



**IEEE**

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*IEEE*

# *Queensland Section*

*NEWSLETTER*

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## Editor's Remarks

Mr Robert Ellen

A belated happy new year to all IEEE Queensland Section members. We begin the eleventh volume of the IEEE Queensland Section Newsletter in similar style to the tenth with a bumper issue including reporting of the AGM and Dinner and many of the changes that have taken place in the section since our last newsletter edition of 2007.

Recently I attended the Computer chapter's first event of the year as reported by Dr John Williams within. Don Black gave an excellent presentation on visualisation at near-light-speed. I particularly enjoyed this talk because by its conclusion the speaker and audience were having a very empowered discussion on such topics as black holes, dark matter and string theory. Any seminar that includes this kind of theoretical physics is OK with me even if I don't really understand much of it at all because I can pretend I do.

I'd like to mention the editing and publishing process of the newsletter. The contributors (our volunteer office-bearers) provide me their content in a range of formats and styles which can be as simple as plain-text and image files or as complex as proprietary word processing files. These bytes are brought together using exclusively *free and open-source* software (FOS) packages (such as desktop publishing and image manipulation) running on my laptop or desktop computers which also run FOS operating systems. The desktop publishing software uses open formats to store the newsletter's work-in-progress and natively exports the final product to the popular PDF format ready for emailing via IEEE's E-Notice system and uploading to our website.

There are two points here. Firstly that while we often struggle to use FOS software and often go back to the proprietary packages we know and hate I have found that for this newsletter the process I have described is smoother than I could imagine using those proprietary programs. I encourage you to give them more of a chance next time you need to do something out-of-the-square.

My second point is that even with free and open source software **and** open formats **and** eight computers in my house I still manage to find and exploit single points of failure in my editing and publishing process!

Enjoy this edition of the IEEE Queensland Section Newsletter. Your feedback is, as always, most welcome.

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## Message from the Chair IEEE Queensland Section

Assoc. Prof. Vaughan Clarkson

Welcome to our first newsletter for 2008. The year is already well under way and our executive committee is working hard to make sure there are activities coming up that will be beneficial to all members. Since I last wrote in September, 2007, there are quite a few things to report on as Chair.

### Strong Membership Growth in Queensland

I'm very pleased to report that membership continues to grow strongly in Queensland. Provisional figures show that all classes of membership increased by 12% from end of 2006 to end of 2007 (data obtained on 11th November, 2007), including an impressive 24% rise in the class of regular Members.

### AGM & Dinner 2007

I was honoured again to preside over the IEEE Queensland Section AGM and dinner. It was held at the Sofitel in Brisbane on 29th November. Attendance was again good with 28 members and guests joining in for dinner. The after-dinner talk was given by the University of Queensland's Prof. Mandyam Srinivasan on the subject 'From Flying Insects to Autonomous Aerial Vehicles'. Prof. Srinivasan's style is very accessible and his talk on this occasion was well illustrated and thoroughly entertaining as always. It was also the occasion to present a number of awards including the IEEE Queensland Section Volunteer of the Year 2007 which went to our Immediate Past Chair, and long-time servant of Queensland Section, Prof. Tapan Saha. Our Awards & Recognition Chair, Mr. Michael Lees, has the full run-down in his article. I would like to thank our Vice Chair, A/Prof. Zhao Yang (Joe) Dong, for the hard work he put into organising the event.



*Prof. Mandyam Srinivasan presents his after-dinner talk at the 2007 Annual Dinner.*

### Undergraduate Thesis Prize 2007

The IEEE Queensland Section Undergraduate Thesis Prizes were again awarded at the annual dinner. I served on the committee to judge the two winners from the finalists and can attest to the high quality of submissions received and the difficulty in choosing winners.

Nevertheless, winners there must be, and our deserving winners were Mr. Matthew Gaskin from QUT and Ms. Sarah Hiley from UQ. Again, Michael has more to report in his update on Awards & Recognition.

The thesis prize competition is an annual event and will be run again in 2008. Final-year undergraduate student members in all major southern Queensland universities are welcome to enter their project reports or theses in the competition. See <http://www.ewh.ieee.org/r10/queensland/StudentPrize.html> for details.

