



# Reports for the Queensland Section Annual General Meeting 2009

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The Institute of Electrical and Electronics Engineers Inc.

ARBN 078 576 495

4<sup>th</sup> December 2009

The University of Queensland Club

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## 1.0 Chair

### PART A – REVIEW OF 2009

This year has been a year of continued growth, strong level of activities across the board and consolidation of newly established Chapters and Affinity group.

- The membership has increased to 1007 (as of 30<sup>th</sup> November, 2009). This represents 5% annual growth on last year's figures.
- All organisational units (chapters and affinity groups) hosted by the Section have held the minimum two meetings per year required for official 'active' status. As you will see in the rest of this report, three chapters in particular have been more active than this, holding numerous meetings for the benefit of members. This includes a number of seminars by IEEE Distinguished Lecturers, internationally recognised as leaders in their fields.
- After two years of introducing new Chapters and one Affinity group, this year, was a year of consolidation for the Queensland Section. We have however started discussions on creating one new Affinity Group, Women In Engineering, for the next year. Watch this space.
- The Section actively continued to promote student activities and membership.
- The Section continued with our usual recruitment drives at busy student functions (such as BBQs)
- The annual thesis prize competition was again very popular.
- The Section continued its educational outreach through a programme to distribute members' recent copies of *IEEE Spectrum* to Queensland school libraries.
- We have had a few vacant positions in the Section's executive committee throughout the year. I use this opportunity to encourage members to volunteer for the vacant positions for 2010.

In 2009, twelve executive committee meetings will have been held by year's end, as well as the AGM. This year's committee meetings were organised through teleconference, as in previous years. From a central meeting place at The University of Queensland's St. Lucia campus, members were able to attend the teleconference from more distant locations in the Section such as the Gold Coast, Toowoomba and Rockhampton.

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.

- I attended the Region 10 Meeting in Hanoi, Vietnam. 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.
- I attended several Chapter and Student Branch functions, giving presentations on the benefits of IEEE membership at some of them.
- I coordinated a bid to Region 10 for hosting the Region 10 Technical Conference TENCON in 2012. Although the bid was received favourably, our proposal ranked 3<sup>rd</sup> amongst 7 bids. Our Section has been encouraged to re-bid for TENCON 2013.
- I regularly attended teleconference meetings of the IEEE Australia Council in order to coordinate with other Australian Sections.

### PART B – CLOSING REMARKS

This was my first year as Section Chair. You may recall that I stepped in as the Chair due to sudden resignation of our Chair Elect, A/Prof Joe Dong at the beginning of the year. So the learning curve for me has been steep in 2009. I would not have been able to do my voluntary duties if it wasn't for the generous support I received from the Committee members in general and the Past Chairs, A/Prof Vaughan Clarkson and Prof. Tapan Saha in particular. A big thank you to them all.

I am humoured to be elected as the Section Chair for a second term for 2010. I look forward to continue to serve the members in our Section to the best of my abilities in 2010.

As a final comment, I echo the comment of the last two Immediate Past Chairs, in their reports to the AGM at the end of their terms: we need to encourage local industry involvement in the management of our Section.

I use this opportunity to wish all our members and their families best wishes and happy and safe time for the festive season. I look forward to be working with you all in 2010.

Abbas Bigdeli

Chair, IEEE Queensland Section

3<sup>rd</sup> December, 2009

## 2.0 Vice Chair

I became involved with Queensland section late in 2008, and was very surprised to be nominated and appointed as section vice chair after Abbas Bigdeli was promoted to chair during an executive committee shuffle early this year. Ultimately, it has been a great pleasure assisting him in this capacity!

On all accounts, it has been a year of learning curves. However, that also means there was hardly ever a dull moment. The 2009 chairperson has already listed some of the highlights of 2009, and I will not repeat those here. From all indications, however, Queensland section is living up to my first impressions of it!

I was honoured to be nominated to attend the Region 10 Meeting in Vietnam with our chairperson early this year. This was an incredibly useful event, in terms of material presented, and contacts made at global and regional level. I have subsequently drawn up a list of guidelines for future nominations to attend the meeting, so that the section can get maximum benefit from this.

Two of my specific duties as vice chair for 2009, were to coordinate the Annual General Meeting and Dinner, as well as the student thesis prize. I want to express my thanks to Mark Griffin for assisting with the latter, and I believe there have been some excellent projects entered into this competition. For the former, we have started a process to revamp the AGM and dinner, which I hope will increase attendance and participation in this event in the future.

Our chairperson has already mentioned in his report that we are looking into the creation of a Women In Engineering Affinity Group. There are, however, other IEEE initiatives that I believe could have substantial impact for both the engineering community and general community in Queensland. As Abbas said – watch this space!

In closing, I would like to thank the Queensland committee in general, and the executive committee specifically for their support during 2009 – it has been a good year for IEEE Queensland!

Roelof Swanepoel

Vice chair, Queensland Section

3<sup>rd</sup> December 2009

### 3.0 Secretary

Twelve monthly executive committee meetings were held throughout 2009. The committee meetings were organised by email, phone and conference calling facilities were utilised to allow members to attend who would otherwise be unable to do so. The meetings were held at the University of Queensland.

Dr. Andrew Thomas was Secretary for the period of January to March but reluctantly resigned after accepting work out of Brisbane.

In 2008 a resolution was made to present the attendance record for the executive committee. The record for 2009 is found below.

Position	Name	Present	Apology	Absent
Chair	Abbas Bigdeli	10	1	0
Vice Chair	Roelof Swanepoel	9	1	0
Secretary	Andrew Thomas	3	0	0
	Bart Sedgwick	5	3	0
Treasurer	Jasmine Banks	10	1	0
Immediate Past Chair	Vaughan Clarkson	7	2	1
Newsletter Editor	Robert Ellen	7	3	1
Webmaster	Ashkan Boldaji	6	2	3
Professional Activities	Farhad Dadgostar	1	1	1
Membership Coordinator	Vacant			
Awards & Recognition	Michael Lees	2	6	0
Student Activities Chair	Mark Griffin	4	1	6
Educational Activities Coordinator	Vacant			
Engineers Australia Liaison	Tapan Saha	5	6	0
Aerospace and Electronic Systems Chapter	Robert Ellen	7	3	1
Aerospace and Electronic Systems Chapter (VC)	Peter Lindsay	1	10	0
Computational Intelligence Chapter	Marcus Gallagher	2	4	5
Computational Intelligence Chapter (VC)	Michael Blumenstein	0	0	11
Computer Chapter	Simon Ellis	6	1	4
Computer Chapter (VC)	Philip Machanick	5	5	1
Control Sys/Robo & Auto Chapter	Duncan Campbell	6	3	2
Control Sys/Robo & Auto Chapter (VC)	John Billingsley	8	3	0
Engineering in Medicine & Biology Chapter	Mohan Karunanithi	6	3	2
Engineering in Medicine & Biology Chapter (VC)	Stephen Wilson	0	0	11
MITT/AP Chapter	Aleksandar Rakic	0	0	11
MITT/AP Chapter (VC)	Karla Ziri-Castro	0	4	7
Power & Energy Chapter	Jose Lopez-Roldan	5	3	3
Power & Energy Chapter (VC)	Tapan Saha	4	5	2
Signal Pro & Comms Chapter	Garry Einicke	7	3	1
Signal Pro & Comms Chapter (VC)	Dhammika Jayalath	5	4	2
GOLD Affinity Group	Robert Ellen	7	3	1
GOLD Affinity Group (VC)	Roelof Swanepoel	9	1	0
Student Counsellor QUT	Jasmine Banks	10	1	0
Student Counsellor UQ	Andrew Thomas	3	0	0
	Vaughan Clarkson	7	2	1
Student Counsellor GU-GC	Charles Hacker	0	0	11
Student Counsellor GU-Nathan	Yongsheng Gao	0	0	11
Student Counsellor USQ	Tony Ahfock	0	0	11
Student Counsellor CQU	Shawkat Ali	4	2	5

