

IEEE Section Western Australia 2001 ANNUAL REPORT

**2001 Chair: Dr Lance C.C. Fung
Secretary: Dr Douglas Chai**

PART A - SECTION SUMMARY

A.1 Executive Summary

Since the Section's formation in 1984, the IEEE Western Australia Section has maintained a steady growth of membership number and a busy schedule of technical and social activities. The year 2001 is of no exception. An ongoing increase of student and senior memberships has been observed. In particular, it is very encouraging to see Professor Kit Po Wong, a long serving member of the Section committee and the Power Engineering Chapter, Chairperson of 1999 and 2000, has been elected as the Fellow of the IEEE.

In the year 2001, many technical talks, seminars, industrial visits and workshops for professional development for members and non-members have been organized. The four Chapters and two Student Branches have worked enthusiastically in organizing technical talks and activities. Notably, the Student Branches have been very effective in recruiting new student members throughout the year. An excellent working relationship between the Section Committee, Chapters and Student branches is maintained. An example of collaboration is the Networking Function jointly held by the two Student Branches and supported by the Section. Good attendance from the industry, students and members were recorded on the night.

The 2001 Executive Committee of Western Australia Section was elected at the AGM on 11th of December 2000. The committee members have provided many services to the members and promoted its relationship with industries, universities and other learned societies. In the month of May, a two day team-building workshop was held to enhance the team spirit of the Section and to determine goals for the coming years.

In addition to the technical activities, the Section has been a strong supporter of international and national conferences held in Perth. Three conferences have received supports from the Section in one form or another. The conferences were EPSM, AUPEC and ANZIIS. In order to provide support to the local students, the Section committee has also approved the provision of undergraduate student prizes to four local universities.

A.2 Financial Report

Under the efficient management of the treasurer, Dr Kevin Wong, the financial status of the Section maintains a very healthy and strong position. The Balance Sheet of the Section as at 31st December 2002 is given below. The Section is in a position to provide and to support activities for the benefits of the members in the coming years. These will include seminars, workshops, distinguished lecturers, technical visits and prizes. A summary of the expenses in 2001 is also given.

| Balance Sheet of IEEE WA Section | | |
|--|--------------------------------------|--------------------|
| ASets | | |
| Current ASets | | |
| Cash in Bank (Unicredit Account) | | |
| | S1 Account | \$21,905.92 |
| | I1 Account | \$11,259.95 |
| | Receivables | \$60.00 |
| | Total Current ASets | \$33,225.87 |
| Non-Current ASets | | |
| | Total Non Current ASets | \$0.00 |
| | Total ASets | \$33,225.87 |
| Liabilities | | |
| Current Liabilities | | |
| Creditor | | |
| | Cheques to clear | \$24.00 |
| | Total Current Liabilities | \$24.00 |
| Non-Current Liabilities | | |
| | Total Non-Current Liabilities | \$0.00 |
| | Total Liabilities | \$24.00 |
| | Net ASets | \$33,201.87 |
| Carried Forward from 2000: | | |
| | Account Balance | \$27,323.43 |
| | LeS Outstanding Cheques | -\$349.58 |
| | Cash at Hand | \$26,973.85 |
| | Plus Receivables | \$1,725.32 |
| | Total at Hand | \$28,699.17 |
| As at 31st December 2001 | | |
| | Total Receipts | \$31,651.60 |
| | Total Expenditure | \$28,005.81 |
| | Carry Forward to January 2002 | \$32,344.96 |

| Expenses | |
|---------------------------------|------------|
| Meetings Expenses | \$6,042.01 |
| Conferences Support | \$2,000.00 |
| Education Activities | \$634.00 |
| Student Activities and Supports | \$3,087.43 |
| Awards and Prizes | \$909.20 |
| Travel Expenses | \$1,000.00 |
| Office Expenses | \$170.93 |

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

The biggest news for the Section has been the election of **Professor Kit Po Wong as Fellow of the IEEE** from the Section. This effectively increases the total number of Fellows from the state of WA to FOUR.

