

THE NEWSLETTER OF
THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC
SOUTH AUSTRALIA SECTION
PO Box 53, Elizabeth, SA 5112

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http://ewh.ieee.org/r10/s_australia/

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CHAIRMAN'S COLUMN

Dear IEEE members,

At the last Section's AGM on 12 December, all the Section Executives were re-elected for 2006 except the Treasurer, Andrew Udina. Andrew could not continue to be our treasurer owing to his posting to the UK. I would like to acknowledge Andrew's superb job as our treasurer in 2005. The new incoming treasurer is Mark Pszczel, who has been involved in the Section activities for many years. I am confident that the Section Committee will continue to make every effort to organize technical activities of professional interests to IEEE members in South Australia and with your support, we will continue to be healthy Section.

In December 2005, an IEEE delegation consisting of senior officials from the Regional Activities Board and Technical Activities Board visited Adelaide. The Section Committee held discussions with the IEEE delegation on various issues relevant to IEEE members and to other local sections in Australia. Prior to their arrival, the delegation was provided with a Position Paper from the Section outlining some of the issues of great concern to us. These issues included uncertainty over the circumstances surrounding provision of public liability indemnification of IEEE activities, decline in membership and some of the problems faced by the student members, for example, participation international competitions organized by IEEE or payment of membership dues. A brief report on the visit and the outcomes from the discussions is included in this newsletter.

The 2005 Distinguished Lecture and dinner on 7th December was again a very successful event for the Section. Professor Max Brennan, Chief Scientist of South Australia, delivered the Distinguished Lecture. It was also the occasion for presentation of IEEE SA Section Distinguished Service award and the winner for 2005 award was Dr Michael Evans for his outstanding contributions to the Section and the profession. To mark the twentieth anniversary of the Section, previous Section Chairs were presented with the IEEE Past Chair pins to recognize their contributions in the development of the Section where it stands today. The dinner was also attended by the visiting IEEE delegation, who thoroughly enjoyed the evening and got the chance to mix freely with the local IEEE community. And of course, the

evening would not have been such a success without the tremendous effort of the organizing committee, especially by Professor Andrew Parfitt, Arek Dadej, Steven Gordon and Andrew Udina. I would like to express my thanks to them and to all those who provided volunteer assistance to the committee.

Last year I informed you that we have submitted a bid to organize the International Engineering Management Conference for 2008 in Adelaide. I am pleased to inform you that IEEE EM Society has declared our bid successful and now Dr Tim Ferris is in the process of sorting out fine details for holding this conference.

I am looking forward for another exciting year for the Section.

Dr Zia Ahmed

Chair, IEEE South Australia Section

QUANTISATION, COMPRESSION AND CLASSIFICATION

DISTINGUISHED LECTURE ON SIGNAL PROCESSING

On March 17, Professor Robert Gray from Stanford University gave a Signal Processing Society Distinguished Lecture covering the fundamentals of quantisation, as well as presenting some of the latest research and applications in the area. The event was attended by more than 50 people at the Signal Processing Research Institute (SPRI) Building, Mawson Lakes.



IEEE INFORMATION THEORY SOCIETY

ALEX GRANT ELECTED TO BOARD OF GOVERNORS

Alex Grant, Professor of Information Theory at the University of South Australia, has been elected to a three-year term on the Board of Governors of the IEEE Information Theory Society. Alex has been Chair of the Joint SA/Vic/NSW/ACT IT Chapter and is currently treasurer of the Chapter. His election to this position recognises Alex's profile in the international Information Theory community and his contributions to IEEE. Congratulations, Alex!

IEEE SA DISTINGUISHED SERVICE AWARD

DR MICHAEL EVANS

The SA Section established a Distinguished Service Award in 1999. The award is intended to recognise and acknowledge exceptionally meritorious service to the profession of electrical and electronics engineering in South Australia and in particular to the activities and objectives of IEEE South Australia Section. In 2005 Dr Michael Evans, from DSTO, was the recipient of the Distinguished Service Award.

Among other things, Michael Evans was SA Section chair 2002-2004; Section Committee member for 15 years; established the CAES Chapter in 1995 and active in the Chapter committee since; Australia Council Chair, 2005-2006; organising committees of various local conferences, including IDC and ASCC; and active in various other roles benefiting the South Australian engineering community.

The award was presented to Michael by Marc Apter, Vice-President of IEEE Regional Activities, at the IEEE SA Annual Lecture and Dinner in December 2005.



