



Western Australia Section
Annual Report for 2004

Written by Dr Douglas Chai, 2004 Section Chair

Date: 21 January 2005

PART A – SECTION SUMMARY

A.1 Executive Summary

This report outlines the 2004 activities of the Western Australia Section.

2004 was yet another busy year for the Section committee as we continue to work hard to strengthen the Western Australia Section and its sub-units.

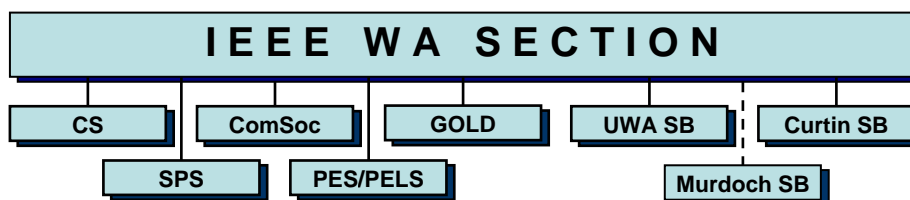
The highlights included:

- The formation of GOLD affinity group
- The transformation of PES chapter into joint PES/PELS chapter
- The revival of Section newsletter
- The major upgrade of Section website
- The establishment of stronger links with local ICT industry group and government
- And many more...

The 2004 WA Section committee members were:

- Douglas Chai, *Chair*
- Harry McDonald, *Secretary*
- Lance Fung, *Treasurer & Immediate Past Chair*
- Terence Law, *Awards & Recognition*
- David May, *Membership Development*
- Halit Eren, *Recognized Education Program*
- Harry McDonald & Jasmine Henry, *Joint Electrical Technical Program*
- Helene Fung, *Nominations & Appointments*
- Nicola Ritter, *Student Activities*
- Theng Wei Loke, *Newsletter Editor*
- Son Lam Phung, *Web Manager*
- Benoit Chellen, *Mailing List*
- Farid Boussaid, *SAMIEEE Manager*
- Karyne Wong & Yee Hong Leung, *General Committee Members*
- Daryoush Habibi, *Communications Society Chapter Chair*
- Lance Fung, *Computer Society Chapter Chair*
- An Li, *Joint Power Engineering Society & Power Electronics Society Chapter Chair*
- Douglas Chai (Sep-Dec), Salim Bouzerdoum (Jan-Sep), *Signal Processing Society Chapter Chair*
- Andrew Tan, *GOLD Affinity Group*
- Simon Millward, *Curtin University Student Branch Chair*
- Li San Poon, *The University of Western Australia Student Branch Chair*
- Eric Li, *Murdoch University Student Branch Interim Chair*

The structure of the organization as at 31 December 2004 is depicted below. The official formation of Murdoch University Student Branch is expected in 2005.



A.2 Financial Report

The financial situation of the Section is sound. The Section continues to spend its money wisely.

A small surplus of approximately AUD 800 was achieved in 2004. This brings the net asset at year end to slightly over AUD 42,000.

PART B – ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

WA Membership

The membership number for 2004 is best described as steady. The total number of WA members as reported at the 2004 AGM was 572.

Grade	2004 AGM	2003 AGM	Change
Fellow	2	2	0
Life Senior	1	2	-1
Senior Member	34	23	11
Life Member	2	1	1
Member	349	303	46
Associate	18	48	-30
Student	166	188	-22
TOTAL	572	567	5

Note: The 2004 and 2003 AGM statistics were obtained on 22 Nov 2004 and 26 Nov 2003, respectively.

Senior Membership

The Section has had a very successful senior membership drive, which resulted in 12 senior member elevations in 2004. All applicants were nominated by the Section and all were successful.

January	Kamal Alameh Daryoush Habibi Jasmine Henry
April	Wlodzimierz Gornisiewicz Nicola Ritter Roberto Togneri
May	Sven Nordholm
June	Christopher Hill
August	Farid Boussaid Ronald L While
September	Stefan Lachowicz John R Stewart

GOLD

The WA Graduate of the Last Decade (GOLD) Affinity Group was officially established in early 2004. This entity was set up to better serve the graduate members and help them in their transitions from student to working lives.

