



INSTITUTE OF
ELECTRICAL AND
ELECTRONICS ENGINEERS

QUEENSLAND SECTION
ABN 67 431 648 974

ANNUAL GENERAL
MEETING REPORT
FOR 2015

PRESENTED AT
THE UNIVERSITY
OF QUEENSLAND

ON
DECEMBER 2ND, 2015

2015 AGM Report contents:

Section Chair's report	3
Section Vice-chair's report	5
Secretary's report	7
Treasurer's report	9
Awards and Recognition report	12
Educational Activities Chair's report	14
Newsletter editor's report	15
Membership Development Chair's report	16
Professional Activities Chair's report	17
TISP Coordinator's report	19
Webmaster's report	21
APPEEC Conference report	22
Aerospace and Electronic Systems Society	24
Computational Intelligence Society Chapter	26
Computer Society Chapter	29
Control Systems/Robotics and Automation Societies Chapter	30
Engineering in Medicine and Biology Society Chapter	31
Microwave Theory and Techniques/Antennas and Propagation Societies Chapter	32
Power and Energy & Dielectric and Electrical Insulation Societies Chapter	35
Signal Processing and Communication Societies Chapter	37
Women in Engineering	39
Young Professionals Program	40
CQUniversity Brisbane Campus Student Branch	42
Griffith University - Gold Coast Campus Student Branch	44
The University of Queensland PES Student Branch	46
PES Travel Award winner's report #1	48
PES Travel Award winner's report #2	49
University of Queensland Student Branch	50

Section Chair's report



GARRY EINICKE
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Part A - Review of 2015

This is the first year of my two-year term as Chair of the Queensland Section of the IEEE.

We have approximately 1190 active members which represents a modest increase from last year (1167).

Most organizational units (Chapters and Affinity Groups) hosted by the Section held at least two events in 2015, which is the minimum for being 'active'.

The Queensland Section has had a successful year, hosting three major events:

- The 30-year-celebration events;
- The International Conference on Acoustics Speech and Signal Processing (ICASSP); and
- The Asia-Pacific Power and Energy Engineering Conference 2015 (APPEEC 2015).

A committee led by Professor Tapan Saha organised three 30-year celebration events, namely: a student poster competition, a 30-year commemoration event held at The University of Queensland, and a formal anniversary dinner held at the Brisbane Convention and Exhibition Centre. It was a pleasure to have our first Chairs - Professors David Thiel, Miles Moody and Matt Darveniza, speak about their experiences from the mid-1980s to the present.

The Section gratefully acknowledges the generosity of the event sponsors: The University of Queensland, Queensland University of Technology, University of Southern Queensland, GroundProbe, and NOJA Power.

Associate Professor Vaughan Clarkson was General Co-Chair for ICASSP, which is the Signal Processing

Society's largest and most comprehensive conference.

This two-million-dollar event was held in April 2015 at the BCEC and attracted more than 1,700 delegates. Congratulations to Vaughan and his team for managing such a mammoth task so successfully.

The IEEE Queensland Joint Chapter of Power & Energy and Dielectrics & Electrical Insulation hosted IEEE APPEEC 2015 which was sponsored by the IEEE Power & Energy Society.

Professor Tapan Saha and Professor Gerard Ledwich were the co-chairs of the conference which was held at the BCEC in November 2015. We are fortunate indeed to have had another team of volunteers diligently working behind the scenes to make this event a great success.

Our business of organising seminars and courses continues to flourish. This year our chapters and affinity groups have organised over 60 events. See the reports below for further details.

It is worth mentioning two standout volunteers. First, Alexandra Posoldova, chair of Women in Engineering. Second, Konstanty Bialkowski, chair of Microwave Theory and Techniques, Antennas and Propagation. It is a pleasure to work alongside such energetic people.

The Queensland Section's financial position is healthy. We have benefited from profits flowing from this year's ICASSP and APPEEC conferences.

Professor Neil Bergmann (2016 Nominating Committee Chair) has finalised the [2016 Office Holders](#) and we have a strong incoming team.

Part B - Closing Remarks

I thank our Committee members for their dedication and commitment. In particular, I owe sincere thanks to Professor Tapan Saha (Australia Council Chair), Dr Daniel Eghbal (Section Vice-chair) and Mike Robinson (Treasurer and Webmaster) - without their efforts our

section would probably have fallen into disarray.

I hope that you all enjoy the festive season and I look forward to supporting you in 2016.



Queensland Section's first chairs: Miles Moody, David Thiel, and Mat Darveniza

Section Vice-chair's report



DR. DANIEL (MEHDI) EGHBAL
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2015 was my second term as section vice-chair. It was another wonderful year full of different activities during which I learnt more about IEEE in our region (Region 10), IEEE Collabratec, and IEEE conferences.

In March 2015 I attended the IEEE Region 10 annual meeting, held in Dhaka, Bangladesh. IEEE annual meetings provide a great opportunity for all section leaders in Region 10 to share experiences, ideas and discuss their challenges face-face.

I met many section chairs and some IEEE headquarters office bearers. I am very pleased to share with you that our section is one of the most active sections in Region 10. However, I believe membership development and student activities are two areas where we can improve.

I am pleased to announce that almost all executive committee and chapter positions for 2016 are filled, and I have to thank all the nominating committee chairs and members for their help in achieving this result.

The new committee will be a group of experienced and dedicated IEEE volunteers, augmented by several new young faces. The list of 2016 officers and the vacant positions will be announced during the Annual General Meeting on December 2nd. It is available [here](#).

Queensland Section was involved in organising two flagship IEEE conferences in 2015: ICASP and APPEEC, two international conferences that attracted 1,700+ and 280+ attendees respectively. This was a great outcome.

On behalf of the Queensland section I congratulate

Signal Processing & Communication Societies Chapter and Power & Energy/Dielectrics & Electrical Insulation Societies Joint Chapter for their success and thank them for their hard work. Personally, hosting APPEEC in Brisbane was a great pleasure.

In 2015, the Queensland section's chapters and affinity groups organised 60 technical events including technical seminars, workshops, and distinguished lecture seminars.

In total, 1,329 people attended the events. The MTT/AP and PES/DEIS chapters had an outstanding performance with 14 and 10 events respectively. Please see the chart on the next page for details.

In summary, I enjoyed working with a great team of volunteers. Some Queensland Section chapters have been very active, and their outstanding work has been recognised internationally.

Going forward, with a great team I believe we can improve our performance and increase engagement with our members. I look forward to meeting you at the AGM and working with the new committee members in 2016.

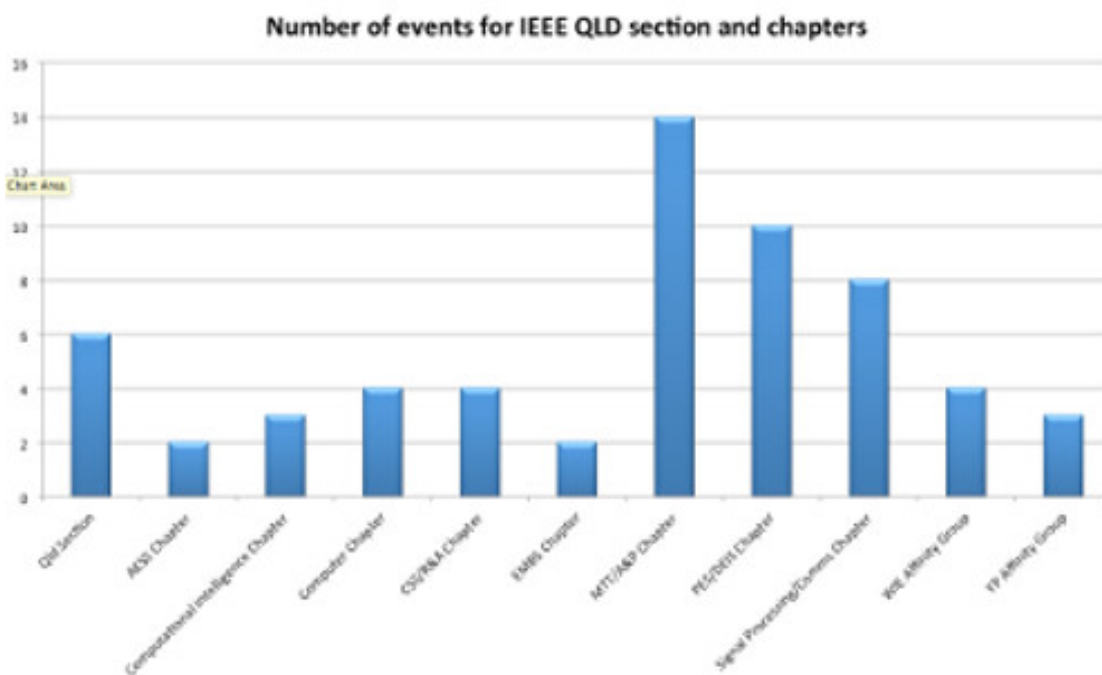
Last but not least, I want to thank all IEEE volunteers and members that I had the pleasure to work with in 2015. I wish everyone a merry Christmas and hope you have happy holidays.

Please stay safe during the holiday season.

Daniel



Region10 meeting - Dhaka 2015



Chapter performance chart

Secretary's report



DR. TONY SAHAMA
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I have prepared committee-meeting minutes for the 10 consecutive meetings held between February and November 2015 and performed miscellaneous activities such as new officer reporting.

While I appreciate the members' contribution, interactions and participation, in this role I have prepared the documentation pertaining to the organisation and completed all reporting tasks. I am thankful to all the members including office bearers who have helped me to succeed in this office.

The meetings were held at The University of Queensland in Brisbane; however members also had the option to attend remotely via Skype conference call.

A committee members' participation summary is presented in the table below.