TECHNICAL SOCIETY BENEFITS

IEEE has nearly 40 Technical Societies, including Consumer Electronics, Intelligent Transportation, Manufacturing Technology and Social Implications of Technology. In addition to benefits available to all members, most societies offer free or discounted access to tutorials, papers, books and online courses. Some examples include:

- FREE access to 800 course modules covering topics such as Java, Cisco, Security, UNIX and more to Computer Society members (about one-third of all Section members):

www.computer.org/distancelearning

- DISCOUNTED access to online tutorials on topics such as Mesh Networks, Network Security, Optical Networks, IPv6 and Wireless LANs to Communications Society members:

www.comsoc.org/livepubs/tutorials/

Go to www.ieee.org/web/societies/home/ to see the entire list of societies and join online.

MEMBERSHIP DETAILS AS AT MARCH 2006

Grade	Number
Fellow	3
Senior Member	36
Member	283
Affiliate	24
Students	64
TOTAL	410

See page 4 about how to upgrade to a higher level of membership.

IEEE RAB/TAB VISIT IN DEC 2005

In December 2005 a delegation from the IEEE Technical Activities Board (TAB) and Regional Activities Board (RAB) visited Australia, including a 2 day visit to the South Australia Section in Adelaide. The RAB coordinates administrative activities amongst all 10 IEEE Regions, while the TAB manages technical activities, mainly through the IEEE Societies. The visiting delegation included:

- Marc Apter, IEEE Vice-President, Regional Activities
- John Vig, IEEE Vice-President, Technical Activities
- Mary Ward-Callan, IEEE Managing Director, Technical Activities
- Cecelia Jankowski, IEEE Managing Director, Regional Activities
- Celia Desmond, IEEE VP-Elect, Technical Activities and IEEE Communications Society Distinguished Lecturer
- Joseph Koepfinger, IEEE Power Engineering Society Distinguished Lecturer

Having such a large and high-profile delegation was a unique opportunity for IEEE SA members to raise issues directly with leaders of IEEE.

The visitors arrived in Adelaide on the evening of Tuesday 6th December. The detailed program is listed below. A key component of the visit was the meeting with the SA Section Committee, which provided an opportunity for the following local issues to be raised:

- The measures available to retain and grow membership, especially initiatives not centred on US members.
- It was determined that the Section and the committee members were not individually liable for IEEE activities.
- Methods for supporting student membership.

Further information, including meeting minutes and slides from several of the presentations, can be found on the http://ewh.ieee.org/r10/s_australia.

2005 ANNUAL LECTURE AND DINNER

In 2002 the IEEE South Australia Section established an Annual Lecture and Dinner, with Professor Brian Anderson AO, CEO of National ICT Australia (NICTA), presenting the inaugural distinguished lecture. This was followed up with distinguished lectures by Ric Smith AO PSM, Secretary of the Department of Defence, and Dr Robin Batterham AO, Australia's Chief Scientist, in 2003 and 2004, respectively. In 2005 the distinguished lecture was:



Max Brennan presenting the 2006 Distinguished Lecture

SWOT Analysis of R&D Activity in South Australia

Emeritus Professor Max Brennan AO

Chief Scientist of South Australia

The dinner was held at the South Australian Museum on Wednesday 7th December 2005. The evening began at 7pm with guests taking pre-dinner drinks in a Museum exhibit. After enjoying the company of mummies, lions and gorillas, the 90 or so guests were seated in the foyer of the Museum, and welcomed by the night's MC, Professor Andrew Parfitt (a former Section Chair), and the SA Section Chair, Dr Zia Ahmed. Dr Ahmed welcomed all guests, including of course the Distinguished Lecturer, Max Brennan, and a large delegation of distinguished guests and visitors, including:

- The Honorable Paul Holloway, Minister for Industry and Trade in South Australia, attending on behalf of the Premier of SA, Mike Rann
- Maryanne Demasi, attending on behalf of the Hon Karlene Maywald, Minister for Science and Information Economy
- David Raffan, Chair of the ICT Council of SA
- Professor Chris Marlin, Deputy Vice Chancellor (Research), Flinders University of SA
- The visiting IEEE TAB/RAB delegation
- Past IEEE SA Section chairs

The night proceeded with guests enjoying a three course dinner, accompanied by South Australian wine and a variety of premium beer. Several key presentations were made throughout the course of the evening including:

- Distinguished Service Award - Dr Michael Evans
- Presentation of Past Section Chair pins, in commemoration of the IEEE SA Section 20th Anniversary
- The Distinguished Lecture by Emeritus Professor Max Brennan

With around 90 guests, the night was a resounding success, promoting the activities of the IEEE SA Section and the wider engineering community in South Australia. Make sure you do not miss the 2006 Annual Dinner and Lecture! You will find more photos of the night on http://ewh.ieee.org/r10/s_australia.



