



The Institute of Electrical and Electronics Engineers, Inc.

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IEEE NEW SOUTH WALES SECTION  
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**Issue 3/02**

**November 2002**

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**1. NEW SOUTH WALES SECTION ANNUAL GENERAL MEETING & DINNER – FRIDAY 29 NOVEMBER**

All IEEE members are invited to attend the Section Annual General Meeting, which will be held again this year at The Castlereagh Inn, Masonic Club, 169 Castlereagh St, Sydney, commencing at 7 pm sharp. The Annual Dinner will follow the conclusion of the AGM, at approximately 8 pm. Both events are a great opportunity to mix and mingle with other IEEE members.

Members wishing to attend should complete the reservation form below, and forward, with payment, to the Section Secretary Andrew Parfitt by Friday 22 November.

Prior to the Section AGM, Chapters will conduct their AGMs to elect new office bearers. Chapter Chairs are asked to conclude these meetings by 7 pm and also provide annual reports for distribution at the AGM.

*(continued next page)*

**Please Detach**-----

**IEEE NSW SECTION ANNUAL GENERAL MEETING**

**Venue:** The Castlereagh Inn, Masonic Club, 169 Castlereagh St, Sydney **Date:** Friday, 29 November  
**Times:** 6.00 pm Chapters' AGMs - 7.00 pm Section AGM  
**Dinner:** 7.45 pm for 8.00 pm Cello's Dining Room  
**Contribution:** \$35 per person (including drinks on table) Enclosed is payment of \$..... for ..... persons

Name:.....Tel: (w)..... (h)..... Fax.....  
Address:.....Postcode.....

Post return not later than 22 November to: Andrew Parfitt [Tel: 9372 4187, Fax 9372 4106]  
IEEE Committee C/- PROFESSIONAL CENTRE OF AUSTRALIA, Private Bag No. 1, DARLINGHURST NSW 2010

The dinner will be held in Cello's Dining Room. Partners not wishing to attend the AGM will be able to meet in a separate area where drinks can be purchased. The cost of dinner is \$35 per person, which includes drinks on the table.

The Masonic Club is within two blocks of the Town Hall Railway Station and car parking at \$14 (5 pm to 1 am) is available at the Piccadilly Car Park, located adjacent to the David Jones store in Castlereagh Street. Alternatively, low-cost parking is available three blocks away at Goulburn Street City Car Park.

#### AGENDA - NSW Section AGM

1. Attendance and Apologies
2. Minutes of 2001 AGM and Discussion
3. Report of Section Chairman
4. Report of Section Treasurer
5. Chapter Reports:
  - Power Engineering,
  - Communications/Signal Processing,
  - Computer,
  - Antennas & Propagation/Microwave Theory & Techniques,
  - Industrial Applications, Power Electronics and Industrial Electronics,
  - Circuits & Systems
6. Confirmation of 2003 Section Committee:  
Filita Barker, Trevor Bird, Ian Boyd, Stephanie Boyd, David Burger, Kate Carruthers, Steven Duvall, Karu Esselle, Graeme Gwilliam, Walter Lachs, Jim Logothetis, Stefan Mozar, Philip Ogunbona, Andrew Parfitt, Bruce Poon, Faz Rahman, Sam Reisenfeld, John Robinson, David Tien, Jim Vasseleu & Ramutis Zakarevicius.
7. General Business

## **2. CHAIRMAN'S COLUMN**

It is hard to believe that my two-year term as Chairman is almost over. At the end of December I pass on the position to one of my colleagues. As any past Chairman will tell you, the position is a busy, though rewarding one. During my term we accomplished some of the goals that I set at the beginning, but others are only partially complete. I would hope the Section Committee would complete the unfinished goals in the near future.

If I had to nominate the most significant achievement during my term, it would be the appointment of a web master and the development of the web site. This is now a very useful resource and all credit for this must go to Jon Agnew, the web master. If you have not used the web site recently, please try it out. You will find there is news on lectures, back copies of Circuit and a history of the Section, to mention just a few items.

As this issue of Circuit goes to print, I will be attending the triennial Sections Congress, which in 2002 will be in Washington DC. There are many important issues facing IEEE at this time including retention of members, conversion of student members to full membership and financial management. Recently, the first dues increase in many years was announced (see elsewhere). This included a rise in annual student member fees for Region 10 to about A\$44. Naturally many students are unhappy about the fee increase. I believe also that it's a wrong message to be sending to students at this time. We are trying to attract more student members and this year the Section provided over 200 free student memberships to new recruits. Notwithstanding the fee increase, student membership still represents excellent value for what is received. To put the fee into perspective, it is equivalent to about one tank of petrol for a medium size car, five movie tickets or a fraction of an up-to-date engineering textbook.