## Student Volunteer Contest 2007

The Section decided to run a competition in 2007 to recognise the most active student volunteer. The prize was funding from Queensland Section to attend, as our Section's representative, the IEEE Region 10 (Asia-Pacific Region) Student Congress which was held in January, 2008, in Chennai, India. The winner was Mr. Manoj Sivisane, Chair of The University of Southern Queensland's Student Branch. Manoj has submitted a report on his attendance at the Congress to this newsletter.

Although the contest was intended as a 'one-off' for the Section, I think the contest was a great success and I will be asking the executive committee to consider running it again in 2008. So, students, volunteering for IEEE is more rewarding than ever. There are many ways to be involved in student activities in Queensland. Our Student Activities Chair, Dr. Philip Machanick, and our team of Student Branch Counsellors can help you to get involved. Please see our web page on Queensland Student Branches at:

<http://www.ewh.ieee.org/r10/queensland/StudentBranches.html>.

## Changes to the Executive Committee

It's very pleasing that the positions on our Executive Committee continue to be fully occupied with volunteers. However, since I last wrote there have been several changes to Section and Chapter offices.

- Dr. Garry Einicke has been elected unopposed as Chair of the Joint Signal Processing/Communications Chapter. Dr. Dhammika Jayalath has been appointed as Vice Chair. They replace outgoing Chair Dr. Bouchra Senadji and Vice Chair Dr. Jasmine Banks.
- Dr. Aleks Rakic has been elected unopposed as Chair of the Joint Microwave Theory & Techniques/Antennas & Propagation Chapter. Aleks replaces outgoing Chair Prof. David Thiel.
- A/Prof. Duncan Campbell succeeds Mr. Michael Lees as Chair of the Joint Control Systems/Robotics & Automation Chapter.
- Prof Gerard Ledwich was elected as Chair in the Power Engineering Chapter. The early resignation of Dr. Rajat Majumder (following a career move overseas) necessitated an election for a new Chair in the Power Engineering Chapter. Prof. Tapan Saha agreed to serve as Interim Chair of the Power Engineering Chapter until elections could be held.
- Dr. Andrew Thomas replaces Dr. Udantha Abeyratne as Student Branch Counsellor for The University of Queensland.

I'd like to welcome all of the incoming officers and thanks those whose terms have to come to an end for their volunteer service to our Section.