Office	Office holder	Present	Apology	Absent
Section Chair	Garry Einicke	8	2	
Vice-chair	Daniel Eghbal	9	1	
Secretary	Tony Sahama	10		
Treasurer	Mike Robinson	10		
Immediate Past Chair	Tapan Saha	10		
Newsletter Editor	Hugo Espinosa	6	4	
Webmaster	Mike Robinson	10		
Professional Activities	Alireza Jolfaei	8	2	
Membership Development Chair	Yateendra Mishra	4	4	2
Awards and Recognition	Preethi Preethichandra	8	2	
Student Activities Chair (August)	Ranju Manda	1	2	1
Educational Activities Chair	Kalum P. Udagepola	9	1	
Engineers Australia Liaison	Tapan Saha	10		
TISP	Mike Robinson	10		
Aerospace and Electronic Systems Society Chair	Robert Kennedy	7	1	2
Aerospace and Electronic Systems Society Vice-chair	Ken Morris (July)	2	3	
Aerospace and Electronic Systems Society Secretary	John Davies			10
Computational Intelligence Society Chair	Andrew Lewis	6	3	1
Computational Intelligence Society Vice-chair	Amin Gharipour	9		1
Computational Intelligence Society Secretary	Zahra Jadidi	1		9
Computer Society Chair	Tomasz Bednarz		1	9
Computer Society Vice-chair	Ruslan Puscasu	3	1	6
Computer Society Secretary	Mike Robinson	10		
Control Systems/Robotics and Automation Chair	Michael Kearney	6	3	1
Control Systems/Robotics and Automation Vice-chair	James Brodie	3	6	1
Engineering in Medicine and Biology Society Chair	Steve Wilson	3	7	
Engineering in Medicine and Biology Society Vice-chair	Mohan Karunanithi			10

Office	Office holder	Present	Apology	Absent
MTT/AP Societies Chair	Greg Hislop (September)	6	2	
MTT/AP Societies Vice-chair	Konstanty Bialkowski	9	1	
MTT/AP Societies Secretary	Antony Lui	5	4	1
PE/DEI Societies Chair	Chandima Ekanayake	6	3	1
PE/DEI Societies Vice-chair	Nilesh Modi	8	2	
PE/DEI Societies Secretary	Ruifeng (Richard) Yan	7	2	1
Signal Processing/Communications Chair	Andrew Bradley		9	1
Signal Processing/Communications Vice-chair	Vaughan Clarkson	8	2	
Signal Processing/Communications Secretary	Dhammika Jayalath		2	8
Women in Engineering Chair	Alexandra Posoldova	9	1	
Women in Engineering Vice-chair	Bafrin Zarei	6	1	3
Women in Engineering Secretary	Marie-Luise Wille	6	2	2
Young Professionals Program Chair	Mohammad Amanzadeh	8	1	1
Young Professionals Program Vice-chair	Reuben Peterkin	9		1
Young Professionals Program Secretary	Rob Makaremi (August)	4		
Student Counsellor CQU - Brisbane	Mary Tom	4	1	5
Student Counsellor CQU - Rockhampton	Edward Palmer	5	4	1
Student Counsellor GU - Gold Coast	Jahangir Hossain	5	3	2
Student Counsellor GU - Nathan	Sascha Stegen	6	1	3
Student Counsellor QUT	Seyit Camtepe	1	1	8
Student Counsellor UQ	Vaughan Clarkson	6		
Student Counsellor UQ	Rahul Sharma (August)	4		
Student Counsellor USQ	Paul Wen	1	1	8
UQ Student Branch Chair	Jeremy Taylor	4	1	5
UQ Student Branch Secretary	MB Mhd Noor	1		9
GU-GS Student Branch Chair	Reza Akbarzaden	2		8
Australian Oceanic Engineering Chapter	Navinda Kottege	4	2	4
PE/DEI Societies Student Branch Chair	Jaroslav Krata	6	1	3
PE/DEI Societies Student Branch Vice-chair	Hanxiao Zheng	4	1	5

Treasurer's report

**MIKE ROBINSON**

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Comments on the 2015 accounts

- **Overall status**

There have been significant changes in the 2015 accounts from those of 2014. The net worth of the section is 20% higher this year than it was last year.

Expenses are approximately the same for both years, but income in 2015 is 20% higher due to extraordinary circumstances.

The opening balance of the cheque account was \$21,514.50 on December 1st 2014, and the closing balance was \$13,040.06 on November 30th 2015.

A new \$10,000 term deposit account was opened in 2015, bringing the total value of term deposits to over \$100,000.

- **Income**

Income from the IEEE membership rebate was almost \$3,000 higher due to currency fluctuations.

Income from external sources increased. The IPIC 2013 conference donated over \$9,000 to the section, and ICASSP 2015 donated another \$10,000. The donations were in return for providing ABN and GST accounting facilities to the conferences. This is a healthy future source of income for the section.

The 30th Anniversary celebrations also produced a small surplus from corporate sponsorship, and interest earned on term deposits increased by about 75%

- **Expenses**

Outside of the 30th Anniversary celebrations, the main expense items were the same as last year:

Student activities: \$1,125, and student prizes \$3,500.

Chapter expenses: almost \$6,000. Chapter income by way of IEEE rebates: \$3,800.

AGM costs: \$2,750 versus income of \$1,640.

Administration costs: \$2,500.

- **Recommendation**

The section's financial affairs are analysed for the AGM each year and get little scrutiny thereafter. The new committee should examine the accounts early in 2016, looking for trends both good and bad.

Leaving the section's financial fortunes in the hands of fate is not an intelligent way to proceed.

2015 FINANCIAL REPORT

PERIOD: 1ST DECEMBER 2014 - 30TH NOVEMBER 2015

PREPARED BY MIKE ROBINSON, TREASURER 2015 - 2016

INCOME		EXPENSES	
IEEE Rebates		Travel	
Annual Rebate 2015 (USD 8,574.60)	11,775.06	Han Zhang Student Congress Thailand	651.59
R10 WiE Support Fund	744.01	Administration	
PES Outstanding chapter 2014	298.77	Meeting catering expenses	1,917.73
APS Chapter rebate	621.94	Australia Council Levy	601.50
MTT Chapter rebate	622.51	Engineers Australia sponsorship	650.00
Unidentified rebates	1,543.22	30th Anniversay costs	12,452.45
2014 AGM dinner payments	880.00	Student thesis prizes	1,500.00
2015 AGM dinner payments	1,440.00	Postgraduate awards	2,000.00
30th Anniversay		2014 AGM	
Sponsorship	8,000.00	St Leo's College catering	2,564.00
Dinner payments	4,630.00	Sundry expenses	187.67
Interest received		2015 AGM	148.50
Transferred to Access Account	450.36	Student branches	1,125.86
Reinvested in Term Deposits	3,069.05	Chapters & Affinity Groups	
Other Income		AESS	335.00
ICIP 2013	9,023.79	CIS	500.00
ICASSP 2015	10,000.00	CS	119.35
		CSS/RAS	177.00
		EMBS	105.90
		MTT/AP	1,641.50
		PES/DEIS	1,520.50
		SP/CS	766.25
		WiE	799.68
		YPP	178.11
		Sundry sponsorship	327.78
Total Income	<u>53,098.71</u>	Total Expenses	<u>30,164.47</u>

2015 FINANCIAL REPORT

Assets as at November 30th 2015

MECU Accounts

Access Account	13,040.06
Term Deposit 138322014 @ 2.95% matures February 17th 2017	26,088.08
Term Deposit 138356429 @ 2.9% matures May 26th 2015	20,000.00
Term Deposit 138357658 @ 3.05% matures November 24th 2015	10,000.00
Term Deposit 307188228 @ 2.75% matures September 13th 2016	24,760.47
Term Deposit 307188229 @ 2.65% matures January 13th 2016	20,188.71

Total cash at bank 114,077.32

Total assets 114,077.32

Long-term Liabilities

8/01/2012 IEEE Reserve Allocation	5,779.87
7/01/2013 IEEE Reserve Allocation	5,303.01
8/01/2014 IEEE Reserve Allocation	591.22

Total liabilities 11,674.10

Net worth 102,403.22

AESS	AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY
CIS	COMPUTATIONAL INTELLIGENCE SOCIETY
CS	COMPUTER SOCIETY
CSS/RAS	CONTROL SYSTEMS/ROBOTICS AND AUTOMATION SOCIETIES
EMBS	ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY
MTT/AP	MICROWAVE THEORY AND TECHNIQUES/ANTENNAS AND PROPAGATION SOCIETIES
PES/DEIS	POWER AND ENERGY/DIELECTRICS AND ELECTRICAL INSULATION SOCIETIES
SP/CS	SIGNAL PROCESSING AND COMMUNICATIONS SOCIETIES
WIE	WOMEN IN ENGINEERING
YPP	YOUNG PROFESSIONALS PROGRAM

Awards and Recognition report



PREETHI PREETHICHANDRA
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This year the Awards and Recognition committee has retained the award structure used in previous years. There has been a change in the process however. In previous years the award nominations began immediately prior to the section's Annual General Meeting, usually held in late November or early December, causing confusion about which time-period was being evaluated. From 2015 onwards the awards process commences early in the year immediately following the year being evaluated.

There are three award categories for section volunteers and two award categories for student members. While student awards are not administered by the Awards and Recognition committee they are mentioned here for completeness.

The first volunteer award 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. These awards do not require a nomination.

The second volunteer award category is **Outstanding Contribution** awards, given 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 seconded nomination from members of the IEEE Queensland Section, along with a reason for the nomination, to be submitted to the section committee.

The third volunteer award category is the **Volunteer of the Year** award. 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 from members of the IEEE Queensland Section are submitted to the section committee for final selection of Volunteer of the Year.

Recognition of Service awards

A total of 15 Recognition of Service awards were presented by the IEEE Queensland Section in 2014.

Recipient	Role
Tapan Saha	Section Chair
Rahul Sharma	Section Secretary
Richard Yan	Section Treasurer
Mike Robinson	Awards and Recognition Chair
Jack Gaynor	Student Activities Chair
John Billingsley	Control Systems/Robotics & Automation Societies Chapter Vice-chair
Frederic Maire	Control Systems/Robotics & Automation Societies Chapter Secretary
Konstanty Bialkowski	Microwave Theory & Techniques/Antennas & Propagation Societies Chapter Chair
Greg Hislopi	Microwave Theory & Techniques/Antennas & Propagation Societies Chapter Vice-chair
Morteza Shahpari	Microwave Theory & Techniques/Antennas & Propagation Societies Chapter Secretary
Yateendra Mishra	Power and Energy Society Chapter Vice-chair
Garry Einicke	Signal Processing/Communications Societies Chapter Chair

Recipient	Role
Alexandra Price	Women in Engineering Affinity Group Chair
Mary Tom	Women in Engineering Affinity Group Secretary
Alexandra Price	Young Professionals Program Affinity Group Chair

Outstanding Contribution awards

Five Outstanding Contribution awards were awarded by the Queensland Section in 2014.

Recipient	Role
Konstanty Bialkowski	Microwave Theory & Techniques/Antennas & Propagation Societies Chapter Chair
Alexandra Price	Young Professionals Program Affinity Group Chair
Mike Robinson	Awards and Recognition Chair
Tapan Saha	Section Chair
Richard Yan	Section Treasurer

Volunteer of the Year award

A vote was taken by members of the IEEE Queensland Section committee and Tapan Saha was elected Volunteer of the Year for 2014.

Thesis Prize awards

There were three categories of award for undergraduate theses in 2015.

- The IEEE Queensland Section Student Prize for the Best Final Year Thesis in all fields of Electrical Engineering and Information Technology was awarded to Matthew Jay from Griffith University for his thesis entitled 'Leak Test and Automatic Purge Station'.
- The ICPADM-Mat Darveniza IEEE Student Prize for the Best Final Year Thesis in Power Engineering was awarded to Hanxiao Zhang from The University of Queensland for her thesis entitled 'Transmission Pricing in National Electricity Market'.
- The IEEE Queensland Section Student Prize for the Best Final Year Thesis in Signal & Image Processing was awarded to Connor Mooney-Collett from The University of Queensland for his thesis entitled 'Scan Scheduling for Electronic Warfare'.

PES Travel Prize awards

The IEEE Queensland Power and Energy Society Chapter Student Conference Travel Prize was awarded to two recipients in 2015.

- Nahid Masood from The University of Queensland for presenting the paper entitled 'Frequency Response and its Enhancement using Synchronous Condensers in Presence of High Wind Penetration' during the IEEE PES 2015 General Meeting, in Denver, USA.
- Sohel Uddin from The University of Queensland for presenting the paper entitled 'Capacity Constrained Energy Management for Unbalanced Distribution Systems' during the IEEE PES 2015 General Meeting, in Denver USA.