The Section recently celebrated its 30th anniversary with a dinner (see a report and pictures elsewhere). Present at the anniversary dinner was the President of the Sydney Division of the Institution of Engineers Australia, Bruce Howard. His attendance at this event symbolised the excellent relationship that exists with sister Institutions in NSW. For instance, we have worked with the sister institutions to organise conferences and lectures. Over many years IEEE has helped organise Engineering Week and this year we made a financial contribution. This year's Engineering Week was held in July for the first time and was very successful. In many respects NSW has shown how the existing tripartite agreement between IEEE, IE Aust and IEE can operate not only in spirit but also in practice.

In conclusion, I thank my fellow Committee members for the support they have given me during my term. I wish you and your families all the very best of fortune for Christmas and the New Year.

Trevor Bird (email: [ts.bird@ieee.org](mailto:ts.bird@ieee.org))

## **3. NSW SECTION CELEBRATES 30 YEARS**

On Friday 27 September, the NSW Section celebrated its thirtieth anniversary with a dinner at the Royal Sydney Yacht Squadron, Kirribilli. The Section Chairman Dr Trevor Bird welcomed distinguished guests that included Life Members, Bruce Howard, President of the Sydney Division, Institution of Engineers and the Division's Hon. Treasurer John Gebler.

To set the scene, he outlined a little of the history of the Section and touched on major events that occurred in 1972 when the Section was formed. (An updated history can be found on the Section web site.) He presented the Max Symons award to Mr Yuehe Ge of Macquarie University for his paper entitled "Efficient Analysis of Microstrip Circuits Using New Closed-Form Green's Functions".

Following the main course, plaques were presented to members who have served continuously on the Section Committee for ten years or more. These members were: Bruce Poon, Sam Reisenfeld, Ramutis (Zak) Zakarevicius, John Robinson, Walter Lachs, Jim Logothetis and Jim Vasseleu. A display of memorabilia included early issues of Circuit and an Edison light globe. An enjoyable night was had by all at what is a beautiful Sydney venue.



Jim Vasseleu receives his 10-year continuous service plaque from 2002 Chairman, Trevor Bird.

In presenting the seven awards, Dr Bird made the following remarks.

"I mentioned in my historical introduction that the Section has had many dedicated servants over the years. On the present occasion, the Section Committee resolved to honour Section members who have served continuously for ten years or more on the Section Committee. This evening 7 awards will be given.

Bruce Poon

Has served on the Committee since 1992 and has been the Membership officer since 1995. He

has been active in promoting IEEE at year 11 and 12 careers day activities since 1996.

Sam Reisenfeld

Chair of the Communications & Signal Processing Chapter, instigator of the highly successful Globecom 98 conference in Sydney and member of the conference Technical Program Committee.

Ramutis Zakarevicius

Zak has served more or less continuously on the Committee since the mid 1970s. He was Section Chairman from 1979 to 1981. Up until this year he was the Committee member responsible for Educational Activities.

John Robinson

John has held most executive positions on the Section Committee, including Chairman in 1999-2000, Secretary in 1998 and Treasurer from 1990 to 1998.

Walter Lachs

Walter was Chairman in 1988 to 1990 and again in 1995. He was Chairman of Australia Council from 1990 to 1991. He has served as Vice Chair in 1998 and Secretary from 1991 to 1993 and also 1996 to 1997. I believe he was Editor of the newsletter Circuit for over 10 years.

Demetrios (Jim) Logothetis

Jim has served in total 7 years as Chairman, from 1991 to 1994 and again from 1996 to 1998. He was secretary from 1987 to 1990, in 1995 and again in 1999. Most recently, Jim has been responsible for Professional Activities, which includes IEEE's involvement in Engineering Week.

James Vasseleu

Jim Vasseleu is the Father of the Section. He has served almost continuously on the Committee since its inception, except for when he was Region 10 Director in 1977 and 1978 and member of the IEEE Board. He was Chairman in 1972 to 1973 and again from 1985 to 1987. He has held several other positions including Vice Chair from 1995 to 1997, and Treasurer from 1974 to 1975. For a number of years he has been Chair of the Nominations Committee, the Awards Committee and the Life Member Committee.

Please give a round of applause for these most distinguished members of the New South Wales Section Committee!"



Recipients of 10-year awards and the Section Chairman in front of the original banner of the Australian Section which ultimately became the NSW Section. Left to right: John Robinson, Jim Logothetis, Trevor Bird (Chairman), Sam Reisenfeld, Jim Vasseleu, Ramutis Zakarevicius, Bruce Poon and Walter Lachs.

#### 4. VALE DR PETER SOMLO



IEEE Fellow Dr Peter I. Somlo passed away on 17 August 2002 following a stroke that he suffered a week before. He was 69. Peter was a member of the Australian Section Committee (now NSW Section) in the late 1970s and early 1980s and was Vice Chair from 1979 to 1981. He received an IEEE Centennial Medal in 1984 and was elected a Fellow in 1987 “for contributions to precision metrology at radio and microwave frequencies”.