This is my first year as Secretary and I would like to thank the committee for their patience as I have been bringing myself up to speed.

Bart Sedgwick

Secretary, Queensland Section

3<sup>rd</sup> December 2009

## 4.0 Treasurer

Period: 1 December 2008 to 30 November 2009			
Report prepared by Dr Jasmine Banks, Treasurer 2009			
<b>Income</b>		<b>Expenses</b>	
IEEE Rebates:		AGM Dinner 2008 (Sofitel)	
Annual Rebate from IEEE	\$ 11,811.21		\$ 3,535.04
IEEE 125th anniversary celebration	\$ 535.50	AGM Dinner 2009	
AESS Chapter rebate	\$ 172.49		Deposit (UQ Staff and Graduates Club)
QUT Student Branch Rebate	\$ 164.16		Publicity (Invitations)
EMBS Matching funds	\$ 447.53		Travel (Vice-Chair to Region 10 meeting)
Travel (Chair to Region 10 meeting)	\$ 2,150.23		Publicity <sup>1</sup>
AGM Dinner Payments (2008)	\$ 940.00		Execom meetings
AGM Dinner Payments (2009)	\$ 925.00		Chorus Call
Interest (Mecu)	\$ 3,650.20		Pizza
Refund on AGM dinner 2008 (Sofitel)	\$ 31.00		EA Awards Dinner
PES Insulation Coordination Seminar	\$ 60,313.38		Chair's Expenses 2008 <sup>2</sup>
			PES Insulation Coordination Seminar
			IEEE Student Thesis Prizes 2008
			\$ 1,000.00
			Student Drives (QUT & UQ) <sup>3</sup>
			UQ
			\$ 397.08
			QUT <sup>4</sup>
			\$ 776.09
			Awards <sup>5</sup>
			\$ 25.00
			Cheque Book Fees (Mecu)
			\$ 22.50
			Chapter and Affinity Group Expenses <sup>6</sup>
			AESS
			\$ 450.00
			CIS
			\$ 434.70
			CSS/RA
			\$ 449.20
			MTT/AP
			\$ 316.00
			PES
			\$ 3,301.98
			SP/COM
			\$ 1,148.00
			EMBS
			\$ 462.85
			GOLD
			\$ 507.98
	\$ 81,140.70		\$ 36,642.56
<b>Accrued Income (Accounts Receivable)</b>		<b>Accrued Expenses (Accounts Payable)</b>	
AGM Dinner Payments (2009)	\$ 365.00	AGM Dinner 2009 (UQ Staff and Graduates Club) <sup>9</sup>	\$ 3,630.00
		IEEE Australia Council Levy	\$ 464.00
		Awards <sup>5</sup>	\$ 16.00
		EMBS event	\$ 169.15
		CSS/RA Event	\$ 252.75
		Student drive (CQU) <sup>3</sup>	\$ 224.61
		QUT Student Branch	\$ 8.00
		IEEE Student Thesis Prizes (2009)	\$ 1,000.00
	\$ 365.00		\$ 5,764.51
<b>Total Income</b>	<b>\$ 81,505.70</b>	<b>Total Expenses</b>	<b>\$ 42,407.07</b>
<b>Assets</b>		<b>At 30 Nov 2008</b>	
Mecu Accounts <sup>7,8</sup>	\$ 54,799.77		At 4 Dec 2009
Cash	\$ 240.00		\$ 99,297.91
Undeposited Cheques	\$ 80.00		\$ -
Accounts Receivable	\$ 40.00		\$ 365.00
<b>Total Assets</b>	<b>\$ 55,159.77</b>		<b>\$ 99,662.91</b>
<b>Liabilities</b>			
Accounts Payable	\$ 4,182.84		\$ 5,764.51
<b>Total Liabilities</b>	<b>\$ 4,182.84</b>		<b>\$ 5,764.51</b>
<b>Net Worth</b>	<b>\$ 50,976.93</b>		<b>\$ 93,898.40</b>
<ol style="list-style-type: none"> <li>1. IEEE Banner</li> <li>2. Parking, postage, entertaining</li> <li>3. Student Membership subsidies and catering for student functions</li> <li>4. Cans of softdrink bought for the QUT Student Branch were also used for a CSS/RA event and a GOLD event</li> <li>5. Excludes IEEE HQ costs which will be deducted from the 2009 rebate</li> </ol>			

## 5.0 Newsletter Editor

### Newsletter Articles for 2009

Three newsletters were published in 2009, in March, August and November. The March issue was a special edition covering the 2008 AGM and dinner lecture, particularly awards and recognition. The November issue was the 2009 AGM / Dinner Invitation special edition. The following table lists the articles contributed to the newsletter for 2009, by the officer, chapter or affinity group.

Office / Chapter / Group	Number of Articles	Number Nominally Required	Issue Numbers
Section Chair	2	2	2,3
Section Vice-Chair	2	2	2,3
Secretary	0	0	
Treasurer	0	0	
Webmaster	0	0	
IEAust Liaison	0	0	
Professional Activities	0	2	
Educational Activities	0	2	
Student Advisory / Activities Chair	0	2	
Membership Development	0	2	
Awards & Recognition	1	1	1
Aerospace & Electronic Systems	2	2	2,3
Computational Intelligence	1	2	3
Computer	2	2	2,3
Control Systems / Robotics & Automation	2	2	2,3
Engineering in Medicine and Biology	0	2	
Power & Energy	1	2	3
Microwave Theory / Antennas & Propagations	1	2	3
Signal Processing / Communications	1	2	3
Graduates of the Last Decade	2	2	2,3
CQU Student Branch	1	2	3
Griffith Student Branch (Gold Coast)	0	2	
Griffith Student Branch (Nathan)	0	2	
QUT Student Branch	2	2	2,3
UQ Student Branch	0	2	
USQ Student Branch	0	2	

### Newsletter Publication Process

This year we continued with an E-Notice email that included a link to the newsletter on the Section website rather than an attachment. The new version of the section website has allowed us to upload the newsletter directly.