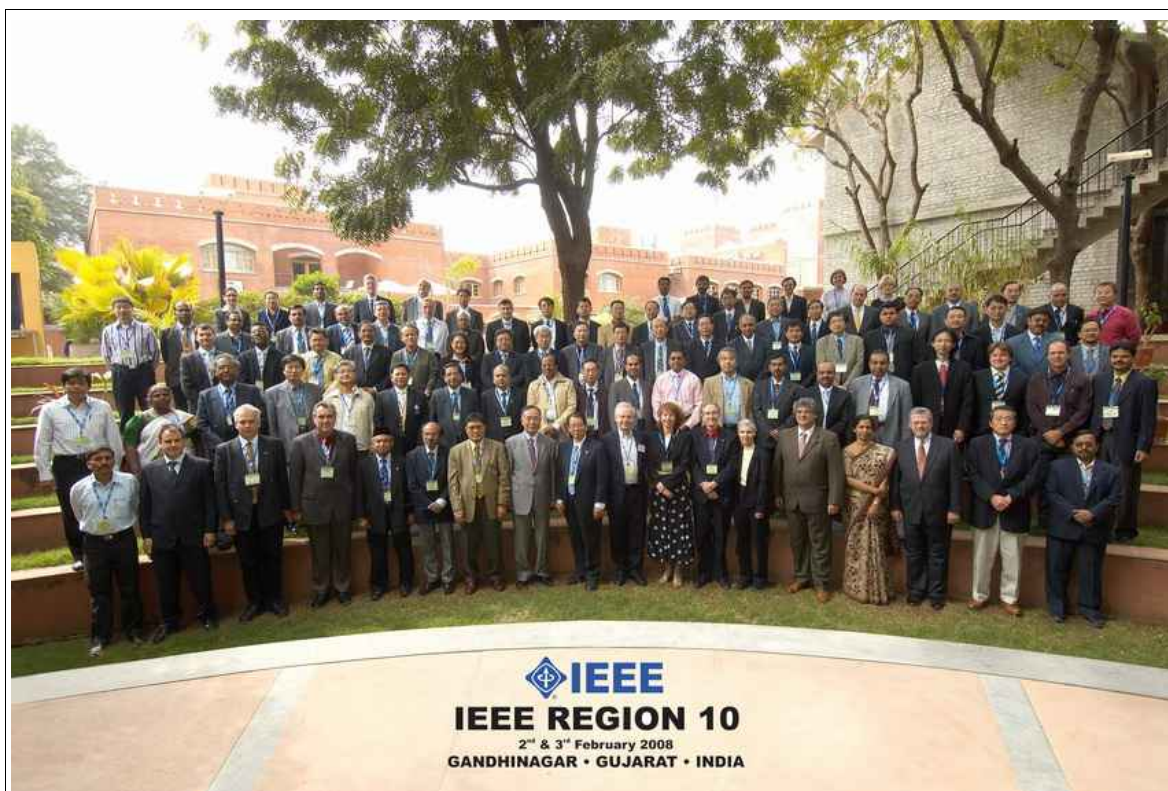


*New ExComm members. From Left: Dr Garry Einicke, Dr Dhammika Jayalath, Dr Aleks Rakic, A/Prof Duncan Campbell, Prof Gerard Ledwich and Dr Andrew Thomas*

## Region 10 Meeting

In February, I represented the Section at the Region 10 Meeting in Gandhinagar, near Ahmedabad, in Gujarat, India. As usual, it was a very stimulating meeting, offering the chance to share information with other Section Chairs around the Asia-Pacific, as well as to meet with and hear from key officers and personnel from IEEE HQ. Region 10 continues to be the largest Region in the IEEE and I think it also has no peer in diversity and dynamism. I hope to have occasion to use many of ideas I have picked up there during the year ahead.

At the meeting, it was announced that Prof. Tapan Saha, our Immediate Past Chair, has been awarded the R10 Outstanding Volunteer Award, one of only three for 2007. This is an outstanding result. At our March executive committee meeting, I was able to present the plaque that had been entrusted to my safekeeping to Tapan.



Group photo of attendees at the IEEE Region 10 Meeting for 2008 in Gandhinagar, Gujarat, India. Queensland Section Chair, A/Prof. Vaughan Clarkson, is third from the right in the second row.

## New FIEEE in Queensland

It is my pleasure to pass on the news that Queensland Section now has a third Fellow of the IEEE in CSIRO's Dr. Peter Corke. Peter was cited 'for contributions to visual-based robot control and its applications to field robotics'. Congratulations, Peter, on this high honour! Peter joins UQ's Prof. Marek Bialkowski and QUT's Prof. Arindam Ghosh in the Queensland list of FIEEEs (though we should not forget the fine achievements of Emeritus Prof. Matt Darveniza and Dr. John Cashen as Queensland's Life Fellows).

While this news is very good for Peter and for our Section, in my view, our Section seriously underperforms in producing FIEEEs. It's not that we don't have the talent. We need to organise ourselves better for recognition. Partly, it's a question of building a 'critical mass' of higher-grade members to which additions can then more easily be recommended. Please consider taking the time to elevate your membership from Member to Senior

Member or from Senior Member to Fellow. There are more details on how to do this at:  
<http://www.ewh.ieee.org/r10/queensland/Elevate.html>.

## **By-Laws Repealed: One-Year Terms for Officers Instead of Two**

At its most recent executive committee meeting, it was decided to repeal the by-laws governing Queensland Section. Sections no longer need their own by-laws. The Section will now be governed according to the provisions of the MGA (Member & Geographic Activities) Operations Manual, Chapter 9, which can be found at <http://www.ieee.org/web/volunteers/mga/home/board.html>.

One of the main changes that ensues is that the term of Section & Chapter officers will, from now on, be one year instead of two. Even more importantly, the six-year commitment that was formerly required to be Chair of our Section (two years as Vice Chair, two as Chair, then two as Immediate Past Chair) is now reduced to one also. In my view, the advantage of having one-year terms is that volunteer service to our Section and its Chapters is a commitment which is now much easier to contemplate and I hope it will make volunteering attractive to a wider pool of talented engineers.

Although there will be transitional arrangements in place for 2008 and 2009, elections for most offices in the Section executive committee and in its Chapters, on one-year terms, will be held later this year. Please consider putting yourself forward, or let us know of a capable colleague, when nominations are called.