As well, he was a Member of the Editorial Review Board of IEEE Transactions on Microwave Theory & Techniques from 1970 to 1993, and Secretary/Treasurer of the Antennas & Propagation – Microwave Theory & Techniques NSW Chapter in 1992.

Peter was born in Budapest, Hungary, and obtained the Dipl. Ing degree in 1956 from the University of Technology, Budapest. After arriving in Australia, Peter was employed by the CSIRO National Measurement Laboratory, Sydney, where he remained until 1993. In the latter years at CSIRO he was Leader of the RF/Microwave Group and a Senior Principal Research Scientist.

An internationally renowned expert in accurate microwave measurements, Peter was co-author of the book “Microwave Impedance Measurement” (*Peter Peregrinus, 1985*) with his CSIRO colleague Dr John Hunter. After retiring from CSIRO, Peter was a Visiting Professor at the University of Technology, Sydney, from 1993 to 1996. Until a few years ago, Peter was a regular attendee at Joint Institution meetings and especially enjoyed discussions on knotty physics questions and innovative approaches to problems. He was an avid windsurfer and made several contributions to the design of boards. Peter will be greatly missed by his many friends and colleagues around the world.

#### 5. NSW SECTION WEB NEWS

The NSW Section Web Master is Jon Agnew ([jpagnew@ozemail.com.au](mailto:jpagnew@ozemail.com.au)). Place the web address (<http://ewh.ieee.org/r10/nsw>) in your bookmarks so as to keep up to date with the latest Section news and information.



## **KEEP UP TO DATE WITH DOCUMENTS AND NEWS ON THE SECTION WEB SITE**

Click on 'News' for updates to the lecture programs on the NSW Section web site. An electronic copy of CIRCUIT can also be obtained from the website.

## **REGISTER FOR A PERSONAL EMAIL ALIAS "name@ieee.org"**

Many IEEE members do not realise that the IEEE offers an Alias service with free Virus Scanning. IEEE members can register or update a personal alias of their choice (subject to availability), which will forward email to their real Internet email address. This overcomes the need to notify the IEEE (or the Section) if you change your home email address. To obtain an email alias go to the

IEEE website ([www.ieee.org](http://www.ieee.org)), click on "Web Account" and follow the directions.

## **6. NSW HUNTER VALLEY SUB-SECTION CLOSURES**

The NSW Section Committee has recommended to IEEE Headquarters that the NSW Hunter Valley Sub-section be delisted. This follows a request for expressions of interest in the last issue of CIRCUIT to form a local organising committee. The response was very disappointing both for the Section Committee and some members in the Hunter. However, there was insufficient interest to form a committee and restart activities that would ensure the viability of the Sub-section in the future.

## **7. USEFUL IEEE WEB ADDRESSES**

Increasingly, the IEEE is relying on the Internet to deliver services to members. Some useful web addresses are summarised below for your information.

- IEEE Operations Centre: [www.ieee.org](http://www.ieee.org)
- IEEE Regional Activities: [www.ieee.org/ra](http://www.ieee.org/ra)
- Region 10: [www.ewh.ieee.org/reg/10](http://www.ewh.ieee.org/reg/10)
- IEEE Senior Member upgrade: [www.ieee.org/organizations/rab/md/smprogram.html](http://www.ieee.org/organizations/rab/md/smprogram.html)
- Region 10 Student Branch activities: [www.cairo.utm.my/ieee/r10student.htm](http://www.cairo.utm.my/ieee/r10student.htm)
- IEEE Contract administration: [www.ieee.org/contractsonline](http://www.ieee.org/contractsonline)
- Volunteer travel accident/medical plan. This is available to all IEEE volunteers and applies outside your normal country of residence. It starts and ends when you leave/arrive in your own country. For details see [www.ieee.org/organizations/vols](http://www.ieee.org/organizations/vols)
- IEEE GOLD (Graduates of the last decade) program: [www.ieee.org/organizations/rab/gold/programs.html](http://www.ieee.org/organizations/rab/gold/programs.html)
- Educational activities: [www.ieee.org/eab/](http://www.ieee.org/eab/)
- Professional development: [www.ieee.org/pdi](http://www.ieee.org/pdi)
- Career resources: [www.ieee.org/eab/education.htm](http://www.ieee.org/eab/education.htm)
- IEEE Award programs: [www.ieee.org/about/awards](http://www.ieee.org/about/awards), [www.ieee.org/organizations/rab/rab/Awards/rabawards.htm](http://www.ieee.org/organizations/rab/rab/Awards/rabawards.htm)
- Conferences: [www.ieee.org/conferencesearch/](http://www.ieee.org/conferencesearch/)

## **8. GOLD AFFINITY GROUP FUNCTION**

The first function of the GOLD Affinity Group will be a dinner on Friday, 1 November to be held at the Duxton Hotel, North Sydney, 88 Alfred St, Milsons Point, commencing at 7pm. It was originally planned for August 16 but due to several factors the event was rescheduled. Members who graduated in the last ten years and also Student Members are especially invited to attend. The cost is \$20 and this includes all food and beverages. Dress is semi Formal/Business.

