IEEE Queensland Section Report for 2007

PART A - SECTION SUMMARY

A.1 Executive Summary

This year has been a year of continued strong growth and vigorous activity.

1   The membership has increased to 934 (as of 21st November 2007).   This represents *12% annual growth* on last year's figures.

2   The six Chapters that our Section hosts each held numerous activities for the benefit of members. This includes a number of seminars by IEEE Distinguished Lecturers, international leaders in their fields.

3   Two joint chapters were established this year that are hosted by other Sections. Specifically, Queensland joined the Joint SA/NSW/Vic/ACT Chapter on Information Theory and the Joint Australian Chapter on Social Implications of Technology (hosted by South Australia and Victoria Sections, respectively).

4   Elections were held successfully to fill the positions of Chair of the GOLD Affinity Group, and of the Joint Microwave Theory & Techniques and Antennas & Propagation Chapter.

5   The Section actively promoted student activities and membership. The annual thesis prize attracted more entries in 2007 than 2006. The Section offered discounts to student membership and is in the process or running a competition to select a Queensland student volunteer to represent the Section at the Region 10 Student Congress in India next year.

6   The Section expanded its educational outreach through a programme to distribute members' recent copies of *IEEE Spectrum* to Queensland school libraries.

7   All positions in the Section's executive committee were filled, possibly for the first time in the Section's history, at the end of 2007.

In 2007, eleven executive committee meetings were held, as well as the AGM. This year's committee meetings were organised through teleconference, as in previous years. For the first time, the Section used skype for teleconferencing. From a central meeting place at The University of Queensland at St. Lucia, members were able to attend the teleconference from more distant locations in the Section such as the Gold Coast, Toowoomba and Rockhampton.

This was the first year of my term as Chair of IEEE Queensland Section. According to the by-laws of our Section, having been elected unopposed as Vice Chair in 2005, I automatically progressed to the Chair in January, 2007, succeeding Prof. Tapan Saha.

My two-year term ends in December, 2008, when I will be succeeded by the current Vice Chair, Assoc. Prof. Zhao Yang (Joe) Dong. Elections for a Vice Chair to succeed Joe will be conducted next year, along with elections for most other positions on the Executive Committee.

As well as chairing the monthly meetings of the Section's Executive Committee, the AGM and attending to the business ordinarily arising from them, I was personally involved in several other activities and initiatives.

1 With the Vice Chair, Joe Dong, I attended the Region 10 Meeting in Kota Kinabalu, Sabah, Malaysia. This annual event allows Section Chairs to be appraised of current developments in IEEE and in our region and to make contact and coordinate with other Sections.

2 I attended several Chapter and Student Branch functions.

3 I gave a presentation on the IEEE to the Young Engineers Forum at GHD.

4 With the assistance of our webmaster, Mr. Sheng How Goh, I set up a directory of Senior Members and Fellows in Queensland Section who have volunteered to assist as referees for members seeking elevation to Senior Membership and beyond.

5 I regularly attended teleconference meetings of the IEEE Australia Council in order to coordinate with other Australian Sections.

A.2 Financial Report

The financial condition of the Section has been very sound throughout the 2007 financial year.

1 The financial report (L50) was sent to IEEE HQ in due time by the Treasurer.
2 To summarise from the financial report, the balance has decreased from AUD65,280 at the end of 2006, to AUD57,143 at the end of 2007.
   o The decrease has occurred because receipts from HQ fell with the rising value of the Australian dollar versus the American dollar, and because of increased activity, and commensurate expenditure, by Chapters.

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

    1   Every effort was made in all levels to attract new members and also to provide different programmes for membership development. Non-IEEE members were invited to become members on all possible events such as seminars, conferences, workshops, etc.

    2   Evidence of retention of members: IEEE Queensland Section has experienced an exceptional growth in membership during 2007 with a **gain of 12%**

Membership information

	Fellow (incl. Life)	Senior Member (incl. Life)	Member (incl. Life)	Student Member (incl. Graduate)	Other membership	Grand total
Active Members at 29/10/2005	3	41	483	113	35	675
Active Members at 14/11/2006	3	52	518	181	78	832
Active Members at 21/11/2007	3	58	640	148	85	934

B.2 Professional and Continuing Education Activities

Queensland Section has continued its programme of educational outreach (rather than continuing education) throughout 2007. Once again, the Section was involved in the annual RoboCup Jr. competition, sponsoring trophies. This competition promotes electrical engineering to high-school students through activities centred on robotics.

