

**IEEE South Australia Section (R0057)**  
**Report for 2008**  
**Region 10 Meeting, Hanoi, 28 Feb – 1 Mar 09**

**Report submitted by Leigh Powis, Chair IEEE SA Section 2009**  
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**PART A - IEEE South Australia Section Summary**

**A.1 Executive Summary for 2008**

In 2008, the IEEE South Australia (SA) Section continued its program to support the local community of IEEE members with a range of technical and professional activities. The membership of the section remained strong, with the number of current (as of 31 December 2008) active members at 495. In 2008, two IEEE SA Section members had their membership grade elevated to Senior Member.

The IEEE SA Section Committee, with A/Prof A Dadej as Chair, met six times in 2008, including the AGM on 26 November 2008. In addition to the full committee meetings, an Executive Committee of the elected Section Officers met to discuss urgent matters arising between the scheduled dates of the full Committee meetings. Email and phone was used to progress items where the exchange of opinions and decisions could be accomplished by electronic means.

The local technical Chapters, Affinity Groups and Student Branches had another active year. For example, the GOLD Affinity Group held nine events during 2008. The Section wishes to acknowledge the level of effort put in by all our volunteers involved in Chapters, Affinity Groups and Student branches throughout this year

The SA Section has just formed a WIE (Women in Engineering) Affinity Group, under the leadership of Dr Pina Dall'Armi-Stoks. The required number of signatures was collected and the WIE petition submitted in 2008. The group was informed of its successful petition in February 2009, and held its first formal event on 25 February 2009.

The Joint Technical Program (JTP) Electrical is a joint undertaking between four professional societies in South Australia. As part of the IEEE SA Section participation in the JTP, the IEEE SA Section hosted three of the eleven JTP technical meetings and presentations.

In recognition of activities in the preceding year, 2007, the IEEE SA Section was awarded in 2008 the R10 Outstanding Small Section Award, and the MGA (Member and Geographic Activities) Board Outstanding Small Section Award. The MGA Board award was presented to the Section Chair during the closing ceremony of the 2008 Section Congress in Quebec City.

The successful year of IEEE SA Section activities was celebrated with the Annual Distinguished Lecture and Dinner at the National Wine Centre on 29 October 2008.

A brief report on selected activities and highlights of the past year is presented below.

## A.2 Financial Report for 2008

A summary of the Section accounts for 2008 is given below. All amounts are in \$AUD.

<b>Section Account Summary</b>		
	End of 2007 (A\$)	End of 2008 (A\$)
Section Accounts	46,796.63	63017.96
C&SP Chapter	3,385.85	1,608.86
AP/MTT Chapter	3,063.83	2,211.46
CAES Chapter	2,481.05	1,960.87
Computer Chapter	3,136.46	2,503.30
IT Chapter	2,200.56	2,209.74
UniSA SB	6,576.56	3,662.05
GOLD	247.95	625.18
Term Deposits	110,000.00	110,000.00
<b>TOTAL</b>	<b>177,888.89</b>	<b>187,799.42</b>

<b>Section Receipts</b>	
Meetings and Social Events	1,190.00
Conference Revenue and Seed Loan Repayments	28,832.34
IEEE HQ Rebate	5,491.19
IEEE HQ and Societies	2,500.00
Interest	7,841.80
<b>TOTAL</b>	<b>45,855.33</b>

<b>Section Disbursements</b>	
Meetings and Social Events	7,690.32
Conferences	-
Technical Meetings	-
Grants and Awards	7,000.00
Other Program Expenses	4,104.39
Section Congress Expenses	16,026.09
Travel	-
Chapters Support	750.00
Support to Regions	242.00
Other Mgt & General Expenses	132.00
<b>TOTAL</b>	<b>35,944.80</b>

Some funds resulting from commitments made and activities carried out in 2007, e.g. the ICON2007 conference seed loan repayment and surplus, were received in 2008. As can be seen from the financial summary tables above, the Section's financial position continues to be sound.