Zia Ahmed, current SA Section Chair, welcoming the guests



Andrew Parfitt, the Hon Paul Holloway, Max Brennan and Zia Ahmed dining at the SA Museum

UPDATE YOUR CONTACT DETAILS

Login to the Membership Portal at <http://www.ieee.org/myieee/> to update your contact details. Remember, most communications from the Section and Chapters is now via email, so please make sure your email address is correct. If you have any concerns about the email delivery system or desire hardcopies of newsletters, please contact the Section Secretary at <mailto:south.australia@ieee.org>

DISTINGUISHED LECTURERS

The IEEE Distinguished Lecturers Program allows experts to tour Australia giving selected lectures. The programs are run through the Societies. Go to: www.ieee.org/portal/pages/tab/cha/lectweb2.html for a list of current DLs. Suggest DLs of interest to the relevant Chapter Chair, e.g. AP/MTT, Computer, C&SP, CAES, IT. Contact of Chapters can be found on the last page or you can email <mailto:south.australia@ieee.org>.

ANNOUNCEMENTS AND UPCOMING EVENTS

PASSIVE AND ACTIVE MEASUREMENT CONFERENCE

NATIONAL WINE CENTRE, ADELAIDE

30-31 March 2006

The seventh Passive and Active Measurement conference will be held March 30-31, 2006 in Adelaide, Australia. This event focuses on research and practical applications of network measurement and analysis techniques. The conference's goal is to provide a forum for current work in its early stages. Visit the conference web site to register:

<http://www.pam2006.org/>

IEEE VEHICULAR TECHNOLOGY CONFERENCE (VTC-SPRING)

MELBOURNE

7-10 May 2006

The 2006 IEEE 63rd Vehicular Technology Conference (VTC) will be held at the Grand Hyatt Melbourne, Melbourne, Australia, 7-10 May 2006. As the first ever VTC to be held in the southern hemisphere, the 63rd VTC will feature world-class technical sessions and tutorials on Antenna Systems, Radio Resource Management, Ad Hoc Networks, Mobile Internet, Satellite Systems, Vehicular Electronics and more.

<http://www.vtc2006spring.com/>

INSTITUTE FOR TELECOMMUNICATIONS RESEARCH SHOWCASE

30 March 2006, 1:30-5:30pm

The Institute for Telecommunications Research at the University of South Australia would like to invite you to an afternoon forum. We have arranged a set of stimulating presentations including *Challenges of Ubiquitous Broadband Networking*, *Future Broadband Wireless*, and *IP Traffic Shaping for Satellite Links*, from some of our leading staff, and will also showcase our postgraduate students and their work in wireless communications. Please register your interest by contacting Christine Bennett (<mailto:Christine.Bennett@unisa.edu.au> or 08 8302 3310). Informal networking with staff and students will feature during coffee and drinks. Further details at:

http://www.itr.unisa.edu.au/events/ITR_Showcase_Afternoon.pdf

ELECTRICAL JOINT TECHNICAL PROGRAM

The Electrical JTP Program between IEEE, IEE, Engineers Australia and Telecommunications Society of Australia (TSA) has already started in 2006, with an impressive schedule of presentations arranged for the year. Upcoming topics include aquatic sciences, wireless communications, nuclear power and solar racing cars! See the [SA Section web site](#) for full details.

4TH IEEE ACTIVE MEDIA TECHNOLOGY CONFERENCE

BRISBANE

7-9 June 2006

In the great digital era, we are witnessing many rapid scientific and technological developments in human-centred, seamless computing environments, interfaces, devices, and systems with applications ranging from business and communication to entertainment and learning. These developments are collectively best characterized as Active Media Technology (AMT), a new area of intelligent information technology and computer science that emphasizes the proactive, seamless roles of interfaces and systems as well as new media in all aspects of digital life. This conference will include topics such as: Active Web Systems, Web and Data mining, Mobile and Wireless Security, Smart Digital Media, Multi-Agent systems and more:

<http://amt06.fit.qut.edu.au/>

TSA INNOVATION ENCOURAGEMENT AWARD

\$10,000 PRIZE FOR TELECOMS INNOVATION

The TSA is calling for nominations for the John and Yvonne Almgren Telecommunications Innovation Encouragement Award. The grantee of the award must have played the leading, hands-on role in the invention and development of the innovation - though there will only be one prize, consideration will be given to Corporate as well as Start-up companies. Nominations close 13 June 2006. Visit www.tsa.org.au for further details.