### Newsletter Format

The two regular editions of the newsletter continued with the single-column portrait format. The AGM special used a three-column landscape format as an experiment.

Mr Robert Ellen  
 Newsletter Editor  
 3<sup>rd</sup> December 2009

## 6.0 Webmaster

The IEEE Qld Section website underwent significant changes in 2009. In particular, a new version of the website was made public in early November after implementation and extensive testing over the previous few months. The new website is based on a Wiki backend (DocuWiki). This was chosen primarily for its ability to allow easy content creation and editing from within a web-browser, without requiring knowledge of HTML or CSS and without the need for FTP access. Instead of requiring difficult-to-remember elements and tags, the most common text-editing features are accessible graphically via buttons, similar to using a word-processor. Files can also be uploaded from within the browser and linked easily within pages.

The system also has an access control list (ACL), allowing customisable Edit/Read access for content throughout the site based on user accounts. This paves the way for the website to host multiple Chapter pages. A Chapter Chair for example can request an account on the website, providing them with full access to their hosted page: content creation, editing, and uploading of files. Other sections of the website would not be editable without the required privileges, providing security for the content of each hosted page as well as the overall website.

The IEEE vTools Meeting system has been integrated into the website. This allows events to be registered centrally from the IEEE vTools website. The event details then propagate to the Qld Section website automatically, keeping the website dynamic and relevant.

Two of the major remaining tasks include transferring the database of the Section's history to the new website, as well as writing instructional material for content creation and editing within hosted pages.

Ashkan Boldaji

Webmaster

3<sup>rd</sup> December 2009

## 7.0 Awards and Recognition

For 2009 the committee has retained the award structure that was used for 2008. This encompasses the following three categories.

The first category is *Recognition of Service* awards. These are an official recognition of a person's contribution in a particular role and are awarded at the first AGM following the completion of a person's term in a role. They are awarded to all people in this category without requiring nomination.

The second category is *Outstanding Contribution* awards. These are awarded to people who have been identified as having made a significant contribution during their term in a role. They are awarded at the first AGM following the completion of a person's term in a role. These awards require a nomination (by a member of the IEEE Queensland section) to be submitted to the section committee.

The third category is for the IEEE Queensland Section *Volunteer of the Year*. This is awarded to the person who is regarded as having made the most substantial contribution during their time in office. Only people who have completed their term of office are eligible. A single plaque is awarded each year. Nominations (by members of the IEEE Queensland section) are submitted to the section committee.

### 7.1.1 Awards

#### Recognition of Service

A total of 13 *Recognition of Service* awards were awarded within the Queensland section during 2009. Most of them were presented in December at the section AGM.



<b>Award Recipient</b>	<b>Contribution</b>
Dr. Vaughan Clarkson	Chair Queensland Section 2007-2008
Dr. Zhao Yang (Joe) Dong	Vice Chair Queensland Section 2007-2008
Mr. Abbas Bigdeli	Secretary Queensland Section 2007-2008
Dr. Peter Sutton	Treasurer Queensland Section 2007-2008
Dr. Tony Ahfock	Educational Activities chair Queensland Section 2007-2008
Dr. Sheng How Goh	Webmaster Queensland Section 2006-2008
Dr. Philip Machanick	Student Activities Chair Queensland Section 2007-2008
Dr. Brijesh Verma	Chapter Chair Computational Intelligence Queensland Section 2007-2008
Dr. Marcus Gallagher	Vice-chair Computational Intelligence Chapter Queensland Section 2007-2008
Dr. Gerard Ledwich	Chapter Chair Power & Energy Queensland Section 2008
Mr. Mohammad Hesamzadeh	Vice-chair Power & Energy Chapter Queensland Section 2008
Mr. Andrew Bradley	Professional Activities Chair Queensland Section 2007-2008
Dr. Duncan Campbell	Vice-chair Joint CSS/R&A Chapter Queensland Section 2007

### Outstanding Contribution Award

A total of 5 *Outstanding Contribution* awards were awarded within the Queensland section during 2009. Most of them were presented in December at the section AGM.

<b>Award Recipient</b>	<b>Contribution</b>
Dr. Vaughan Clarkson	Chair Queensland Section 2007-2008
Mr. Abbas Bigdeli	Secretary Queensland Section 2007-2008
Dr. Peter Sutton	Treasurer Queensland Section 2007-2008
Dr. Brijesh Verma	Chapter Chair Computational Intelligence Queensland Section 2007-2008
Dr. Duncan Campbell	Vice-Chair Joint CSS R&A Chapter Queensland Section 2007

### IEEE Queensland Section Volunteer of the Year 2009

Awarded to Dr. Vaughan Clarkson

### Thesis prize awards

There were two categories of award for undergraduate theses this year.

*IEEE Queensland Section Student Prize for the Best Final Year Thesis in All Fields of Electrical Engineering and Information Technology* was awarded to two recipients this year:

- a. *Nathan Keilar* from Griffith University, for his thesis entitled 'Concept to Integrate Distributed Generation into the German Power Grid Intended for Multi-Agent System Realisation'
- b. *Matthew Dwyer* from The University of Queensland, for his thesis entitled 'The Design, Analysis and Construction of a Polarisation-Angle Antenna'

*ICPADM<sup>1</sup> Mat Darveniza IEEE Queensland Section Student Prize for the Best Final Year Thesis in Power Engineering* was awarded to *Nathaniel Dunnett* from the Central University of Queensland (CQU) for his thesis entitled 'Development of Closed Loop Voltage Control Simulator for Medium Voltage Distribution'

Michael Lees

Awards & Recognition Chair, Queensland Section

Email: Michael.Lees@ieee.org

<sup>1</sup> ICPADM: The International Conference on the Properties and Applications of Dielectric Materials.