Furthermore, the Section undertook an initiative to distribute 2nd-hand copies of *IEEE Spectrum* to local high schools. This has resulted from a campaign to collect, on an ongoing basis, recent copies of Spectrum magazine from staff members at the Universities of Queensland and Southern Queensland.

B.3 Recognized Educational Programs

Through the activities of its Computational Intelligence Chapter, a postgraduate symposium was held on 30th November, 2007. Like most other activities run by the CI Chapter, it took place over the Access Grid, allowing participation by postgraduates at Central Queensland University, Queensland University of Technology, Griffith University and the University of Queensland.

The Section's Computer Chapter financially sponsored the Open Source Developers' Conference, held in Brisbane from 27th–30th November. The Conference offered discounted registration to IEEE Qld members, as well as providing a promotional opportunity for the Chapter and the Section.

B.4 Students Activities

For most of 2007, the position of Student Activities Chair was vacant. However, a new volunteer took up the position in September and activities have increased since that time:

2 An IEEE Australia Council student paper competition was widely promoted within the Section.

3 The Section continued to run its own thesis prize competition. There were several entries, all of a very high standard. The prizes were presented at the Section's Annual Dinner in November, 2007.

4 The Section initiated a competition to identify the most active student volunteer. The prize was the opportunity to represent the Section at the Region 10 Student Congress in Chennai, India, in February, 2008, at the Section's expense. There were a number of entries, with the winner submitting an article for publication in the Section's first newsletter for 2008.

Student chapter activity, however, continued to be patchy. The two recently formed chapters, at Central Queensland University (CQU) and the University of Southern Queensland (USQ), continued to be the most active. USQ had three events—two technical talks and an AGM—with two of these events attracting around 30 participants. The chapter at Queensland University of Technology became more active in 2007. A recruiting event (pizza lunch) was held in August at which dozens of students attended.

B.5 Awards

In 2007, the Section adopted a new award structure. Three categories of award were instituted: Recognition of Service, Outstanding Contribution and Volunteer of the Year. Seven volunteers were presented with Recognition of Service awards, six were recognised for Outstanding Contribution and the Volunteer of the Year was awarded to Prof. Tapan Saha, the Immediate Past Chair and Interim Chair of the Power Engineering Chapter. These awards were made at the 2007 AGM and annual dinner in November, 2007.

Recognition of Service

Award Recipient	Contribution
Mr. Andrew Thomas	Secretary 2006
Dr. Amoakoh Gyasi-Agyei	Treasurer 2005–2006
Dr. Zhao (Joe) Dong	Chapter Chair Power Engineering 2004–2006
Dr. Joaquin Sitte	Chapter Chair Computational Intelligence 2005–2006
Mr. Yong Peng Ong	Newsletter Editor IEEE Queensland Section 2006
Dr. Renate Sitte	Acting Student counsellor GU-GC 2005–2006
Dr. Peter Sutton	Student Counsellor UQ 2006

Outstanding Contribution Award

Award Recipient	Contribution
Mr. Andrew Thomas	Secretary 2006
Dr. Amoakoh Gyasi-Agyei	Treasurer 2005–2006
Dr. Zhao (Joe) Dong	Chapter Chair Power Engineering 2004–2006
Dr. Joaquin Sitte	Chapter Chair Computational Intelligence 2005–2006
Dr. Ljubo Vlacic	Chapter Chair Joint CSS/R&A 1999–2005
Dr. Tapan Saha	Chair 2005–2006

Prof. Saha was also recognised with a *Region 10 Outstanding Volunteer Award* in 2007. The award was presented to the Section Chair on Prof. Saha's behalf at the R10 meeting in Gujarat, India, in February, 2008.

