IEEE Queensland Section Report for 2006

PART A - SECTION SUMMARY

A.1 Executive Summary

The Queensland Section performed exceptionally well during 2006. It now has six Chapters, with a total of 831 members (as of 14 November 2006). There were many technical activities, mostly organised by the local chapters. They ranged from seminars and presentations by professional scholars and Distinguished Lecturers to workshops and conferences. Social activities included a GOLD function and the annual dinner.

In 2006, ten executive committee meetings were held, as well as the AGM. Most of the committee members made true efforts to attend the committee meetings. This year's committee meetings were organised through teleconference, as in previous years. Teleconferences took place between four locations: The University of Queensland (St. Lucia), Central Queensland University (Rockhampton) and Griffith University (Gold Coast campus and Nathan campus).

The list of officeholders has been stable through the year, with terms for officers extended to two years in 2005. Through 2006, several positions on the executive committee were filled, leaving only one position unfilled. Successful elections were held for the Computer and Computational Intelligence Society chapters as well as for the joint Control Systems/Robotics & Automation Society chapter.

Highlights for the year were a <u>23% growth</u> in membership numbers, establishment of two new student chapters and a GOLD affinity group, re-activation of two inactive chapters and the student thesis prizes and a tripling of the attendance at the Section's AGM and dinner.

A.2 Financial Report

The financial condition of the Section has been very sound throughout the 2006 financial year.

- The financial report (L50) was sent to IEEE HQ in due time by the Treasurer.
- Our balance has increased from AUD60,005 in January, 2006, to AUD62,836 in January, 2007.

A.3 List of Section Officer and Executive Committee Members

As at 31st December, 2006:

| <u>Officers</u> | | |
|-----------------|----------------------|--|
| Chair | Prof. Tapan Saha | |
| | SM 1152123 | |
| Vice Chair | Dr. Vaughan Clarkson | |
| | SM 3558772 | |
| Secretary | Mr. Andrew Thomas | |

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|------------|-------------------------|
| | GSM 80098466 |
| Treasurer | Dr. Amoakoh Gyasi-Agyei |
| | M 40296568 |
| Past Chair | Dr. Renate Sitte |
| | SM 1375682 |

| Standing Committee Chairs | | | |
|--------------------------------|-------------------|--|--|
| Membership Development & Email | Mr. Peter McLarty | | |
| | M 41616993 | | |
| Professional/Career Activities | Mr. Ong Yong Peng | | |
| | M 80006922 | | |
| Educational Activities | Dr. Tony Ahfock | | |
| | M 8090730 | | |
| Awards & Recognition | Mr. Michael Lees | | |
| | SM 40065877 | | |
| Student Activities | Vacant | | |

| Appointed Members | | | |
|------------------------------------|-------------------|--|--|
| Webmaster | Mr. Sheng How Goh | | |
| | GSM 41480143 | | |
| Newsletter Editor | Mr. Ong Yong Peng | | |
| | M 80006922 | | |
| Engineers Australia Representative | Prof. Tapan Saha | | |
| | SM 1152123 | | |

| <u>Chapter Chairs</u> | | | |
|--|--------------------------|--|--|
| Computer Society | Dr. John Williams | | |
| | M 40246590 | | |
| Power Engineering | Dr. Zhao Yang (Joe) Dong | | |
| | M 40126858 | | |
| Joint Chapter Control Systems/Robotics & | Mr. Michael Lees | | |
| Automation | SM 40065877 | | |
| Joint Chapter Signal | Dr. Bouchra Senadji | | |
| Processing/Communications | M 4000865 | | |
| Computer Intelligence | A/Prof. Joaquin Sitte | | |
| | SM 1268333 | | |
| Joint Chapter Microwave Theory & | Prof. David Thiel | | |
| Techniques/Antennas & Propagation | SM 4358065 | | |