Well, enough from me (more than enough!). I hope you will find value for your membership in the activities we have planned, and please let me know if not!



## Report on the IEEE R-10 Student Congress 2008 Chennai India

Manoj Sivasane

Old Section R10 Student Congress Delegate

It's been a great experience attending the IEEE Region 10 Student Conference in Chennai, hosted by the SSN College of Engineering. As I arrived at Chennai after a long journey from Australia to India on 27<sup>th</sup> January, 2008, I thought I might have a chance to relax, but unofficial proceedings began the same day with an ice-breaking/integration activity. I enjoyed this because I came across so many innovative and creative people. Especially, I enjoyed a Haka dance performed by George from New Zealand. It was a great experience to meet the delegates from other countries such as Bangladesh, New Zealand, China, Malaysia, Japan, Korea, Taiwan, Pakistan to name just a handful.



*Grounds of the SSN College of Engineering, Chennai, prepared especially for the congress*



*Delegates enjoying ice-breaker board games before the congress*

The official congress started on the 28<sup>th</sup>. I would like to thank Dr. Mini S. Thomas for her great organisation of such a wonderful event as well as staff of the SSN College of Engineering, hosts of the congress, including Prijoe Philips Komattu whose great enthusiasm made this event all the more enjoyable for us. He is the force behind the new **R10 GINI PROJECT**, which aims to integrate R10 student branches. Many of the presentations were quite interesting and inspirational. For example, I was encouraged to do something new for my IEEE Student branch after listening to a speech given by Lewis M. Terman. I also enjoyed the Leadership Training Program given by Mrs Jaya Indiresan. The second day, 29<sup>th</sup> January, was the birthday of R10 Director Janina Mazierska

and was thus celebrated with great enthusiasm among the delegates. The 29<sup>th</sup> was also the day that I, along with my fellow Australian delegates, formally represented Australia as well as our respective student branches for the congress. We also enjoyed the different cultural programs from the other represented countries. On the closing day there was a tour of a most historical part of the city *Mahabalipuram*.

I had a great experience attending this congress at Chennai and if I have the chance I would like to go to other conferences in the future. Many, many thanks to the IEEE for sponsoring this event in India and to the Queensland Section.



Images of historical monuments in the city Mahabalipuram, south of Chennai



Australian delegates (From left: Adam Ruxton, Fleura Stephens, Manoj Sivasane and Satyjitsinh Thakor)



## Update from the Awards and Recognition Chair

Mr Michael Lees

During 2007 the committee has decided to alter the award structure. There are now three categories available.

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.

### Awards

#### Recognition of Service

A total of 7 *Recognition of Service* awards were awarded within the Queensland section during 2007. Most of them were presented in December at the section AGM.

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

A total of 6 *Outstanding Contribution* awards were awarded within the Queensland section during 2007. Most of them were presented in December at the section AGM.

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

Award Recipient	Contribution
Dr. Ljubo Vlacic	Chapter Chair Joint CSS/R&A 1999-2005
Dr. Tapan Saha	Chair 2005-2006

### IEEE Chapter Chair Certificates

These certificates are automatically sent from IEEE HQ after a person has served their term as a chapter chair.

Award Recipient	Contribution
Dr. Zhao (Joe) Dong	Chapter Chair Power Engineering 2004-2006
Dr. Joaquin Sitte	Chapter Chair Computational Intelligence 2004-2006
Dr. Ljubo Vlacic	Chapter Chair Joint CSS/R&A 1999-2005
Dr. Tapan Saha	Chair 2005-2006

### IEEE Chapter Award

The CSS/R&A chapter has awarded a plaque to Dr. Ljubo Vlacic in recognition of his outstanding contribution to the CSS/R&A Chapter. He was the inaugural chair of the joint chapter in 1999 and remained in the role for 7 years until 2005. He organised many activities covering a broad range of topics including 16 seminars and 4 workshops. During this time the chapter received the *Chapter of the Year Award* in 2004 from the IEEE- Robotics & Automation Society, as well as the *IEEE-CSS Outstanding Chapter Award* (also for 2004).

### IEEE Queensland Section Volunteer of the Year 2007

Awarded to Dr. Tapan Saha

### IEEE Region 10 Outstanding Volunteer Award, 2007

The Region 10 outstanding volunteer award for 2007 was awarded to Dr. Tapan Saha.

