# IEEE
# NEW SOUTH WALES SECTION

## Annual Report to Region 10 Meeting

28 March 2004

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NEW SOUTH WALES SECTION, AUSTRALIA

THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS INC

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# OFFICERS OF THE IEEE NEW SOUTH WALES SECTION 2004

## 2004 SECTION COMMITTEE

| | |
|---|---|
| *Chairman:* | Andrew PARFITT |
| *Vice-Chairman:* | Graeme GWILLIAM |
| *Secretary:* | David BURGER |
| *Treasurer:* | David TIEN |
| *Past-Chairman:* | Trevor BIRD |
| *Membership Development:* | Bruce POON |
| *Awards Chair:* | Jim VASSELEU |
| *Fellow Search:* | Walter LACHS |
| *Newsletter Editor:* | Trevor BIRD |
| *Student Activities:* | Stephanie BOYD |
| *Professional Activities:* | Demetrios (Jim) LOGOTHETIS and Ian BOYD |
| *Educational Activities:* | Karu ESSELLE |
| *Historian:* | Ramutis (Zak) ZAKAREVICIUS |
| *Nominations Committee* | Trevor BIRD (Chair), Ramutis (Zak) ZAKAREVICIUS, Bruce POON |
| *Committee Members*: | Stefan MOZAR, Sam REISENFELD, Eddie FONG, All Chapter Chairmen (*ex-officio*) |
| *Section Webmaster:* | Jon AGNEW |

## 2004 CHAPTER CHAIRS

### Computer Chapter

*Chairman:* Stephanie BOYD

### Communications/Signal Processing Joint Chapter

*Chairman:* Ollencia D'SOUZA

### Microwave Theory Techniques/Antennas Propagation Joint Chapter

*Chairman:* Graham TOWN

### Power Engineering Chapter

*Chairman:* Graeme GWILLIAM

### Industrial Applications/Power Electronics/Industrial Electronics Joint Chapter

*Chairman:* Faz RAHMAN

### Circuits & Systems/Solid-State Circuits Joint Chapter

*Chairman:* Steven DUVALL

**2003 AFFINITY GROUPS**

**Life Member**

*Chairman:* Jim VASSELEU

**GOLD**

*Chairman:* Simon BOLAND

## PART A – SECTION SUMMARY

### A.1 Executive Summary

Highlights of the year 2003 were:

- Agreement to sponsor and support two Australian IEEE conferences in 2004
- Increase in contact with universities and in student and GOLD activities
- Visit of IEEE President Michael Adler to the Section
- Formation of Joint IT Chapter (with SA, Vic and ACT Sections)
- Increased involvement in Professional Engineers Week by IEEE
- Addition of Macquarie University to list of Recognized Engineering Programs

### A.2 Financial Summary

The Section remains in a sound financial position and this has enabled the Section Committee to commit seed funding to two major international conferences to be held in Australia in 2004. Finalization of the PICA 2001 accounts is not yet complete, in part due to dispute over PES funding arrangements for student participation, and this has delayed Section auditing. The Executive Committee has decided to close and transfer all PICA funds to the Section account in December 2003 in order to expedite closure and auditing.

Submission of financial reporting to IEEE HQ and acceptance of reports has allowed us to maintain financial transparency and access a 10% bonus to our rebate.

The Treasurer's report provides details of our financial position and expenditure for 2003.

## PART B – ORGANISATION ACTIVITIES

### B.1 Membership & Membership Development

Section membership at 31 Jan 2004 stands as follows:

| | |
|---|---|
| Active members (including affiliates) | 2488 |
| Active senior grade members (including fellows) | 139 |
| Active student members | 452 |
| Active life members (all grades) | 36 |

There has been a small increase in all grades of membership over the last 12 months.

Two new IEEE Fellows were elected from NSW in 2003: Minyue Fu (University of Newcastle) and Albert Zomaya (University of Sydney).

