

IEEE QUEENSLAND SECTION NEWSLETTER

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Section Chair's Report



Daniel Eghbal
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The key positions in our section are filled with active volunteers. This year we welcomed a new chair for Membership Development Activities and a series of successful events have already been organised and yet more to come.

IEEE Sections Congress is the biggest leadership gathering of the world's largest professional organisation (IEEE). The Congress is held once every three years. The IEEE Member and Geographic Activities (MGA) Board will partner with Region 10 in hosting the IEEE Sections Congress 2017 (SC2017) in Sydney, Australia, at the International Convention Centre, from 11 to 13 August 2017. Obviously, this is a great opportunity for Australian sections and we have been working with other Australian IEEE sections through IEEE Australia Council to coordinate activities.

This is a unique opportunity for our young volunteers who have an ambition to be future IEEE leaders. So, Queensland section decided to support 12 secondary delegates to attend the Sections Congress. Section chairs are primary delegates and IEEE MGA covers their expenses. The Queensland team includes senior volunteers, representatives from Young Professionals and Women in Engineering and of course students.

Another exciting event is IEEE Australia & New Zealand Student & Young Professionals Congress (ANZSCON2017) which will be held in Sydney from 10-11 August, prior to the Sections Congress. Being a unique event of its kind, it brings together the leadership from 10 sections across Australia and New Zealand, as well as two Regional Councils. ANZSCON is an event where young engineering students and young professionals meet and engage to familiarize with trends in science and technology, discuss present and future engineering challenges, develop new skills and share technical, social and professional experiences. Traditionally, Queensland section sends 1-2 delegates to ANZSCON and in 2017 section support was provided to more students and young professionals.

I would like to take this opportunity and encourage you to check the [ANZSCON](#) website and attend.

I look forward to attending the Sections Congress and I will provide a report in the next issue of the newsletter.

Last but not least, I encourage you to check the section website to find out about the upcoming section events.

Treasurer's Report



Dr Robert Kennedy

kennedyrobotics@bigpond.com

In the first half of 2017, we have had over 50 transactions through our local account.

The expenses for this period total \$21,951.55 which included a temporary transfer transaction. The section also paid the \$331.50 Australia Council levy in this period and we had some additional spending for sending IEEE volunteers to the R10 meeting in Japan. We also had a number of student prizes valued at \$1,000 each.

During this time, there have been several IEEE Swift payments for the income streams for particular chapters making up most of it. The total of Income was \$27,766.69.

We also saw a temporary transfer for conferences: \$10,937.08 (in and out of account) that didn't affect our operating balances.

The final balance in the everyday access account is \$13,490.74 as at 31 June 2017. There are 4 remaining term deposits at \$93,884.40 that have continued to gain interest returns.

And the RADAR18 account for the RADAR 2018 conference that our volunteers are organising and that IEEE Qld / IEEE SA sections have seed funded in 2016/2017 is now at \$40,392.12.

Currently it is clear that the spending for the section is increasing and right now the income is starting to balance out the spending for the 6 month period. It is a concern however, that the remaining 6 months of the year will not generate as much income and I will continue to report this at our monthly meeting reports.

Newsletter Editor's Report



David Russell
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Welcome to the second edition of the IEEE Queensland Section Newsletter for 2017.

Thank you to all who contributed to this edition of the newsletter.

In this edition, we highlight the many activities that have been undertaken by the Queensland Section so far this year. You will see many of our Societies have been busy.

It is particularly pleasing for me to see in this edition, many activities that are planned, including:

- The IEEE Sections and ANZCON Conferences highlighted in the Chair's report
- A future video conference being organised by the IEEE HKN Society
- Two events organised by Power & Energy Society
- A seminar organised by the Power Electronics/Industrial Electronics/Industry Applications Society
- An upcoming Tuesday Journal Club organised by the Signal Processing/Communications Society
- A very interesting seminar organised by the Women in Engineering Society.
- Many activities from the Student Societies.

Rather than repeat the details of these events here, I encourage you to read the various articles and make it along to as many events as you can. Hopefully, by providing this information on upcoming events in the newsletter, members will have a greater opportunity to plan to attend. It would be terrific to see more of our members at these events.

I hope you enjoy reading this edition of the newsletter and will look forward to the next on in a couple of months' time.

Webmaster's Report



Dr Ghassem Mokhtari
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I am pleased to announce that IEEE Queensland section website is now supported by google analytics which provides the statistics related to the website views and users. The report for the last three months (April-July 2017) is listed below and includes the details of user and page views.