Educational Activities Chair's report



PROFESSOR KALUM UDAGEPOLA
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The Year in Review

2015 was my first year as Educational Activities Chair. My main function is coordinating educational activities in the chapter.

Initially, I built strong inter-university connections to organize seminars that would improve university students' industrial experience at The University of Queensland, Queensland University of Technology, and Griffith University.

I planned three independent seminars, one at each university, but I could achieve only the QUT seminar. It was "Industry expectations - attitudes and attributes for success in engineering". In this seminar we discussed the current job market and employer expectations from job candidates.

The event started with a welcome from Dr Yateendra Mishra, where he introduced the Engineering Director at NOJA Power, Mr Jay Manne. Jay began by discussing experiences gained as a fresh graduate in his role as an assistant engineer for the South West Queensland Electricity Board in Dalby and Roma over four years.



Jay Manne from NOJA Power

He then joined Nu-lec Pty Ltd as a sales engineer and over the following 8 years became a service engineer

and then Service Manager. Jay explained that he was one of the founding members of NOJA Power which was established in 2002. As Engineering Director he is responsible for all manufacturing and warehousing activities.

Jay illustrated his journey from graduate to Engineering Director by recounting anecdotes associated with significant work-related events and detailing experiences he gained from those situations.

During the presentation he introduced the pole-mounted Auto Circuit Recloser manufactured by NOJA Power and used in electrical distribution networks worldwide.

Jay held the student's attention, describing how NOJA Power developed from a small business to become an international, multi-million dollar concern. A key part of their success was the development and ownership of the significant intellectual property utilised in NOJA products.

Jay finished by discussing his experiences as a young engineer facing interviews with employers, and explained what he expects when interviewing candidates for engineering positions.

In the subsequent questions session, Jay discussed his views regarding the future of electricity distribution and the changes that wide-spread use of renewables would bring. He also commented on the impacts that solar panels are having on distribution networks and the role of the smart-grid in improving network reliability and utilisation.

Overall the event was successful with students gaining an insight into what the future holds, and what actions need to be taken for a successful start to an engineering career.

Newsletter editor's report



HUGO G. ESPINOSA

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There have been three newsletters produced so far in 2015, with a fourth due out immediately following the Annual General Meeting on December 2nd.

I had the opportunity to act as Newsletter Editor this year and I would like to thank Mike Robinson, former editor of the newsletter, for his assistance in getting me up to speed in my role as editor.

The three issues and upcoming fourth were produced in \LaTeX . There was an extraordinary job done by Rob Ellen and Mike Robinson in creating templates, so with straight-forward adjustments I could easily create the previous issues.

Newsletters from prior years are stored in the section's website [archives](#) and are accessible to all members.

Shortly I will be handing over to the incoming newslet-

ter editor for 2016. Before I do so I would like to thank all of you who contributed to this year's issues. It has been a pleasure to produce the section's newsletter.

Before I finish, I would like to keep encouraging chapters, affinity groups and members in general to submit your contributions. It is the best way to show to the IEEE community how active the Queensland section is.

There is a set of [guidelines](#) written by Mike Robinson that will help you in preparing your contribution.

I still will be closely working with the incoming newsletter editor, so if you have any comments on the content of the newsletter or suggestions for improvements, please feel free to e-mail me at: h.espinosa@griffith.edu.au. Your opinion will be highly appreciated.

Membership Development Chair's report



YATEENDRA MISHRA
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Based on the latest available statistics, the Queensland Section's membership stands at 1144, which is down by around 5% from the previous year, when it was 1203.

The decline in student membership was the biggest this year, around 37%, whereas Senior Member numbers have increased by 25% compared to 2014.

In 2015, the Queensland section has actively promoted student activities and membership-drive functions. All student branch chapters were active throughout the year in disseminating the importance of IEEE membership at various venues such as conferences, classes, and industry-based lectures.

Moreover, in October IEEE Member-Get-a-Member promotion flyers were distributed to local members to promote the benefits of IEEE membership.

Over the past 5 years the total membership numbers in the Queensland Section have been more or less stable at around 1150. However, a recent decline in IEEE's membership trend is not only unique to Queensland Section but also to all sections throughout Australia.

This may be due to slow economic growth in the mining and commodities industry in Australia in recent years.

In addition, high dropout rates and lower numbers of secondary students interested in entering engineering studies may be another reason for the declining trend.

The Queensland Section must employ several strategies next year to improve membership retention. Examples include:

1. Roll out membership development initiatives to raise the awareness and visibility of IEEE.
2. Engage with existing members. The coming months will be crucial for member retention.
3. Convert students to higher grade membership to retain them.
4. Elevate ordinary members to Senior Membership to instil a sense of loyalty and belonging to IEEE.
5. Maintain the position of Membership Development Officer in Queensland and recommend him/her to appoint sub-committees for young professionals, students, and members. It is crucial to focus on these specific member grades in the section's membership development activities.

Professional Activities Chair's report



ALIREZA JOLFAEI

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I am completing my term as Chair of Professional Activities in the IEEE Queensland Section.

My main role was to coordinate professional activities at the pre-university, university and engineering professional levels within the IEEE Queensland Section. Although my responsibilities were very challenging, they were quite rewarding experiences.

This year we had a successful seminar by Dr Gwenael Doerr from Technicolor R&D France, which was held on April 20th at Griffith University, Gold Coast campus.

This talk was dedicated to informing enthusiastic IEEE members on how and why the entertainment industry invests considerable amounts of money in multimedia forensics. This seminar was engaging and was well-received, and also raised many questions and comments from the audience.

I borrowed the idea of Journal Paper Club Meetings from the Signal Processing and Communication Societies Chapter, and initiated the same events, namely journal review sessions, in the Network Security Research group at Griffith University, Gold Coast campus.

We have had eight journal review sessions, in which the discussions were led by researchers from IBM, Cisco, and Griffith University.

These seminars are detailed of as follows:

February 27th Dr Kalvinder Singh led a discussion on a paper by Ilenia Fronza et al.: "Failure prediction log files using Random Indexing and Support Vector Machines", Journal of Systems and Software, vol. 86, no. 1, pp. 2-11, 2013.

March 27th Bafrin Zarei led a discussion on a paper by Uwe Maurer et al.: "Location and activity recognition using eWatch: A wearable sensor platform", In Ambient Intelligence in Everyday Life, Springer Berlin Heidelberg, pp. 86-102, 2006.

April 24th Bryan McGinty led a discussion on a paper by Ross Anderson: "Why cryptosystems fail", In Proceedings of the 1st ACM conference on Computer and Communications Security, pp. 215-227, 1993.

May 29th Dr Muhammad Usman led a discussion on a paper by Chee-Wooi Ten et al.: "Vulnerability assessment of cybersecurity for SCADA systems", IEEE Transactions on Power Systems, vol. 23, no. 4, pp. 1836-1846, 2008.

June 26th Patrick Crilly led a discussion on a paper by Hossein Mamaghanian et al.: "Compressed sensing for real-time energy-efficient ECG compression on wireless body sensor nodes", IEEE Transactions on Biomedical Engineering, vol. 58, no. 9, pp. 2456-2466, 2011.

July 31st Alireza Jolfaei led a discussion on a paper by Massimo Franceschet: "The role of conference publications in CS", Communications of the ACM, vol. 53, no. 12, pp. 129-132, 2010.

August 26th Kamanashis Biswas led a discussion on a paper by Jing Deng et al.: "INSENS: Intrusion-tolerant routing for wireless sensor networks", Computer Communications, vol. 29, no. 2, pp. 216-230, 2006.

October 27th Sultan Al Neyadi led a discussion on a paper by Michael Hart et al.: "Text classification for data loss prevention", In Privacy Enhancing Technology

gies, Springer Berlin Heidelberg, pp. 18-37, 2011.

In closing I would like to thank the IEEE Queensland Section committee for giving me the opportunity to contribute as a volunteer to this community. I believe

that IEEE Queensland Section has created a very positive experience for its members at the preuniversity, university and engineering professional levels within the Queensland Section, and I look forward to its ongoing success into the future

TISP Coordinator's report



MIKE ROBINSON

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The IEEE Teacher-in-Service Program, known as TISP, was designed to produce better outcomes in science, technology, engineering and maths (STEM) teaching around the world. TISP has been running for a number of years and is supported by full-time staff who conduct TISP seminars all over the world.

TISP non-human resources include a [website](#) offering teaching aids in the form of lesson plans. The lesson plans are unique documents that provide teachers with ready-made solutions designed to stimulate students into independent scientific enquiry.

The fundamental aim of TISP is to train teachers in the delivery of STEM-based lesson plans. IEEE volunteers undergo TISP training, then become TISP advocates in their local school districts. Typically a volunteer would visit a local school and explain TISP's objectives to the principal; then, with the principal's permission, the school's science and maths teachers would learn about the lesson plans and put them into the school's syllabus.

TISP has been remarkably successful in South Africa, where qualified science teachers are in short supply.

TISP came to Australia in September 2012, with a 2-day launch at the Brisbane Sofitel Hotel. The launch was attended by IEEE volunteers from Queensland, NSW, ACT, NT and WA. The Deputy Director-General of Queensland Education was the keynote speaker. Representatives from Queensland Independent Schools and Catholic Education attended.

Nothing much has happened since 2012, for two main reasons. The first impediment was the introduction of the Australian Curriculum in 2011. This long-awaited education reform mandated that materials taught in Australian schools must comply with standards laid

down by [ACARA](#), a statutory body set up by state and federal governments to oversee the introduction of the Australian Curriculum. Let's now call it 'the AC'.

The TISP lesson plans do not conform with the AC, and considerable effort would be required to make them conform. To complicate matters, very few people in Australia then knew enough about the AC to align the TISP lesson plans with it. Those who did know worked for government agencies.

Over time I located two science teachers who had the knowledge and zeal required to align the lesson plans with the AC. They worked for an 'academy' associated with the mining and energy sector. They aligned 33 lesson plans, then lost their jobs in the recent mining industry downturn.

The second impediment to TISP in Australia was: where to host the lesson plans? After considering various options I decide the best place would be the Queensland Section's website. I have ready access to it, and it is suitable for other reasons too.

The lesson plans need to be searchable. That is to say, if a teacher is looking for a lesson plan that satisfies a requirement the teacher deigns important, then search capabilities are mandatory. Search capabilities can be provided on the section's website using JavaScript.

The AC-aligned TISP lesson plans are available [here](#). Over time I will make the lesson plans searchable, and I hope to expand the range of available lesson plans.

2016 looks promising for a rebirth of TISP in Australia.

On Tuesday November 24th I conducted a TISP course at The University of Queensland for a group of ITEE students studying with Professor Steve Wilson.

The students will become STEM ambassadors in a UQ outreach program designed for selected Brisbane schools and teachers in 2016.

The TISP course was divided into two parts:

1. A theoretical session that explored the Australian Curriculum, its breath and reach, and how TISP lesson plans complement the AC. Visual aids from the session are available [here](#) and [here](#).

