



IEEE

Institute of Electrical and Electronics Engineers
Queensland Section (ARBN 078576495)
www.ieee.org/queensland

IEEE

Queensland Section

NEWSLETTER

2nd Quarter 2007

Volume 10 – Issue 2

Print Post Approval No. PP4458860011

In this Issue

Editor's Remarks.....	2
Message from the Chair, IEEE Queensland Section.....	3
Message from the Vice-Chair, IEEE Queensland Section.....	5
Proposed Aerospace and Electronic Systems Society Chapter: Petition Update.....	6
Message from the Membership Development Coordinator.....	7
QUT Student Branch Update.....	8
GOLD Affinity Group Update.....	8
Computational Intelligence Society Chapter Update.....	9
Computer Society Chapter Update.....	10
Control Systems / Robotics & Automation Joint Chapter Update.....	11
Power Engineering Society Chapter Update.....	14
List of your volunteer Office Bearers for 2007.....	16

Editor's Remarks

Robert Ellen

Another three months has passed and thus here we are with the year's second edition of the IEEE Queensland Section newsletter. This time we have news from our region's (R10) annual meeting in Malaysia, a teaser for the AGM and annual dinner as well as the regular messages and reports from our office bearers.

In Peter McLarty's membership report it is great to see that the section has grown in membership over the past few years. There may, however, be many among us who are eligible to elevate their membership. Please take note of our Chair, Vaughan Clarkson's comments on elevation of membership.

One section that I would like to highlight is the Graduates of the Last Decade (GOLD) Affinity Group update. This year we will be holding elections for positions of Chair and Vice-Chair of the Queensland GOLD Affinity Group. If you have received your first professional degree within the last ten years and want to gain invaluable experience in contributing to your profession I encourage you to consider nominating for one of these positions. Check the GOLD Update section of this newsletter and the Queensland Section website for more details on nominations. Once nominations have closed and elections are called I encourage all eligible members to vote for their preferred nominee.

I hope you enjoy reading this edition of the newsletter. Please contact me if you have any queries, concerns or suggestions.

IEEE Information contained in this newsletter may be copied without permission provided that copies for direct commercial advantage are not made or distributed, and the title of the publication and its date appear on each copy.

Message from the Chair, IEEE Queensland Section

Dr Vaughan Clarkson

Our Queensland Section has been busy over the last few months. Our Chapters have held numerous technical meetings recently and many more are planned in the near future. Please do make yourself familiar with upcoming activities as detailed in the reports of our Chapter Chairs in this issue. Our aim, as always, is to organise events which are of value to our members, i.e., you!, and feedback on or suggestions for IEEE events are always welcome. Just drop me a line at v.clarkson@uq.edu.au.

R10 Meeting in Kota Kinabalu, Sabah, Malaysia

Since I last wrote in this column, Assoc. Prof. Joe Dong (yes, Joe has also been promoted in the meantime: congratulations Joe!) and I attended the annual IEEE Region 10 (R10) meeting in Kota Kinabalu, Sabah, Malaysia. This is a meeting of all the Section Chairs from around Region 10 (the Asia-Pacific region) together with the R10 leadership and representatives of IEEE HQ. It is an excellent chance to find out what is going on around the Region, to compare notes with other Sections and to learn about current events in IEEE. At year's end last year, R10 was the largest of the ten regions in the IEEE by membership (not to mention geography!). R10 continues to grow strongly, the strongest growth of all Regions, with IEEE establishing a Section in Vietnam and expanding its presence in China.



Delegates to the IEEE Region 10 Meeting in Kota Kinabalu, Malaysia. Your Queensland Chair is 5th from the right in the back row and your Vice-Chair is 2nd from the right in the 3rd-last row.

I was pleased to see that Queensland received honourable mentions at least a couple of times during the meeting as an example of a Section that is doing things right. In fact, I was rather hopeful that our Section would win the R10 Distinguished Section Award (Large Section category) but that honour went to the very deserving Malaysia Section who pipped our 2006 membership growth rate of 23% by a couple of percentage points. I was also able to participate in a couple of smaller focus groups: one on how to improve Section activities and another on an embryonic proposal for an IEEE accreditation programme in wireless communications. Full details of the meeting agenda, including many of the presentations, can be found at:

<http://ewh.ieee.org/reg/10/Reports/meetrep/meetrep2007.htm>.