I have also added new functionality to the website which includes providing the event

details of chapters on their own page. The current and past events are listed for several chapter and affinity groups.

Finally, we now use online forms on the website. The first online form which replaced the hard copy version is the Funding Request form. This online form is now available under Forms tab on the website.

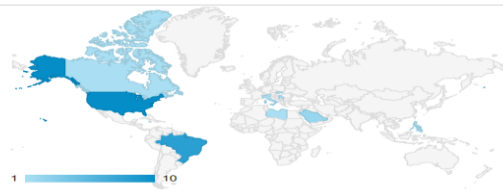
% New Sessions



Users



Sessions



Bounce Rate



Avg. Session Duration and Pages/Session



Goal Completions and Users by Country

Country	Goal Completions	Users
Brazil	0	8
Canada	0	1
Italy	0	1
Jamaica	0	1
Libya	0	1
Philippines	0	1
Serbia	0	1
Saudi Arabia	0	2
Slovakia	0	1
United States	0	10

Membership Development Report



Sudarshan Dahal
sudarshan.dahal@ieee.org

Powerlink

Powerlink Queensland gathered on mass last month to hear about the potential future of battery storage systems.



Energy Queensland Principal Engineer Steven Humphries delivered a presentation outlining their innovative trial on battery energy storage systems. His talk highlighted how careful organisation of grid scale battery systems can deliver benefits to both utilities and customers. Industry collaboration is the key however, to their successful deployment.

The seminar was sponsored by IEEE Queensland as a part of membership development activity. Dr Sudarshan Dahal, the membership development chair of IEEE Queensland Section highlighted the benefits of IEEE memberships and elaborated how IEEE can bring various resources both for industry and individuals. IEEE Queensland Section Chair, Dr Daniel Eghbal answered a number of queries from attendees about IEEE and its activities in Queensland.

IEEE Supports Young Engineering Students



IEEE sponsored the prize for the first-year electrical engineering student demo project competition held in May 2017 at the University of Queensland. The completion was to build a robot detecting radioactive waste. This was one of the highly impressive student activities helping to flourish innovation through team projects among the early year engineering students. Dr Sudarshan Dahal, the membership development chair from IEEE Queensland section proactively approached the faculty and offered to sponsor the prize to encourage the innovation and promote IEEE from very early year engineering students.

The winning team of six students has been offered the prize from IEEE. The awardees have been very keen to explore the opportunities within IEEE to help them in their long-term career development.

Computer Society



Rajib Rana
rajib.rana@gmail.com

Committee:

Chair: Rajib Rana
Vice Chair: Ruslan Puscasu
Secretary: Rui Zeng

Our first technical seminar was held at USQ Springfield and given by Professor Raja Jurdak from CSIRO Data61. The topic was "Tracking everything, everywhere, and all the time: challenges and opportunities."

It was an excellent discussion where Dr Jurdak showcased many interesting projects they have conducted at CSIRO including indoor and outdoor tracking focusing on the aspects of energy-neutrality, scalability, security/privacy and data fusion. The abstract follows.

Abstract: Technologies to track people, animals, and objects have come a long way,

and are driving new location-based services and applications. In this talk, I will discuss tracking research at the Distributed Sensing Systems Group in Data61 | CSIRO, covering the challenges and opportunities, such as energy-neutrality, scalability, security/privacy, and data fusion. I will also discuss our tracking projects and applications, ranging from tracking animals, such as flying foxes, feral pigs and buffaloes, and livestock, to people, both through mobile devices and geotagged social media, and objects of interest.

Mu Kappa Society



Kianoosh Soltani Naveh

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Committee:

Chair: Kianoosh Soltani Naveh
Vice Chair: Wrience Ponmattam Madassery
Treasurer: Ashley Gillman
Secretary: Joshua Riddell

Since establishing Brisbane's IEEE-HKN Mu Kappa Chapter in March 2017, the committee has been planning and preparing for events happening in the next months.

The first event will be a panel discussion event on the topic of smart cities. Bringing together industry professionals and top academic personnel. The event will be catered to high achieving undergraduate students.

The second event will be a video conference with an overseas IEEE-HKN chapter to gain better insight into how other chapters are run; and understand what sort of events have been successful in the past. This will be a valuable chance to strengthen ties between chapters and give opportunities for future Asia-pacific regional chapter collaborations.

Another item that has been planned by the committee to take place in the within the next few weeks is for our local chapter members to visit and experience Brisbane's high tech solar farms. Our aim is to highlight the local industrial and technological strengths in renewable energy and help the next generation of engineers get a feel for the technical and economic potential that renewable energy can offer.