2. A practical session where the students were given various materials and asked to build a windmill.

The students built three windmills, each of a different design. The windmills were stress-tested to assess their efficiency, using a hair dryer.

The TISP lesson plans are designed to encourage team work, learning by doing, and having fun while learning.

The following photos show students in the process of designing, constructing, and testing a windmill.



Ariane Mora, Chia-Yin, and Sophia Hooton

Webmaster's report



MIKE ROBINSON

blackmagic@computer.org

2015 has been another busy year for the webmaster, though not all of the action is evident on the section's website. Steady progress has been made throughout the year, as will be seen shortly.

Early in the year I created a new web identity for the section by moving away from the old [WikiDocs](#) website that has housed the section's web presence for several years. A new, shorter web address was included in the transition. A considerable amount of effort went into developing a more modern website 'look and feel'.

The [new website](#) was unveiled at The University of Queensland during the 30th anniversary celebrations in February. Although there was a new look, there were also problems. Firstly, the new web page was merely a portal or entry point to the old website, and secondly it wasn't designed with mobile devices in mind.

The phrase 'mobile friendly' may or may not mean much to you, but it has turned web design on its head. The advent of the Apple iPhone in 2007 created an awareness that web pages designed for laptops and computers don't work when viewed on mobile devices.

When the number of mobile devices outstripped the number of laptops and personal computers in 2012, 'mobile first' replaced 'mobile friendly', meaning that web designers should focus on smartphones and tablets first, then expand the design to fit wider viewports.

This came as a shock to me, because designing a web page for a smartphone is not a trivial exercise. Apart from the obvious fact that a smartphone has a smaller viewing area, called a viewport, there are dozens of designs, each with a slightly different viewport. Throw

in a few dozen tablet devices and the design problem becomes more unmanageable.

Responsive web design, the new catch-phrase for web design without borders, has taken over from 'mobile first', but it hasn't eased the associated difficulties; nor has shortening the phrase to RWD.

In the middle of the year I undertook the design of a website for another IEEE entity. This provided an opportunity to study the problem without making a commitment to any particular solution. I spent three months reading web design books and experimenting with different techniques.

Frameworks have been developed to assist with RWD. The general trouble with frameworks is that they add bulk to a website, and bulk should be avoided because it affects the complexity of the design, as well as adding to the time a web page takes to download across the Internet. Studies have shown that consumers will avoid websites that don't download quickly to smartphones.

While working on the other IEEE website I developed my own RWD framework. It is extremely lightweight and produces very skinny RWD web pages. I haven't tested it on all the mobile devices that exist, but it works on all browsers and on all devices that use JavaScript.

I have applied the framework, which I've called jRWD, to the section's main web page without problems, and I've developed some new web pages for the [AGM awards](#) and the [2016 committee](#). Over the next 12 months I plan to convert the 100+ web pages on the old website to RWD format.

APPEEC Conference report



PROFESSOR TAPAN SAHA
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IEEE PES Asia-Pacific Power and Energy Engineering Conference 2015

The IEEE PES Asia-Pacific Power and Energy Engineering Conference 2015 was organised recently by the IEEE Queensland Section's PES-DEIS Chapter.



Professor Tapan Saha welcomes delegates

IEEE PES President-Elect Dr. Damir Novosel, IEEE PES Executive Director Mr. Pat Ryan and IEEE PES Region 10 representative Professor Lalit Goel attended the conference.

Dr. Damir Novosel was the conference keynote speaker. He also conducted seminars at Powerlink and at AEMO.

326 papers were submitted, from which 258 papers were selected for presentations. 285 delegates registered for the conference from 22 countries, with 100 delegates from China. There was a significant attendance from industry, with 65 delegates from national and overseas power-industry organisations.



Dr. Damir Novosel gives the keynote speech

Several CEOs and senior power industry executives participated in the conference as plenary speakers. Mr. Terry Effenev (CEO, Energex, Australia), Mr. Mike Cleary (COO, AEMO, Australia), Mr. Peter McIntyre (Managing Director, TransGrid, Australia), and Professor Paul Simshauser (Director-General, Department of Energy & Water Supply, Queensland Government) were the panellists at the Monday morning session.

Tuesday's plenary session was moderated by Mr. Peter Price (EGM, Energex, Australia). The panellists were Mr. Stephen Richardson, (Technical and Innovation Engineer, Ergon Energy, Australia), Dr. Stuart Johnston (Executive Director, Assets and Network Transformation, ENA, Australia) and Dr. Perry Sioshansi (President, Menlo Energy Economics, USA).

A conference banquet, City Lights Dinner Cruise, was held on the Kookaburra Queen paddle steamer.

Three industry site visits were organised for delegates: The University of Queensland's Gatton solar facility, NOJA Power's manufacturing facility, and the AEMO Control Centre.

We received strong support from Queensland industry, including a Gold sponsorship from NOJA Power, Silver sponsorships from Energex and Ergon Energy, and a Bronze sponsorship from Powerlink Queensland.

Two special awards for papers were kindly donated by the Australian Power Institute and CIGRE Australia. Thanks to all our sponsors for their generous support.



Delegates at an APPEEC-2015 presentation

Aerospace and Electronic Systems Society



ROBERT KENNEDY

Robert.Kennedy@ausaero.com.au

Committee:

Chair: Robert Kennedy

Vice-Chair: Ken Morris

Secretary: John Davies

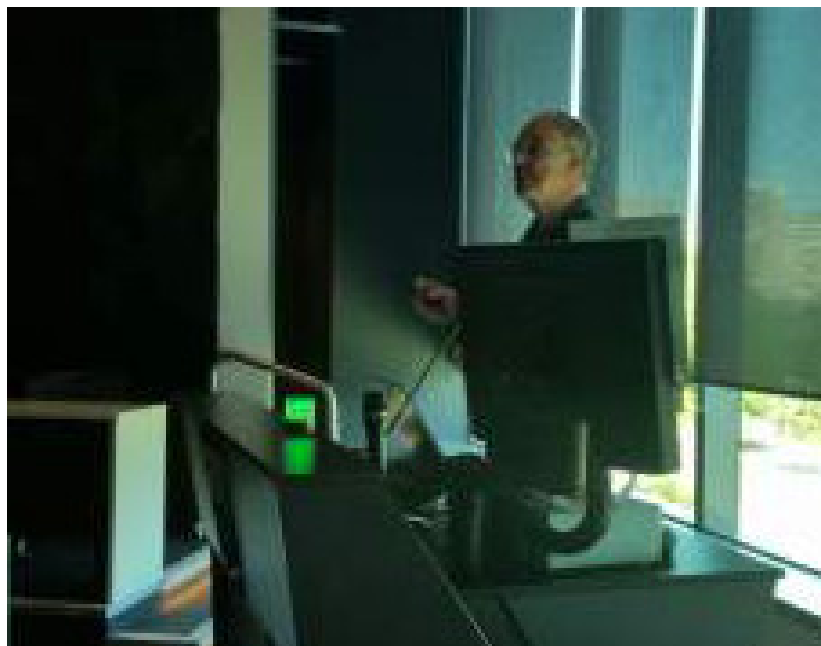
Review of 2015

The IEEE Queensland Aerospace and Electronic Systems chapter held two events in 2015. Both were state-of-the-art events and the high-capacity audiences reflected this fact.

The first event was held on May 12th at the Science and Engineering Building at QUT, Gardens Point campus. Dr John Norgard from NASA presented a talk about space exploration and an overview of NASA's past, present, and future missions, with an emphasis on EMI problems and EMC solutions.

The past mission of NASA was to design and build the Space Shuttle (SS), which was used to construct the International Space Station (ISS). The present mission of NASA is to support the ISS with new equipment, supplies, and crew changes.

The future mission of NASA is to analyze and design a new blunt-body re-entry vehicle to replace the decommissioned SS, providing a crew-exploration vehicle to operate past the orbit of the ISS, and eventually to fly to the Moon and Mars.



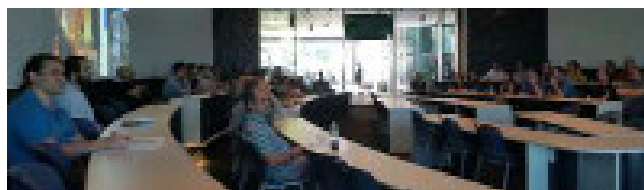
Dr John Norgard from NASA

On October 2nd Dr Garry Einicke presented a lecture on “Improved image and signal filtering techniques for tracking mining equipment”. The venue was the Science and Engineering Building at QUT, Gardens Point campus.

Garry presented two improved filtering techniques which have been accepted for publication in the IEEE Transactions on Aerospace and Electronic Systems and IEEE Transactions on Signal Processing.

First, the optimum minimum-variance filter and smoother are generalized to include Poisson distributed-measurement noise components.

Second, a linear-state space model was described, whose second-order moments match that of a hidden Markov chain. An optimal minimum-variance filter and smoother was derived to recover the Markov chain states from noisy measurements.



Audience view

Computational Intelligence Society Chapter



DR. ANDREW LEWIS
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Committee:

Chair: Andrew Lewis

Vice-chair: Amin Gharipour

Secretary: Zahra Jadidi

The Computational Intelligence Society chapter started the year with a Distinguished Lecturer seminar presented by Professor James Bezdek in April. Jim is highly regarded in IEEE CIS in S.E. Queensland from his earlier visits, and this meeting proved no exception, with some 30 students and academics attending. Jim presented a method for generalising any classical paired-comparison cluster validity index (PC-CVI) so that it can be used to evaluate soft (fuzzy/probabilistic) partitions of numerical data

A Life Fellow of IEEE, Jim is well-known for developing the fuzzy c-means (FCM) algorithm, considered as one of the most important discoveries in fuzzy pattern recognition, and the clustering algorithm of choice for most practitioners in fuzzy exploratory data analysis.

The PhD students who attended described the talk as useful in their own research, in no small part because of Jim's accessible and knowledgeable presentation.

Thanks must go to those instrumental in organising and running this event, in particular Associate Professor Alan Liew and Alexandra Posoldova.

In July Dr Hamid Mirfenderesk, Coordinator of the Gold Coast City Council Management Team and Adjunct Associate Professor at Griffith University, presented a seminar on "An enhanced Flood Forecasting and Decision Support System for the Gold Coast". The presentation introduced a framework for a flood emergency decision support system that is based on model-driven projections whose outputs can be readily

presented using often freely available web-based applications. About 20 students and academic staff attended, finding the presentation informative with several questions from the audience in the discussion that followed.

In September, Dr Amir Etemad-Shahidi, Griffith School of Engineering, presented a seminar on "Computational Engineering Applications in Water Engineering". Rather than the traditional, regression-based methods, Dr Etemad-Shahidi described data-driven systems that attempt to find relationships between input and output parameters based on observation data and computational intelligence techniques, including artificial neural networks and decision trees. Some 25 students and staff attended.

These seminars were videoconferenced between Griffith's Gold Coast campus and Nathan campus in Brisbane. We intend to continue this as standard practice with most seminars in future, and hope that more of our Brisbane colleagues can take advantage of this at seminars in the new year.