## 8.0 Aerospace and Electronics Systems Chapter

### Officers for 2009

Chair: Mr Robert Ellen  
 Vice-Chair: Professor Peter Lindsay  
 Secretary: Mr John Davies

### Events for 2009

Date	Title	Speaker	IEEE Member Attendees	Total Attendees	Type
28/04/09	Vigilare: A Complex Systems Integration Project	Mr Lee Davis & Mr Don Cameron	7	17	Technical
19/10/09	GPS/INS Trends	Dr George T Schmidt	15	50	Technical / Distinguished Lecture

### Expenses Accrued for 2009

April 28 Event Catering expense: \$225.0

### Purpose Statement and Planned Results for 2009

Late in 2008 the following points were noted as the purpose and planned results for the AESS Chapter for the year 2009.

- Purpose: To provide activities and services of benefit to professionals in the aerospace, systems engineering, complex systems, and complex electronics industry in Queensland
- Planned Results
  - make the AESS Chapter the (equally) most active sub-unit of the Queensland Section;
  - grow the AESS membership body to 50 members;
  - invite the President of the Society to visit Australian IEEE Sections to promote the AESS and IEEE;
  - conduct at least one Distinguished Lecture during the calendar year;
  - conduct at least four non-DL technical/educational activities during the calendar year;
  - conduct at least one social activity during the calendar year;
  - participate (as a supporter) in the 2009 UAV Challenge, and
  - form collaborative networks with industry and associations such as the Royal Aeronautical Society

**Results for 2009**

<b>Planned Result</b>	<b>Outcome</b>
make the AESS Chapter the (equally) most active sub-unit of the Queensland Section;	With two events for the year we did not achieve this objective
grow the AESS membership body to 50 members;	Member numbers as of Dec 1 are 40
invite the President of the Society to visit Australian IEEE Sections to promote the AESS and IEEE;	Postponed
conduct at least one Distinguished Lecture during the calendar year;	We had Dr George T Schmidt visit and give a DL on GPS/INS Integration Technology Trends
conduct at least four non-DL technical/educational activities during the calendar year;	We had only one other technical event
conduct at least one social activity during the calendar year;	We did not hold a social event this year
participate (as a supporter) in the 2009 UAV Challenge, and	We did not participate
form collaborative networks with industry and associations such as the Royal Aeronautical Society	Initial contact with RAeS has been made

## 2009 Chairman's Reflective Statement

The chapter had a successful first full year in 2009, with two events including the first Distinguished Lecture. The planned results were set very aggressively and we did not meet all of them however the chapter is active and growing with 40 members (starting with less than 20 in 2008).

The first event of the year was *Vigilare: A Complex Systems Integration Project*, given by Mr Lee Davis and Mr Don Cameron of Boeing Defence Australia on April 28 at UQ.

The second event was the AES Chapter's very first seminar as part of the AES Society's Distinguished Lecture Program. The chapter was very fortunate to receive Dr George Schmidt from MIT, who gave a very impressive presentation on *Global Positioning System (GPS) and Inertial Navigation System (INS) integration technology trends*. It was doubly fortunate that the society and Dr Schmidt shared the travel and accommodation expenses and the event was sponsored by QUT and the Australian Research Centre for Aerospace Automation meaning it there was no cost to the Queensland Section. It was great to see over 50 people attend the seminar at QUT on October 19. Several non-IEEE members indicated their interest in joining IEEE so hopefully there will be a few new members soon.

It was disappointing to not participate in the 2009 UAV Outback Challenge as the chapter had in 2008. Hopefully the chapter can participate in future years.

The chapter has now held three events since its formation that were very well attended by industry and potential IEEE members. It is hoped that this pattern can be repeated and that the chapter will become one of the prime conduits for new IEEE members and bringing together academia and industry.

Many thanks must go to everyone who assisted in the formation of the chapter in 2007 and 2008, especially those at QUT.

An extra-special thanks must also go to the chairman's fellow officers for 2009. Professor Peter Lindsay, Vice-Chair, and Mr John Davies, Secretary, provided invaluable help with organising and marketing the chapter's events and made the chapter the success it is.

Mr Robert Ellen

Chair, Aerospace and Electronic Systems Chapter

3<sup>rd</sup> December 2009

## 9.0 Computational Intelligence Chapter

The Queensland Chapter of CIS was active in 2009. The following events were organized and held:

### **Administrative meeting – 11th June.**

This meeting was held via the Access Grid, with members from Brisbane (UQ and QUT), the Gold Coast (Griffith university) and Rockhampton (CQU) in attendance. Activities for 2009 were discussed and planned, as well as opportunities to increase membership and promote the Society at a local level. The Chapter also became involved in the organization of the first Australasian Computational Intelligence Summer School, to be held from Nov 30 – Dec 1 at the University of Melbourne.

### **Technical meeting (Postgraduate Symposium) – 12th November.**

This meeting was held via the Access Grid, with members from Brisbane (UQ and QUT), the Gold Coast (Griffith university) and Rockhampton (CQU) in attendance. This all-day event consisted of 10 short technical presentations from postgraduate students (members and non-members) working in the area of Computational Intelligence. The event was attended by approximately 10 IEEE members and 15 non-members.

### **Technical meeting (Seminar) – 9th December.**

This meeting will be held via the Access Grid, with members from Brisbane (UQ and QUT) and the Gold Coast (Griffith university) in attendance. A seminar will be presented by Dr Stephen Chen, Associate Professor at York University, Canada. The title of the talk is "Locust swarms – a multi-optima particle swarm with dimension reductions".

Dr Marcus Gallagher

Chair, Computational Intelligence Chapter

## 10.0 Computer Chapter

The IEEE is one of the greatest Technical Organisations of the world, driven by its members who contribute in many ways. This includes volunteering for various organisational positions, serving on committees and presenting talks, seminars, courses etc. all for the benefit of IEEE Members and the World Community.

While events occur internationally, they also occur locally. To facilitate this we need volunteers to help organise local events. If you would like to take an active part and contribute to the IEEE, please contact a member of the Committee. If you would like to tell others of your pet project and share with your peers, please contact a member of the Committee.

The Computer Society is one of the largest and most diverse of all the IEEE Societies with many developments occurring at a fast pace. This makes for a very exciting environment.

Over the past few years the IEEE and the Computer Society have developed many innovative services and products for members. Members of the Computer Society have access to hundreds of online courses, online access to IEEE Journals, online access to many technical books, International qualifications, International competitions and collaboration on International projects etc. Of course, networking with your peers, on an international level, has always been one of the greatest rewards.

Members may also collaborate on National, Regional and International (Open Source) Projects (Software and Hardware).

The following are two of the seminars held during the year.

The first seminar was entitled "Multi-core Architectures: The new challenge for computer science", and was held on Tuesday 7 April 2009 at the University of Queensland, St. Lucia. The presenter was Professor Ulrich Rueckert, from the Heinz Nixdorf Institute, University of Paderborn, Germany. Prof Rueckert reported on the relative simplicity for hardware designers of increasingly large numbers of cores in future designs. However he pointed out that the really big challenges are for software designers, as multiprocessor applications have always presented serious difficulties in the past. He offered the challenge of overcoming those difficulties to the computer science community. He presented the view that high processor utilisation may not be a major goal in future systems designs, but rather higher yields (one bad spot in a single core chip means the whole thing has to be thrown away), and other performance optimisations such as balancing power output and throughput may become increasingly significant as the cost of idle processor becomes increasingly insignificant.