Thesis prize awards

Each year, Queensland Section awards prizes at the Annual Dinner for the best undergraduate thesis in two categories. For 2007, the winners were:

1. Best Thesis (Open division): was awarded to *Matthew Ian Gaskin* from Queensland University of Technology, for his thesis 'Development of UHF Antenna for Measuring Partial Discharge in Power Transformers'

2. Best Thesis (Power Engineering Division): was awarded to *Sarah Hiley* from the University of Queensland for her thesis 'Redesign of the Blackwall Static VAR Compensator Power Oscillation Damper Controller'

B.6 Chapter Activities

The six chapters of Queensland Section continued to be active throughout 2007.
   a) Computational Intelligence Chapter: Five meetings were held. All meetings made use of the Access Grid to allow effective participation from members based at Central Queensland University, Queensland University of Technology, Griffith University and the University of Queensland. The use of this technology is particularly helpful since these campuses are separated by distances of up to 700km. The meetings included lectures by distinguished visitors and a postgraduate symposium.
   b) Computer Chapter: In addition to sponsoring the Open Source Developers' Conference in 2007, the chapter also held two technical talks.
   c) Control Systems/Robotics & Automation: Four technical activities were held during 2007. The chapter undertook to award a plaque to its 1999 inaugural Chair, Prof. Ljubo Vlacic.
   d) Microwave Theory & Techniques/Antennas & Propagation: Two technical activites were held during 2007.
   e) Power Engineering: The chapter continued to be very active, with five technical

activities during 2007. The activity would have been even greater but for the Chair's resignation and relocation overseas in November. An Interim Chair was appointed in December ahead of nominations and elections in early 2008.

f) Signal Processing/Communications: Two technical activities were held during 2007. The Vice Chair, Dr. Jasmine Banks, was also able to represent the Chapter and the Section at the IEEE ComSoc Asia-Pacific Regional Chapter Chair Congress in Hong Kong.

Queensland Section also became a member of two other Joint Chapters hosted by other Australian Sections during 2007, namely, the SA/ACT/NSW/Vic Joint Chapter on Information Theory (hosted by South Australia Section), and the joint Australian Chapter on Social Implications of Technology (hosted by Victoria Section).

B.7 E-mail and Newsletter Activities, Home Page

Members of IEEE Queensland Section have been kept informed throughout 2007 with regular email notifications of upcoming events and meetings through the use of the IEEE e-notice system. Three editions of the newsletter were published and the website was continuously maintained and updated throughout the year.

PART C - OTHERS

C.1 Relationship with National Societies

Queensland Section maintains a special position on its executive committee for 'Engineers Australia Liaison'. For the last couple of years, it has been held by Prof. Tapan Saha. Furthermore, several other members of the executive committee are also members of the corresponding committees in Engineers Australia and IET in Queensland.

Several events were 'co-branded' as joint events with either Engineers Australia or IET or both.

Queensland Section floated the idea of a 'Queensland Council' in which the Chairs of IEEE Queensland & North Queensland Sections, the Engineers Australia Queensland Electrical Branch & College of ITEE, and IET Queensland Branch would meet quarterly to update each other on activities and future plans, with a view to closer coordination. While this idea has not been formally adopted, it has resulted in much closer email contacts between these groups.

Finally, members of the executive committees of these same branches of the national societies were invited to attend the Queensland Section AGM & dinner. A number of them accepted.

C.1.1 Relationship With and Recognition By Industry

The IEEE thesis prize award was very well recognized by local industry. The winner of the IEEE Best Power Engineering Thesis Award — Ms. Sarah Hiley — is now working

with the state transmission company. The award, and Sarah's project, received wide publicity. News of it was published in the newsletters of the University of Queensland's Faculty of Engineering, Physical Sciences & Architecture, the Power Engineering Alliance and the Australian Power Engineering Institute. The latter two organisations comprise all the major power companies in Australia.

C.2 Special Events

While Queensland Section hosted many events during 2007, not all of which were purely technical or administrative, there were no events that were outside of the regular schedule.

On the other hand, the Annual Dinner (held in conjunction with the AGM) continues to increase in popularity. This year, the dinner was held at Brisbane's Sofitel. Attendance remained historically high at 27.