Elevate Your Membership

I would also like to take this opportunity to again bring to your attention the opportunity for membership elevation: from Member to Senior Member and from Senior Member to Fellow. I believe Queensland Section is under-represented in the latter categories. Queensland Section would like to assist you with upgrading your membership. In particular, this year, we have been participating in the Nominate A Senior Member initiative and we have nominated 7 Members so far. For more details of how the Queensland Section can help you with this, please refer to our web page:

<http://www.ieee.org/queensland/Elevate.html>

Changes on the Executive Committee

There has been one change to our Section Executive Committee since I last wrote. I would like to welcome Mr. Charles Hacker to the position of Student Counsellor for the Griffith University Gold Coast campus, replacing Dr. Khoa Le. I'm looking forward to working with Charles and all of our Student Counsellors and Student Branches to organise activities and provide service to our local Student Members this year.

Upcoming Events

Further into this issue, you'll find an announcement regarding election of a new committee for the GOLD (Graduates of the Last Decade) Affinity Group. I think GOLD represents a golden opportunity (sorry) for our young professional members to maintain the social and professional networks that were established in student days, to help each other to thrive in the professional world. If you are the sort of person who enjoys organising social, technical and professional activities for your peers (maybe you were recently involved in student groups?), I encourage you to consider helping to establish our GOLD affinity group as a primary local resource for networking young engineering professionals by nominating yourself for the committee.

Finally, our plans for the annual dinner and AGM are progressing well. We have a date claimer for you and, I think, a very interesting speaker: please see Joe's announcement in his column as Vice Chair.



Message from the Vice-Chair, IEEE Queensland Section

Assoc. Prof. Zhao Yang Dong

This edition there are three major items to report from the Vice Chair.

Region 10 Meeting

As vice chair for the section, I attended the Region 10 meeting in Malaysia with Chair Dr Vaughan Clarkson in March 2007. The meeting provided much useful information for running a successful section. Some photos of the meeting can be found at the section website.

IEEE QLD Section Final Year Student Thesis Prizes

IEEE QLD section offers 1 IEEE prize for the best final year thesis in all fields of electrical engineering and information technology, and 1 Mat Darveniza IEEE student prize for the best final year thesis in power engineering every year.

For students graduating in the 1st semester, a maximum of one thesis for each category from each institution will be selected for consideration of such prizes at the end of the year. These selected theses, together with other selected thesis from the 2nd semester graduates, will be evaluated by a committee before the AGM in Nov 2007 for a final list of prize winners.

Information about these prizes had been sent to all student counsellors. Details of these prizes are available at: <http://www.ewh.ieee.org/r10/queensland/StudentPrize.html>

IEEE QLD Section 2007 Annual General Meeting (AGM)

The section's annual general meeting will be held on Thursday 29 November 2007. Venue of the AGM is to be determined by the next section meeting. The 2006 Prime Minister's Prize for Science winner - Professor Mandyam Veerambudi Srinivasan has kindly confirmed to be our VIP guests and give a speech during this AGM.

With a PhD from Yale University, Professor Srinivasan FAA FRS "[received] the 2006 Prime Minister's Prize for Science for a remarkable and unique research career that has revealed the working of the insect mind, and helped redefine robotics research." He was also awarded the 2003 Australian Centenary Medal.

Professor Srinivasan is currently an Inaugural Federation Fellow, ANU Distinguished Professor, and Director of Centre for Visual Science at Australian National University. The speech by Professor Srinivasan will sure be an exciting one and a great honour to our AGM. More information about Professor Srinivasan can be found at: https://sciencegrants.dest.gov.au/SciencePrize/Pages/Doc.aspx?name=previous_winners/PM2006srinivasan.htm



Proposed Aerospace and Electronic Systems Society Chapter: Petition Update

Robert Ellen
AESS Chapter Petition Organiser

Queensland-based members of the Aerospace and Electronic Systems Society (AESS) were recently sent a letter with an enclosed petition form and an addressed, pre-paid envelope. Positive responses have started to come in and the critical-mass required for the petition to move forward is close to being achieved. I encourage those members who received letters to reply soon so that we can all benefit from having a chapter in this exciting and important field in Queensland. If you are member of AESS and did not receive a letter from me please contact me via email so that I can get a petition form to you as soon as possible. It is not too late to join or rejoin the society, enjoy a discounted membership and get involved.