**To attend please contact Andrew Parfitt [Tel: 9372 4187, Fax 9372 4106, email [Andrew.parfitt@csiro.au](mailto:Andrew.parfitt@csiro.au)] by 24 October.** Payment can be by cheque or credit card (Mastercard, Bankcard or Visa).

## **9. BECOME AN IEEE SENIOR MEMBER**

Many members may not be aware of the benefits of IEEE Senior Membership. As well as recognizing your performance and contribution to the profession in a tangible way, each new Senior Member receives an attractive fine wood and bronze engraved Senior Member plaque and a US\$25.00 gift certificate toward one new Society membership. Who can become a Senior Member? Anyone with ten years in the profession (not 10 years of IEEE membership.) Your educational experience is counted towards this ten-year requirement. You need five years of significant performance and three IEEE Senior Member or Fellow references. If you are nominated, only two references are needed. Now it is even easier to become a Senior Member via the IEEE website. Details and application forms are obtained at [www.ieee.org/organizations/rab/md/smprogram.html](http://www.ieee.org/organizations/rab/md/smprogram.html).

## 10. JOINT TECHNICAL MEETINGS FOR 2002 & 2003

All members are invited to attend the listed joint meetings with the I.E. Aust., ITEES and IEE. All meetings are held at 5.30 for 6.00 pm (with light refreshments) at the Institution of Engineers, Australia Lecture Theatre, Eagle House, 118 Alfred St, MILSONS POINT, unless otherwise shown.

Date	Topic	Speaker	Sponsor
24 Oct. 2002	Photonic Processing of Microwave Signals	Prof. Robert Minasian, Uni. Syd.	IEEE
14 Nov. 2002	Strategic Asset Management	Dr Bob Platfoot, Covaris P/L	
28 Nov. 2002	The Expanding Scope of Professional Liability – IEAust. Elec. Branch AGM	Joern Schimmelfeder, PricewaterhouseCoopers	IE Aust.
<b>29 Nov. 2002</b>	<b>IEEE Annual General Meeting – Castlereagh Inn, Sydney</b>		<b>IEEE</b>
13 Feb. 2003	Protection against arcing faults on LV switchboards	TBA, Uni. Syd.	IEAust.
27 Feb. 2003	Power line communications	R. Watts, InovaTech	IEAust.
13 Mar. 2003	Intensive care by wire-telemedicine	Dr. L. Wilson, CSIRO Telecom. & Ind. Phys.	IEE
27 Mar. 2003	JPEG 2000 - A new image compression standard	Dr David Taubman, UNSW	IEEE
10 Apr. 2003	Callide C power station	Philip Neal	IEAust.
8 May 2003	New developments in railway signalling	SRA	IEAust.
22 May 2003	Gamma camera for detecting landmines	Dr. J. Tickner, CSIRO Minerals	IEE
12 June 2003	E-liability	TBA	IEE
26 June 2003	Transformers for the modern world	Colin James, ALSTOM	IEAust.
10 July 2003	Update on Bluetooth	TBA	ITEE
24 July 2003	Truscan-a scanning probe for cancer in women	Polartechnics	IEE
14 Aug. 2003	Electromagnetic Engineering in the world of photonic crystals	Drs Andrew Weily & Karu Esselle, Macq. Uni.	IEEE
28 Aug. 2003	Intelligent Networked Home	Dr Peter Beadle, Motorola	IEEE
11 Sept. 2003	Electronics in the medical industry	Siemens or GE	IEE
25 Sept. 2003	Process control systems in the printing industry	Fairfax	IEE
9 Oct. 2003	Protection against terrorism	Eric Parker	ITEE
23 Oct 2003	Space Time Signal Processing	Dr Petrag Rapajic, UNSW	IEEE
13 Nov. 2003	Update on contestability of LV power distribution	TBA	IEAust.
27 Nov. 2003	Board Band Optical Fibre Sources	Assoc. Prof. Graham Town, Macq. Uni.	IEEE
28 Nov. 2003	IEEE Annual General Meeting		IEEE

## 11. DETAILS OF UPCOMING JOINT TECHNICAL MEETINGS

### PHOTONIC PROCESSING OF MICROWAVE SIGNALS

Thursday, 24 October 2002

Speaker: Professor Robert Minasian, Director, Fibre Optics & Photonics Group, University of Sydney

Synopsis: Photonic processors for signal processing functions have very high time-bandwidth product capabilities and can solve the limitations of sampling speed problems in conventional electrical signal processors. Optical delay line structures also allow direct processing of high frequency signals, that are already in the optical domain, and are inherently compatible with fibre optic microwave systems. These processors open up new possibilities for the realisation of high resolution and adaptive processing of signals contained within the fibre.