| Student Branch Counsellors | | | |
|---------------------------------------|-------------------------|--|--|
| Griffith University — Nathan | Dr. Yongsheng Gao | | |
| | SM 41374072 | | |
| Queensland University of Technology | Dr. Ed Palmer | | |
| | M 1783471 | | |
| The University of Queensland | Dr. Peter Sutton | | |
| | M 1136969 | | |
| Griffith University — Gold Coast | Dr. Renate Sitte | | |
| | SM 1375682 | | |
| The University of Southern Queensland | Dr. Tony Ahfock | | |
| | M 8090730 | | |
| Central Queensland University | Dr. Amoakoh Gyasi-Agyei | | |

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Programs

- 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.
- Evidence of retention of members: IEEE Queensland Section has experienced an exceptional growth in membership during 2006 with a gain of 23.25%

Membership information

| | Life | Fellow | Senior | Member | Student | Other | Grand |
|------------------------------------|--------|--------|--------|--------|---------|------------|-------|
| | Fellow | | Member | | Member | membership | total |
| Active Members at 29/10/2004 | 2 | 1 | 36 | 472 | 108 | 35 | 654 |
| Active Members at 29/10/2005 | 2 | 1 | 41 | 483 | 113 | 35 | 675 |
| Active Members at 14/11/2006 | 2 | 1 | 52 | 518 | 181 | 78 | 832 |

• During 2006, a GOLD affinity group was established. An initial social function was held.

B. 2 Professional and Continuing Education Activities

The chair of the professional activities standing committee was vacant for much of the year and therefore there are no activities to report. As regards educational activities, the focus during 2006 was rather on educational outreach rather than continuing education. To this end, the Queensland Section sponsored prizes at the local RoboCup Jr competition in an effort to promote electrical engineering to high-school students. Additional value from the sponsorship was realised through the opportunity to give a short speech to the students during the prize-giving ceremony about engineering and IEEE and to give away IEEE memorabilia as door prizes.

B.3 Students Activities

A number of membership drive functions were arranged in Queensland university campuses in the latter half of 2006. Two new student chapters were formed. These are at Central Queensland University, Rockhampton, and at The University of Southern Queensland at Toowoomba. As can be observed from the table above, our student membership growth has been 60% from 2005 to 2006.

The 2006 IEEE Queensland Section thesis prizes (for undergraduate students) were advertised in all university campuses and resulted in a strong showing of submissions from universities across the Queensland section. The winners were announced at the AGM.

B.4 E-mail and Newsletter Activities, Home Page

Three newsletters were published by the Newsletter Editor in 2006 and sent to all members through email.

The Section web site was maintained and updated regularly in 2006 by the Webmaster.

B.5 Awards

Past service to the Queensland Section was recognised in 11 awards presented at the 2006 AGM.

B.6 Chapter Activities

For each of the six chapters in the Queensland Section, all have been through a nomination and (in four cases) an election process in 2006. As a result, we have three new Chapter Chairs for 2007 and three continuing. All chapters were active in 2006.

- a) Computational Intelligence Chapter: During 2006 the chapter organised three seminars/technical events.
- b) Computer Chapter: The chapter organised two seminars/technical events during the year.
- c) Control Systems/Robotics & Automation: In 2006, three seminars/technical events were organised by the chapter and one conference was sponsored.
- d) Microwave Theory & Techniques/Antennas & Propagation: During 2006 the chapter hosted three seminars/technical events.
- e) Power Engineering: The chapter organised six seminars/technical events during the year. IEEE Distinguished Lecturers gave four of them.
- f) Signal Processing & Communications: The chapter organised two seminars/technical events during the year.

PART C - GOALS AND PLANS

C 1 Goals

• Raise awareness within the ranks of the Queensland Section membership of the benefits of membership elevation, with a view to a substantial increase in the number of Senior Members in the Section.