The second seminar was also held at The University of Queensland, St Lucia on Thursday 12 November 2009, when Dr Philip Machanick presented a talk titled "Beyond Moore's Law", jointly hosted by the IEEE Computer Chapter and NICTA Queensland. Topics covered included an alternative interpretation of Moore's Law and trends and potential limits in the scaling of silicon technology. The consequences of past technology 'inflection points' were used to discuss where major advances in computing technology may occur in the near future. Dr Machanick predicted that areas to watch included real time, techniques for scaling functionality by combining multiple devices in single packages and technologies designed for low power. Unfortunately circumstances changed and we did not have as many activities as intended.

I would like to thank all those who have contributed and helped throughout the year.

In particular I would like to thank Dr. Philip Machanick for his contributions, support and help throughout the year.

I would also like to thank the Section Chair and Section Committee for their efforts throughout the year.

I look forward to more activities next year.

Simon Ellis

Chair, Computer Society Chapter

Dr. Philip Machanick

Vice-Chair, Computer Society Chapter

Dr. John Williams

Immediate Past-Chair (2009), Computer Society Chapter

## 11.0 Control Systems

### Chapter Chair

May 2008 – December 2009: A/Prof Duncan Campbell

### Chapter Vice-Chair

May 2008 – December 2009: Prof John Billingsley

### From the Chair

This year marks the 10<sup>th</sup> Anniversary of the Joint Chapter for Control Systems, and Robotics and Automation. Fittingly, the recent and last event for the Joint Chapter this year had Professor John Billingsley (Vice-Chair) reflecting, in a somewhat colourful way, the last 50 years of control system theory and application. The continuing stream of rich events over the ten years is reflective of the dedication, passion, and professionalism of the Chapter Chairs and supporting committees during that time.

After three and a half years on the Joint Chapter Committee, the last year and a half as Chapter Chair, I have opted to not nominate for service next year. It has been an honour and a privilege to lead our Joint Chapter and to serve once again in the IEEE Qld Section. I have greatly enjoyed the camaraderie and professionalism of the Section Committee. Looking forward, there are nominations for the positions of CSSRA Chapter Chair, Vice-Chair, and Secretary, a full complement of committee members. It is pleasing to see high quality candidates to continue to move this most prosperous Joint Chapter forward.

My emphasis as Chapter Chair has been to maintain the high quality of technical events with a particular emphasis on real-world application and context. I believe the events hosted during my term as Chair have certainly reflected that, and keep well with those hosted previously.

Since the 2008 IEEE Qld Section AGM, the Joint Chapter has hosted three special events (listed below). We thank the speakers, Professor Gilles Coppin (Telecom Bretagne, France), Mr Paul Brodie (Foster's Australia), Mr Jonathan Laver (ERM Power) and Professor John Billingsley (University of Southern Queensland) for their topical and most engaging presentations. All events drew good numbers of participants.

I wish the Joint Chapter and the Chapter Committee incumbents all the very best for the future, and I look forward to participating in future events – from the audience.

### Technical Activities for 2009

1. *Cognitive Approaches to Human Decision Making and Human-Machine Cooperation in Complex Autonomous Systems* by Professor Gilles Coppin, Telecom Bretagne, France, 18<sup>th</sup> December 2008.
2. *Industry Best Practice Automation and Control Presentations* by Mr Paul Brodie, Foster's Australia, and Mr Jonathan Laver, ERM Power, 19<sup>th</sup> August 2009.
3. *Half a Century of Control Theory – Is it Stable Yet?* by Professor John Billingsley, University of Southern Queensland, 16th November, 2009

### Event Statistics

Date	Title	Speaker	IEEE members	Total	Type of event
18-12-2008	<i>Cognitive Approaches to Human Decision Making and Human-Machine Cooperation in Complex Autonomous Systems</i>	Gilles Coppin	9	23	Joint IEEE seminar with QUT Smart Systems
19-8-2009	<i>Industry Best Practice Automation and Control</i>	Paul Brodie, Jonathan Laver	8	42	Joint IEEE forum with QUT
16-11-2009	<i>Half a Century of Control Theory – Is it Stable Yet?</i>	John Billingsley	6	26	Joint IEEE seminar with QUT Smart Systems

### Upcoming Events

None currently scheduled

A/Prof Duncan Campbell

Chair Joint Chapter CSS/R&A

Email: da.campbell@qut.edu.au

## 12.0 Engineering in Medicine & Biology

The year 2009 was effectively the first year of operation of the IEEE Engineering Medicine and Biology (EMB) chapter in Queensland, Australia, having formed as an active chapter in Qld only from the 31<sup>st</sup> October 2008.

The chapter committee remained with the founding officers and other officers volunteering to other roles such as the Professional development officer and Membership development officer:

The key members of the committee are:

Chapter Chair	Dr. Mohanraj Karunanithi
Vice Chair	Assoc. Prof. Stephen Wilson
Secretary	Dr. Daniel James
Treasurer/Communications Officer	Dr. Anthony Nguyen
Program Officer	Antti Sarela
Professional Development Officer	Dr. Robert Iskander
Industry Liaison officer	Bruce Satchwell
Student Development Officer	Dr. Mark Griffin
Membership development Officer	Sanjeev Hirmath

Main objectives set out for the chapter in 2009 were:

- Develop and launch the IEEE QLD EMB chapter website that informs IEEE EMBS members and biomedical engineering community in QLD of the events coming up and details and presentation material of events already held
- 4 technical events based on themes of technical interest
- One of them being a Professional development activity day with training session on academic/research/industry career development

The website of the IEEE QLD EMBS chapter (<http://www.embsqld.org/>) was launched along with our first 2009 event. The chapter was successful in achieving our main chapter objective in conducting 4 technical events, in which one of them was a half-day event on career development for biomedical engineering. Brief descriptions of each event are as follows:

### **Event 1: General Processing Graphic Processing Unit for medical image processing symposium (30<sup>th</sup> March 2009).**

This was a 1-day joined effort event between CSIRO and IEEE EMB chapter. It consisted of a keynote presentation by Dr Mark Harris from the well known Graphical processing hardware vendor, NVIDIA, presentations by CSIRO biomedical imaging group on their research work, and 2 Biomedical engineering student presentations (selected from a review of submitted abstracts). There were approximately 50 attendees.