One of this year's most interesting aerospace events will be the UAV Challenge – Outback Rescue 2007 which will be held in Kingaroy, Queensland from the 24th-27th of September. The UAV Challenge is a competition for students and hobbyists from around the world to deploy an Unmanned Aircraft and perform missions such as the simulated rescue of a bush-walker. The AESS is a major sponsor of this competition, pledging AU\$ 25,000. If you are interested in finding out more about this event please visit <http://www.uavoutbackchallenge.com.au/>.

A talk is being planned for late August to discuss the UAV Challenge as well as other aerospace issues in Queensland. Details will be sent via email closer to the talk date.



Message from the Membership Development Coordinator

Peter McLarty

Current membership numbers for the section are as follows:

IEEE Grade	Number
Affiliate	45
Student	188
Associate Member	29
Member	517
Life Member	6
Senior Member	55
Life Senior Member	3
Fellow	2
Life Fellow	1
Total	846

This represents significant growth for the section. At the end of 2005, we had approximately 690 members in the section. Overall, that is close to 30% growth in membership in that period.

To give this some perspective, over the period of April 2006 to March 2007, approximately half of the above time period, the IEEE as a whole had a membership gain of 3.3% to a total membership of 325,950 members.

What can we do to continue to increase our membership? We need to continue the excellent work the Society Chairs are doing by bringing quality speakers in their domains to our membership. Please promote these events to fellow workmates and colleagues. We had an excellent speaker with our AGM dinner last year and as announced elsewhere in this newsletter we have another top speaker lined up for this year's AGM.

Other things we can do is promote to your workplace or fellow students that being part of an organisation like IEEE is as much about what these professionals deliver as speakers as it is about the opportunity to network with peers in areas of academic interest as well as industry.

If anyone in the section has any query about membership, please contact me.



QUT Student Branch Update

Dr Jasmine Banks
QUT Student Branch Counsellor

On June 14th I gave a talk about IEEE membership at a Faculty of Built Environment and Engineering Higher Degree Research Student social function.

Our next planned event is a "pizza and soft-drink" lunch which will be held during week two of semester 2. Come and hear about IEEE membership, and how you can become involved in the QUT student branch. All Electrical and Electronics Engineering and IT students should be hearing more from me via email about this soon.

In the meantime please contact me if you have any questions about IEEE student membership, thesis prizes, or if you're interesting in taking an active role in the QUT student branch.

GOLD Affinity Group Update

Peter McLarty,
Chair, GOLD Queensland Affinity Group

At this time, I do hope all of the GOLD membership would know there is an election process going on to elect the Chair and Vice Chair for 2008-2009. This is for a 2-year period as all of the IEEE Chair positions are. Currently we are calling for nominations for these positions, and these close on the 17th August 2007.

The election process will start later in the year after nominations close with the Election process ending on 27th October 2007. This will allow the incoming chair to attend the AGM in that role.

You can find all the information displayed on the IEEE QLD Section website.

Recently we identified that one of our members who is eligible for GOLD membership was not recognised as such by IEEE HQ. It seems there may be an anomaly in the process for postgraduate students. Are you a postgraduate student, your undergraduate degree is in an IEEE-related discipline and you completed that study in the last 10 years? Have you been receiving any GOLD emails or other information relating to GOLD? If you answered yes to the first question but no to the second, please contact me so we can communicate your position to IEEE HQ. We would very much like to include you in our GOLD activities.

For most of this year, so far and for the rest of the year I am working during the week in Rockhampton on a project for CQU. This has affected my ability to provide you all with the events GOLD should have. I will endeavor to organise a couple of events for the second half of the year.