The final event of the year was a CIS Colloquium in November, at Griffith University Gold Coast campus, with presentations from three researchers from Griffith, QUT and UQ. Prof. Michael Blumenstein (GU) opened the meeting with a presentation on "Solving the world's problems through Computational Intelligence - challenges at the frontiers of Pattern Recognition research." Harnessing groundbreaking developments in the areas of automated pattern recognition, video and image processing, Michael presented applications in automated

document analysis systems, the development of automatic systems for monitoring the activities of visitors at our beaches and coastal zones, and software tools that can be used for the early diagnosis and treatment of such brain disorders as Parkinson's disease.

He was followed by an interesting and engaging presentation by Dr Jürgen Leitner (QUT) on "Robotic Vision: a Vision for Robotics". Juxi spoke of developing robot abilities to adapt to unstructured changing environments through bio-inspired computational methods, and discussed the enormous impact of computer vision on robot autonomy, adaptability and intelligence.

Prof. Geoff McLachlan (UQ) closed the colloquium with the presentation "On Modelling and Clustering via Mixture Models". Finite mixture models are being widely used in practice to provide a model-based

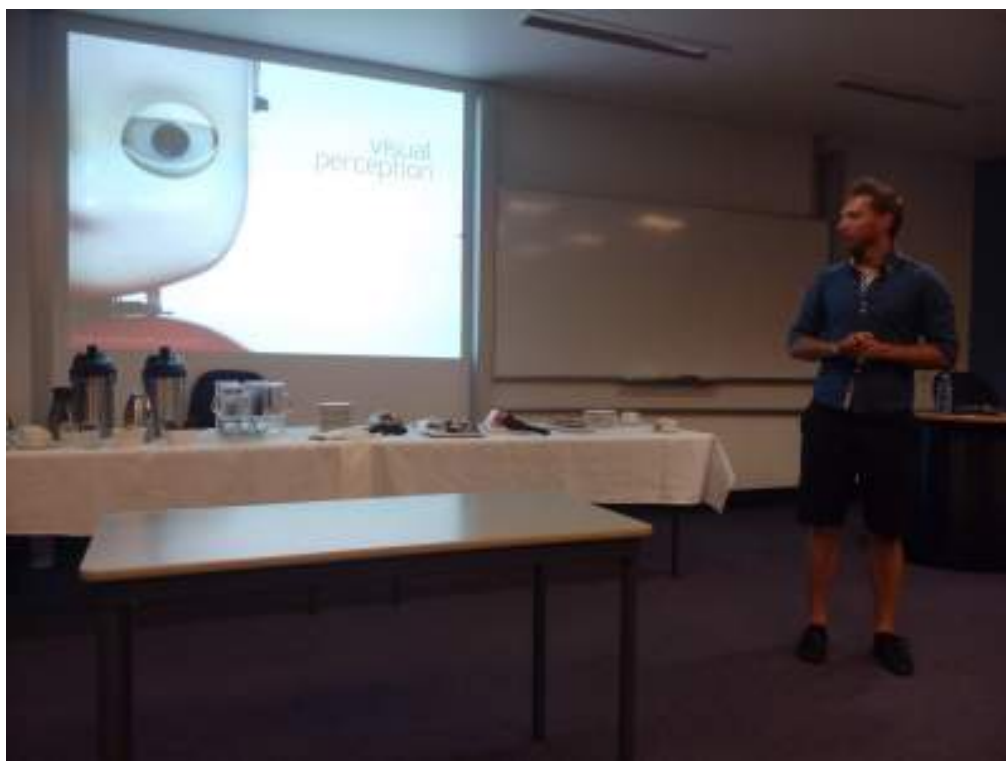
approach to the modelling and clustering of heterogeneous data, and his presentation generated considerable interest from image analysis researchers at the meeting.

About 30 students and academic staff attended the colloquium, and there were lively discussions with all presenters following over lunch. We hope to make the colloquium an annual fixture in the CIS calendar in Queensland, and welcome participation from all IEEE members and guests.

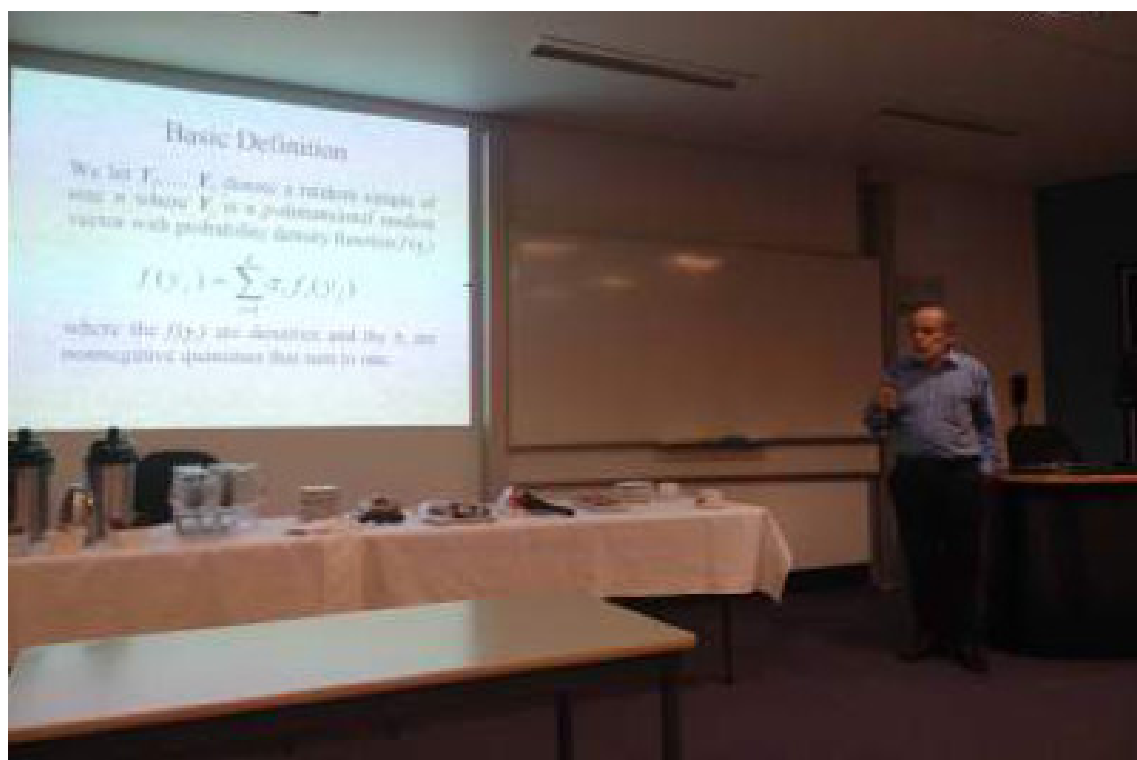
Amin Gharipour, CIS Chapter Vice-Chair for 2015, must be thanked for his efforts in organising many of these events, along with assistance from Zahra Jadidi, Chapter Secretary. Plans are already underway for a series of seminars in 2016, on the general theme of "Big Data", and we look forward to seeing participation and engagement with activities in this topical area.



Michael Blumenstein presents "Solving the world's problems through Computational Intelligence"



Juxi Leitner presents “Robotic Vision: a Vision for Robotics”



Geoff McLachlan presents “On Modelling and Clustering via Mixture Models”

Computer Society Chapter

**MIKE ROBINSON**

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Committee:

Chair: Tomasz Bednarz

Vice-chair: Ruslan Puscasu

Secretary: Mike Robinson

The year in review

The Computer Society chapter held its first planning meeting for 2015 on March 27th, when the committee met to discuss present issues and future activities.

Mike Robinson presented a report outlining the chapter's status and the special problems it faced. These involved lack of communication with the membership in recent years, struggling to hold a minimum of two professional events each year, a distributed membership with diverse interests and requirements, lack of a CBD venue for functions, and inactive committees for the previous five years.

Using their industry and academic contacts Tomasz Bednarz and Ruslan Puscasu proposed staging a series of monthly activities, starting at the end of May. It was also decided to establish at least one CS student branch at a Brisbane university. There hasn't been a CS student branch at any university for more than 10 years.

The chapter held the following activities in 2015:

May 21st A seminar on "Bayesian Statistics for the Big Data Age", was held at Queensland University of Technology. Professor Kerrie Mengersen from QUT conducted the seminar, which was followed by networking and refreshments.

September 17th An event jointly sponsored by the Brisbane GPU Meetup Group was held at Queensland University of Technology. It featured an introduction

to OpenGL by Tomasz Bednarz, the chapter chair, followed by an introduction to geometry shaders by Daniel Filonik. An informal dinner was held nearby.

October 12th Mike Robinson conducted a seminar on responsive web design for 83 JavaScript programmers from the Brisbane JavaScript Meetup Group..

October 15th Mike Robinson conducted a seminar on responsive web design for 35 web developers from the Brisbane Web Design Meetup group.



MJR presents RWD to 83 JavaScript enthusiasts

Summary

Although the chapter was very active in 2015 compared to previous years, no progress was made on forming student branches.

Control Systems/Robotics and Automation Societies Chapter



DR. MICHAEL KEARNEY
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Committee:

Chair: Dr. Michael Kearney (The University of Queensland)

Vice-chair: James Brodie (Carlton and United Breweries)

The CS/RA Society chapter had four events this year. These were all discussions around significant papers in the control and automation literature, which we dubbed *Classical and Consequential Control Composition Conversation* events. In these CCCCC events, a member would lead discussion around the paper before moving onto general control/automation discussions and dinner. The four papers were:

1. “On Governors” by the Scottish Physicist James Clerk Maxwell (Famous for Maxwell’s Equations). Published in 1866.
2. “Regeneration Theory” by H Nyquist. Published in 1934.
3. “A Simplified Derivation of Linear Least Square Smoothing and Prediction Theory” By H. W. Bode and C. E. Shannon. Published in 1950.

4. “Use of linear programming methods for synthesizing sampled-data automatic systems” by A.I. Propoi (translated from Russian) published in 1963.

Through attending these meetings we have been able to see how some of the key ideas in control and automation, that form the basis of what we do, were first published and how they were developed over time. It was also interesting to see how the form of academic journal papers have also changed over time.

Thanks to all the members of the CS/RA chapter. Both James and I are stepping back next year and we want to wish all the best to the incoming committee of Luis Mejias Alvarez and Navida Kottege.

Michael Kearney and James Brodie

Engineering in Medicine and Biology Society Chapter



PROFESSOR STEPHEN WILSON
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Committee:

Chair: Stephen Wilson (The University of Queensland)

Vice-chair: Mohanraj Karunanithi (CSIRO)

EMBS has had a relatively quiet year with ongoing negotiations for major conferences and a number of professional events.

Noteworthy was our shared event with Queensland MTT/AP chapter which saw Distinguished Lecturer, Professor Robert Caverly speak on RF aspects of MRI and tour our labs and facilities.

EMBS also had a successful co-hosting of the ICET Lab Cardiovascular Engineering seminar which drew a national audience at The Prince Charles Hospital. This event, in conjunction with a BCEC-hosted dinner, was an ideal networking environment for local researchers, government, and industry.

The chapter has been active arranging hosting of the Medical Bionics Conference 2016, which will come to Brisbane for the first time.

