: Our third tutorial workshop for the year was "Matlab for Begineers", presented by Selva Murugesan. This covered the basics of Matlab and considered applications for digital signal processing. Fifteen people attended, including two representatives from industry. Attendees were again treated to a late dinner and drinks, courtesy of the IEEE.

2012-11-30: The final event for 2012 was a social dinner attended by more than 20 people. The dinner capped off a very successful year for La Trobe University's IEEE Student Branch. Professor Laurie Cahill handed out certificates to members of the Branch executive committee.

ALEX STUMPF, Chair, La Trobe Student Branch

#

Monash University Student Branch

IEEE Monash Student Branch was active throughout 2012. With the approval of the IEEE Victorian Section Committee, we appointed Mr. Les Davey as our Industry Mentor. This is a newly created position and we are very grateful to Mr Davey for his ongoing guidance and assistance. As to the events organised by the Branch during the year, a brief summary is given below.

2012-03-30: This was a "Welcome to IEEE" BBQ directed particularly at new students arriving at the Monash Clayton campus. We explained the operations of our Branch and the benefits of IEEE Student Membership.

2012-06-12: Tour of the Australian Synchrotron facility in Clayton. It was a great privilege to visit the largest synchrotron in the Southern Hemisphere. We were very impressed by the cutting-edge technology and the opportunities provided for collaboration between scientists all over Australia.

2012-08-02: IEEE Monash University Student Branch successfully held a CST Tutorial Workshop, in line with similar activities pioneered by La Trobe University Student Branch. There were eight bookings, and most

of the participants thought these sessions were quite useful. The majority feedback from students indicated that more detail may be required on parameter designing. At a later stage we might offer an advanced Master Class for people already familiar with the subject area. Finally, we are pleased to acknowledge the support received from CST, including free class materials distributed to attendees.

2012-09-07: IEEE Students versus Staff Soccer Game. This social game was played at the Monash Sports Centre in Clayton. It was nice to see that many academics turned up for the event, and it was a great opportunity for students and staff to get to know one another outside the classroom.

2012-11-02: Industrial Talk: "The ITU-R Standards Development Process, and the Benefits of Participation by Australia". This presentation was by our Industry Mentor, Les Davey, who heads his own consultancy practice. It broadened our knowledge of the opportunities provided by ITU-R Standards workgroups, and the benefits of participating in and contributing to this work.

2012-11-02: IEEE Public Lecture, "NBN Update". This technical presentation was made by James Park and was inspiring for both students and outside researchers and specialists. It was interesting to learn what is actually happening in the multi-year NBN project.

2012-11-19: IEEE Monash Student Branch AGM. The incoming Student Branch officers for 2013 were elected at this meeting. Apart from the business transacted, it was also an enjoyable social occasion when student members got to know their new executive committee that will be representing them in 2013.

Finally, we organised two Career Guidance Sessions on the 2nd and 16th of November, respectively. These were held under the guidance of our Industry Mentor, Les Davey. Each participant had earlier sent his/her CV to Mr. Davey, and in the personal interviews they received counselling on the CV content and their career options. The students were highly appreciative of these sessions and everyone said they benefited from the one-on-one discussions.

XIAOFEI SHI, Chair, Monash Student Branch

#

RMIT University Student Branch

A SUMMARY of events held by the RMIT Student Branch

is given below.

2012-08-10: Social event, "Meet and Greet". This was an opportunity for RMIT students to meet the new executive committee of our Branch. Twenty (20) people attended, both members and non-members.

2012-09-20: Engineering Industry Night. On this occasion students were able to meet representatives of prospective employers and discuss career prospects in a low-key informal setting. Several recent graduates also attended and we gained valuable information from their employment experiences. This event was organised jointly by the IEEE Student Branch and the Graduate Engineers Association of RMIT. It was a very successful event with seven (7) industry contacts and thirty-four (34) students attending.

2012-10-10: Tour of the Australian Synchrotron in Clayton, Vic. Fifteen (15) IEEE student members joined this tour. It was a stimulating educational experience for all. Our group included both undergraduate and postgraduate students.

MERCY SAMSON, Chair, RMIT Student Branch

#

Swinburne University of Technology Student Branch

THIS year, 2012, was the founding year of the Swinburne University of Technology Student Branch. We organised seven (7) activities during the year and outline details follow.