### **Event 2: Career Development for Biomedical Engineers (31<sup>st</sup> July 2009).**

This was a half day event that covered presentations comprising of the relevant areas for career development in biomedical engineering: The presentations covered:

- i. different pathways leading to biomedical engineering
- ii. experiences from an executive that created a part-Biomedical Engineering industry (who also had some medical education/training)
- iii. research perspective of where biomedical engineering fitted between engineering and medicine
- iv. human resource's advise on the approach to applying for biomedical engineering positions

This was a successful event which attracted about 20 people from young biomedical engineers, researcher and students.

### **Event 3: Application of Technology in Sport (19<sup>th</sup> October 2009)**

This was joint event with the Centre for excellence for Applied Sport Science Research. The event consisted of a Japanese Sports Medicine researcher (Assoc. Prof Yugi Ohgi), sport medicine researchers from Centre for

excellence for Applied Sport Science Research, Griffith University, and a tour of the QLD Academy of Sport complex. There were approximately 25 attendees for this event.

#### **Event 4: Hybrid Operating Theatre (23<sup>rd</sup> November 2009)**

This event was a joint event with the College of Biomedical Engineers, Institution of Engineers, QLD, Australia. It was a successful event not only as a joint effort with the national biomedical engineering body of Australia but also in providing a demonstration of new medical technology implementation for real-world application. The event was a demonstration of the new Hybrid operating theatre at the Royal Brisbane and Women's hospital that had the implementation of the new Philips Healthcare's endovascular surgical operating theatre with computer radiography image processing unit, together with Stryker's monitoring and control integration of this endovascular unit through the LCD screen interface within the operating theatre unit. The event included the demonstration of the functionality of the operating theatre with the attendees geared up sterile theatre. This event was attended by more than 40 people that ranged from different industries, research, and university institutions.

In summary, the IEEE QLD EMB chapter achieved their ambitious target of 4 events for the year. As outlined in the chapter's vision, we were able to engage and attract not just professionals but also students from biomedical engineering to our events. Furthermore, the chapter was able to provide events in biomedical engineering applications in research, medical industry and their implementation(s) in healthcare institutions.

Dr. Mohanraj Karunanithi

Chair, IEEE QLD EMBS

December, 2009

### **13.0 Microwave Theory & Techniques/Antennas & Propagation**

No report received.

### **14.0 Power & Energy Society**

Chair: Dr Jose Lopez Roldan (Powerlink)

Vice Chair: Professor Tapan Saha (The University of Queensland)

Secretary: Mr. Bart Sedgwick (AECOM)

#### **Major activities-2009**

- Attended monthly meetings of the Queensland Section committee
- Organised four technical programmes (2 seminars, 1 tutorial and 1 workshop)
- Maintained strong relationship with the Electrical Branch of Engineers Australia

#### **Technical activity 1**

- Title: Electric-Drive Vehicles - A Technology Update including Recent Experiences from North America
- Date: Monday 2nd March, 2009,
- Speaker: Dr Andrew Simpson (NREL and Tesla Motors Inc in California), a former UQ student.
- Venue: The University of Queensland
- 50+ attended with majority from industry

In this seminar, Dr Simpson provided an update on the market readiness of EVs and their supporting infrastructure. He identified some key players from the industry including vehicle manufacturers, component vendors, electric utilities, regulatory bodies and start-up companies. He also shared some lessons learned and commented on opportunities and barriers faced by EV technology. Overall, he promoted an informed discussion of the potential for EVs in Australia.

#### **Technical Activity 2**

- Title: Insulation Coordination of transmission and distribution networks
- Date: 22-23 June 2009
- 60 delegates attended from the major electricity utilities in Australia and New Zealand
- Speakers: Five presenters ( which includes from Powerlink, TransGrid, ABB, QUT and UQ)
- Joint event with Engineers Australia (hosted in the Engineers Australia Hawken auditorium)
- \$41k fund is raised for the Section/PES Chapter and 14 k\$ for IEAUST from the surplus

This seminar presented theory and practical applications of insulation coordination of transmission and distribution networks. This seminar was suitable for managers, project managers, procurement officers, engineers and



technicians involved in the design, specification, purchase operation, maintenance and manufacture of transmission and distribution equipment and installations.

### Technical Activity-3 & 4

- IEEE-PES Distinguished Lecture-Seminar
- Title: What is the Smart Grid and What is Needed to make it a Reality?
- Speaker: Saifur Rahman, Joseph R. Loring Professor & Director-Virginia Tech Advanced Res. Inst.
- Date: 21st August, Friday-Time: 2-3pm
- 65+ attended with two third from the utilities and other power industry

This speaker presented the concept of the Smart Grid, which is starting from the power station to the end-use device - smarter, safer, and more reliable using advanced sensors, communication technologies and distributed computing. A smart grid will look more like the Internet, where information about the state of the grid can be exchanged quickly over large distances. It will also allow integration of new sustainable energy sources, such as wind, solar, off- shore electricity, etc. There are four attributes of the Smart Grid that need to work interactively for this concept to be a reality. These are: Technology, Standards, Public Awareness and a Policy of Incentives.

### IEEEPES Distinguished Lecture- Tutorial

- Title of tutorial: Role of Renewable Energy in Mitigating the Need for Large Central Station Power Plants Tutorial
- Speaker: Prof. Saifur Rahman,
- Date: 21st August, Friday, Time: 3-5pm
- 65+ attended (two third from the industry)

Renewable energy sources can fill the need for both stand-alone remote area electricity needs, and large-scale central station power plants. Small scale renewable sources of electricity including solar, wind, biogas and small-scale hydro offer opportunities to provide electricity to the disadvantaged thus allowing them to benefit from electrical lights, televisions, computers, internet, mobile phones, etc. The commercial, educational, social and healthcare benefits brought in by these technologies to the disadvantaged population in the developing countries is a great hallmark of the late 20th and the early 21st century. On the other hand, due to the investments made and policy support provided in several industrialized countries to reduce carbon emissions from the production of electricity, there is now a robust market for wind and solar energy projects in many countries - both developing and industrialized. This presentation addressed such issues and highlighted the success stories and future plans for the growth in renewable energy technologies globally.

Speaker and the PES Chapter Vice chair with the audience

## 15.0 Signal Processing/Communications

A summary of the 2009 research seminars is summarised below.

Assoc/Prof Mieso Denko, University of Guelph, Canada presented a seminar entitled “Scheduling and Data Management Techniques in Wireless Mesh Networks: A Cross-layer Approach” at UQ on 8 July 2009.

A/Prof Lachlan Andrew, Swinburne University of Technology, gave a talk on “Speed scaling for an energy-efficient Internet” at UQ on 9 October 2009.