## A.3 IEEE SA Section Officers

<b>Section Officers in 2008</b>		
Chair	A/Prof A. Dadej	<a href="mailto:a.dadej@ieee.org">a.dadej@ieee.org</a>

Vice Chair	Dr. L. Powis	<a href="mailto:leigh.powis@defence.gov.au">leigh.powis@defence.gov.au</a>
Secretary	Dr A. Jayasuriya	<a href="mailto:jayasuriya@ieee.org">jayasuriya@ieee.org</a>
Treasurer	Dr. M. Pszczel	<a href="mailto:mark.pszczel@dsto.defence.gov.au">mark.pszczel@dsto.defence.gov.au</a>
Immediate Past Chair	Dr. Z. Ahmed	<a href="mailto:zia.ahmed@ieee.org">zia.ahmed@ieee.org</a>
Membership Development	A/Prof A. Dadej	<a href="mailto:a.dadej@ieee.org">a.dadej@ieee.org</a>
Electrical JTP	Dr. L Powis	<a href="mailto:leigh.powis@defence.gov.au">leigh.powis@defence.gov.au</a>
Awards	A/Prof A. Dadej	<a href="mailto:a.dadej@ieee.org">a.dadej@ieee.org</a>
Student Activities Coordinator	Dr K. Yau	<a href="mailto:kin.yau@dsto.defence.gov.au">kin.yau@dsto.defence.gov.au</a>
Professional Liaison	Dr M. Evans	<a href="mailto:michael.evans@ieee.org">michael.evans@ieee.org</a>
Newsletter	Dr. L. Powis	<a href="mailto:leigh.powis@defence.gov.au">leigh.powis@defence.gov.au</a>
Web Administrator	Dr K Yau	<a href="mailto:kin.yau@dsto.defence.gov.au">kin.yau@dsto.defence.gov.au</a>
Committee Member	Prof A. Parfitt	<a href="mailto:Andrew.Parfitt@unisa.edu.au">Andrew.Parfitt@unisa.edu.au</a>

#### Chapters/Affinity Groups Chairs in 2008

Chair, SP/Comms Chapter	Dr K. Dogancay	<a href="mailto:k.dogancay@ieee.org">k.dogancay@ieee.org</a>
Chair, AP/MTT Chapter	Dr H. Hansen	<a href="mailto:hedley.hansen@dsto.defence.gov.au">hedley.hansen@dsto.defence.gov.au</a>
Chair, CAES Chapter	Dr. M. Pszczel	<a href="mailto:mark.pszczel@dsto.defence.gov.au">mark.pszczel@dsto.defence.gov.au</a>
Chair, Computer Chapter	Dr L Jiang	<a href="mailto:jiang.li@adelaide.edu.au">jiang.li@adelaide.edu.au</a>
Chair, Information Theory Chapter	Dr S. Weller	<a href="mailto:Steven.Weller@newcastle.edu.au">Steven.Weller@newcastle.edu.au</a>
Chair, GOLD Group (DSTO)	Dr A. Piotrowski	<a href="mailto:andrew.piotrowski@ieee.org">andrew.piotrowski@ieee.org</a>

#### University of South Australia Student Branch in 2008

Chair, Student Branch	D Kinnaird	<a href="mailto:david.kinnaird@dsto.defence.gov.au">david.kinnaird@dsto.defence.gov.au</a>
Branch Counsellor	Dr A. Jayasuriya	<a href="mailto:jayasuriya@ieee.org">jayasuriya@ieee.org</a>

#### University of Adelaide Student Branch in 2008

Chair, Student Branch	Gretel Png	<a href="mailto:gpng@eleceng.adelaide.edu.au">gpng@eleceng.adelaide.edu.au</a>
Branch Counsellor	Dr B Ng	<a href="mailto:bwng@eleceng.adelaide.edu.au">bwng@eleceng.adelaide.edu.au</a>

#### Flinders University Student Branch in 2008

Chair, Student Branch	S. Randhawa	<a href="mailto:sharmil.randhawa@flinders.edu.au">sharmil.randhawa@flinders.edu.au</a>
Branch Counsellor	Dr J. Li	<a href="mailto:jimmy.li@flinders.edu.au">jimmy.li@flinders.edu.au</a>

#### Section Officers elected for 2009

The IEEE SA Section AGM was held at the Hampshire Hotel, 110 Grote St, Adelaide, 26 November 2008, 6:30pm. The following officers were elected.