2001 has maintained a steady increase in overall membership within the Section. At the closing of 2001, a total number of 674 memberships were on record. This represents an **increase of +16.81%** over the previous year. The bulk of the increment was noted at Senior Members, Associates and Student members. In 2001, the student branches have been very active in recruitment and activities. This has led to a surge of **+50.34% increase in student memberships in the year 2001**. The Power Engineering Society Chapter also held special membership drive to encourage Senior Membership. This has also resulted in an increase of **+7.69%** in the grade of SM. In addition to aim at achieving growth in all membership grades, the Section also endeavors to encourage renewal of existing memberships. A recent case has involved the follow-up of members in WA for renewal purposes. IEEE membership was also actively promoted by the Chapters at their technical activities. A strong element has been the membership drives by the Student branches during Orientation Week and through various activities during the semester.

B.2 Professional and Continuing Education Activities

A summary of the conferences held in Perth with the support of the Section is given below. The EPSM/IEEE EMBS conference has received substantial support from EMBS headquarter and the Section is looking for the possibility to establish a local EMBS chapter here in WA. The AUPEC and ANZIIS are conferences with established standings and national recognition. They have attracted many delegates nationally and internationally. Acknowledgements for the support of these conferences have been recognized in the proceedings and promotional materials.

Event: EPSM/IEEE-EMBS conference
 Date: 30 Sep – 4 Oct 2001
 Venue: Fremantle

Event: AUPEC 2001
 Date: 23 – 26 September 2001
 Venue: Curtin University of Technology

Event: ANZIIS
 Date: 18 – 21 November 2001
 Venue: The University of Western Australia

Jointly with the IEAust and IEE, the following technical meetings have been held. These events have attracted much support from members and non-members. It also fosters an ongoing relationship with the other two institutions.

Title: Skin Cancer Research
 Speaker: Associate Professor David Sampson
 Date: 11 April 2001

Title: Visit to the EMC facility at ATRI
 Date: 9 May 2001
 Venue: ATRI

Title: Visit to the Canning Vale Mills – weaving and cloth production processes
 Date: 13 June 2001

Title: Designing accessible websites
 Speaker: Mr Iain Murray, Curtin University
 Date: 13 June 2001
 Venue: IEE Auditorium, 712 Murray Street, West Perth

Title: Energy efficiency in residential/commercial buildings
 Speaker: Denis Smedley, Manager Built Environment, Office of Energy
 Date: 11 July 2001
 Venue: IEAust, 712 Murray St West Perth

Title: IEE Student Paper's Night
 Speaker: Authors of Student papers from three universities – Curtin, ECU and UWA
 Date: 3 October 2001
 Venue: IEAust, 712 Murray St West Perth

Others

Team-Building Workshop, 12-13 May 2001, The Atrium, Mandurah

B.3 Recognized Educational Programs

Updating of the Recognised Education Programs is normally done during mid-year. The REP's are mainly the relevant courses offered by the four local universities in computer, electrical and electronic engineering and computer science disciplines. In 2001, the engineering schools in Curtin have undergone the accreditation process from the IEAust. Such exercise ensures the high standard and excellent quality of the recognized programs. In 2002, it is anticipated that other courses and double degree programs will be examined to widen the REP network.

B.4 Students Activities

The IEEE Curtin Student Branch has had another successful year of strong growth and achievements in 2001. Following is a summary of the various aspects of the 2000 –2001 Curtin Student branch:

Membership growth was strong with membership numbers growing by 200% from approximately 45 student members in 2000 to approximately 120 in 2001. The committee attributes this success to the highly visible profile the student branch maintained in the first semester and the value added membership arrangement promoted and designed by the committee.

Financially the branch balance ended this year with a healthy balance of approximately \$1900 compared to approximately \$450 last year. The main sources of this result were achieved through the recovery of an old student branch account, funding for new members from the WA Section, Profits from the Networking function, Monetary prizes won by the branch, Finders fees for new members paid by APESMA, and the Curtin ECE Research Day BBQ.

Branch activities this year consisted of approximately 25 activities attended by committee members in varying capacities. Of these activities the major events organised for the greater student community were, The Orientation Day Welcome, The Welcome Barbecue, The Membership Drive, The Vacation/Graduate Work Seminar, The Joint Curtin /UWA Networking Forum, and the Curtin ECE Research Groups Open Day.

Relationships with other branches and societies were nurtured and further developed. The philosophy of the branch was to provide a greater quantity of value added activities to its members through the joint relationships and sharing of resources between various like-minded societies and branches. Of notable mention is the close relationship held with the IEEE UWA Student Branch, which resulted in the highly successful Joint Networking function held in May 2001.