### B.2 Professional and Continuing Education Activities and Conferences

The Section has once again worked closely with Engineers Australia and the Institution of Electrical Engineers. A renewal of the tripartite agreement between the three institutions was effected in 2003, and continues to offer membership subsidy and cross-institutional benefits. The Section plays an active role in the development and implementation of the lecture program and, in 2003, it contributed six of the sixteen lectures. Our involvement with the Professional Engineers Promotion (PEP) committee was enhanced again this year. The major activity coordinated by the PEP committee is National Engineering Week. Once

again the Section contributed $1,000 to help finance the event, and we were pleased that an electro-technology subject was once more the topic of the Harricks lecture, which was presented this year by Section Committee member Prof. Sam Reisenfeld.

In October we hosted a visit of the IEEE President Dr Michael Adler. Opportunities were afforded for discussion of the Engineers Australia relationship with IEEE, as well as possible collaboration with the Australian Computer Society.

The NSW Section is a technical cosponsor of three conferences to be held in Sydney in December 2003:

1. The International Conference on Networks 2003. This conference is primarily organized by the University of New South Wales.
2. The International Conference on Consumer Electronics 2003. This conference was transferred to Sydney from Singapore due to the SARS epidemic earlier in the year.
3. The Seventh International Conference on Digital Image Computing, Techniques and Applications.

The NSW Section agreed to be a cosponsor, providing $10,000 seed funding, to two international conference to be held in Australia in 2004:

1. The 2004 Asian Control Conference. This conference will be hosted in Melbourne, and is jointly supported with IEEE South Australia, IEEE Queensland and University of Melbourne.
2. The 2004 IEEE International Conference on Spread Spectrum Techniques and Applications. This conference will be held in Sydney, and is jointly supported with IEEE South Australia Section.

### B.3 Recognized Educational Programs

The IEEE procedure for maintaining a register of recognized educational programs has been changed. The new approach is to maintain centrally a list of recognized institutions, together with an identifiable set of relevant technology areas (eg. Electronic Engineering, Computer Science etc.) that would be used to verify if a graduate qualifies for IEEE membership or associate membership.

In New South Wales, the institutions recognized are The University of Sydney, The University of Technology Sydney, The University of New South Wales, The University of Wollongong, The University of Newcastle and The University of Western Sydney. This year we are pleased to note that Macquarie University was also added to the list.

### B.4 Student Activities

As in 2002, the Section Committee agreed in to fund up to 200 new Student members this year. Nearly 200 applications were received and the initiative will continue early next year for 2004. Regrettably, IEEE Student Member fees have increased substantially to US$25 per year, so it will not be possible for the NSW Section to support as many new students in the future.

A number of student branches are registered in New South Wales, and several of these have active committees and conduct regular activities. Others are not active, and attempts to rejuvenate them are in progress. In an effort to improve communications with student branches, the Region 10 Committee at its November meeting recommended a closer structural and reporting link between Sections and Student Branches. It is not clear if this will be implemented, but in any case our Student Activities Convener Stephanie Boyd is working closely to strengthen ties with student branches and with student counselors at our universities. Although it is no longer essential for a student applicant for membership to obtain the signature of a student counselor, the Section Committee is of the view that we need to strengthen our links with student groups and with universities.

Two new Student Chapters are still in the process of being formed, at Charles Sturt University, Bathurst, and at Macquarie University. The Macquarie University group have already conducted one meeting.

### B.5 E-mail and Newsletter Activities, Home Page

Three newsletters (*Circuit*) were issued in 2003. The newsletters were posted on the Section Web page by the Webmaster, Jon Agnew. One of the three issues is mailed to all members, and the other two are principally electronic. Members who have requested the service may still have all issues mailed to them, but are asked to note that this incurs a significant cost to the Section. *Circuit* has continued to be a high quality publication, and I would like to thank the Editor Dr Trevor Bird for his work in this regard.

Jon Agnew continues to maintain the Section web site (http://ewh.ieee.org/r10/nsw) which is the principal source of information on Section activities. Members are advised to consult the web page frequently for new events and updates.

### B.6 IEEE Awards to Members

The NSW Section Membership Development Officer, Bruce Poon, was this year recognized with an IEEE Region 10 Outstanding Volunteer Award in recognition of his service over many years. The award will be made on behalf of Region 10 by the Section Chairman at the Annual General Meeting.