Member Survey

The Section conducted a membership survey in August to seek information so that we could do more for our members and enhance activities in the Section.

B.2 Section Activities

The Section had run numerous social, technical and professional meetings throughout 2004. Most events were organized jointly with the Engineers Australia and the IEE societies under the Joint Electrical Technical Program or JETP in short.

- Social Meeting: "Gravity wave – Cosmos Centre site visit" (Speaker: David Blair), 14/2/2004 – JETP.
- Technical Meeting: "Wind power technology – status development and trends" by Prof Chem Nayar (*Curtin University of Technology, Perth*), 10/3/2004 – JETP.
- Technical Meeting: "Voice over IP: the next step" by Dr Walter Green (*Murdoch University, Perth*) and Mr Ross Hiddlestone (*City of Melville, Perth*), 14/4/2004 – JETP.
- Technical Meeting: "Tamala Park gas recycling project" by Shane Forth (*Landfill Gas and Power, Perth*), 15/5/2004 – JETP.
- Technical Meeting: "A tribute to Nicola Tesla" by Dr Zoran Bozic, (*Western Power Corporation, Perth*), 9/6/2004 – JETP.
- Professional Meeting: "Industrial wireless instrument networks" by Dr Halit Eren (*Curtin University of Technology, Perth*), 14/6/2004.
- Professional Meeting: "Industrial wireless instrument networks" by Dr Halit Eren (*Curtin University of Technology, Perth*), 15/6/2004.
- Professional Meeting: "Industrial wireless instrument networks" by Dr Halit Eren (*Curtin University of Technology, Perth*), 17/6/2004.
- Technical Meeting: "Automation and process engineering" by Mr Ivan Davidowitz (*Sidac Pty Ltd, Perth*), 14/7/2004 – JETP.
- Technical Meeting: "Validation of results in numerical field simulation" by Prof H. Singer, 29/7/2004 – EA EMC.
- Technical Meeting: "Electronic materials for integrated circuit devices" by Prof Gerald Higelin, 5/8/2004 – JETP.
- Technical Meeting: "Rehabilitation engineering – providing access to technology for people with disabilities" by Mr Iain Murray (*Curtin University of Technology, Perth*), 11/8/2004 – JETP.
- Technical Meeting: "Enterprise networking and wireless switches" by Aslam Parker, 8/9/2004 – JETP.
- Technical Meeting: "Cockburn power station tour" by Mr Simon Ganley, 10/11/2004 - JETP.

The Section had also held 7 regular committee meetings plus a strategic planning workshop and an AGM.

Administrative Meeting #1	10/2/2004
Administrative Meeting #2	22/3/2004
Administrative Meeting #3 & Workshop	24/4/2004
Administrative Meeting #4	14/6/2004
Administrative Meeting #5	26/7/2004
Administrative Meeting #6	6/9/2004
Administrative Meeting #7	18/10/2004
Administrative Meeting – AGM	25/11/2004

B.2 Chapter Activities

Computer Chapter

The Computer Chapter has received recognition from the WA state government as a key representative of the local ICT industry. This, in turn, has helped the Section to establish a stronger links with the local ICT industry group and government.

The Chapter has recently signed a memorandum of understanding with the Department of Industry and Resources. The chapter is one of the founding members of the recently established unincorporated body known as the Information and Communications Technology Industry Collaboration Centre, or ICTICC in short.

The Computer Chapter had held 1 administrative, 1 technical and 2 educational meetings.

- Technical Meeting: "Topological analysis of online auction markets" by Prof James K. Ho (*University of Illinois at Chicago*), 22/4/2004.
- Administrative Meeting: 22/4/2004.
- Educational Meeting: "Recent trends and issues in e-commerce and data communication" by Mr Todd Hutchison, 31/5/2004.
- Educational Meeting: "The languages of the .NET framework" by Mr Nick Randolph, 17/8/2004.