Chair	Dr. L Powis	<a href="mailto:leigh.powis@defence.gov.au">leigh.powis@defence.gov.au</a>
Vice Chair	Dr A. Jayasuriya	<a href="mailto:jayasuriya@ieee.org">jayasuriya@ieee.org</a>
Secretary	Dr A. Piotrowski	<a href="mailto:andrew.piotrowski@ieee.org">andrew.piotrowski@ieee.org</a>
Treasurer	Dr K Yau	<a href="mailto:kin.yau@dsto.defence.gov.au">kin.yau@dsto.defence.gov.au</a>

The various Chapter and Affinity Group AGMs resulted in the following elections of officers for 2009.

Chair, SP/Comms Chapter	Dr B Ng	<a href="mailto:bwng@eleceng.adelaide.edu.au">bwng@eleceng.adelaide.edu.au</a>
Chair, AP/MTT Chapter	Dr H. Hansen	<a href="mailto:hedley.hansen@dsto.defence.gov.au">hedley.hansen@dsto.defence.gov.au</a>
Chair, CAES Chapter	Dr. M. Pszczel	<a href="mailto:mark.pszczel@dsto.defence.gov.au">mark.pszczel@dsto.defence.gov.au</a>

Chair, Computer Chapter	S Thuraisingham	<a href="mailto:seth.thuraisingham@gmail.com">seth.thuraisingham@gmail.com</a>
GOLD	Dr K Yau	<a href="mailto:kin.yau@dsto.defence.gov.au">kin.yau@dsto.defence.gov.au</a>

The Information Theory chapter did not hold their AGM at the end of 2008.

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Programs

- The membership of the section remained strong, with the number of current (as of 31 December 2008) active members at 495. In 2008, two IEEE SA Section members had their membership grade elevated to Senior Member.

	Membership at 31 December 2007	Membership at 31 December 2008
Fellows (Life FIEEE)	1	1
Fellows	2	2
Life Senior	4	4
Senior Members (SMIEEE)	34	36
Life Members (LMIEEE)	5	5
Members	348	338
Affiliates	20	12
Students	70	97
TOTAL	484	495

- The 2008 SA Section Chair A/Prof A Dadej was supported by the Section to attend the 2008 R10 Meeting in Gandhinagar, Gujarat, India, and the 2008 Section Congress in Quebec City, Canada. The GOLD Affinity Group Chair Dr A Piotrowski was supported to attend the 2008 GOLD Summit and the Section Congress in Quebec City. The IEEE SA Section also provided part of the funding in support of attendance to the AESS Chapter Summit and the Section Congress in Quebec City by the Vice-Chair of the CAES Chapter, Cheng Chew Lim. The IEEE SA Section Immediate Past Chair, Dr Z Ahmed, also attended the Section Congress as an IEEE R10 ExComm delegate. Like the R10 meeting, the Section Congress and the associated events were a good opportunity to meet other volunteers from around the region and the world and discuss the present and the future of IEEE. The Congress also provided a smorgasboard of volunteer training sessions available to all attendees.
- As of Jan 2009, the SA Section has a new Membership Development coordinator, A/Prof Karl Sammut. As well as sitting on the Section Committee, he chairs the newly-created SA Section HMEC committee to encourage and assist members to upgrade their membership.

### B.2 Professional and Continuing Education Activities

The Section wishes to acknowledge the level of effort put in by all our volunteers involved in Chapters, Affinity Groups and Student branches throughout the year.

- The Joint Technical Program (JTP) Electrical is a joint undertaking between four professional societies in South Australia. As part of the Section's participation in the JTP, the IEEE SA Section hosted three of the eleven JTP technical events, including the Student Papers Night (see later). Attendance went from low to standing room only, although the most enthusiastic attendees were at the least attended talk - only 8 people attended a talk on Virtual Advisors and Artificial Intelligence, but they were still asking questions 40 minutes after the end of the talk .