In November 2015 the EMBS chapter had an event with 2 international speakers. One was a rehabilitation research scientist from the Department of Veteran Affairs, Tampa, Florida who presented on a smart home application for US army veterans.

The second was a Professor in Computer Science from Texas University, who presented her work on a context-aware middleware framework for the Internet of Things.

Microwave Theory and Techniques/Antennas and Propagation Societies Chapter



GREG HISLOP

Committee:

Chair: Greg Hislop (Fugro Roames)

Vice-chair: Konstanty Bialkowski (The University of Queensland)

Secretary: Antony Liu (The University of Queensland)

Committee Member: Morteza Shahpari (Griffith University)

Review of 2015

In 2015 the MTT/AP joint chapter was pleased to host 15 events for the calendar year. These included 13 seminars on a wide range of topics relating to the diverse interests of our chapter, as well as 2 of a new type of semi-technical/semi-social event called “Microwaves over dinner”.

Under the IEEE Distinguished Lecturer programs from both of our parent societies - MTT and AP - we were able to invite some well-known researchers to Brisbane and Australia. Each chapter in Australia has the potential to invite up to 2 speakers from the Distinguished Lecturer program in both the MTT and AP Societies. However, due to the long distances required to get to Australia, it is important that Distinguished Lecturers also visit other chapters in Australia during their visits. Therefore each of our speakers also visited several other chapters in Australia. We managed to get quite a few more speakers than last year due to careful collaboration with other chapters, encouraging their invitees to also visit Brisbane.

Our first Distinguished Lecturer from the MTT Society this year was Professor Robert Caverly from Villanova University, in March. He presented MRI from an RF or microwave perspective. Robert was initially attracted to the area of MRI via his extensive experience with PIN diodes. Our next Distinguished Lecturer was from the AP Society, Professor Qing Huo Liu from Duke Uni-

versity. He gave two presentations: one in the morning at CSIRO, the other in the afternoon at UQ. Both talks were about using microwaves to image different bodies. The first talk was suited to resource applications such as underground oil; the second was about biomedical imaging applications.

In July we had two MTT Society Distinguished Lecturers. The first was Professor Mona Jarrahi. She presented on very efficient ways to generate Terahertz signals by mixing down optical frequencies using plasmonic techniques. The second was Professor Madhu Gupta, whose presentation was well-suited to a wide variety of people in different stages of their careers. The subject was microwave engineering, including its purpose and future. We should also mention that Brisbane-based company Mireo sponsored a lunch after the event.

In August and October we had two more AP Society Distinguished Lecturers. The first was Professor Ahmed Kishk from Concordia University in Canada. He presented on dielectric resonator antennas and how they can be put into compact arrays for a variety of applications. The second, in October, was Professor Mats Gustavsson from Sweden, who talked about how, using convex optimisation, the current distribution of the optimum antenna within a fixed volume can be found. This is very useful when evaluating antenna designs in terms of how optimum they may be.

ISAP, the international conference - symposium on antennas and propagation, was held in Hobart, Australia, during November. In the week before the conference we hosted 3 speakers who were also visiting the conference. Two of these were AP Society Distinguished Lecturers, Dr Sudkhar Rao from Northrup Grumman and Professor Christophe Caloz from Montreal, Canada. Dr Rao presented several challenges which were already solved in on-satellite antennas in the past and some insight into the future of satellite antennas. Professor Caloz presented on leaky-wave antennas and how, with some novel structures, they can be used to achieve both excellent reconfiguration in beam direction, over an incredibly wide frequency range.

Some other highlights of this year were seminars and workshops in the topic areas of radar, optics, photonics and terahertz, medical applications of microwaves and antennas, and theoretical and computational electromagnetics and communications. Although a majority of our events were held at UQ we were also happy to host a few events at CSIRO in Pullenvale and Griffith University in Nathan.

All of the seminars were well-received and well-attended, with a good mixture of IEEE members and guests. The MTT/AP joint chapter committee wishes to thank everyone for supporting our events during the year, and we look forward to seeing you at more events in 2016.

Seminars and Workshops in 2015

This year all seminars and workshops were recorded on the [MTT/AP website](#).

February

6th (Griffith University): High Mobility Wireless Communications: Challenges and Opportunities, Professor Pingzhi Fan, Southwest Jiaotong University, China.

24th Talking Microwaves Over Dinner/Drinks: "Measuring ground permittivity in real time using dielectric loading and commercial GPR", led by Dr Greg Hislop, CSIRO.

March

26th (The University of Queensland): "RF Aspects of Magnetic Resonance Imaging", Professor Robert Caverly, Villanova University, PA, USA. (IEEE MTT Society Distinguished Lecturer).

31st Talking Microwaves Over Dinner/Drinks: "Reconfigurable Antenna Simulation", led by Dr Yifan Wang, The University of Queensland.

April

8th (The University of Queensland): "Modelling and design of THz quantum cascade laser active regions with an extended-density matrix formalism", Andrew Grier, University of Leeds, UK.

22nd (The University of Queensland): "Spatial interference mitigation for radio astronomical arrays", Dr Gregory Hellbourg, CSIRO, Sydney.

May

11th (CSIRO): "Subsurface Sensing and Super-Resolution Imaging: Application of Computational Acoustics and Electromagnetics", Professor Qing Huo Liu, Duke University (IEEE AP Society Distinguished Lecturer).

11th (The University of Queensland): "Progress and Challenges in Microwave Imaging and Microwave Induced Thermoacoustic Tomography", Professor Qing Huo Liu, Duke University (IEEE AP Society Distinguished Lecturer).

July

28th (The University of Queensland): "New Frontiers in Terahertz Technology", Associate Professor Mona Jarrahi, UCLA, CA, USA (MTT Society Distinguished Lecturer).

31st (The University of Queensland): "Microwave Engineering: What is it, where is it headed, and how it serves mankind", Professor Madhu S. Gupta, UCSD, CA, USA (MTT Society Distinguished Lecturer).

August

17th (The University of Queensland): “Different Dielectric Resonator Antenna Arrays”, Professor Ahmed Kishk, Concordia University, Canada (AP Society Distinguished Lecturer).

October

19th (Griffith University): “Convex Optimization for Optimal Design and Analysis of Small Antennas”, Professor Mats Gustavsson, Lund University, Sweden (AP Society Distinguished Lecturer).

November

3rd (The University of Queensland): “Antenna Systems for 21st Century Satellite Communication Payloads”, Dr Sudkabar Rao, Northrup Grumman, CA, USA (AP Society Distinguished Lecturer).

4th (Griffith University): “A Comprehensive Understanding of Forward Scattering of Radar Beams by

Wind Turbines”, Associate Professor Thomas Fickenscher, HSU, Germany.

5th (The University of Queensland): “Leaky-Wave Antennas: the Dawn of a New Era!”, Professor Christophe Caloz, cole Polytechnique de Montral (AP Society Distinguished Lecturer).

Conclusion

In closing I would like to thank the 2015 MTT/AP committee for their support in running the chapter and in helping to organise a record number of events.

A special ‘thank you’ goes to Konstanty who has put a massive effort into the chapter in recent years. Over the last two years I have enjoyed my terms as Chair and Vice-chair but have stepped down from the committee, leaving it in good hands. **Greg Hislop 2015 Chair**

Power and Energy & Dielectric and Electrical Insulation Societies Chapter



DR. CHANDIMA EKANAYAKE
chandima@itee.uq.edu.au

Committee:

Chair: Dr Chandima Ekanayake, Griffith University

Vice-chair: Dr. Nilesh Modi, AEMO

Secretary: Dr. Ruifeng Yan, The University of Queensland

UQ PES Student Branch Chair: Mr. Jaroslaw Krata

Highlights of 2015

1. Organised 11 events: 9 technical seminars, one conference and 1 professional development seminar.

2. The PES chapter was recognized as one of the High Performing Chapters under the High Performing Chapters Programs in 2014. 84 chapters qualified for the award. Queensland was in 4th place in the overall list of winning chapters, in terms of the funding amount awarded, and in 2nd place (behind Malaysia) for non-US chapters.

3. The PES chapter was recognized as a Runner-up for the 2014 Outstanding Large Chapter Award. This is the fifth consecutive year that the PES Queensland chapter has won this award.

4. The PES Chapter awarded student travel prizes for two student members to attend and present papers at the 2015 IEEE PES General Meeting conference, held in Denver, CO, USA. Mr. Nahid-Al Masood and Mr. Sohel Uddin from The University of Queensland were the winners of the award. Each winner received a cheque for \$1000. Mr. Nahid-Al Masood also won the best student paper award at the conference.

5. Mr. Peter Price (Executive General Manager, Asset Management, Energex) was named 2014 IEEE PES Outstanding Engineer for professional activities and his contribution to the power and energy profession.

6. The PES chapter won the bid to hold the APPEEC 2015 conference in Brisbane. The conference was held at the Brisbane Convention and Exhibition Centre from November 15th to 18th, and was well-attended by local and international delegates.

7. The PES President-elect, Executive Director and the Region 10 PES representative visited Brisbane for APPEEC 2015, where they attended two industry seminars and a young professionals seminar.

8. The PES chapter provided technical assistance for the CIDER 2015 conference organised by CIGRE Australia.

9. The PES chapter Vice-chair attended the 2015 IEEE Region 10 chapter chairs meeting in Thailand.

10. The Outstanding Volunteer Award introduced by the PES chapter.

11. The IEEE Power and Energy Society appointed Professor Tapan Saha a Distinguished Lecturer.

Technical Seminars:

1. "R&D in the State Key Laboratory of Electrical Insulation & Power Equipment of China" by Professor Guan-jun Zhang from Xian Jiaotong University.

2. “Challenges for the electric utility industry” and “A brief overview of IEEE PES activities in support of solutions” by Dr. Damir Novosel, President-Elect; seminars at Powerlink and AEMO.

3. Power Engineering Software Workshop organised by The University of Queensland PES student branch.

4. “Electrical Insulation Research in the State Key Laboratory of Electrical Insulation and Power Equipment at Xian Jiaotong University of China” by Professor Kai Wu and Professor Yonghong Cheng from China’s Xian Jiaotong University.

5. “Proposal for new electricity architecture, loose-coupling and best mix of GRID and ECONetwork” by Mr. Satoshi Nagata.

6. A seminar on “Insulating polymeric dielectrics, past, present, and future” by Professor Len Dissado from the University of Leicester.

7. “Enhanced Power System Responsiveness through Load Control” by Professor Ian Hiskens, the University of Michigan at Ann Arbor, USA.

8. “Internet of Things and the Power Grid - Endless Possibilities” by Dr. Bala Natarajan.

PES Outstanding Engineer Award

The IEEE PES Queensland chapter launched the Outstanding Engineer Award in 2010. In 2014 Mr Peter Price, Energex, was named outstanding engineer and the “IEEE Power and Energy Society of Queensland Outstanding Engineer Award” plaque was presented to him on July 16th 2015.

PES Outstanding Volunteer Award 2015

The IEEE PES/DEIS Queensland chapter Outstanding Volunteer Award will recognize outstanding volunteers affiliated with the chapter. An award will be given each year starting in 2015.