Communications Chapter

The Communications Chapter had held 3 technical meetings.

- Technical Meeting: "Wireless PANs for home and industrial applications" by Mr Greg Breen (*Intellect Australia*), 31/3/2004.
- Technical Meeting: "Use of optical circuit simulation in university teaching" by Prof Gerd Stock (*Kiel University, Germany*), 30/6/2004.
- Technical Meeting: "Next-generation networking: solutions and challenges" by Prof Andrzej Jajszczyk (*AGH University of Science and Technology, Poland*), 23/8/2004 – DL Program.

Joint Power Engineering and Power Electronics Chapter

The Joint Power Engineering and Power Electronics Chapter had held 5 administrative and 2 technical meetings.

- Administrative Meeting: 23/2/2004.
- Administrative Meeting: 27/4/2004.
- Technical Meeting: "Electricity reform in Western Australia, where to from here?" by Mr Steve Edwell (*Office of Energy, Perth*), 12/5/2004.
- Administrative Meeting: 13/7/2004.
- Administrative Meeting: 24/8/2004.
- Technical Meeting: "When is a SCADA system not a SCADA system?" by Mr Phil Kelloway (*Western Power Corporation, Perth*), 20/10/2004.
- Administrative Meeting: 2/11/2004.

Signal Processing Chapter

The Signal Processing Chapter had held 9 technical meetings.

- Technical Meeting: "Efficient techniques for rapid object feature detection and identification" by Ms Xiaoyun Deng (*Nanyang Technological University, Singapore*), 29/1/2004.
- Technical Meeting: "Attached mobility" by Mr Richard Dennis, 3/2/2004.
- Technical Meeting: "Adaptive blind equalization for indoor dynamic channels" by Prof Moeness Amin (*Villanova University, USA*), 8/3/2004 – DL Program.
- Technical Meeting: "A self-coherence based anti-jamming GPS receiver" by Prof Moeness Amin (*Villanova University, USA*), 8/3/2004 – DL Program.
- Technical Meeting: "Indian space programme – a scenario and opportunities" by Dr Surendra Pal (*Indian Space Research Organization Satellite Centre, India*), 22/4/2004.
- Technical Meeting: "Neuromorphic image processing" by Prof Ralph Etienne Cummings (*Johns Hopkins University, USA*), 20/8/2004.
- Technical Meeting: "Neuromorphic auditory systems" by Dr Andre Van Schaik (*University of Sydney, Australia*), 20/8/2004.
- Technical Meeting: "Recent developments on multi-channel blind system identification" by Prof Karim Abed Meraim (*Ecole Nationale Supérieure des Telecommunications, France*), 30/8/2004.
- Technical Meeting: "Recent advances in digital filter design: a design framework from complete and partial specifications based on root moments" by Prof A. G. Constantinides (*Imperial College, UK*), 4/11/2004.

B.3 GOLD Activities

The GOLD affinity group had held 3 administrative, 1 educational and 5 professional meetings.

Administrative Meeting #1	18/2/2004
Administrative Meeting #2	10/3/2004
Administrative Meeting #3	24/3/2004
Administrative Meeting #4	26/5/2004
Administrative Meeting #5	28/6/2004
Administrative Meeting #6	12/7/2004
Administrative Meeting #7	30/9/2004
Administrative Meeting #8	26/10/2004
Administrative Meeting #9	12/5/2004

- Professional Meeting: "Networking sundowner @ Carnegies" 2/4/2004.
- Professional Meeting: "GOLD networking AGM" 5/5/2004.
- Educational Meeting: "EECE tour and talk @ UWA", 28/7/2004.
- Professional Meeting: "Financial planning seminar" by Mr Matthew Hern, 26/8/2004.
- Professional Meeting: "GOLD networking session – spirit" 2/11/2004.
- Professional Meeting: "Professional etiquette seminar" 24/11/2004.