- Increase the interaction between industry and academia for the benefit of all members.
- Invite industry to take part in the Section Executive Committee and encourage them to provide new ideas in the operation of the Section.
- Encourage activities within chapters to ensure that all retain their active status.
- Foster the formation of new chapters, in particular Aerospace & Electronic Systems and the extension of the SA/NSW/Vic/WA Joint Chapter in Information Theory to Queensland.
- Shore up the newly established GOLD affinity group through election of a Chair and support for activity.
- Reinvigorate the student branches in the Brisbane universities (UQ, QUT and Griffith University).

C.2 Implementation Plans

A longstanding concern for the Section has been the relatively low number of members at Senior Member level and above. Anecdotal evidence suggests that a major cause for a lack of progression amongst Members is a low level of awareness of the procedure and benefits and, even when this is known, it is difficult for Members to know how to contact Senior Members (& higher) who could act as their referees (since they are relatively few). In 2007, the Section will campaign to raise awareness of the procedures and, for the first time, actively participate in the Nominate a Senior Member initiative. Additionally, the Section will contact all Senior Members to ask whether they would agree to publication of their names in an online directory of Senior Members who are willing to assist their colleagues in seeking elevation.

Another important goal for 2007 is to reinvigorate the student branches in Queensland Section. Although The University of Queensland, Queensland University of Technology and Griffith University are the three oldest and largest universities in the Queensland Section, their student branches have been inactive for some years. Through the year ahead, the student branch counsellors for those universities will be strongly encouraged to initiate activities or to stand down. The possibility of offering a prize of attendance at a future Region 10 Student Congress or other major IEEE conference for the Chair of the most active student branch will be considered by the executive committee.

A recent survey of engineering graduates by the Australian professional body, the Association of Professional Engineers, Scientists & Managers Australia (APESMA), has found that electrical & electronic/telecommunications engineering continues to have the lowest proportion of female graduates amongst engineering disciplines at 13.5% and 9.1% respectively. Furthermore, Engineers Australia has declared 2007 'The Year of Women in Engineering'. The IEEE Queensland Section will participate in this initiative by forming a Women In Engineering affinity group and coordinating activities with Engineers Australia.

PART D - OTHERS

D.1 Relationship with National Societies

We have very good communication with the local Engineers Australia Electrical Engineering Branch. The Past Chair of the Section continues to serve on the electrical engineering branch of Engineers Australia as a committee member. Through 2006, there were a number of joint seminars and workshops with Engineers Australia. In the past, we have also worked closely with other professional associations, including IET and CIGRE. The IEEE Queensland Section will continue to work with Engineers Australia and other bodies in the future, as opportunities present themselves.

D.2 Special Events

There were twospecial events in 2006. The first was the inaugural GOLD function which raised awareness of the new affinity group amongst the local membership. It is a primary objective of the Queensland Section to build up the activity of the GOLD affinity group in 2007.

The second special event for the year was the annual dinner, held in conjunction with the AGM. In 2006, the Section took the decision to go a little upmarket, holding the dinner at Brisbane's iconic Customs House and engaging the services of Prof. Rob Calderbank of Princeton University as the after-dinner speaker. Together with a more concerted advertising push, the result was an estimated tripling in the attendance over the historical average. A similar exercise is planned for 2007 in order to raise attendance levels even higher and thereby promote the IEEE in the engineering community.

D.3 Concern areas and suggestions

The Section's goals in 2007 are at least partly shaped by perceived areas of concern. Hence, the chief concerns, and suggestions for remediation, have already been discussed in Section C above. Specifically, the main concerns for the Queensland Section are the low level of progression beyond the ordinary Member level, the lack of activity amongst student branches in the Section's three oldest and largest universities, the need to nurture the fledgeling GOLD affinity group and the small proportion of female graduates amongst electrical & electronic engineers. Efforts have already begun in all cases to try to redress these concerns.

Dr. Vaughan Clarkson Chair, IEEE Queensland Section February, 2007