- Control Aerospace & Electronic Systems (CAES) Chapter held 7 talks, including one by a Distinguished Speaker: Networked control systems: an emulation approach to controller design, by Prof Dragan Nesic
- Antennas & Propagation + Microwave Theory & Techniques (AP/MTT) Chapter held 4 talks, including one by a AP Distinguished Speaker: Electromagnetic Band Gap Materials, by Peter de Maagt
- Computing Chapter held 2 talks. The Computing Chapter is working to develop its relationship with the Australian Computer Society to host some joint events so as to boost audience numbers and make the events more worthwhile for the speaker and for the audience.
- GOLD Affinity Group continued to be very active during 2008, holding 9 events.
- Signal Processing & Communications Chapter held 4 talks.
- Information Technology Chapter, which is hosted by the SA Section and crosses multiple Australian Sections, did not hold any technical events during 2008. The SA Section understands that the IT Chapter has recently elected a new Chair for 2009 and is in the process of planning a program for 2009.

### **B.3 Recognized Educational Programs**

In 2008, the IEEE SA Section provided technical co-sponsorship to three International Conferences:

- Radar 2008 – Maritime Surveillance, 2-5 September 2008, Adelaide Australia
- BICTA 2008 – Third International Conference on Bio-Inspired Computing: Theories and Applications, 28 September – 1 October 2008, Adelaide Australia
- ATNAC 2008 – Australasian Telecommunication Networks and Applications Conference, 7 – 10 December, Adelaide Australia

In addition, the IEEE SA Section also agreed to technically co-sponsor the Electromagnetic Compatibility Symposium, 16-18 September 2009, Adelaide (EMC 2009).

### **B.4 Students Activities**

- Continuing the tradition established in previous years, the IEEE SA Section awarded six grants to research students in support of their travel to present papers at international conferences. The 2008 recipients were: Sridhar Karuppasami, (University of SA), IEEE 67th Vehicular Technology Conference, Singapore; Mortzea Mohammadzaheri (University of Adelaide), 3rd IEEE Conference in Industrial Electronics and Applications, Singapore; Gretel Png, (University of Adelaide), Joint 33rd International Conference on Infrared and Millimeter Waves, and 16th International Conference on Terahertz Electronics, USA; Jegathisvaran Balakrishnan (University of Adelaide) 33rd International Conference on Infrared, Millimeter, and Terahertz Waves, USA; Justin Xu (University of Adelaide), IEEE International High Level Design Validation and Test Workshop, USA; Shaghik Atakaramians (University of Adelaide), European Optical Society (EOS) Annual Meeting, Paris.
- The IEEE SA Section supported attendance of the University of South Australia Student Branch delegate, Satyajitsinh Ajitsinh Thakor, to the IEEE R10 Student Congress 2008, Chennai, India (joint-funded between the Section and the University of South Australia Student Branch).
- Dr K Yau was the Student Activities Coordinator of the SA Section in 2008. The Student Branches at The University of Adelaide and the University of South Australia remained active. Following organisational changes affecting the engineering programs at Flinders University, there was a drop in activities of the Flinders University Student Branch.
- The undergraduate student prizewinners for the IEEE South Australia Section 2007 Student Award for Excellence in Engineering with an electrical and/or electronics emphasis were presented with the awards during the JTP Student Papers Night on 28 October 2008. The

prizewinners were: Joel David Zerna (University of Adelaide), William James Newman (Flinders University), and Aaron Paul Debono and Joshua Samuel White (jointly) (University of South Australia).

### **B.5 Awards**

- Section Award program and Awards issued. In addition to the Student Travel Awards and the Student Award for Excellence in Engineering discussed earlier, the Section created two new awards in 2008. The first award is the IEEE South Australia Section Outstanding Young Volunteer Award, to recognize extraordinary achievements by a member of the IEEE South Australia Section aged 35 or less. The inaugural recipient was Dr K Yau. The second award is the IEEE SA Section Outstanding Student Volunteer Award, to recognize extraordinary achievements by a student member. The inaugural recipient was D Kinnaird.
- Awards received. In recognition of activities in the preceding year of 2007, the IEEE SA Section was awarded the R10 Outstanding Small Section Award, and the MGA (Member and Geographic Activities) Board Outstanding Small Section Award. The MGA Board award was presented to the Section Chair during the closing ceremony of the 2008 Section Congress in Quebec City.

### **B.6 Chapter Activities**

- Summary of Chapter activities with attachment table / information – see earlier.