A distinguished lecture will be given by Prof Koichi Asatani, Kogakuin University and Waseda University, Tokyo about “Trends of Next Generation Networks” at UQ on 20 November 2009. The details are provided in Appendix A.

Mr Antonio Defina, Politecnico di Torino and Istituto Superiore Mario Boella, Torino, will be giving a talk on “High Precision Navigation Technologies on Embedded Solutions” at CSIRO on 7th December 2009. The details are provided in Appendix B.

A distinguished lecture will be given by Prof. Anthony Ephremides, University of Maryland, about “Cooperation at the Network level” at the University of Queensland on 18th December 2009. The details are provided in Appendix C.

Garry Einicke

Chair, Signal Processing & Communications Society

11<sup>th</sup> November 2009

### Title: Trends of NGN and Its Issues

Friday, 20th November 2009

Speaker: Koichi Asatani

Next Generation Network (NGN) is designed to be capable of QoS management and controls like in traditional telecommunication networks and to support economical, versatile multi-media applications like those on the current Internet. NGN also provides fixed-mobile convergence (FMC) with generalized mobility, and horizontal and vertical roaming as well as improved security. The concepts and architecture of the Next Generation Networks (NGN) are described. NGN voice and Internet services are attractive from the view points of service flexibility and cost effectiveness and the

capability of integrating third-party applications with high dependability and high security. The current status of NGN implementation in a commercial offer by NTT (Nippon Telegraph and Telephone Corporation) is touched upon. Issues for the global evolution of NGN are also described, such as technical key issues, global standards and regulations.

#### **Title: High Precision Navigation Technologies on Embedded Solutions**

Mon 7th December 2009

Speaker: Antonio Defina, Politecnico di Torino and Istituto Superiore Mario Boella, Torino.

The speech presents recent R&D results of the NavSAS Group in the field Differential GPS as an enabling technology for innovative embedded solutions.

Applications of embedded systems in the field of mobility (road or pedestrian) are generating new requirements to navigation technologies mainly in relation to availability and accuracy under the general requirement of low cost.

The talk will analyze these concepts proposing as a case study an innovative project (started recently) named MAPPER. In few word the MAPPER will be a low cost (around € 200) embedded mapping tool capable to reach via a dedicated web application sub-meter accuracy (DGPS in post-processing) Such a solution suites perfectly on activities aiming to map outdoor paths.

#### **Title: Cooperation at the Network level**

18th December 2009

Speaker Prof. Anthony Ephremides, University of Maryland

The concept of cooperative transmissions in a wireless network evolved from the notion of the relay channel and the MIMO technology. Most of the work to date has focused on physical layer techniques (such as decode-and-forward and the like) and aimed at characterizing the source-to-destination Information-theoretic Capacity.

We take a different view and exploit the possibility of relaying in a cognitive fashion. That is, we sense unused resources (time-slots and/or frequency bands) and make opportunistic use of these resources for relaying.

We consider packets and slots rather than bits and seconds and thus our approach focuses on computing throughput, rather than capacity. In fact, we consider the realistic and practical case of finite delays, and, hence, bursty source traffic; thus we focus on the "stable throughput" region that can be achieved in a network with or without relaying. We find that significant improvements can be achieved if such cooperative/cognitive methods are used. And in fact we also consider superposing on these methods the more familiar physical layer schemes (such as combining, decode-and-forward, etc) and show that we can achieve, as expected, even further gains.

We then look at cooperative routing in sensor networks (a totally different concept of cooperation, again at the network level) and identify some remarkable consequences in that case.

These novel ideas and methods are the beginning of what we call "cooperation at the network level"; the potential exists that, through such cooperation, far-reaching implications may follow with regard to achievable transmission rates under bursty traffic conditions.

## 16.0 Graduates of the Last Decade

Chair: Mr Robert Ellen

Vice-Chair: Mr Roelof Swanepoel

#### **Activities for 2009**

Date	Title	Speaker	IEEE Member Attendees	Total Attendees	Type
20/10/2009	Fear-Free Presentation Skills	Mr Barry O'Sullivan	6	24	Educational
26/11/2009	i.lab Incubator	Mr Peter Allison	12	18	Technical

#### **Expenses Accrued for 2009**

October 2009 Expense for catering seminar #1 : \$305

## Purpose Statement and Planned Results for 2009

Late in 2008 the following points were noted as the purpose and planned results for the GOLD AG for the year 2009.

- Purpose: To provide an incentive to IEEE members that are senior students and recent first-time technology graduates to retain their IEEE membership by organising local activities of interest and benefit to their current career status.
- Planned Results
  - make the GOLD AG the (equally) most active sub-unit of the Queensland Section;
  - conduct at least two (and up to four) technical/educational activities during the calendar year;
  - conduct at least one (and up to two) social activities during the calendar year;
  - create a strong set of connections between the AG's officers and the membership body to market the activities/services the AG specifically and GOLD in general offers, utilising email lists, E-Notice, newsletters and web media;
  - establish a strong relationship with the Student Branches of Universities within the Section's boundaries, since these are the feeds for future GOLD members;
  - establish a strong relationship with organisations both within and outside the engineering fraternity that have similar purpose to collaborate in organising activities;
  - encourage the membership body to nominate and vote for officer positions (at least Chair and Vice-Chair) for 2010, providing the necessary systems to do so, and
  - grow the GOLD-status membership body by 15%
    - retain existing members who are considering leaving
    - encourage student members to progress to full member
    - encourage non-IEEE members eligible for GOLD status to join the IEEE

**Results for 2009**

Planned Result	Outcome
make the GOLD AG the (equally) most active sub-unit of the Queensland Section	With two events for the year we did not achieve this objective
conduct at least two (and up to four) technical/educational activities during the calendar year	Objective achieved
conduct at least one (and up to two) social activities during the calendar year	We did not hold a social event this year
create a strong set of connections between the AG's officers and the membership body to market the activities/services the AG specifically and GOLD in general offers, utilising email lists, E-Notice, newsletters and web media	We have set up Facebook and LinkedIn groups for the AG that anyone can join, put contributions into all newsletters and used e-notice for advertising our events. We also used the V-Tools meeting system to create a web-page for each of our events.
establish a strong relationship with the Student Branches of Universities within the Section's boundaries, since these are the feeds for future GOLD members	We have begun this process and have had an especially strong relationship with QUT
establish a strong relationship with organisations both within and outside the engineering fraternity that have similar purpose to collaborate in organising activities	In the process of marketing GOLD events we have established links with several organisations including the two main IEEE-relevant faculties at QUT, Bluebox, Corpotech, Uniquet and Brisbane Technology Park
encourage the membership body to nominate and vote for officer positions (at least Chair and Vice-Chair) for 2010, providing the necessary systems to do so	Due to the timing of our activities and the low attendance of eligible members we have not been able to connect with members to do this
grow the GOLD-status membership body by 15%	We have found that GOLD member numbers are skewed high due to incomplete educational history of members. If members don't put in their first degree they could be assigned GOLD status erroneously. Without the assistance of an SAMIEEE expert we were not able to get an accurate number of GOLD members.
retain existing members who are considering leaving	Due to the timing of our activities and the low attendance of eligible members we have not been able to connect with members to do this
encourage student members to progress to full member	At several student branch functions we have talked to Student members about staying on with IEEE after graduation

encourage non-IEEE members eligible for GOLD status to join the IEEE

We encouraged IEEE membership at our events

## **2009 Chairman's Reflective Statement**

The Queensland GOLD AG had a successful year, with two events and several initiatives undertaken. It has again been challenging running the GOLD AG but the 2008 experience assisted in building confidence in organisation of the events.