If anyone has ideas about to sorts of events you would like QLD GOLD to organise let me know. These can take to form of BBQ's to meet with your peers, a friendly game of ten pin or soccer, maybe some professional development like career information from companies such as IBM or Powerlink. When these events are organised we would like to see student members attending as well.

Computational Intelligence Society Chapter Update

Assoc. Prof. Brijesh Verma,
Chair, Computational Intelligence Society Queensland Chapter

The first meeting of computational intelligence society chapter in 2007 was held in April. Dr John Zakos, of RelevanceNow, has presented an interesting talk which was attended by many researchers via our access grid at CQU, Griffith, QUT and UQ.

July Meeting

The chapter's next meeting will be held in the second week of July (Wednesday, 4PM) via the access grid at CQU, UQ, QUT and Griffith. Dr. Marcus Gallagher from UQ will talk about "Evolving neural networks to play Pac-Man". There will also be a discussion led by Zahid Hassan and Brijesh Verma titled 'How Can We Fuse Data Mining Algorithms? Are NNs Good for Fusion?'.

Abstract of Dr. Marcus Gallagher's talk.

Pac-Man (and variant) computer games have received some recent attention in computational intelligence research. One reason is that the game provides a platform that is both simple enough to conduct experimental research and complex enough to require non-trivial strategies for successful game-play. This presentation will describe an approach to developing Pac-Man playing agents that learn game-play based on minimal on-screen information. The agents are based on evolving neural network controllers using a simple evolutionary algorithm. The results show that neuroevolution is able to produce agents that display novice playing ability, with a minimal amount of on-screen information, no knowledge of the rules of the game and a minimally informative fitness function. The limitations of the approach will also be discussed, together with possible directions for extending the work towards producing better Pac-Man playing agents.

Distinguished Lecturer Program

The chapter is also planning to invite a distinguished visitor to Queensland under IEEE CIS Distinguished Lecturer Program and currently we are in process of finalising the details for a distinguished visitor.

Computer Society Chapter Update

Dr John Williams

Chair, Computer Society Queensland Chapter

On the 26th of April we held a successful event jointly with the Engineers Australia IT & EE subcommittee. Neville Holmes, honorary research associate at the University of Tasmania and regular columnist in IEEE's flagship magazine, "Computer", joined us for the evening to discuss the nature of the computing profession. Lively debate followed, which is always a sign of a good presentation.

Details and slides from the talk are available on the IEEE Queensland Computer Society Chapter web page:

<http://www.ieee.org/queensland/comp/home.html>

Upcoming events

Wide-Area, Low Frame-Rate Video Exploitation

Dr Reid Porter, Los Alamos National Laboratories, New Mexico, USA

Friday 13th July, 11:00am

The University of Queensland, General Purpose South Bldg 78, Room 78-420

Abstract:

Geographically referenced (geo-spatial) video acquisition systems are now in practical use. Wide area imaging sensors are placed on helicopters, balloons, small aircraft or unmanned aerial vehicle and geographically referenced video is communicated to a ground station in real-time. Compared to satellite imagery, which provides data at time scales of months or years, geo-spatial video provides data to observe and model temporal phenomena at time scales of seconds or minutes.

Geo-spatial video exploitation presents new challenges for computer vision researchers. First, many objects of interest (e.g. vehicles and people) cover very few pixels and therefore specific recognition is very difficult. Second, moving object detection in this imagery is an unsolved problem. Data arrives at about 1 or 2 frames per second, which means point-like moving objects move anywhere from 1 to 200 pixels. In addition, the oblique viewing angles and incomplete digital elevation maps mean buildings and other landmarks suffer from parallax. This introduces a large amount of motion clutter. Finally, registration is often required in real-time and is therefore approximate, e.g., stationary objects might move up to 30 pixels over a short period of time. All these factors combined lead to unique, and extremely difficult recognition and tracking problems.

In this talk we will describe recent algorithmic work which aims to address these challenges, which includes a novel combination of object detection, moving object detection, and anomaly detection. We present initial results for a variety of recognition and tracking problems and will discuss future work in this area.