Recent new methods in the processing of wideband signals using optical delay lines and Bragg gratings are described, including fast sampling and multiple-wavelength techniques. Photonic signal processing can realise multi-GHz sampling frequencies, and can provide connectivity with in-built signal conditioning. Processors for interference mitigation filters, signal correlators, high-resolution microwave filters, frequency conversion, and true-time delay beamforming in phased array antennas will be discussed.

Biography: Robert Minasian received the B.E. degree from the University of Melbourne, the MSc degree from University College London, and the PhD from the University of Melbourne. He is currently a Professor with the School of Electrical and Information Engineering at the University of Sydney, and is Director of the Fibre-Optics and Photonics Group. His research encompasses optical signal processing and telecommunications, and currently centers on photonic signal processing, broadband optical communications, microwave photonics and optical phased arrays. He has contributed more than 160 technical publications in these areas. He is an Associate Editor of Optical Fiber Technology. Professor Minasian is a Fellow of the Institute of Engineers, Australia. He was the recipient of the ATERB Medal for Outstanding Investigator in Telecommunications, awarded by the Australian Telecommunications and Electronics Research Board.

## **STRATEGIC ASSET MANAGEMENT**

### **Thursday, 14 November 2002**

Speaker: Dr Bob Platfoot, Covaris Pty Ltd

Synopsis: This paper presents various methodologies and issues associated with a total asset management process that embraces the use of capital and maintenance expenditure to ensure assets meet the full spectrum of operational requirements, including safety, performance and return on investment. Pervading the entire process is a risk management process that is a function of the condition of the asset base and the responsiveness to identified needs. The tangibles of the asset management plan are physical documents and systems that make up the individual elements within the framework. In this case, they are the outward signs of a business process, which is comprised of many business rules.

Output from the asset management plan described in the paper includes distribution of costs across systems and areas, efficiency of the expenditure (including reactive versus proactive maintenance plus anecdotal notes on known problems), and effectiveness of the expenditure –

management of the reliability and capability of the systems, where capability represents ability of an asset to provide its intended function with expected levels of flexibility, efficiency and quality. In conclusion this work has achieved interpretation of the broad overall business targets in terms of operational requirements for specific assets and groups of assets, planning ahead to check likelihood of asset capability being able to meet operational requirements, and gap analysis between operational requirements and operational performance.

Biography: Bob Platfoot is a Principal of Covaris Pty Ltd, an engineering consulting and technology development company based in Sydney, Australia. The main focus of the company is divided into four core programs streams: strategic asset management, maintenance systems, process optimisation and energy optimisation.

Prior to this, Bob was a Senior Lecturer at the University of NSW where he extensively researched maintenance engineering methods, and developed various processes applicable to the shop floor as well as restructuring of company processes. He was responsible for introducing maintenance course work and various research projects associated with preventative maintenance systems and contemporary approaches.

He worked for the Electricity Commission of NSW, now known as Pacific Power, between 1979 and 1992, covering various aspects of coal fired boiler plant life assessment and maintenance. Key work included predicting three dimensional gas flows inside boiler, dust collection and milling plant, and life assessment of high temperature tube banks.

He holds BE and PhD degrees in Mechanical Engineering.

His current primary interests are in the all-of-life sustainment of performance-based maintenance contracts and company strategic improvement in asset management. He is responsible for packaged systems in the establishment and implementation of planned maintenance in a variety of facilities and organisations. Recent career highlights have included work in total asset management approaches to an alumina refinery and the Collins class submarine fleet.

## **THE EXPANDING SCOPE OF PROFESSIONAL LIABILITY**

### **Thursday, 28 November 2002**

Speaker: Joern Schimmelfeder, Senior Associate – Infrastructure, PricewaterhouseCoopers Legal (Tel: 61 2 8266 6684)

Synopsis: The scope of professionals' liability is expanding such that each participant involved in a construction project is obliged to act in a manner which may often cause them to accept responsibilities beyond those set out in the terms of their agreement. Legal obligations can be imposed where an engineer should be capable of identifying a potential problem or scope for liability. This duty is often discharged by warning the relevant party, being the superintendent administering the contract or the principal himself or herself. In some circumstances, the duty requires something more to be done. The concerning aspect of this development in the law is that engineers may not know when the duty arises or what, in precise terms, is ! required of them. This is particularly unnerving where engineers may seek to rely on the approved practices of their professional body, such as the Institution of Engineers.

This development in the law is one reason why consulting professionals need to adopt a more sophisticated approach to providing their services. One way to control contractors' claims is to consider these issues when drafting contracts to engage consultants. Limitations on, or indemnity from liability where it arises in particular circumstances are a pre-emptive way of managing the risk which is introduced by these developments in the law. Exclusion clauses need to be carefully drafted and raise further issues for consideration.