2012-07-31: On Open Day at the start of semester 2, we held an Information Session (joint with the Faculty of Science, Technology and Engineering and other Faculties). This event helped to establish member integration and was a useful introduction for new IEEE student members.

2012-08-08: This was a social event and information session held on the Club Day at the Hawthorn Campus (joint with the Faculty of Science, Technology and Engineering, and other Faculties).

2012-08-15: Here we hosted a technical lecture, "The Dangers of Big Data; Social Media as Computational Social Science" (joint with the Computer Chapter of Victorian Section). This lecture was based on a recently published article by a Chapter Committee member.

2012-08-24: This was a social and commemorative occasion to mark the formation of the SUT Student

Branch. It was held in the recently completed Advanced Technology Centre at the Hawthorn campus. Around 70 professionals joined us in this event, including executive committee members of IEEE Victorian Section and senior academics from Swinburne. Overall, it was a very dynamic networking event for the IEEE student members of Swinburne University, and a fitting marker of our emergence as a Student Branch.

2011-10-15: This was a Pizza Party social event and information session, joint with the Swinburne Engineering Society. We shared our views and ideas with members and encouraged new IEEE student members to join in our Branch activities.

2011-10-30: We hosted a guest lecture by Dr. Nursuriati Jamil (Liza) from Malaysia on the topic, "Signal and Image Processing Methods in the Preservation of Cultural Heritage" (joint with the IEEE Computer Chapter). After the talk, we took the Malaysian party on a tour of the Hawthorn campus, and they expressed interest in ongoing collaboration with SUT.

2011-12-05: We were involved in organising an international Seminar, "Plug in 4 Power". Swinburne University of Technology, together with SAE Australasia and Auto CRC, hosted this event, which showcased recent research and development in electric vehicle technology across Australia and overseas. We had sponsorship by the Victorian Government and the IEEE Vehicular Technology Victorian chapter. The event also included an Exposition of electric vehicles, new initiatives and technologies, and charging infrastructures. Presenters addressed various perspectives of electric vehicles and sustainable transport, including government involvement, university roles, current industry trends, research contributions, Australian Design Rules and Standards, and maintenance activities.

AREZOO EKTESABI, Chair, SUT Student Branch

#

University of Melbourne Student Branch

THE University of Melbourne IEEE Student Branch organised one event during 2012.

2012-08-31: This was promotional barbeque organised jointly with the Communications Chapter. The event was very well attended and included

undergraduate students, postgraduate students and staff of the University. The Head of the Department of Electrical and Electronics Engineering, and the Chair, IEEE Victorian Section, were also present. Three technical books were given away as "lucky draw" prizes, and this gesture was very well received by the students. Total attendance at the barbeque was fifty (50).

We recently succeeded in reestablishing our WIE Student Affinity Group, which has been inactive for several years. Following a call for nominations and the ensuing student vote, the elected officers for 2013 were declared as follows:-

Chair: Sareh Fotuhi Piraghaj

Vice-Chair: Atefeh Khosravi

Secretary: Fatemeh Jalali

Treasurer: Jing Ding

The new committee is presently planning events for 2013, in collaboration with the UniMelb Student Branch and IEEE Women in Engineering, Victoria.

GOCE RISTANOSKI, Chair, UniMelb Student Branch

#

Victoria University Student Branch

VU Student Branch organised three technical meetings and one administrative meeting during 2012, as summarised below.

2012-05-31: Our first technical seminar, entitled "Analog is Not Dead!", was presented by Associate Prof. Francois Rivet, head of the microelectronics laboratory at the University of Bordeaux, France. Assoc. Prof. Rivet has specialised in the design of RFIC's, mainly for Software Radio applications. He discussed the general Software Radio concept, which is claimed to offer low power, low cost, reconfigurable systems. He described an alternative one-chip solution able to handle any RF standard over a frequency range of 0 to 5 GHz. This presentation gave us an insight into electronics research in France and was a great introduction to analog-RF system design.

2012-07-12: Tutorial Workshop, "Using the IEEE Latex Templates for Conference and Journal Papers". We had an attendance of 17 people. Almost everyone was an IEEE student member and there were several Victoria University students and staff. We only had two industry people, so we decided not to charge anyone a registration fee.