Awards: Among the many achievements the branch enjoyed was the third place award in the Section 10 Regional Student Branch Web Site Contest. This was

particularly rewarding for the branch, as it was the first time they had entered the competition. The prize was a small monetary sum for the branch and a certificate of achievement for the branch Web page custodian. URL of the student branch:

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

An issue of *Wavelet*, the electronic Newsletter of the IEEE WA Section has been published in 2001. It is anticipated that a new Website will be launched in 2002. An increasing use of Information Technology and Electronic Communication is expected and the new site will integrate the functions of the newsletter and e-communication in the new website. URL of the Section:

B.6 Awards

The Section has provided awards and prizes to the four local university:

The University of Western Australia
Curtin University of Technology
Murdoch University
Edith Cowan University

In addition, the Power Engineering Society Chapter has also run student papers competition and awards. These awards have raised the awareness of the IEEE among the students and the public.

B.7 Chapter Activities

A list of activities held by all Chapters is given below:

Communication Chapter

Title: Introduction to Bluetooth
Speaker: David Parsons, CEO Norwood Systems
Date: 25 July 2001
Venue: WPC Head Office

Title: Photonics-based beam forming networks for communication systems
Speaker: Dr Kamal Alameh, Group Leader, Photonics, Intelligent Pixels, Inc.
Date: 12 September 2001
Venue: WPC Head Office, Perth

Computer Chapter

Title: Designing accessible websites
 Speaker: Mr Iain Murray
 Date: 12 June 2001
 Venue: Lions Eye Institute, Nedlands

Title: An adaptive image compression algorithm based on region of interest for telemedicine systems
 Speaker: Mr Francis Dao
 Date: 4 September 2001
 Venue: Lions Eye Institute, Nedlands

Power Engineering Chapter

Title: Project RRSST: Power where & when it is needed : An Introduction into Western Power's latest Power Allies
 Speaker: Mr John Billington, Western Power Corporation
 Date: 14 June 2001
 Venue: Theatrette, 2nd Floor, Head Office East Building, Western Power Corporation 363 Wellington Street WA 6000

Title: Power electronics system simulation (workshop)
 Speaker: Dr W W L Keerthipala (Curtin University of Technology)
 Date: 29 June 2001
 Venue: Curtin University of Technology

Title: Renewable Energy Access Regime in Western Australia
 Speaker: Peter Hawken, Manager, Competition Promotion Branch, Office of Energy
 Date: 22 August 2001
 Venue: WPC Head Office, Perth

Event: IEEE PES Social Dinner
 Date: 28 September 2001
 Venue: Shun Fung Seafood restaurant, Barrack Square Jetty, Perth

Signal Processing Chapter

Title: Microphone arrays(workshop)
 Speaker: Dr Yee Hong Leung
 Date: 5 April 2001
 Venue: ATRI, Curtin University

Title: Subspace-based system identification – an instrumental variable approach
 Speaker: Prof Mats Viberg (Chalmers University of Technology, Sweden)
 Date: 3 August 2001
 Venue: Curtin University

PART C - GOALS AND PLANS

C.1 Goals

During the May team-building workshop, a number of goals and related tasks have been established. While some have been achieved to a certain degree of success in 2001, it is the desire of the Executive Committee to continue improve and enhance the standard of services to the members. The goals for 2002 are:

Section Management

1. To continue good management of the Section and organization of top quality technical activities.
2. To provide effective Financial Management and assistance for Section and Chapters.
3. To enhance and improve communications to members and non-members with modern Information Technologies such as website, e-mails, electronic newsletters and surveys.

Memberships

4. To increase Senior Membership by organizing Membership drives and to encourage qualified members to apply.
5. To continue to increase Student Membership through the student branches and general membership through technical and social activities.

Awards

6. To identify and promote awards by adopting a proactive and systematic approach.
7. To recognize contributions made by local members in Section and Chapter activities.

Recognised Education Programs and Liaison with Institutions

8. To maintain an updated information on REP's in Western Australia.
9. To promote IEEE through prizes and donations to universities and schools.

Liaison with Industry and Professional Bodies

10. To promote IEEE to industry through liaison, collaboration and social activities.
11. To establish and strengthen collaboration between other professional bodies, tertiary institutions, industry, and government authorities.
12. To further strengthen collaboration with IE Australia and IEE International Centres in Australia and to implement as much as possible the tripartite agreement of the three learned societies in Australia.