Biography: Joern Schimmelfeder has a broad range of experience in construction, infrastructure and engineering transactions and disputes.

He has been involved in the drafting of long term road and rail maintenance agreements, joint venture agreements for consortiums undertaking major infrastructure projects and drafting mining infrastructure agreements as well as major construction disputes.

Joern was identified in the 2001-2002 edition of Legal Profiles as a "Young Gun". His practice areas are identified as "construction and maintenance of major infrastructure including project finance and establishing transaction structures". The client comment is noted as "knowledge of law, understanding government and rail contracts. Punctual with commercial responses. Available to answer queries".

**PROTECTION AGAINST ARCHING FAULTS ON LV SWITCHBOARDS**  
**Thursday, 13 February 2003**

Speaker: TBA

No details provided at time of printing. Please visit the 'News' page of the Section web site for details in the weeks preceding the meeting.

**12. MEMBER PROFILE – NSW SECTION**  
**TREASURER DAVID BURGER**



David Burger is Treasurer of the Section and previously was Assistant Treasurer in 1998 and Vice Chair in 2001. David is a Senior Member of the IEEE and the IEAust. He also has a Chartered Professional Engineer accreditation, and is a member of the IEAust Electrical College. As well, he is a member of the IT&C College of IEAust and is on the panel of interviewers for this College. In his spare time, David is actively involved in Amateur Radio, holding the highest-grade licenses in both Australia and the USA.

David is currently employed with PricewaterhouseCoopers in the Infocomms consultancy group. His work involves voice/data and multi-media telecommunications network diagnostic work, telco operations process improvement and capacity planning and forecasting, including emerging mobile networks.

David has over 18 years experience in telecommunications and consultancy services, including 7 years servicing the financial industry's specialised communications needs. He has wide telecommunication experience with cellular systems, satellite, fibre, voice and data services, including cost estimation and justification processes.

**13. WESTE SPEAKS ON 802.11A – 30**  
**OCTOBER**

The next meeting of the NSW Joint Chapter of Solid State Circuits/Circuits and Systems on 30 October will be addressed by IEEE Fellow Neil Weste, Director of Engineering, Cisco. Neil's talk is entitled "RF, CMOS and friends – a potpourri of experiences with IEEE 802.11a chipset". The venue is Cisco Systems, Level 2, 3 Innovation Road, North Ryde, NSW. The meeting is scheduled from 6 to 9 pm and includes refreshments and the opportunity to network.



For further details please contact the Chapter Chair, Steven Duvall (ph 9937 5861, email [steven.g.duvall@intel.com](mailto:steven.g.duvall@intel.com)).

Patricia Thompson, IEEE Technical Activities, telephone +1 732 562 3872; [p.thompson@ieee.org](mailto:p.thompson@ieee.org).

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#### **14. DUES INCREASE IN 2003**

The IEEE Board of Directors voted in June to increase dues and assessments for the 2003 membership year. The rate for higher-grade members will increase to US\$110 plus Regional Assessments. Student dues will rise to US\$30 for Regions 1-7 and US\$25 for Regions 8-10. (A subscription to "IEEE Potentials" magazine is included in membership for students in Regions 1-7, accounting for the difference.) This is the first increase in Student dues since 1993, and only the second increase in higher-grade dues since 1996.

In addition, the Board raised the IEEE-USA assessment to US\$33 and revised the reduced-dues program for recent graduates. The now one-year program offers individuals a 50 percent discount off full member dues the first year after graduation.

At a special meeting on 2 August, the IEEE Board of Directors voted to revise the Affiliate fee for 2003 to US\$49. The Board also voted to set the Affiliate fee to 50 percent of full IEEE dues for the 2004 membership year and beyond.

After 15 August, the new 2003 dues rates will go into effect and all applications received at IEEE will be processed for the 2003 dues year. The online 2003 IEEE applications will be available as of 1 September for applicants paying by credit card. The online applications may be found at <http://www.ieee.org>, select the link for "Membership."

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#### **15. HOW TO PURCHASE IEEE CONFERENCE PROCEEDINGS?**

IEEE has launched a new Conference Search function that enables a visitor to go right to the appropriate "shop" page if she wants to purchase a publication associated with her conference (if a publication exists). Start your search at <http://www.ieee.org/conferencesearch/>.

The easiest way to find a conference is to select a "Year" and a "Sponsor," then click on "Submit." Select the conference from the search results, and then scroll down to the "Proceedings/Publications" cell. If there is a publication for that conference, you will see a number. Click on it, and you will be directed to the "shop" page. For further information, contact

#### **16. 2001 IEEE ANNUAL REPORT NOW AVAILABLE**

The 2001 IEEE Annual Report is now available. To conserve costs and achieve a broad, global distribution, the report will be primarily accessible online from the IEEE home page, <http://www.ieee.org>. Printed copies will be mailed to the IEEE Board of Directors, major boards and committees, as well as about 4,000 corporate, government and academic leaders around the world. Delegates to the 2002 Sections Congress will receive both a printed copy and a CD-ROM.