2012-09-07: "Some Life Experiences from a Wireless Trouble Shooter". This was a technical presentation by Dr. Shane Spiteri, who graduated from Victoria University in 2003. He initially planned to pursue a research career and this led him and two colleagues to set up a company in Portugal. In 2008 he obtained employment as a Senior RF Engineer at Ericsson. He is currently a Senior RF Engineer at T-Force, contracting with the AT&T Indoors Group in Chicago. Dr Spiteri described his career moves since graduating and gave some useful advice to those just starting out on their careers.

Apart from the above activities, our Student Branch held its annual elections on August 24, 2012. The election results were as follows:

Chair: Mirhojjat Seyedi

Vice Chair: Behailu Kibret

Geordie Zhang: Treasurer

We also helped organise three IEEE Victorian Section monthly committee meetings, held at the VU Footscray Park campus.

MIRHOJJAT SEYEDI, Chair, VU Student Branch

Section and Chapter Officers, 2012

Greg Adamson – Chair, IEEE Victorian Section; g.adamson@ieee.org

Alan Harvey - Vice-Chair, IEEE Victorian Section; Harvey@rmit.edu.au

Enn Vinnal - Treasurer, IEEE Victorian Section; e.vinnal@ieee.org

Anthony Gascoigne - Assistant Treasurer, IEEE Victorian Section; aeg@teksupport.net.au

Edhem Custovic - Secretary, IEEE Victorian Section; E.Custovic@latrobe.edu.au

Paulo de Souza – Chair, IEEE Tasmanian Sub-Section; paulo.desouza@ieee.org

Chapter Officers:

Greg Adamson – Society on Social Implications Of Technology Chapter Chair, Email: g.adamson@ieee.org

Irena Atov - Women-in-Engineering Affinity Group Chair, Email: i.atov@ieee.org

Mehran Ektesabi - Vehicular Technology Chapter Chair, Email:

Paul Fitzpatrick - Communications Society Chapter Chair, Email: paul.g.fitzpatrick@gmail.com

Kamran Ghorbani - Antennas & Propagation / Microwave Theory & Techniques Societies Chapter Chair, Email: kamran.ghorbani@rmit.edu.au

Saman Haghgooie - Engineering in Medicine & Biology Society Chapter Chair, Email: saman@monash.edu.au

Alan Harvey - Circuits and Systems / Solid-State Circuits Societies Chapter Chair, Email: harvey@rmit.edu.au

Paul Junor - Education Society Chapter Chair, Email:

Kedaar Kale - Technology Management Council Chapter Chair, Email:

Kevin Korb - Computational Intelligence Society Chapter Chair, Email:

Leila Koushaeian - Graduates of the Last Decade Affinity Group Chair, Email:

Robin Lisner - Power & Energy Society Chapter Chair, Email:

Mark Mifsud - Electromagnetic Compatibility Society Chapter Chair, Email:

Malin Premaratne - Photonics/EDS Societies Chapter Chair, Email: malin@ieee.org

Robert Slaviero - Signal Processing Society Chapter Chair, Email: r.slaviero@ieee.org

Nassir Uddin - Computer Society Chapter Chair, Email:

For further contact details, please visit the Victorian Section website at www.ieeevic.org

Financial Accounts, 2012

I. Consolidated Operating Statement (calendar year) [1,2]

Income	(2012, $)	(2011, $)
Meetings & social	1232	1484
Student activities	140	4154
IEEE HQ rebates	11,037	10,221
IEEE Societies	459	824
IEEE Region 10	0	0
IEEE Australia Council	0	0
Sections Congress (SC'11) receipts	713	655
Bank interest	7431	8906
Miscellaneous income	1589	0
	22,602	**26,244**
Expenditure		
Meetings & social	12,552	9427
Student activities	4955	4601
Grants & awards	4400	1577
Publication expenses	574	1756
Travel & accommodation	0	825
Conferences/Workshops	0	0
Sections Congress Expenses (SC'11)	0	7272
Australia Council levy [3]	0	971
Postage, printing, supplies & miscellaneous	691	1359
	23,172	**27,788**
Operating Surplus (Deficit) for Year:	**(571)**	**(1544)**

Financial Accounts, 2012 (cont'd)

II. Balance Sheet as at 31 December 2012

		(2012)	(2011)
Assets			
Cash at bank	- Section accounts	130,527	131,410
	- Comsoc Chapter accounts	29,148	28,876
	- MTT/AP Chapter accounts	38,267	0
	- All other subunit accounts	1851	3572
Repayment of conference seed loan, receivable		4112	0
Total Assets:		**203,905**	**163,858**
Liabilities			
Sundry accounts payable		0	0
Provision for bad debts		3000	0
Total Liabilities:		**3000**	**0**
NET ASSETS:		**200,905**	**163,858**