C.3 Problems to be Anticipated

The primary concern for 2008 will be to maintain the growth that has been achieved over the last couple of years. This will be no easy task. The feeder for growth is always to maintain a healthy number of student members. Student members must be actively recruited and this requires enthusiastic volunteers, not only in the student branches but also (and perhaps more importantly in Queensland historically) from Student Branch Counsellors. It will require renewed dedication to maintain the enthusiasm and energy of these critically important volunteers.

Queensland Section has a set of bylaws in which officers are elected for terms of two years. 2008 is the second year of the term. Therefore, the problem of succession planning will need to be carefully worked through. Suitable candidates for office will need to be identified and encouraged to nominate.

PART D - GOALS AND PLANS

D.1 Continuation of project/activity in progress and their Implementation Plans

There were a number of projects and activities identified in the previous annual report:
   4   The number of senior members in the Section is rather low. An effort has been made to increase the awareness of the benefits of membership elevation. A web page has been created to promote senior membership. In particular, the web page contains a directory of senior members who are willing to act as referees. This is intended to address the issue that members may not be aware who, amongst their colleagues, already have senior membership. This directory will continue to be maintained and the Chair will promote its existence through contributions to the Section newsletter.
   5   Interaction between Queensland Section and industry requires constant maintenance and encouragement. Implementation will be through active promotion of the Section in industry, identification of industry members to serve

on the executive committee, and invitations to industry to take part in, and wherever possible organize and lead, technical activities.

6   In 2007, Queensland joined two other national chapters: Information Theory and Social Implications of Technology. Otherwise, the number of chapters hosted within Queensland remained constant at six. The plan to establish an Aerospace & Electronic Systems chapter in Queensland did not come to fruition in 2007 but steady progress was made in collecting signatures on a petition. It is expected that this chapter will be established in 2008. However, it is the necessity to maintain activity in new and existing chapters that will require constant attention. Chapter officers are required to report monthly on activities and plans at the Section's executive committee meeting.

7   GOLD elections were held in 2007 but the plan to have an active GOLD affinity group has still not materialized. The Section intends to give every support to the incoming GOLD Chair to organize relevant and attractive activities for GOLD members.

8   As noted above in 'Problems to be Anticipated', Student Branches are of vital importance in maintaining the momentum of growth that has been built up in Queensland over the last couple of years. Unfortunately, up to the end of 2006, it was the older and more established universities in Brisbane that had the worst record for student branch activity. To remedy this, in 2007, an interim student branch chair was installed at the University of Queensland. Furthermore, new student branch counsellors were installed at all three Brisbane universities. However, in only one case (QUT) has there been significant activity. In 2008, efforts will need to be redoubled to promote activity in the student branches of the Brisbane universities. One specific plan is to hold elections for officers in the University of Queensland Student Branch.

D.2 Goals and future plans

Although the directory of referees for membership elevation was successfully established during 2007, the awareness of the benefits of Senior Membership is still rather low. All opportunities will be used to promote these benefits and also to identify, encourage and assist candidates for promotion to Fellow grade.

Links between the major professional societies catering to electrical engineering will be strengthened. In particular, the Section will endeavour to work more closely with its Queensland counterparts in Engineers Australia and IET.

The activity of Student Branches is still patchy. There is an opportunity for IEEE Student Branches to play a much bigger role in student life and the Section has the means to support them. The Section will encourage and materially support Student Branches and student memebrship. Similarly, our GOLD affinity group has a potentially very important role to play in facilitating the transition from study to career for Queensland's recent graduates. The Section will strongly support GOLD activities.

The Section will seek to identify and support major technical activities in Queensland for

the benefit of members. For instance, the Section will seek to foster bids to bring major IEEE conferences to Queensland. As a second example, there is a movement to establish a chapter of the Engineering in Medicine & Biology Section (EMBS) in Queensland. This will be supported and encouraged. Finally, the movement over the last couple of years to establish a chapter of the Aerospace & Electronic Systems will be guided through to completion.

As Chair, I personally intend to make further visits to industry to explain and promote IEEE and to continue to attend as many local activities as possible. I will again attend (have again attended) the Region 10 Meeting and the triennial Sections Congress, along with the Vice Chair.

Finally, an aim of Queensland Section will be to increase membership of the Section to four figures for the first time in 2008.

A/Prof. Vaughan Clarkson
Chair, IEEE Queensland Section
May, 2008