Parastoo Sadgehi and Vladimir Trajkovic, from the University of New South Wales, were awarded second prize in the IEEE Region 10 Postgraduate Student Paper Contest for their paper 'A novel method for receiver training in flat fading channels modeled as finite state Markov processes'. The winners of the 2002 Australia Council and New South Wales (Max Simons Prize) competitions will be announced soon.

### B.7 Chapter & Affinity Group Activities

All Chapters were active during the year, holding functions such as lectures, seminars and workshops, and utilising IEEE Distinguished Lecturers on some occasions.

An new joint Information Technology Chapter was formed in conjunction with South Australia, Victorian and Australian Capital Territory Sections. The Chapter is hosted in South Australia, and is principally intended to attract IT professionals by securing distinguished lecturer visits in this area.

The GOLD (Graduates of the Last Decade) Affinity group continues to be active under the leadership of Simon Boland, who assumed the Chair after the departure of Foundation Chair Filita Barker.

A GOLD function held on 28 August, at the Duxton Hotel, North Sydney, was well attended. Speakers from NICTA and ANSTO focused on development and career opportunities for young engineers.

The Life Members Affinity group has noted the death of two of its members this year, and has also welcomed four new members. New Life Members are invited to the Annual Dinner.

### B.8 Organization

In 2003 the Section Committee met monthly, with the exception of the July meeting which was cancelled due to complications with the venue. The meetings are held at North Sydney TAFE, the Director of which we thank for providing the facilities.

The Section Committee identified a number of areas which it believed might contribute value to IEEE members in this state. Little additional input was obtained from the wider NSW Section membership despite requests for input made through *Circuit*. The top five areas, as determined by the Committee, are summarized below

| Area | Goal | Progress to Date |
|---|---|---|
| Major Conferences | Plan to hold at least one major International Conference in Sydney every year. | One conference proceeding in 2004. Other prospects for 2005, particularly involving cross-Section collaboration in Australia. |
| Student Activities | Find student counselors at all NSW universities and enhance links (especially with student branches) | Significant progress with some Universities and Branches. Others to be targeted in 2004. |
| Joint Seminars | To increase the number of seminars run jointly at university campuses | PES activity in this area. New student branch involvement. |
| Complete Promotional CD-ROM | Complete CD-ROM for high school and university students showing career paths and providing information on IEEE | Subcommittee formed and project scoped but incomplete. |
| Promote Distinguished Lecturer Tours | To increase the number of attendees at DL functions and increase number of DL functions. | More DLs visited in 2003, both to the Section and via Australia Council.<br>Wide publicity by electronic means. |

The Section Chairman represented the Section at the 2003 Region 10 Meeting of Sections and Council Chairs that was held in Penang, Malaysia, 9-10 October 2003. The meeting was originally scheduled for April but was postponed due to the SARS epidemic in South East Asia.

## PART C- GOALS AND PLANS FOR 2004

### C.1 Goals

Key goals for 2004 will be set by the new Section Committee, but will include the areas identified above.

Two early areas for consideration will be

1. Bylaw review – mandated by IEEE.
2. Closer formal links with Student Branches.

### C.2 Detailed Implementation Plans

The Section Executive Committee tasks its subcommittees and/or separately constituted subgroups in relation to implementation of the goals and priorities identified above.

### C.3 Budget

The Section Committee sets a budget early in the year, consistent with its expected income from the rebate, interest and other conference surplus. Core and strategic activities are funded at that stage.

## PART D – OTHER RELEVANT ACTIVITIES AND ISSUES

### D.1 Relationship with National Societies

The Joint Membership Agreement, which was signed in August 1998 between The Institution of Engineers, Australia (IEAust), the Institute of Electrical Engineers UK (IEE) and IEEE, has been revised and is now in place.

### D.2 Special Events

Visit of IEEE President Dr Michael Adler referred earlier.

### D.3 Problems to be Anticipated

Issues have again arisen with regard to the legal status of IEEE in Australia. The Australia Council has tasked the NSW and ACT Section Chairs with the responsibility for determining our status in regard to incorporation and liability, given that we are a registered foreign entity in NSW.