“The IEEE Region 10 Outstanding Volunteer Award aims to recognise those volunteers who have made outstanding contributions to a particular Region 10 section.”

The candidates are judged on a number of criteria including such things as: new ideas developments or projects that have significantly benefited the section, length of service, administrative and leadership ability and support for other volunteers.

After considering a number of potential candidates the IEEE Queensland section committee nominated our immediate past Chair Tapan Saha for this award. Tapan has made an outstanding contribution to the Queensland section over a number of years in a number of different roles. During his time as Chair the Queensland section membership grew by 23%.

We congratulate Tapan on receiving the Region 10 Outstanding Volunteer Award for 2007.



*Immediate Past Chair, Prof. Tapan Saha, receives the award of IEEE Queensland Section Volunteer of the Year for 2007 from Awards & Recognition Chair, Mr. Michael Lees at the 2007 AGM.*

## Thesis prize awards

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

- 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'
- 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'



*Queensland Section Chair, A/Prof. Vaughan Clarkson, presents the ICPADM-Mat Darveniza IEEE Student Prize for Best Final Year Thesis in Power Engineering to Ms. Sarah Hiley at the 2007 Annual Dinner*

## Section History

Further progress has been made during 2007 on documenting the history of the IEEE Queensland section. The focus of the work last year was towards documenting the complete history of all positions and respective past office bearers within the IEEE Queensland section since its inception. While the task is not yet finished, substantial progress has been made last year. The information that has been collated so far can be viewed on the section web site. (Many thanks to section chair Vaughan Clarkson and our webmaster Mr Sheng How Goh for their assistance with both sourcing historical information and for presenting it on the section's web site). However there are still many gaps in the section's history. We are still missing information for some of the office bearers (for the 'minor' roles in particular) prior to 2001. We are also interested in the early history of the formation of each of the chapters in the Queensland section. If anyone has any of this information could you please contact me.

## Awards for 2008

Nominations are currently being accepted for recognition awards. If you know of someone who has made an outstanding contribution to the IEEE Queensland section during their term of office (in particular during 2007) could you please forward the details to me. The section committee will review all nominations prior to approval.

This year the awards will be presented at the section Annual General Meeting (AGM) at the end of the year.

## Membership Development Update

**Mr Peter McLarty**  
**Membership Development Coordinator**

Membership is still strong for the Queensland Section with a total membership of 733 members. There appears to have been a few members lost through arrears and there is a number of possibilities that may have contributed to this, the obvious one being the higher interest rates. For some membership is possibly a discretionary expense, which is a shame as the benefits of being a member are a lot more than the access to the libraries of articles.

Until August 18th this year IEEE is running a member 'get a member program', there is a small amount of funding and that can be put towards future purchases from the IEEE including your 2009 membership.

I have some analysis of our membership number in comparison to the Region as a whole and it shows Queensland well behind the region in percentages for students. Currently only 6.96% of our membership is student members against the region having 24.30%. Graduate student members are consistent with Region at 10.64% . General members and our higher grades are either more consistent or substantially higher than the Region at large including 69.99% of our members holding the Member IEEE level - this is approximately 17% better than the region. Our Senior Members also are ahead of the region percentage.

The student number seems to reflect the observation that there is highly active student membership in some of our Region 10 neighbours compared to here, and our member numbers reflect the difficulty those other sections appear to have in transitioning students to full members.

Once again - don't forget to sign up a member and reduce your membership fees next year.

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## GOLD Affinity Group Update

**Mr Robert Ellen,**  
**Chair GOLD Queensland Affinity Group**

The GOLD Affinity group currently has some events in the planning stages and details will be announced via E-Notice soon. These include talks on intellectual property, innovation and commercialisation of ideas by young industry- and academia-based engineers as well as a workshop on sharpening presentation skills. We are also hoping to be able to invite our GOLD members to events held by other Young Professionals' organisations this year.

## Message from the Student Activities Chair

Dr. Philip Machanick



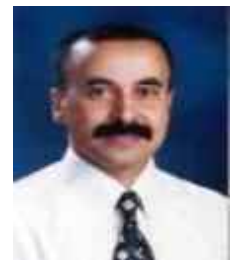
I joined the IEEE exec as Student Advisory Chair in 2007. We have mixed activity from student branches: some very active, others doing nothing. I would like to appeal to members to offer ideas for engaging students, particularly as numbers remain low in computer-related branches of engineering and allied degrees.