NOTES TO ACCOUNTS:

1. These are preliminary unaudited accounts, subject to final review

2. All income and expense items are shown ex-GST.

3. Australia Council levies on Sections have been suspended pending further review of Council budgets.

Listing of Section Events for 2012

2012-12-12　IEEE Victorian Section - AGM Dinner

2012-12-06　Ultra High Capacity Optical Transmsission Systems

2012-12-04　Twenty years of Sphere Decoding

2012-11-29　20th Hooper Memorial Presentations

2012-11-27　Reinventing the University

2012-11-20　12 month review of medical technology installed in the Royal Children's Hospital

2012-11-19　The BAR Monitor: A Model Based Method for Monitoring Brain Function

2012-11-13　AC versus DC Power Distribution - A 21st Century Perspective (Rescheduled to 13 Nov 2012)

2012-11-07　Enabling technologies and capabilities for future manufacturing innovation – opportunities and challenges

2012-11-02　National Broadband Network Seminar

2012-10-30　Exploring Information Terrain

2012-10-30　SIGNAL AND IMAGE PROCESSING METHODS - In Preservation of Cultural Heritage

2012-10-18　Patenting the next Killer App: Would your invention stand the Novelty and Inventive Step?

2012-10-18　Industrial Talk: The ITU-R standards development process, and the benefits of participation in Australia's contributions to its work

2012-10-16　AC versus DC Power Distribution - POSTPONED

2012-10-09　Aspects of Computer based Handwritten Document Recognition.

2012-10-04　IEEE Tutorial: MATLAB for Beginners

2012-10-03　Collaborating with the Crowd: Social media & Web 2.0 for public sector engagement

2012-10-03　Impact of Skew on Radiation from High Speed Differential Signal Pairs

2012-09-27　Women in Engineering & Global Job Opportunities

2012-09-24　Learning to See: Complex Visual Processing in Insects and Implications for Machine Vision

2012-09-20　3rd Annual Engineering Industry Night

2012-09-07　Some Life Experiences from a Wireless Trouble Shooter

2012-09-06　IEEE Tutorial: The art of preparing conference/journal papers (CANCELLED)

2012-09-05　Swarm Intelligence

2012-08-30   Green photonics: harnessing solar light with nano-antennas

2012-08-28   The Changing Face of the National Electricty Market in Australia

2012-08-15   The Problem with Big Data

2012-08-02   IEEE Tutorial: CST for Beginners

2012-08-01   Network Energy Efficiency: Will telecommunications be sustainable?

2012-08-01   Networking & Planning Meeting

2012-08-01   How is Environmental Noise Perceived and how should it be Measured in spite of Established Practice?

2012-07-31   Industry Event: Practitioner's Night

2012-07-12   IEEE Tutorial: Using the IEEE Latex Templates for Conference and Journal Papers

2012-07-11   Would "Worse" Simulations Fuel A "Better" Science-Policy Interface?

2012-06-15   Si Electronic-Photonic Integrated Circuits

2012-06-07   IEEE Tutorial: Solidworks for Engineers

2012-05-31   Analog is Not Dead!

2012-05-23   Australian Invented DSP and End-user Apps for Hearing Aids

2012-05-14   Supercomputing Enabled Research in Life Science and Healthcare

2012-05-05   Humanity+ Conference: Norbert Wiener and human augmentation

2012-05-03   IEEE Tutorial: Altium Designer for Beginners

2012-05-02   Guided Tour of the Victorian Telecommunications Museum

2012-05-02   Opportunities in the Risk Management of EMC and Developing Immunity Testing to Cover Intermodulation

2012-04-10   Applications of Video and Audio Analytics

2012-03-27   Advances in Multi-Electrode Recording Technology and Implications in Research

2012-03-08   You are invited to dinner with the IEEE Computer Society's President Elect (visiting from the USA)

2012-02-27   GaN-based Nanocolumn Emitters and Related Technologies

2012-02-23   Decoupling PCB's for EMC and Functionality in the Real-World

2012-02-23   The Greening of Data Centres

2012-02-01   The Electric Universe - A Practical Electrical Engineer's Cosmology (ITEE Joint Event)

2011-12-15   Speech Modelling for Analysis, Coding and Synthesis