### **B.7 E-mail and Newsletter Activities, Home Page**

- Contacts with section members including the number of Newsletter issues, email Newsletters, regular updates of Section, Chapters and Student Branches Web Page
- Newsletter. In 2008, the IEEE SA Section abandoned the tradition of printing and issuing Section Newsletters. It is envisaged that the development of a new www site based on Web 2.0 technologies will provide a faster and more comprehensive replacement for the communications role of the SA Section Newsletter.
- Website. The website was gradually updated throughout the year, with Dr K Yau as the SA Section webmaster after the departure of his predecessor. However, more resources may be required to keep our website up to date and attractive to the Section members.

## **PART C - OTHERS**

### **● C.1 Relationships with National Societies**

- a) The SA Section is a member of the IEEE Australia Council. Note that in 2009 the SA Section provides the Student Activities Coordinator for the Australia Council, Prof Christophe Fumeaux.
- b) It is a member of the Joint Technical Program (JTP) Electrical, together with the South Australian branches of three other professional societies: the Institution of Engineering & Technology (IET), the Telecommunications Society of Australia (TSA), and Engineers Australia. The JTP organizes a series of technical events each year – see earlier.
- c) Joint Retired Engineers Group (REG) is a joint group established between the IEEE SA Section and the IET (NT & SA). From an IEEE perspective, the REG will operate as an IEEE SA affinity group, supported with an annual financial subsidy. It held several technical meetings during 2008.

### **● C.2 Special Events**

The 2008 IEEE SA Section Distinguished Lecture was delivered by Air Vice-Marshal Julie Hammer, the National President of Engineers Australia. The lecture, on “Elves, Spells and White Magic — The Pioneering Days of the Air Force’s Electronic Warfare Squadron” was delivered at the IEEE SA Section Annual Dinner held at the National Wine Centre on 29

October 2008. More than seventy guests attended the dinner, including Prof Andrew Parfitt, Pro Vice Chancellor, Division of Information Technology, Engineering and the Environment, University of South Australia; Prof Andrew Downing, Head of School of Electrical and Information Engineering, University of South Australia; and Prof Michael Liebelt, Head of School of Electrical and Electronic Engineering, The University of Adelaide.

- **C.3 Problems to be Anticipated**

- a) Reactivating/Re-energising the IEEE student branch at Flinders University, and the Information Technology (IT) Chapter.
- b) Lack of sufficient time and volunteers to simultaneously develop the web site and produce publications such as a newsletter. We are supportive of initiatives to develop and test Web 2.0-based web sites to improve communications with members, chapters, groups and branches.

## **PART D - GOALS AND PLANS**

- **D.1 Continuation of project/activity in progress and their Implementation Plans**

- a) Engage in strengthening the technical and professional activities within the section: sponsor (at least) one significant technical conference per year, and assist organizers with technical co-sponsorship of as many quality conferences as required.
- b) Support and enhance the Electrical Joint Technical Program (JTP) organized in conjunction with other technical societies.
- c) Keep all society chapters active (see below): ensure that there are at least two technical meetings or workshops per year per chapter. Chapters to submit proposed plans and budgets to the section for consideration and funding.
- d) Work with the student branches to increase the student membership, and to foster a healthy level of activity in the branches. Seek to increase the collaboration of the branches with the GOLD affinity group. Organise a special meeting of the student branches.
- e) To work with the Universities to improve the implementation of the Student Travel Awards.
- f) To continue to improve the IEEE SA Section web site to make it faster and more useful to members and volunteers. Appoint a new web master to replace K Yau.
- g) To continue to improve the Annual Dinner and Distinguished Lecture to achieve bigger turn-outs by members. Appoint an organizer to coordinate the planning and execution of the event.

- **D.2 Goals and future plans**

- a) The section's membership development coordinator to create a HMEC committee to encourage and assist members to upgrade their membership and to make membership more valuable to them.
- b) To support the growth of the WIE affinity group. Organise the election of Chair, Secretary and Treasurer (at least), establish a bank account, and agree a plan of activities and budget.
- c) The section to work closely with the new Chair of the IT Chapter to achieve its re-activation and re-energisation. Agree a plan of activities and budget.
- d) The section's student activities coordinator to work closely with the Flinders University student branch to achieve its re-activation and re-energisation. Agree a plan of activities and budget.
- e) The Computing Chapter to develop its relationship with the Australian Computer Society to provide a greater number of activities for members, including at least two joint technical talks.