Expansion of Chapters

13. To establish additional local chapters of technical societies.

C.2 Detailed Implementation Plans

With respect to the above goals, the plans are being developed and refined continuously within the Section. A proposal of the plans to be implemented are listed below:

1. *To continue good management of the Section and organisation of top quality technical activities.*

Management of the Section will be accountable and transparent. Wide consultation will be sought to ensure high standard technical activities will be delivered. Feedback will also be obtained to assess success of this goal.

2. *To provide effective Financial Management and assistance for Section and Chapters.*

An assistance treasurer will be appointed to ensure smooth running and to facilitate hand-over at the end of this year. Assistance to the Section and Chapters activities will be fully covered and decision will be made at the section committee level prior to commitment.

3. *To enhance and improve Communications to members and non-members with modern Information Technologies such as website, e-mails, electronic newsletters and surveys.*

Electronic communication will be utilized to transmit information to all members at the earliest opportunity.

4. *To increase Senior Membership by organizing Membership drives and to encourage qualified members to apply.*

Events will be run later this year to promote and encourage senior and ordinary memberships.

5. *To continue to increase Student Membership through the student branches and general membership through technical and social activities.*

Ongoing support for the student branches in the universities to promote and recruit student members. Support to their activities will be provided.

6. *To identify and promote awards by adopting a proactive and systematic approach.*

Database to be set up and a systematic search for candidates and to encourage applications.

7. *To recognize contributions made by local members in Section and Chapter activities.*

Recognition via publicity in all communication, meetings and functions.

8. *To maintain an updated information on REP's in Western Australia.*

Ongoing review of REP's and to recognize new REP's.

9. *To promote IEEE through prizes and donations to universities and schools.*

Based on current financial status, it is possible to extend special prizes and donation to educational institutes to promote IEEE. This will be discussed and decided by the Section committee.

10. *To promote IEEE to industry through liaison, collaboration and social activities.*

Activities to be planned at the Chapter and Section levels.

11. *To establish and strengthen collaboration between other professional bodies, tertiary institutions, industry, and government authorities.*

Ongoing support to other professional bodies and requested will be dealt with in the relevant Section and Chapter committees.

12. *To further strengthen collaboration with IE Australia and IEE International Centres in Australia and to implement as much as possible the tripartite agreement of the three learned societies in Australia.*

Provide strong support to the joint activities and ensure dialog or communication channel is maintained.

13. *To establish additional local chapters of technical societies.*

Expression of interest has been received on the establishment of the Instrumentation and Measurement (IM) Society and the Electromagnetic Compatibility (EMC) Society. It is expected that steps will be undertaken to set up the respective local chapters to serve the local members.

C.3 Budget

The general expenses for 2002 are expected to be similar to that of 2001. It is anticipated that expenses for 2002 will be within the level of income. Budgets to support the above activities in achieving the goals will be decided by the committee on per case basis. The financial status of the section will be able to support all of these initiatives.

PART D - OTHERS

D.1 Relationship with National Societies

The relationship between the national society is expected to remain strong. A monthly meeting with representatives from other bodies, i.e. IEAust and IEE has ensured a common understanding and to encourage cooperation. It is expected that the relationship will continue.

D.2 Special Events

No special event is planned for 2002 apart from visits from distinguished lecturers and ongoing support to various activities held by the Section and the Chapters.

D.3 Problems to be Anticipated

No particular problems are anticipated.