To be confirmed

We are hoping to confirm a speaker from the CSIRO's E-Health Research Center, for a talk in the July/August timeframe. Stay tuned for details.

Control Systems / Robotics & Automation Joint Chapter Update

Michael Lees

Chair, CSS/R&A Queensland Joint Chapter

Vale Professor Kazuo Tanie 1946 – 2006

Dear RAS members,

We regret to inform you that Professor Kazuo Tanie, RAS President 2004-5, died on June 9. Prof. Tanie was an active member in the robotics community in Japan and worldwide and will be greatly missed.

Those of you who wish to send tributes or memories about Prof. Tanie may post them on the RAS wiki at <http://wiki.ieee-ras.org/mab:tanie:index>. We will send them to Prof. Tanie's family.

We understand that a charity is being set up in Prof. Tanie's name by colleagues at Waseda University and AIST. Information about this will be posted on the RAS website when it is available.

Sincerely,

Richard A. Volz
President, Robotics and Automation Society



Recent Events

Seminar: **Spatial Control of a Large Pressurized Heavy Water Reactor: An output feedback approach**

The seminar was held on Thursday 22nd March in room 78-622 at the University of Queensland, St Lucia Campus.

It was an interesting seminar that discussed some of the control issues with fission reactions in large nuclear reactors. The formation of the Xenon isotope Xe can induce spatial power oscillations inside the reactor. If these oscillations are not controlled, a serious situation known as 'flux tilting' may arise i.e. one portion of the reactor may tend to produce more energy than the other portion does, and this can cause fuel in that region to exceed its thermal design limits. During the seminar Professor Bandyopadhyay discussed how a nodal model for a large reactor can be obtained (using 70th order state space equations!). He explained that by using a kind of output feedback known as periodic output feedback, which uses only zonal flux, any desired closed loop specification can be obtained. Finally the application of the proposed method to a practical PHWR of 500 MW was discussed.

Bijnan Bandyopadhyay is currently a Professor and Convenor for the Interdisciplinary Programme in Systems and Control Engineering, Indian Institute of Technology Bombay, Mumbai, India. He has authored or co-authored more than 200 journal articles and conference papers. His research interests include the areas of large-scale systems, model reduction, reactor control, smart structures, periodic output feedback control, fast output feedback control, and SMC.



Figure 1 Audience members (left) listening to Professor Bijan Bandyopadhyay (right) presenting the seminar on "Spatial Control of a Large Pressurized Heavy Water Reactor", at the University of Queensland

Upcoming events

August 2007

Seminar: **Australian Synchrotron**

Speaker: Richard Farnsworth, (Lead Control Systems Engineer for the Australian Synchrotron)

Date: Thursday 23rd August

Location: Hawken Auditorium, Engineering House (This is a joint seminar with Engineers Australia (ITEE))

Overview

The Australian Synchrotron has been built to serve the scientific research community throughout Australia and beyond. The Australian Synchrotron is located in Melbourne. Construction is complete and the facility will officially open for use in July 2007. First light, i.e. confirmation that a sustained beam of electrons is circulating the storage ring at the full design energy of 3 billion electron volts, was achieved on schedule in July 2006, and the first researchers are now using the synchrotron. The "synchrotron light" produced by the facility is a powerful tool for frontline research and development.



Figure 2 Front view of the Australian Synchrotron, located adjacent to Monash University in Melbourne

This presentation will cover technical aspects of the construction, commissioning and operation of the Australian Synchrotron and its expected applications.

Speaker

Richard is the Lead Control Systems Engineer of the Australian Synchrotron. He is responsible for systems design, specification, procurement, testing and integration of the computer instrumentation, controls and

diagnostics for the project.

Richard is from Melbourne and comes from an I.T. and engineering background, having worked on systems for a variety of utilities, including water supply, sewerage, railways and power supply.

This is definitely a seminar that is not to be missed. The Synchrotron is one of the more significant pieces of infrastructure for science and engineering research in Australia and it has only recently been commissioned.