Signal Processing and Communication Societies

Chapter



PROFESSOR ANDREW BRADLEY
a.bradley@itee.uq.edu.au

Committee:

Chair: Professor Andrew Bradley (The University of Queensland)

Vice-chair: Dr. Vaughan Clarkson (The University of Queensland)

Secretary: Dr. Dhammika Jayalath (Queensland University of Technology)

The Journal Paper Club meetings, which were initiated by Vaughan Clarkson last year, continued throughout 2015.

In these meetings the participants discuss a highly cited, 'top ten' or major-prize-winning article in a Signal Processing Society or Communication Society journal. In this way it is hoped that we broaden our understanding of the field.

The meetings also serve as an informal network in which researchers from local universities, industry, and government agencies are able to meet over a beer and share information about recent developments. Six regular Journal Paper Club meetings and one IEEE Day Special Edition meeting were held during 2015.

The chapter hosted two Distinguished Lecturers. Hamid Krim gave a presentation on "Convexity, Sparsity, Nullity and all that....in Machine Learning". Akio 'Ken' Sugiyama spoke on "25 Years of Audio Coding".



Ken Sugiyama presents 25 Years of Audio Coding



Audience for 25 Years of Audio Coding

Vaughan Clarkson was the General Co-Chair for the 40th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) 2015 which was held in Brisbane from April 19th - 24th, 2015.

ICASSP is the world's largest and most comprehensive technical conference focused on signal processing and its applications. The series is sponsored by the IEEE Signal Processing Society.

ICASSP 2015 was a huge success. Approximately 1,800 delegate attended, nearly 90% from overseas. The conference featured over 120 lecture and poster sessions. Excellent feedback was obtained from attendee survey responses.

The chapter also hosted a special repeat of the ICASSP plenary by Professor Neil Gordon on missing Malaysia Airlines flight MH370 at The University of Queensland.



Professor Neil Gordon discusses flight MH370

A seminar on “Deep Belief Networks” was given by Omid Ghahabi at Queensland University of Technology.

Women in Engineering



ALEXANDRA POSOLDOVA
a.p.posoldova@ieee.org

Committee:

Chair: Alexandra Posoldova

Vice-chair: Bafrin Zarei

Secretary: Marie-Luise Wille

Introduction

The 2015 committee of the Women in Engineering Affinity Group has brought fresh ideas to inspire, engage, encourage, and empower women in science and technology in South-East Queensland. Our mission is to organise events that encourage networking on a local level. In 2015 WIE Queensland organised four events: two seminars, a workshop, and a competition.

Activities

The Women in Engineering chapter started the year with an event attracting role models for ladies in the early stage of their careers called “Women in Research, Find out how these ladies did it and you can do it too!”. Four guest speakers from different engineering areas, academia and industry spoke about their professional paths, shared their experiences, and gave tips on how to juggle work and family at the same time. The event was well-attended and lots of positive feedback was received. Therefore we plan to organize a similar event in 2016.



WiE committee and guest speakers

at QUT for first-year physics and engineering students. The aim of the event was to encourage students to participate in IEEE and WiE activities and to become members.

The next two events were focused on improving presentation skills with professional public-speaking coach Jane Mott. The first event was a workshop called “Perfect Pitch”. The aim of the workshop was to learn how to express one’s self clearly and effectively in a few minutes, leave a good first impression, and connect with the audience.

This event was followed by the “The Perfect Pitch 3-Minute Competition” where skills gained at the workshop were put into practice. Contestants prepared a 3-minute presentation on a topic of their choice. The committee judged the presentation skills, not the content, and each presenter received immediate short feedback from public-speaking coach Jane Mott. The prize, a t-shirt with the WiE logo, an IEEE USB hub, and a \$25 voucher was awarded to the best presenter.

A WiE Facebook page was created to advertise all our events and to provide a platform where members and followers can communicate and network.

Conclusion

2015 was an exciting and new experience for all committee members. The 2016 committee was elected and we cannot wait to organise more events to engage with our members, and attract new members and role models for girls considering technical fields as career choices.

An information session about IEEE and WiE was held

Young Professionals Program

**ROB MAKAREMI**

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Committee:

Chair: Mohammad Amanzadeh

Vice-chair: Reuben Peterkin

Secretary: Rob Makaremi

Introduction

The IEEE Queensland Young Professionals Program affinity group continued its activities in 2015 with two main aims: recruiting new IEEE members (both students and professionals), and assisting young members to develop their professional skills and transition into professional engineers.

Major Activities for 2015

The Young Professionals Program affinity group has been very active and hosted 3 events in 2015. Our first seminar was held on July 13th, 2015 and was titled “IEEE Career Resources Workshop”.

Our speaker Mo Amanzadeh (YPP chair) talked about the benefits of IEEE membership and IEEE online services, including ResumeLab, vTools, and IEEE Job Site. The seminar was held at The University of Queensland. 11 people registered on vTools.

Following that, on August 25th, YPP hosted “IEEE Winter Networking event and Mixer” at the QUT Botanic Bar.

Our guest lecturer Donald Cook from the Hypersonic Branch of Defence Science and Technology Group talked about his past projects and shared his experience and journey of becoming an engineer with the audience.

It was followed by Q&A, with attendees networking and socialising later in the evening.

Approximately 25 people attended this event, amongst whom were undergraduate and postgraduate students, as well as professional engineers.



Donald Cook of DSTG speaks about his projects

Most recently, on November 5th, YPP organised a seminar on the importance of using LinkedIn, held at The University of Queensland.

The guest speakers were Nkosana Mafico (entrepreneur and motivational speaker), Mo Amanzadeh (YPP chair and team leader at CRC Mining), and Ali Saadat (Schneider Electric), who talked about the role of LinkedIn in professional networking and career development.



IEEE YP Committee with speaker NKosana Mafico

The event finished with Ali Saadat, also a professional photographer, taking photos of the attendees for their LinkedIn accounts.

CQUniversity Brisbane Campus Student Branch



DR. MARY TOM
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Committee:

Chair: Sujan Chowdhury

Secretary: Juan Munoz Carpio

Treasurer: Arash Esmaeili Daneshvar

Introduction

IEEE Student Branch CQUniversity Brisbane Campus became operational in the second half of 2012. Establishing and keeping the branch active remains a challenging task due to the lack of engineering students on campus and the low number of ICT students. In spite of this, the branch is operational and the activities organised are well-attended by on-campus students, professionals, and students from neighbouring universities located in Brisbane city.

Major Activities for 2015

In 2015 the student branch organised one technical event and one professional activity as detailed below.

ICT Careers Evening Semester 1

Date: April 29th

Venue: CQUniversity Brisbane Campus, 160 Ann Street, Brisbane



Careers Seminar audience

This event was co-sponsored by the Australian Computer Society, which saved on running costs as well as obtaining improved attendance.

Approximately 35 people attended the event, including ICT professionals, CQUniversity students, and students from neighbouring universities in Brisbane.

Bob Waldie, Entrepreneur from Opendear, shared his wealth of knowledge in becoming a successful entrepreneur and informed the audience about the risk and benefits of venturing into entrepreneurship.

The second speaker, Dirk Hus, Business Solutions Manager, Brisbane Airport Corporation Pty Ltd, spoke on the structure and operation of BAC and explained how BAC recruits interns.



Dirk Hus presents for the BAC

The third speaker, Barry Snashall, State Manager Australian Computer Society, provided the audience with essential knowledge about the new skills assessment of ICT professionals based on Skills Framework for Information Age (SFIA). Barry also explained the role of ACS in supporting ICT professionals and the benefits of becoming a member of the society.



Barry Snashall presents for the ACS

Oleg Lukin, an alumnus of CQUniversity and a successful ICT professional, engaged the audience with his expertise as a Business Intelligence developer.

Seminar on Software Testing

Date: September 30th

Venue: CQUniversity Brisbane Campus, 160 Ann Street, Brisbane

This event was co-sponsored by the Australian Computer Society and the IEEE Student Branch CQUniversity Brisbane Campus. It was a well-received event with over 40 participants including students from two other universities in the Brisbane area, Griffith University and QUT. The event was chaired by Dr. Tom.

Ash Conway presented a seminar entitled “The Power of Humans, Not Bots, In Software Testing” which was engaging, informative and interesting for the audience. The presentation lasted an hour, and was followed by a discussion. Ash engaged the audience with the many aspects of software testing, especially completing the user-interface and functionality testing at a faster pace. This is an area where large investment or innovative methods are not available at present. There were many interesting and thought-provoking questions from the audience, indicating that the talk was useful and engaging.



Ash Conway from Bugwolf

With 20 years of international business development, 11 years of that building technology companies, Ash has worked with tech start-ups through to acquisition, and generated sales revenue as high as \$150 million. As a serial entrepreneur, he is focused on finding and solving market needs that have broad appeal among early adopters which are under-served and untapped, and that Cloud, Internet of Things, and mobile-enabled technologies can address.

Ash has extensive experience designing software and leading software development teams. During the early stages of his career he worked as a designer in Europe and ran an award-winning agency in Melbourne. Ash has been able to combine his acumen for business, technology and design into creating digital products that solve real-world problems and deliver great user experiences. Ash is currently the CEO & founder of [Bugwolf](#).

Social Activities

One of the main goals of the events was to promote networking between the presenters, industry representatives, and participants. Having this mind, the events were designed to have coffee-breaks and refreshments, with enough time for the participants to meet and mingle. It was encouraging to observe some participants engaged in serious discussions with presenters, and other participants asking questions and expanding their networks.

Feedback

The organizing committee received very encouraging feedback about the usefulness of these seminars and an expectation that the activities would continue in coming years.

Griffith University - Gold Coast Campus Student Branch

**REZA AKBARZADEH**

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Committee:

Chair: Reza Akbarzadeh

Vice-chair: Matthew Jay

Secretary: Tim Alroy

Treasurer: Elise Jenking

Counsellor: Jahangir Hossain

Hello everyone! My name is Reza and I am the new chair of Griffith University - Gold Coast Campus Student Branch. I am currently in my 3rd year studying for a Bachelor of Electrical and Electronic Engineering.

It is my pleasure to announce that the branch started its activity in September 2015.

The branch's goal is to expand the IEEE community within Griffith University and across Queensland; in addition, to provide opportunities in which members of IEEE can collaborate and increase their knowledge in their fields of interest.

Three events were held in September and October, and we received an enormous amount of support from both academics and students.

The first branch meeting was held on September 15th and we had over 50 attendees. The meeting's purpose was to expand the IEEE community within Griffith University and recruit new members.

The committee also used the meeting to present attendees with our exciting plans for 2016 and beyond.

The topic of our first technical workshop was "Introduction to \LaTeX ". The workshop was presented flawlessly by Dr Stephen So. The workshop addressed the

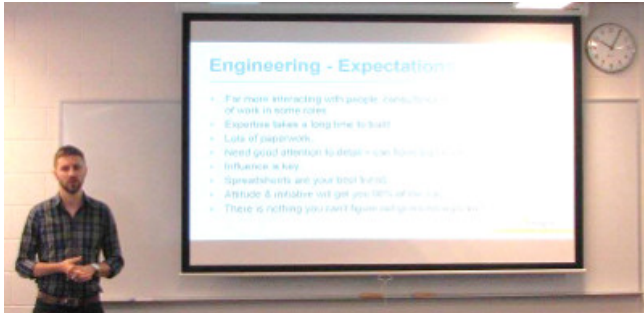
advantages and disadvantages of using \LaTeX and the online \LaTeX environment Share \LaTeX . Tips and tricks were discussed and helpful resources were provided to students so they could quickly and easily try \LaTeX themselves.