D.4 2001 Office Bearers and Committee Members

| | | |
|----------------------------------|-------------------------|------------------------------------|
| IEEE WA Section | | |
| Chair | Dr Lance Fung | tfungcc@cc.curtin.edu.au |
| Vice Chair | Dr Terence Law | t.law@ieee.org |
| Secretary | Dr Douglas Chai | d.chai@ecu.edu.au |
| Treasurer | Dr Kevin Wong | k.wong@murdoch.edu.au |
| | | |
| Section Committee Members | | |
| - Past Chair | Prof Kit Po Wong | kitpo@ee.uwa.edu.au |
| - Australian Council | Mr Harry McDonald | harry.mcdonald@westernpower.com.au |
| - Membership Development | Mr David May | david.may@ieee.org |
| - Newsletter Editor | Dr Raj Gopalan | raj@cs.curtin.edu.au |
| - Joint Technical Program | Dr Charlie Musca | charlie@ee.uwa.edu.au |
| - Joint Technical Program | Dr Halit Eren | terenh@cc.curtin.edu.au |
| - Student Activities | Dr Jasmine Henry | jasmine@ee.uwa.edu.au |
| - GOLD | A/Prof Brett Nener | brett@ee.uwa.edu.au |
| - Women in Engineering | Ms Tamarasi Dias | rdiast@cc.curtin.edu.au |
| - Awards | Dr W W L Keerthipala | rkeerthi@cc.curtin.edu.au |
| - REP | Dr Halit Eren | terenh@cc.curtin.edu.au |
| - SAMIEEE | Miss Nee Nee Ong | nno@iinet.net.au |
| - Web Custodian | Ms Tamarasi Dias | leon@ee.uwa.edu.au |
| | | |
| Communication Chapter | | |
| Chair | Dr Daryoush Habibi | d.habibi@ecu.edu.au |
| Secretary | Mr David May | david.may@ieee.org |
| Vice-Chair & Treasurer | Ms Tamarasi Dias | rdiast@cc.curtin.edu.au |
| GOLD representative | Mr David Beards | mateymate@hotmail.com |
| | | |
| Computer Chapter | | |
| Chair | Dr Kanagasingam Yogesan | yogesan@cyllene.uwa.edu.au |
| Vice Chair | Prof Tom Gedeon | t.gedeon@murdoch.edu.au |
| Secretary | Ms Tamarasi Dias | rdiast@cc.curtin.edu.au |
| Committee Members | Dr Lance Fung | tfungcc@cc.curtin.edu.au |
| | Ashley Aitken | aitkena@cbs.curtin.edu.au |
| | A/Prof Clive Maynard | clive@ieee.org |
| | | |

| Power Engineering Chapter | | |
|----------------------------------|----------------------|------------------------------------|
| Chair | Dr Terence Law | t.law@ieee.org |
| Vice Chair | Mr Thom Fox | tfox@skm.com.au |
| Secretary | Dr W W L Keerthipala | rkeerthi@cc.curtin.edu.au |
| Treasurer | Dr An Li | leon@ee.uwa.edu.au |
| Committee Members | Prof Kit Po Wong | kitpo@ee.uwa.edu.au |
| | Mr Harry McDonald | harry.mcdonald@westernpower.com.au |
| | Dr Lance Fung | tfungcc@cc.curtin.edu.au |
| | Mr Ken Lee | ken.lee@westernpower.com.au |
| | Ms Jennifer Sai | jennifer.sai@westernpower.com.au |
| | Mr Ehab Zabaneh | ehab.zabaneh@westernpower.com.au |
| | | |
| Signal Processing Chapter | | |
| Chair | Dr Yee Hong Leung | leung@atri.curtin.edu.au |
| Secretary | Dr Roberto Togneri | roberto@ee.uwa.edu.au |
| Committee Members | Dr W W L Keerthipala | rkeerthi@cc.curtin.edu.au |

Acknowledgement

It is my great pleasure to present this report to the Region 10 Executive Committee on behalf of the IEEE WA Section. The support from the Section and Chapter Committees has been tremendous. All the committee members are to be congratulated in making 2001 another successful year. In particular, the contributions and the high standard of professionalism demonstrated by the following members are noted.

- All the Chapter Chairpersons for actively organizing the technical programs.
- Dr Terence Law for his contributions to the Power Chapter and as Vice chairperson to the Section Committee.
- Dr Douglas Chai for his excellent performance in his role as Secretary.
- Dr Kevin Wong for his efficient handling of the Section's Financial Affairs.
- Dr W. Keerthipala and Ms Tamarasi Dias for their contributions to the Awards, Electronic Communication and maintaining the Web-site.
- Dr Raj Gopalan for his efforts in publishing the Newsletter since 2000.
- Mr David May for his assistance in Member Development.
- Dr Halit Eren for his involvement of REP and JTP.
- Mr Harry McDonald for his valuable advice and experience for the smooth running of the Section.
- Professor Kit Po Wong for sharing of his knowledge and experience for all the time he has been with the Section.

I look forward to another successful and fruitful year 2002.

Dr Lance C.C. Fung, IEEE WA Section Chair, 2001 & 2002