Special requests for specific seminar topics or speakers are also welcome. Please forward any requests to me at Michael.Lees@ieee.org



Power Engineering Society Chapter Update

Dr Rajat Majumder

Chair, Power Engineering Society Queensland Chapter

Recent Events

The Power Engineering chapter organized a seminar by Prof. Mladen Kezunovic from Texas A&M University, College Station, TX, USA since the publication of the last news letter. The topic of the seminar was **The Electricity Systems of the 21st Century**. It was a very interesting seminar for both people from academia and industry. Some highlights from this event along with a photograph are shown below.



Seminar by Prof. Mladen Kezunovic at Hawken Engineering Building, University of Queensland

The Electricity Systems of the 21st Century

This presentation gives an overview of the trends for future development of the electricity infrastructures with addition of distributed generation, renewable resources and optimized efficiency at the end-user. All of these developments are heavily dependent on future deployment of advanced information technology infrastructure. Power systems of the future will consist of two equally developed infrastructures: power delivery and information processing. The research related to system aspects of power delivery has been well defined and consists of many diverse areas such as system stability, protection and control, power quality, asset management, electricity markets, etc. The research related to information processing has not been that well defined since a number of advanced technologies in this area have not been yet deployed by the utilities. This talk focuses on advanced information processing technologies that will facilitate development and deployment of the electricity infrastructure of the 21st century.

Short Bio:

Dr. Mladen Kezunovic presently holds the Eugene E. Webb Professorship in Electrical and Computer Engineering at Texas A&M University. He worked for Westinghouse Electric in the U.S.A. as a Systems Engineer on development of the first all-digital substation (1979-1980) and for a vendor in Europe as the Technical Leader for substation automation development (1980- 1986). Dr. Kezunovic served as a consultant to over 30 utilities and vendors worldwide. He is the Principal of Test Laboratories International, Inc, a firm specializing in consulting, testing services, product development, and training related to protective relaying and control. At TAMU, Kezunovic served as the Director of the Electric Power and Power Electronics Institute (1997-2006). He is currently the leader of the Texas Consortium for Electric Energy (2004-present) and TAMU's Site Director of the Power Systems Engineering Research Center (2000-present), an Industry/University Cooperative Research

Center of the National Science Foundation. He acted as the PI on over 50 research and development projects ranging from implementation of real-time and open-loop digital simulators for relay testing to software solutions for automated analysis of faults and power quality disturbances. His current research activity is related to substation automation, condition-based asset management, and relaying and control. Dr. Kezunovic has published more than 300 journal and conference papers and has given more than 100 invited lectures, short courses and seminars around the world. He is a Fellow of the IEEE and a member of CIGRE-Paris. He is a registered Professional Engineer in the state of Texas.

Photos from past events

Seminar By Prof. Ian Hiskens from University of Wisconsin, Madison, USA on **Accounting for dynamic performance specifications in system design.**



Audience at seminar given by Prof. Hiskens



Chapter chair Dr. Rajat Majumder giving vote of thanks to Prof. Hiskens

List of your volunteer Office Bearers for 2007

NOTE: full contact details may be found at

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

Chair

Dr. Vaughan Clarkson
The University of Queensland
School of Information Technology and Electrical Engineering (ITEE)
Email: v.clarkson@itee.uq.edu.au

Immediate Past-Chair

Prof. Tapan Saha
The University of Queensland, School of ITEE
Email: saha@itee.uq.edu.au

Vice-Chair

Assoc. Prof. Zhao Yang (Joe) Dong
The University of Queensland, School of ITEE
Email: zdong@itee.uq.edu.au

Secretary

Mr. Abbas Bigdeli
National ICT Australia Ltd.
Email: abbas.bigdeli@ieee.org

Treasurer

Dr. Peter Sutton
The University of Queensland, School of ITEE
Email: p.r.sutton@ieee.org

Newsletter Editor

Mr. Robert Ellen
Email: rellen@ieee.org

Webmaster

Mr. Sheng How Goh
The University of Queensland
School of ITEE
Email: sgoh@ieee.org