B.4 Student Activities

The WA Section currently has two Student Branches, one in The University of Western Australia (UWA) and the other in Curtin University of Technology. We are in the process of establishing a third Student Branch in Murdoch University, and we expect the official formation to take place in 2005.

The Student Branches have their own separate reporting, which goes directly to the IEEE HQ.

Highlights

The Student Branches continued to run numerous high-quality activities for the student members throughout the year. One of the major events for the Student Branches is the annual **IEEE Networking Forum**. This forum, now into its fifth year, is open to students of all years in the four public WA universities. The forum focuses on electrical engineering, information technology, software engineering, mechatronics, biomedical engineering and computer science. Many companies, such as Alcoa, Water Corp, Western Power, Honeywell, ABB, Ernst & Young, and Motorola, are often involved in this event. Hence the forum presents a perfect opportunity for students to ask for vacation and/or graduate work.

The Section had sent two students to participate in the 2004 **Student Congress** in Hong Kong.

Further information

More information about the Student Branches and their activities can be found on their websites:

UWA SB: <http://www.ee.uwa.edu.au/~ieeesb>
Curtin SB: <http://ieee.ece.curtin.edu.au>

B.4 Email and Newsletter Activities, Home Page

The Section now uses the E-Notice facility to distribute email announcements to its local members.

The Section newsletter was revived. We have managed to produce three issues of E-Wavelets, our electronic newsletter.

The Section website had undergone a major upgrade, and for consistency, the Section has adopted the IEEE Entity Web Hosting facility. The new look website can be found at http://ewh.ieee.org/r10/w_australia.

B.5 Awards

The Section had sponsored a number of awards, and they included:

- 2004 WA State Championships Robocup Competitions.
- 2004 Postgraduate Electrical Engineering and Computing Symposium – Best Poster Award
- 2004 IEEE Undergraduate Award @ Curtin University
- 2004 IEEE Undergraduate Award @ Edith Cowan University
- 2004 IEEE Undergraduate Award @ Murdoch University
- 2004 IEEE Undergraduate Award @ The University of Western Australia

PART C – GOALS AND PLANS

C.1 Short Term Goals

- Improve communications with members
- Recruit new volunteers
- Increase membership
- Elevate members
- Produce quality IEEE events

C.2 Long Term Goals

- Ensure good management of the Section and its finance
- Maintain steady, growing membership number

- Recognize members, volunteers and friends of WA Section
- Promote IEEE brand to industry and public
- Produce new while improving existing services to members

PART D – OTHERS

D.1 Acknowledgments

I am very grateful to the Section committee members who have all devoted so much of their time and energy to the Section in 2004. Special thanks to:

- The reliable Section Secretary Harry McDonald for his exceptional service to the IEEE;
- Lance Fung, the visionary Section Treasurer and Immediate Past Chair, for his tireless effort in making our Section great;
- The Chapter Chairs, Lance Fung, Daryoush Habibi, An Li, Salim Bouzerdoum and the chapter committee members for serving the technical needs of our local members;
- Andrew Tan and his committee members for shifting our GOLD affinity group into second gear;
- The wonderful Jasmine Henry for her excellent effort in helping Harry McDonald and the Section in our JETP commitment;
- The hardworking Son Lam Phung for giving our Section website a new look and keeping it up-to-date;
- Benoit Chellen for dealing with all those last minutes demands for email announcements;
- Theng-Wei Loke, the new Newsletter Editor, for waking up our sleepy newsletter department;
- The energetic Li-San Poon, Simon Millward, Eric Li and their committee members, for running all those high-quality student activities;
- The good ole' David May, Terence Law, Halit Eren, Yee Hong Leung, Karyne Wong and Helene Fung for their experiences and assistances in all different areas of the Section;
- And finally, the new-blood donors Farid Boussaid and Nicola Ritter for their new energy and their respective roles in database retrieval and student activities.