For more information, contact Helen Horwitz, IEEE Corporate Strategy and Communications, at [h.horwitz@ieee.org](mailto:h.horwitz@ieee.org) or +1 732 562 6821.

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#### **17. RESPONDING TO STUDENT NEEDS WORLDWIDE**

Through its Rapid Response Program, the IEEE Foundation is able to quickly respond to funding requests under US\$5,000 for projects and activities related to IEEE student and young professional members. Three such projects - a robotics competition in Chile, a four-day student workshop in Spain, and student leadership conference in the United States, were awarded a total of US\$10,400 during September 2002. To learn more about how to apply for a grant from the IEEE Foundation, go to <http://www.ieee.org/organizations/foundation/html/funding.html>.

IEEE Scoop October 2002

#### **18. INTERNATIONAL CONFERENCES**

Details of conferences and other forthcoming international events can be found by visiting the IEEE web site [www.ieee.org/conferencesearch/](http://www.ieee.org/conferencesearch/).

#### **19. REMINDER OF FUTURE EVENTS AT CHARLES STURT UNIVERSITY**

The NSW Section is a technical co-sponsor of the First International Conference on Information Technology and Applications (ICITA 2002), to be held in Bathurst from 24 to 28 November 2002. Details may be obtained from the Conference

web site  
<http://odysseus.mit.csu.edu.au/icita2002.html>.

The third Biennial Complex Systems Summer School will be held from 1 to 6 December 2002. Details can be found at:  
<http://clio.mit.csu.edu.au/rgai/csss2002/>

## 20. STUDENT PAPER COMPETITIONS

Entries are now invited for three student paper competitions. Two are provided by the IEEE Australia Council and the third, the Max Symons Prize, by the IEEE NSW Section. The aims, the conditions of entry and the method of submission are the same. These and other details are given below.

**Aims:** (a) To promote the interest of undergraduate / postgraduate students in writing high quality technical papers in the research areas within the technical areas of IEEE. (b) To promote the interest in all aspects of electrical, electronics, communications, and Computer engineering inclusive of all areas of IEEE interest. (c) To promote IEEE membership throughout Australia.

**Prizes:** For the undergraduate competition, a \$500 cash prize is awarded to the student author of the paper judged to be the best submission. For the postgraduate competition a cash prize of \$500 is also awarded, together with up to \$1000 support for the winner to travel to an IEEE sponsored Australian or International conference of his/her choice in 2003, provided that the student presents their paper at that conference. The IEEE Australia Council/NSW Section reserves the right not to award either prize if it believes that there is no paper of a suitable status.

**Max Simons Prize: The best paper submitted from the New South Wales Section will be eligible for the Max Simons Prize. This includes \$200 cash and a certificate.**

**Certificates:** Each of the Best Paper winners of the two competitions (Undergraduate and Postgraduate) is awarded a Certificate from the IEEE Australia Council. In addition a Certificate of Rank is awarded to each of the first and second runner-up student papers of the two competitions.  
**Subject of the Paper:** The author is free to choose the subject of the paper which, however, must be within the traditional fields of Electrical, Electronic, Communications, and Computer engineering, or within the emerging fields of Information Technology, Bio-medical, and Nano-Technology inclusive of all technical areas covered by the IEEE.

**Eligibility:** The IEEE Australia Council Student Paper Competition is open to all IEEE

Undergraduate and Postgraduate Student Members studying in Australia. Separate undergraduate and postgraduate prizes will be awarded. Papers must be submitted in the first instance to the IEEE Section in which their institution is located if a Section level contest is held. The best and the first runner-up undergraduate and postgraduate papers from each Section will then be sent to the IEEE Australia Council where the final decision will be made. In case where there is no section level contest, the student authors may send their papers directly to the IEEE Australia Council. The papers will be judged on technical merit (50%) and presentation (50%).

**Judging Criteria:** The papers will be judged on their technical contents, original ideas as well as written presentation. Details of the criteria can be found in the IEEE Australia Council web site:  
<http://www.ieee.asn.au>  
[http://ieee.asn.au/postg\\_criteria.htm](http://ieee.asn.au/postg_criteria.htm)  
[http://ieee.asn.au/underg\\_criteria.htm](http://ieee.asn.au/underg_criteria.htm).

**Paper submission:** Papers should be submitted to:

Dr A. J. Parfitt

Secretary, New South Wales Section  
CSIRO Telecommunications & Industrial Physics  
PO Box 76, Epping NSW 1710

Email: [andrew.parfitt@csiro.au](mailto:andrew.parfitt@csiro.au)

by **11 November 2002** so that the short-listed papers can be forwarded to the IEEE Australia Council committee before 15 November 2002.