Elsewhere in this issue you will see a report from Manoj Sivasane about his participation in the R10 student congress in Chennai, India. This is an example of the kind of benefit students can see from active participation. Members with specific needs e.g. recruiting future talent are welcome to propose ideas to leverage off IEEE activities. I will attempt to match such requests to student branches.

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## Introducing our new CQU Student Branch Counsellor Dr A B M Shawkat Ali

Dr A B M Shawkat Ali is a Senior Lecturer in the School of Computing Sciences at Central Queensland University, Australia. He holds PhD in Information Technology from the Monash University, Australia. His PhD topic was on Data Mining and received Monash Publication award 2005. Dr. Ali's Data Mining book "Data Mining: Methods and Techniques" has been published by Thomson, 2007. Moreover he published 35 refereed journal and international conference papers in the areas of Bioinformatics, Data Mining, Support Vector Machine and Telecommunication. In addition to his academic activities, he is also regularly organizing international conferences and reviewing journal articles on data mining and machine intelligent systems. Currently he is the program committee member of the below conferences:



- IEEE 23rd International Conference on Advanced Information Networking and Applications, 2009, UK.
- 2008 International Conference on Advanced Software Engineering & Its Applications, December 13-15, 2008.
- 7th IEEE/ACIS International Conference on Computer and Information Science, May 14 - 16, 2008, USA.
- 2008 IFIP International Workshop on Network and System Security - 18-19 September 2008, Shanghai, China
- 9th International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing, August 6-8, 2008, Thailand.

## QUT Student Branch Update

**Dr Jasmine Banks**  
**QUT Student Branch Counsellor**

Some developments have taken place with the QUT Student Branch.

Jishu Das Gupta <[j.dasgupta@qut.edu.au](mailto:j.dasgupta@qut.edu.au)> and Chris De Vries <[chris@de-vries.ws](mailto:chris@de-vries.ws)> have been appointed Acting Chair and Vice Chair respectively. Jishu is a postgraduate student in the field of Telecommunication Engineering. Chris is a postgraduate student in the field of Information Retrieval.

We are currently in the process of creating a web site for the QUT Student Branch. If you would like to be actively involved in the Branch, assist with the web site, or have an idea for an activity that the Branch could do, please contact one of us.

A function was held on for Wed Apr 9th, 12:30pm, in S405A. The benefits of IEEE Student membership, and the QUT Student Branch were discussed. Attendees enjoyed free pizza and softdrink, and the free raffle with Tshirt and cap as prizes.

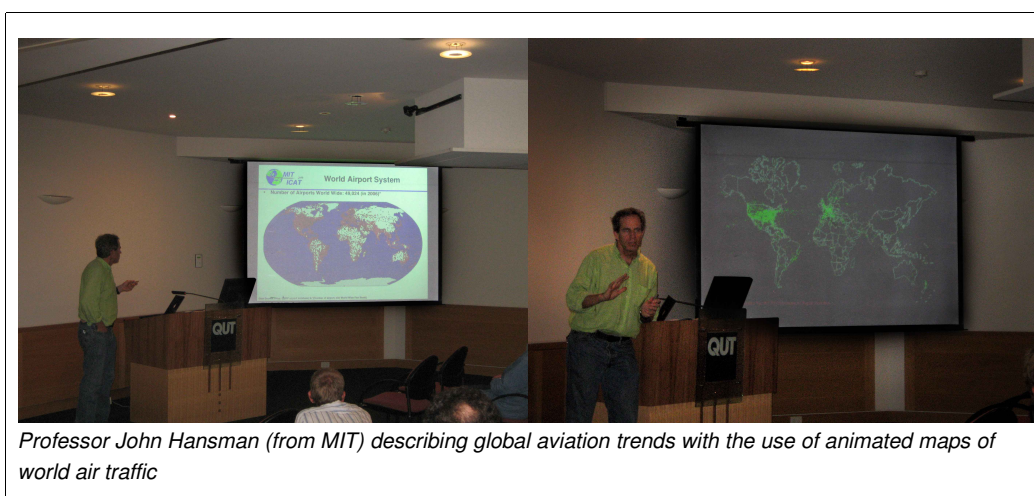
Also, if this is your final year of undergraduate study, and you are submitting a thesis this year, consider entering the IEEE Queensland Section Thesis Prize. A QUT student, Matthew Gaskin, was the winner of Best Final Year Thesis in Electrical Engineering & Information Technology last year.