The first event was a *Fear-Free Presentation Skills* workshop by Mr Barry O'Sullivan which was held on October 20 at QUT. There were 24 attendees to what was a very worthwhile event. The presenter, Mr O'Sullivan, took the attendees through some useful tools and techniques for delivering presentations with less fear. There were even some stand up activities in front of the group and Mr O'Sullivan help all to participate without being confronted.

The second GOLD event was *i.lab Incubator : Assistance to new technology-based ventures* presented by Mr Peter Allison, Business Development Manager at i.lab. Mr Allison gave a very informative overview of the formerly Queensland State Government- now UQ-owned technology start-up incubator i.lab and discussed some of the successful businesses that have graduated from it. The event was held jointly with Engineers Australia's ITEE Queensland Branch. There were 17 attendees including 12 IEEE members.

In the process of marketing both the events several connections with external organisations were made. Regretfully, some of the connections made during 2008 including YEAQ and Golden Key did not bear any fruit in terms of attendees in 2009. Hopefully these will be reestablished in future years.

The GOLD AG established several mechanisms for members and interested parties to connect with it through the web. Groups were set up on the popular networking sites Facebook and LinkedIn. A page on the IEEE Queensland Section website was created for GOLD that includes integration with the IEEE V-tools Meetings system.

The 2009 GOLD Officers, Mr Robert Ellen and Mr Roelof Swanepoel, participated in a web conference with other GOLD officers in Australia and New Zealand regarding the formation of a cluster of GOLD AGs. It was very helpful to discuss the issues GOLD officers face keeping their AGs active. Hopefully the clustering initiative will proceed in the near future.

The main regret in 2009 is not connecting with many GOLD members from Queensland. Both events were widely marketed to ensure a good turnout however few GOLD members were among attendees. It is hoped that with the establishment of the networking groups and a web presence that the AG can connect better with members in the coming years.

Many thanks must go to the Chairman's fellow AG officer, Mr Roelof Swanepoel, who provided great assistance during the year, especially through the organisation of the first event.

Rob Ellen

Chair, Gold

3<sup>rd</sup> December 2009

## **2009 Vice chairman's reflective statement**

Having only joined the Queensland section in late 2008, this is the first year I have to opportunity to write a reflective statement for my position as vice-chair.

On most accounts, this was a interesting and productive year. Several of our goals for 2009 as set in 2008, were met or attended to:

- We started forming a closer relationship with student branches (our main feeder units), by means of active involvement in each other's activities,
- Communication with our members is an active area of improvement, but we're embracing newer and different technologies to try and bridge the gap,
- The required number of annual events were held. Although we did not meet our own goal for number of events, we retained our status as an active AG.

We have also started working with student and GOLD contacts outside of our section and region. Specifically, I had several discussions with Andrew Thompson, the Student Representative from Region 2. We are also involved in the Region 10 GOLD clustering program (headed by Timothy Wong

from WA Section) – a world first for GOLD in its approach of communication among geographically (very) separated members. Watch this space next year!

Earlier, I said ‘most accounts’, since there will always be room for improvement, especially in volunteer organisations. What is important, is that we keep on recognising these areas, and putting the necessary effort into them.

At the time of writing, the new office bearers are not yet known, but an area that is always important, is membership development. Improving our communications with members facilitates improvement in this area, but it is also an item that requires substantial work on its own.

In summary, I believe 2009 was an important learning year, and several new areas of improvement and cooperation have been identified, while several of our initial goals were met. I want to express my thanks to the GOLD chair for 2009 for making this a fun experience!

Roelof Swanepoel

Vice chair: Queensland GOLD

3 December 2009

## 17.0 Student Branch Reports

### **QUT Student Branch**

The QUT Student Branch has continued to grow in 2009, due to a number of successful membership drives, and the enthusiasm of student volunteers.

#### **Office Bearers for 2009:**

Chair: Jishu Das Gupta (JD)

Vice Chair: Chris De Vries

#### **Election**

An election for Office Bearers for 2010 is now underway. Voting material and candidate information has been sent to all QUT Student Branch Members.

#### **Branch Functions**

Our first membership function for the year was held on 22 May, 2009. Our guest speaker was Cristina Cifuentes, a graduate of QUT and currently a Principal Investigator at Sun Microsystems Laboratories in Brisbane. Cristina described discussed how since graduating from QUT, she has held academic and research jobs in the US and Australia, and her current role in leading Sun Labs Down Under.

A second event was held on 13 Aug 2009. Andrew Thompsen, the student representative from Region 2, gave an entertaining presentation, where he discussed what IEEE membership has meant for him, and showed photos and videos from the Student conference he recently attended.

The IEEE QUT Student Branch had a presence at the Faculty of Built Environment and Engineering (BEE) Student Showcase and BBQ, held on 5 August. Interested students had the opportunity to stop by and ask questions about IEEE Student Membership.

Student Branch members were also invited to attend a presentation on Speaking Skills on 20 October, hosted by Graduates of the Last Decade (GOLD). It is hoped that more events can be held in conjunction with GOLD in the future.

#### **IEEE Reporting Requirements**

The Branch has submitted an Officer Reporting Form and an Annual Plan for 2010 to the IEEE, thus fulfilling our reporting requirements. This should mean we are eligible for the 100USD rebate available for Student Branches with over 50 members.

**Planned events**

Events planned for 2010 include membership drives, technical speakers and social functions in conjunction with GOLD.

**We need your help**

What do you think the IEEE QUT Student Branch could do for students? We need more people to join our team and so that the Branch can run activities that are useful and relevant to students. Please contact one of the 2009 Office Bearers or the Branch Counsellor if you are interested in joining us.

Dr. Jasmine Banks

QUT Student Branch Counsellor

[jbanks@ieee.org](mailto:jbanks@ieee.org)

19<sup>th</sup> November 2009