MORE EVENTS ...

For upcoming events relevant to the SA Section, see the Events list on our [website](#). For upcoming IEEE conferences (dates and CFP deadlines), go to:

www.ieee.org/web/conferences/home/

If you want an event advertised in this newsletter or on the website, send details in an email to <mailto:south.australia@ieee.org>

UPGRADE YOUR IEEE MEMBERSHIP

Do you want to become a Senior IEEE Member? If so, take a look at the Membership Grade Elevation website:

www.ieee.org/web/membership/grade_elevation/grade_elevation.html

Here you will find the requirements for elevating your membership (e.g. from Associate to Full, from Member to Senior, to Fellow). To become a Senior Member you need at least 10 years experience (years in education count – e.g. a doctorate counts for 5 years experience). If you are interested and want assistance with your application (e.g. references from other Senior Members), then contact <mailto:south.australia@ieee.org> and we will help with your nomination.

COMMITTEES FOR 2006

SOUTH AUSTRALIA SECTION COMMITTEE

<mailto:south.australia@ieee.org>

Chair	Zia Ahmed
Vice-Chair	Arek Dadej
Treasurer	Mark Pszczel
Secretary	Steven Gordon
Immediate Past Chair	Michael Evans
Electrical JTP	Leigh Powis
Education	Harry Green
Newsletter	Kerrin Pine
Web Editor	Damon Couper
Student Activities	Brian Ng
Awards and Prizes	Arek Dadej
Professional Liaison	Michael Evans
Membership Develop.	Arek Dadej
Officer	Andrew Parfitt

The Section Committee also includes Chairs of Chapters/Affinity Groups/Student Branches.

CONTROL, AEROSPACE AND ELECTRONIC SYSTEMS CHAPTER

<mailto:caes-south.australia@ieee.org>

Chair	Michael Evans
Vice-Chair	Leigh Powis
Treasurer	Michael Evans
Secretary	Mark Pszczel

COMPUTER CHAPTER*

<mailto:computer-south.australia@ieee.org>

Chair	Robert Rowe
Vice-Chair	Jill Slay
Treasurer	Sanjay Mazumdar
Secretary	Lingxue Kong

COMMUNICATIONS AND SIGNAL PROCESSING CHAPTER

<mailto:csp-south.australia@ieee.org>

Chair	John Asenstorfer
Vice-Chair	Kutluyil Dogancay
Treasurer	Mark Ho
Secretary	Gareth Parker

ANTENNAS AND PROPAGATION/MICROWAVE THEORY AND TECHNIQUES CHAPTER

<mailto:apmtt-south.australia@ieee.org>

Chair	Bevan Bates
Vice-Chair	Hedley Hansen
Treasurer	Leigh Powis
Secretary	Leigh Powis
Officer	Brad Ferguson

JOINT INFORMATION THEORY CHAPTER

<mailto:Steven.Weller@newcastle.edu.au>

Chair	Steven Weller
Vice-Chair	Rod Kennedy
Treasurer	Alex Grant
Secretary	Jamie Evans

GOLD AFFINITY GROUP*

<mailto:gold-south.australia@ieee.org>

Chair	Andrew Piotrowski
Vice-Chair	
Treasurer	
Secretary	

UNIVERSITY OF ADELAIDE STUDENT BRANCH*

<mailto:ksyau@eleceng.adelaide.edu.au>

Chair	Kin Shing Yau
Vice-Chair	
Treasurer	
Secretary	
Counsellor	Bevan Bates

FLINDERS UNIVERSITY STUDENT BRANCH*

<mailto:sharmil.randhawa@flinders.edu.au>

Chair	Sherry Randhawa
Vice-Chair	
Treasurer	
Secretary	
Counsellor	Jimmy Li

UNIVERSITY OF SOUTH AUSTRALIA STUDENT BRANCH

<mailto:Nghia.Ngo@postgrads.unisa.edu.au>

Chair	Nghia Ngo
Vice-Chair	
Treasurer	Binh Ngo
Secretary	
Counsellor	Aruna Jayasuriya

* Committees for 2005. These groups have not yet held their 2006 AGM.

VOLUNTEERING FOR IEEE SA

Note there are vacant positions on several committees, and upcoming AGMs for others. If you are interested in volunteering for IEEE, get in touch with the appropriate contact. Even if there is not a vacant position, all committees can make use of additional volunteers. And remember, all positions are officially recognised by IEEE (e.g. included in your membership records) and look good on your CV!