**Paper Format:** NSW Section should receive six copies of hardcopy or a softcopy (pdf file) of the Technical Paper in IEEE standard paper format. The IEEE Format is available from:  
[www.ieee.org/organizations/society/power/subpages/authors.html](http://www.ieee.org/organizations/society/power/subpages/authors.html) or from other web-sites of IEEE.

**Contest Rules:** All entries must be accompanied by a certificate from an IEEE Student Branch Counsellor or Faculty Member of the entrant's home institution, confirming the entrant is an IEEE Student Member and indicating which competition (undergraduate or postgraduate) the student is entering. The entrant's IEEE Student Membership Number must be stated in the certificate. If the student is in the process of becoming an IEEE student member, then a photocopy of the duly completed application must accompany the manuscript. The paper may report on the entrant's undergraduate thesis or postgraduate research on a topic in the areas of electrical, electronic engineering, computer science or allied subjects in the fields of interest of the IEEE Technical Societies. The paper must be the student's own work, and the student should declare this in a cover letter with the submission. The maximum length of the paper is six A4 pages including all text and figures.

Deadline: Six printed copies or one softcopy (pdf file) of the technical paper in accordance with the Contest Rules must be received by the NSW IEEE Section no later than 11 November 2002. In the event of a student failing to submit before this deadline due to a valid reason (e.g. medical reasons), the student may still submit the package to the IEEE Australia Council before 15 November 2002.

Further information can be obtained from Dr Parfitt (details above) or

Dr. W. W. L. Keerthipala  
Student Paper Contest Coordinator

IEEE Australia Council  
Tel: 61 (08) 9266 7901  
Email: rkeerthi@cc.curtin.edu.au

## 21. WANTED

Wanted to purchase. Hardbound copy (1<sup>st</sup> or 2<sup>nd</sup> edition) of 'A treatise on the theory of Bessel functions', by G.N. Watson. Contact: the Editor (ph 9372 4289, email [ts.bird@ieee.org](mailto:ts.bird@ieee.org)).

## ADVERTISING PAYS!

**This issue of *Circuit* reaches over 2000 IEEE members across New South Wales. Why not advertise your company or your next event to engineering professionals via *Circuit*?**

**For further information, please contact Andrew Parfitt - ph. (02) 9372-4187.**

## 22. IF YOU WANT TO CONTINUE TO RECEIVE CIRCUIT BY MAIL PLEASE COMPLETE THIS FORM

As has been foreshadowed for over a year now, from 2003 CIRCUIT will normally be provided electronically by downloading from the NSW Section Web site <http://ewh.ieee.org/r10/nsw>. Members will be notified by email using the address provided at the membership renewal time when a new issue has been posted on the web site.

In 2003 CIRCUIT will be mailed only to those members requesting a printed copy or those not having an email address. **If you require a hard copy of CIRCUIT mailed to you please complete the form below and return to the Editor at the address shown.**

Please Detach-----

YES, I WANT TO CONTINUE TO RECEIVE CIRCUIT BY MAIL

Name:.....Member No:.....

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Post return not later than 10 January 2003 to: Editor of CIRCUIT, IEEE Committee, C/  
PROFESSIONAL CENTRE OF AUSTRALIA, Private Bag No. 1, DARLINGHURST NSW 2010.



## SETE 2002 Conference Tuesday 29 - Wednesday 30 October 2002 Sydney, Australia

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 Mr Richard L Lockhart ~ Director, Developmental Test and Evaluation, Department of Defense USA

The conference will include a Systems Engineering products exhibition

For further information and online registration visit [www.sesa.org.au](http://www.sesa.org.au) or contact the Conference Organisers:

International Conferences and Events (ICE) Aust Pty Ltd  
 Ph: + 61 2 9544 9134 Fax: + 61 2 9522 4447 Email [sete2002@iceaustralia.com](mailto:sete2002@iceaustralia.com)



## 8TH AUSTRALIAN SYMPOSIUM ON ANTENNAS Sydney 12 - 13 February 2003



<http://www.tip.csiro.au/ICT/SpaceSatellite/ASA>

### Call for Abstracts

The Symposium aims to bring together engineers, scientists, and industry representatives working in antennas and related areas to discuss developments relevant to Australia. It is sponsored by CSIRO Telecommunications & Industrial Physics.

You are invited to attend and participate in this major technical event, and we encourage you to submit an abstract on a topic of current interest.

- Registration costs \$250 including GST (\$300 after 1 February 2003) and is half price for students and retirees.
- There will be a \$500 prize for the best student presentation.
- Abstracts are required by 29 November 2002.
- See website for registration or submission of abstracts. For further information, contact Dr Andrew Parfitt (02) 9372 4222, fax (02) 9372 4446. email: [ant.symp03@csiro.au](mailto:ant.symp03@csiro.au).