Some applications of \LaTeX , such as writing IEEE papers and theses, were discussed. Those in attendance responded positively to the workshop and requests for similar workshops in the near future were received.

Dr Stephen So presents \LaTeX

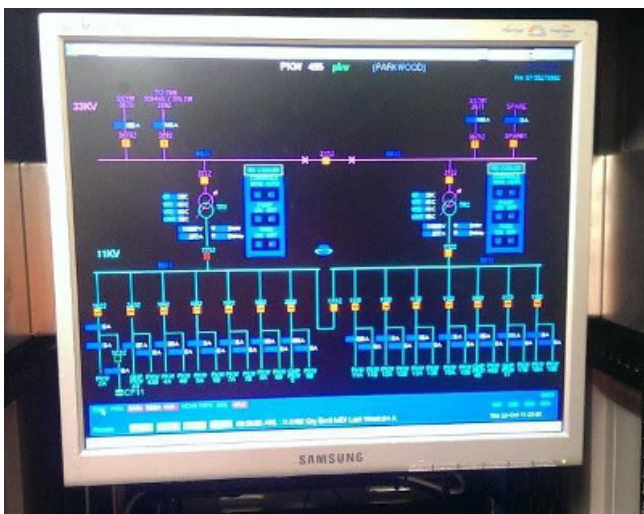
As stated previously, the branch's vision is to increase productivity within the IEEE community. In the area of power engineering, the approach is to demonstrate the possibilities and opportunities that exist within the sector, with help from our industry partners.

In pursuit of the vision, an industry information session was held and close to 40 members and non-members attended. The guest speaker was Tom Bakker from Energex.



Tom Bakker, power systems engineer at Energex

Tom Bakker is a power system engineer who has been in the power industry for over 8 years. He shared his experiences about projects he worked on after graduation, as well as sharing some technical drawings and designs for power systems.



Schematics of the control system in the substation

Following the information session, students had the opportunity to visit the Gold Coast University newly-built substation.

Students inspected the equipment inside the substation, to gain a better understanding of power systems and their components.



Griffith University Hospital substation visit

Our committed and enthusiastic team is working hard to increase its productivity in the upcoming academic year by providing similar activities for members.

To be up to date with events, join our [Facebook](#) page. You can also e-mail us at gugcieee@gmail.com.

Looking forward to bringing more exciting news to the IEEE Queensland Section.

The University of Queensland PES Student Branch



JAROSLAW KRATA
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Committee:

Chair: Jaroslaw Krata

Vice-chair: Hanxiao Zhang

Student adviser: Tapan Saha

Major Activities for 2015

The following activities were organised during the year:

Welcome Event

Date: April 14th

Speaker: Professor Tapan Saha, The University of Queensland

Attendance: 22

Students were introduced to the benefits of joining the IEEE and the IEEE Power and Energy Society by experienced members and a faculty staff member.

IEEE membership was promoted during this event. Undergraduate students were especially encouraged to join the IEEE.

The IEEE Queensland Section provided refreshments after the event.

Promotion Activity

Date: June 10th

Visitors: over 35

A stall was set up at The University of Queensland Engineering Architecture and Information Technology postgraduate conference.

The stall was manned all day long to attract visitors, and postgraduate students were encouraged to join the IEEE during the event.

The IEEE attracted lots of attention from students with electrical and electronic backgrounds, as well as other backgrounds.



PES student branch volunteers distribute PES literature

Software Tools Technical Workshop

Date: September 25th

Attendance: 21

The PES student branch hosted its first software workshop in September.

The speakers were: **Asif Islam**, UQ PhD candidate, **Hanxiao Zhang**, UQ student, and **Jaroslaw Krata**, UQ PhD candidate.

The workshop attracted 21 attendees, including undergraduate, master, PhD students, and research fellows.

Popular power system engineering software tools, especially PSS/E and PSCAD, were introduced to the audience, and some real simulation examples were presented and discussed.

The workshop was interactive and received positive feedback from the audience. The IEEE Queensland Section provided refreshments after the event.



Asif Islam and workshop audience

Bridge between PES Leaders and Young Engineers

Date: November 16th

Attendance: approximately 45

Young engineers from Queensland and the Asia Pacific region had an exceptional opportunity to meet distinguished IEEE Power and Energy Society guests during the APPEEC conference in Brisbane.

Speakers included: **Dr Damir Novosel**, IEEE PES President-Elect, **Mr. Patrick P. Ryan** IEEE PES Executive Director, and **Professor Lalit Goel**, IEEE PES RegionI representative - Asia-Pacific.



Part of the audience

The following topics were discussed during the event:
Leadership - advice from experienced, successful guests for young engineers;

Breakthrough technologies that young IEEE engineers should explore;

IEEE as a link between industry and universities - how to prepare students for industry careers, and how to enhance industry-university cooperation;

The role of the IEEE in technology/product development.

The event had a very interesting characteristic - semi-informal conversation between experienced IEEE PES leaders and young engineers starting on their career paths. The mutual understanding created a great, vibrant atmosphere, with many good ideas and advice for young engineers.



The PES distinguished panel

Summary of 2015 Apart from the activities listed above, it is important to mention other volunteering engagement of the IEEE PES UQ student branch.

In February, during the official celebrations of the 30th anniversary of the IEEE Queensland Section, the PES UQ student branch provided 10 volunteers to help with event organization. Similarly, 21 student branch volunteers provided organizational and other help during the IEEE APPEEC 2015 conference, which has been acknowledged by the organising committee.

PES Travel Award winner's report #1



NAHIL-AL MASOOD
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It was a wonderful moment for me to win the IEEE Queensland Section's Power and Energy/Dielectrics and Electrical Insulation Societies Joint-Chapter travel award to attend the IEEE Power and Energy Society General Meeting (PESGM) in 2015.



Nahid receives his award from Chandima Ekanayake

PESGM was held from July 26 to July 30, 2015, in Denver, Colorado, USA. Around 3,300 delegates attended the conference, including representatives from academia and industry. The ratio between academia and industry participation was around 45:55. It was a great experience to attend one of the largest platforms of power and energy systems research and represent The University of Queensland on such a stage.

I presented two papers at the conference. The first one, titled "Frequency Response and Its Enhancement Using Synchronous Condensers in Presence of High Wind Penetration" was selected for the paper forum, which was a four-minute presentation followed by a poster.

The second paper, titled "Correlation between Frequency Response and Short-Circuit Performance due to High Wind Penetration" was presented as a poster.

I also participated in a student paper contest, where I

won first prize in the graduate-student poster contest.

Before going to the conference I prepared my schedule and divided it into two objectives. The first was to observe, discuss and participate in current research trends on renewable energy, especially wind-power integration into transmission system. The second was to achieve an overview of current development and breakthrough-technologies in other areas of power and energy systems, such as smart grid, network security, and distribution system management.

I attended a number of plenary sessions where industry researchers directly shared their experience and thoughts about the future progress of wind-energy technologies. To meet ongoing and future operational challenges, they presented a number of ideas such as the use of energy storage and wind turbine control strategies for power-system frequency regulation. Frequency control ancillary services (FCAS), such as contingency FCAS and regulatory FCAS, were addressed. Field experience of different industries in wind-generator model validation was quite interesting and informative.

Overall, I tried to enhance my knowledge by discussing and sharing ideas and views with participants.

Finally, my whole-hearted gratitude and thanks to the IEEE Queensland Section's Power and Energy/Dielectrics and Electrical Insulation Societies Joint-Chapter for nominating me for the travel award. IEEE PESGM 2015 was extremely helpful for my research and professional development.

With best regards,

Nahid Al Masood

Power and Energy Systems Research Division, School of IT & Electrical Engineering
The University of Queensland
Brisbane, Queensland 4072, Australia

PES Travel Award winner's report #2



SOHEL UDDIN
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It was a great honour for me to win the IEEE Queensland Section's Power and Energy/Dielectrics and Electrical Insulation Societies Joint-Chapter travel award to attend the IEEE Power and Energy Society General Meeting (PESGM) in 2015.



Sohel receives his award from Chandima Ekanayake

PESGM was held from July 26 to July 30, 2015, in the Sheraton Denver Downtown Hotel, Denver, Colorado, USA. Around 3,300 delegates attended the conference from all over the world, including representatives from academia and industry.

It was a great experience to attend one of the largest platforms of power and energy systems research in the world, and represent The University of Queensland on such a stage.

My paper titled "Capacity Constrained Energy Management for Unbalanced Distribution Systems" was

selected to present in a poster session. In addition, I participated in a student paper contest, which was a big opportunity to compete at an international level. I got feedback and suggestions from other experienced researchers which will be helpful in my future research.

I attended several plenary sessions where researchers directly shared their experience and thoughts about the future progress of distribution-system energy management. To meet ongoing and future operational challenges they presented a number of ideas such as the use of distribution generation control, energy storage, and optimization techniques for optimal power-flow control strategies. State estimation and optimization techniques were also addressed.

Overall, I tried to enhance my knowledge by discussing and sharing ideas and views with participants.

Finally, my whole-hearted gratitude and thanks to the IEEE Queensland Section's Power and Energy/Dielectrics and Electrical Insulation Societies Joint-Chapter for nominating me for the travel award. IEEE PESGM 2015 was extremely helpful for my research and professional development.

With best regards,

Sohel Uddin

PhD Candidate

Power and Energy Systems Research Division

The University of Queensland

Brisbane, Australia

University of Queensland Student Branch

**RAHUL SHARMA**

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Committee:

Chair: Jeremy Taylor

Vice-chair: Michael Broe

Secretary: Elizabeth Deeb

Treasurer: MB Mhd Noor

Counsellor: Vaughan Clarkson (January - July)

Counsellor: Rahul Sharma (August - December)

Major activities

The University of Queensland's IEEE Student Branch continued to be active in 2015.

Major activities for 2015 are summarized as follows:

1. A booth in the engineering precinct during orientation week.
2. Vacation Work and Careers seminar was held on March 23rd (73 attendees) with Laura Benn, Michael Broe, Jeremy Taylor and committee members from EBESS as speakers.
3. An information session about IEEE was held at the First Year Learning Centre on April 14th with

Associate Professor Vaughan Clarkson and Mehdi Mosadeghy as speakers.

4. ICASSP 2015: Student Night was hosted by the UQ's IEEE Student Branch alongside the main conference with assistance from Vaughan at Tomahawk Bar on April 21st (99 attendees).

5. "Between Two Herberts: Making Ideas Happen" was held on August 14th with presentations from brothers Jeremy and Marcus Herbert (35 attendees).

Announcement

The student branch officers for 2016 will be **Jeremy Taylor** (Chair), **Michael Broe** (Vice-chair), **Ellie Deeb** (Secretary) and **Ryan Boyle** (Treasurer).