IEAust Liaison

Prof. Tapan Saha
Email: saha@itee.uq.edu.au

Chapter Chairs

Chair, Computer Chapter

Dr. John Williams
The University of Queensland, School of ITEE
Email: jwilliams@itee.uq.edu.au

Vice-Chair, Computer Chapter

Mr. Simon Ellis
Email: ellis777@bigpond.net.au

Chair, Power Engineering Chapter

Dr. Rajat Majumder
The University of Queensland, School of ITEE
Email: majumder@itee.uq.edu.au

Vice-Chair, Power Engineering Chapter

Vacant

Chair, Joint Chapter Control Systems / Robotics & Automation

Mr. Michael Lees
Foster's Australia
Email: Michael.Lees@ieee.org

Vice Chair, Joint Chapter Control Systems / Robotics & Automation

Assoc. Prof. Duncan Campbell
Queensland University of Technology
School of Engineering Systems
Email: da.campbell@qut.edu.au

Chair, Joint Chapter Signal Processing / Communications

Dr. Bouchra Senadji
Queensland University of Technology
School of Engineering Systems
Email: b.senadji@qut.edu.au

Vice-Chair, Joint Chapter Signal Processing / Communications

Dr. Jasmine Banks
Queensland University of Technology
School of Engineering Systems
Email: j.banks@qut.edu.au

Chair, Microwave Theory & Techniques / Antennas & Propagation

Prof. David Thiel
Griffith University, Nathan Campus
Griffith School of Engineering
Email: d.thiel@griffith.edu.au

Vice-Chair, Microwave Theory & Techniques / Antennas & Propagation

Dr. Ashley Robinson
Micro Ltd.
Email: ashley.robinson@micro.com

Chair, Computational Intelligence

A/Prof. Brijesh Verma
Central Queensland University
School of Information Technology
Email: b.verma@cqu.edu.au

Vice-Chair, Computational Intelligence

Dr. Marcus Gallagher
The University of Queensland, School of ITEE
Email: marcusg@itee.uq.edu.au

Educational Activities Coordinator

Dr. Tony Ahfock
University of Southern Queensland
Faculty of Engineering & Surveying, Electrical,
Electronics & Computer Engineering
Email: ahfock@usq.edu.au

Student Activities Chair

Vacant

Awards & Recognition Chair

Mr. Michael Lees
Foster's Australia
Email: Michael.Lees@ieee.org

**Membership Coordinator & SAMIEEE Recipient
GOLD Affinity Group Chair**

Mr. Peter McLarty
Technology Consultant MACM MIEE MACS
E-mail: peter.mclarty@pameacs.com

Professional Activities Chair

Dr. Andrew Bradley
The University of Queensland, School of ITEE
Email: bradley@itee.uq.edu.au

Student Branches/Student Counsellors**Student Branch Counsellor, Griffith University - Gold Coast**

Mr. Charles Hacker
Griffith University, Gold Coast Campus
Griffith School of Engineering
Email: C.Hacker@griffith.edu.au

Student Branch Chair, Griffith University - Gold Coast

Mr. Mark Livingstone
Griffith University, Gold Coast Campus
Faculty of Engineering and Information Technology,
Email: livingstonemark@gmail.com

Student Branch Counsellor, Griffith University - Nathan

Dr. Yongsheng Gao
Griffith University, Nathan Campus
School of Microelectronic Engineering,
Email: yongsheng.gao@griffith.edu.au

Student Branch Counsellor, Queensland University of Technology

Dr. Jasmine Banks
Queensland University of Technology
School of Engineering Systems
Email: j.banks@qut.edu.au

Student Branch Counsellor, The University of Queensland

Dr. Udantha Abeyratne
The University of Queensland, School of ITEE
Email: udantha@itee.uq.edu.au

Student Branch Counsellor, Central Queensland University

Dr. Amoakoh Gyasi-Agyei
Central Queensland University
Faculty of Sciences, Engineering and Health
Email: gyasi-agyei@ieee.org

Student Counsellor, University of Southern Queensland

Dr. Tony Ahfock
University of Southern Queensland
Faculty of Engineering & Surveying, Electrical,
Electronics & Computer Engineering
Email: ahfock@usq.edu.au