## Progress Towards an Aerospace and Electronic Systems Chapter in Queensland

Mr Robert Ellen,  
AESS Petition Organiser

The AESS Queensland Chapter petition is finally on its way to HQ for approval. In the meantime, the IEEE Queensland Section hosted an event in partnership with QUT to promote the imminent chapter. Professor John Hansman from MIT presented a talk on global Air Transportation and the challenges faced for the industry in the years ahead. Using some very enlightening animated maps of parts of the US and the globe he discussed some of the engineering, ICT and economic problems that researchers are trying to solve in the global aviation industry.



## Computational Intelligence Chapter Update

A/Prof. Brijesh Verma  
Chair, Computational Intelligence Society  
Queensland Chapter

### Recent Events

The CIS chapter's first meeting in 2008 was held on 28th April via AccessGrid at CQU, UQ, QUT and Griffith. The meeting was combined with a presentation by Juliusz Zajaczkowski from the UQ node. The presentation topic was *Hierarchical fuzzy control using evolutionary algorithms over the set of initial conditions: compositional method*. The inverted pendulum control system was used as the exemplar.

### IEEE CIS Outstanding Chapter Award Nomination

The chapter has been nominated for the prestigious IEEE CIS Outstanding Chapter Award. The award recognizes 'the chapter that is judged to have provided the greatest overall contribution and service to its members; the local scientific, professional, governmental, and educational communities; and the IEEE CIS.' Recent recipients were Chile, Mexico and Poland. For more information go to <http://iee-cis.org/awards>

### Upcoming Events

The chapter is planning to have next two meetings in July and October. The October meeting will be combined with a presentation by a Distinguished Lecturer and the very popular Postgraduate Symposium.



## Computer Society Chapter Update

**Dr John Williams**  
Chair, Computer Society Queensland Chapter

Welcome back for another year. Our technical program got off to a great start on 14th March with a presentation from Don Black on techniques for visualising special relativistic phenomena. To a packed audience with standing room only, Don gave an accessible and visually entertaining presentation with many images and videos of his work and that of other researchers in the field. Don is the owner and founder of ChoreoGraphics and also Computer Society Chair in his home section of Orange County, California.

Stay tuned for more events coming up throughout the year.



## Control Systems / Robotics & Automation Joint Chapter Update

Mr Michael Lees  
Immediate Past Chair  
CSS/R&A Queensland Joint Chapter

### Recent Events

#### Seminar: **Modelling and Control of High Density Data Storage Mechatronic Servo Systems: A Case Study with Hard Disc Drives**

The seminar was held on Wednesday 12<sup>th</sup> December at the University of Queensland. Justin gave a very interesting presentation providing some insights into the challenges that are encountered when designing hard disc drive control systems.



*Audience members listening to Justin Pang (from Hitachi) presenting the seminar on "Modelling and Control of High Density Data Storage Mechatronic Servo Systems: A Case Study with Hard Disc Drives", at the University of Queensland*

#### Seminar: **Watching our World with Wireless Sensor Networks**

This was a joint seminar hosted with Engineers Australia Qld. ITEE. It was hosted at the Keays room at Engineering House on 28th February. Tim gave a very interesting presentation that included a brief introduction to some of the research that the CSIRO have been doing with wireless sensor networks. Some of the notable applications included a virtual electric fence for bulls, environmental monitoring, Autonomous Underwater Vehicles (AUV's) and monitoring the herd behaviour of cows.



*Audience members listening to Tim Wark (from CSIRO) presenting a seminar on "Watching our World with Wireless Sensor Networks", in the Keays room at Engineering House*

## IEEE Fellow and newly Elected member of the RAS Adcom

Congratulations to Dr. Peter Corke from CSIRO Queensland for being elected Fellow of the IEEE. He was cited *'for contributions to visual-based robot control and its applications to field robotics'*.



Further details are available in the December Region 10 newsletter:

[http://www.ewh.ieee.org/reg/10/Newsletter/2007/R10\\_eNewsletter-Dec2007.pdf](http://www.ewh.ieee.org/reg/10/Newsletter/2007/R10_eNewsletter-Dec2007.pdf)

or on the Robotics & Automation Society web site:

<http://www.ieee.org/web/membership/fellows/Societies/RA.html>

Congratulations also to Peter for being elected onto the Robotics and Automation Society Administrative Committee, Class of 2010.

<http://www.ieee.org/web/membership/fellows/Societies/RA.html>

## New Australian IEEE Control System Society Distinguished Lecturer

Dr. Dragan Netic from the Department of Electrical and Electronic Engineering at the University of Melbourne has been named a Distinguished Lecturer of the Control Systems Society of the IEEE.

Congratulations to Dragan for also being elected to Fellow of the IEEE. He was cited *'for contributions to the analysis and control of networked nonlinear sampled-data systems'*.



Further details are available in the December Region 10 newsletter:

[http://www.ewh.ieee.org/reg/10/Newsletter/2007/R10\\_eNewsletter-Dec2007.pdf](http://www.ewh.ieee.org/reg/10/Newsletter/2007/R10_eNewsletter-Dec2007.pdf)

## New Chapter Chair

My term as chair of the joint CSS/R&A chapter expires in April 2008. I'd like to take this opportunity to thank everybody for their support and attendance at the various chapter events over the last two years. I would also like to welcome Dr. Duncan Campbell as our new chapter chair for the next term.

## Signal Processing / Communications Joint Chapter Update

Dr. Garry Einicke  
Chair Signal Processing / Communications  
Queensland Joint Chapter

### Planned Event for SP/Comm Chapter

Matt Higgins has been invited to provide a presentation on Global Navigation Satellite System developments during 2008. Matt is the Queensland representative on the Geodesy Group of the Australia and New Zealand Intergovernmental Committee on Surveying and Mapping working on issues such as horizontal and vertical datum, development of standards and practices for surveys (including GPS) and legal traceability of EDME and GPS measurements. He is a member of the Geodesy Sub-Committee of the Australian Academy of Sciences, the Chair of International Federation of Surveyors (FIG) Commission 5 on Positioning and Measurement and the FIG representative to the UN Action Team on Global Navigation Satellite Systems.

### IEEE Communications Society Launches New Wireless Communication Engineering Technologies Certification Program

The IEEE Wireless Communication Engineering Technologies (IEEE WCET) Certification Program has been designed by IEEE ComSoc to address the worldwide wireless industry's growing need for communications professionals. To qualify for the IEEE WCET designation, candidates with a bachelor's degree from an accredited institution and at least three years of wireless engineering experience must pass an exam. Online applications will be accepted beginning in mid-June. In the coming months, IEEE ComSoc will also launch a Candidate Handbook for the IEEE WCET certification program.

For more information contact:

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3 Park Avenue, New York, NY 10016. Phone: (212) 705-8913.

E-mail: [j.niblett@comsoc.org](mailto:j.niblett@comsoc.org) or visit [www.ieee-wcet.org](http://www.ieee-wcet.org).

## Introducing our new Vice-Chair of the SP/Comms Joint Chapter

**Dr. Dhammika Jayalath**

I would like to introduce myself as the incoming Vice Chair of the joint signal processing and communications chapter of the IEEE Queensland Section. I am a Lecturer in the School of Engineering Systems at Queensland University of Technology. Professionally, my interests are in Wireless signal processing and Telecommunications areas. As to my background, I graduated from The University of Moratuwa, Sri Lanka with a Bachelor of Electronics and telecommunications with 1<sup>st</sup> class honours in 1994 and a Master of Engineering from the Asian Institute of Technology, Thailand in 1998. I studied towards my Ph.D. in Wireless Communications at Monash University, Melbourne which was awarded in 2002. From 2002 to 2007, I was a Research Fellow in the Department of Telecommunications Engineering at The Australian National University and worked for the Wireless Signal Processing Program of the National ICT Australia (NICTA) from 2003 to 2007 as a secondee before joining QUT. I am delighted to be elected as the Vice chair of the joint signal processing and communications chapter of the IEEE Queensland Section and very much looking forward to positively contribute to the activities of the chapter.

## List of your Volunteer Office Bearers for 2008

NOTE: full contact details may be found at

<http://www.ewh.ieee.org/r10/queensland/OfficeBearers.html>

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