Mu Kappa Chapter has also engaged actively with the Queensland Section and the School of ITEE at the University of Queensland to send an IEEE-HKN member from our chapter to attend and volunteer at the ANZSCON and IEEE Sections Congress 2017 conferences. This activity demonstrates our willingness to participate and work with local and international IEEE events that benefit engineering students.

Power and Energy & Dielectric and Electrical Insulation Societies



Chandima Ekanayake
c.ekanayake@griffith.edu.au

Committee:

Chair: Chandima Ekanayake
 Vice Chair: David Batterham
 Secretary: Nazanin Nadian
 Treasurer: Hossein Etesami

Professor Peter Wolfs – Recent Battery Storage Developments

Professor Peter Wolfs was presented with the 2016 PES Outstanding Engineer Award.



Peter Wolfs receives his award

Power Systems Simulation by OPAL-RT

Mr Benoit Marcoux gave a presentation on the simulation of power systems on 19 June 2017.



Mr Benoit Marcoux

Using Solar and Load Predictions in Battery Scheduling at the Residential Level



Dr. Richard Bean from Redback Technologies gave a presentation on the prospects of energy cost minimisation with real-world load and solar forecast at residential level.

An Introduction to Multi Agent Systems with Some Applications

A presentation was given by A/Professor Debraj Chakraborty on an introduction to multi agent systems on 16 June 2017.

PES High Performing Chapter Program (HPCP)

The Queensland chapter submitted an application to the IEEE PES Chapters Annual Report / High Performing Chapter Program (HPCP) program. There were 85 chapters which received funding. The Queensland chapter received US\$870.

EAIT Postgraduate Conference (EPC) 2017

An IEEE PES Award presentation of \$ 500 was made to the winner of the power and experimental design session. The award was presented at the closing ceremony.

Upcoming Events

1. PSCAD seminar from 4 pm to 6 pm on Tuesday 8 August 2017 for 40 people.
2. EA/IEEE joint workshop on 14 and 15 August. The topic is "Operation and Development of High RES Low Carbon Electricity Systems: How to Get it Right".

Power Electronics/Industrial Electronics/Industry Applications Societies



Firuz Zare
f.zare@uq.edu.au

Committee:

Chair: Firuz Zare
Vice Chair: Junwei Lu
Treasurer: Mahinda Vilathgamuwa
Secretary: Ali Pourmousavi Kani

We are pleased to invite you all for a seminar supported by our joint IEEE chapter (PE, IAS, EI). We have two international guests: Dr Sebastian, IEEE IAS President and Prof Magyar, IEEE IAS Chapters and Membership Department (CMD) Chair who will present the following topics:

a) Dr Sebastian: IAS Overview (20 min)

b) Prof Magyar: IAS Chapters and Membership Overview (40 min)

Abstract:

The presentation gives a short overview about the chapter and membership activities of the IEEE Industry Applications Society (IAS). Membership statistics demonstrate the actual status and the membership and chapter development trends. The higher grade and student membership development as well as its regional characteristics will be introduced, especially the young member activity and the student chapter development. The member promoted programs and services of the Society, as well as the awards, contests, travel programs, technical supporting services will be introduced in details.

c) Dr Sebastian: Advances in Automotive Electrification (45 min)

Abstract:

Automobile segment is going through significant technology changes for the last decade. The focus was in improving fuel economy and comfort. Conventional

hydraulic based systems are being replaced with electromechanical systems the automobiles. Advances in Motors, motor control and power electronics helped to fuel this transformation. Next generation vehicles will see further development in the direction of advanced comfort and safety features. These days the Autonomous vehicle is “the talk of the day”. The main objective of these systems is to improve the comfort and safety of the passengers. The presentation will also discuss the impact of the developments in the motor drives on the automotive systems.

This is a great opportunity to discuss research fields and applications of power electronics.

Date: August 14, 2017

Time: 2:30 PM

Location: The University of Queensland, Building 49 (The Advanced Engineering Building), room 502.

Please kindly find attached more information about this seminar; Please kindly RSVP by return email to f.zare@uq.edu.au if you attend the seminar.



Peter Magyar (M'92, SM'04, F'07) received the Dipl. Eng. and the Dr. Tech. degrees from the Budapest University of Technology, Hungary, in 1967 and 1975, respectively. From 1967 to 1991, he was

with the Department of Automation of the same university as an assistant professor and a research associate. He led the Laboratory of Microprocessor Controlled Drives. From 1991 to 2009, he worked for industrial companies in Germany. He retired from Hella KGaA Hueck & Co., Germany in 2009.

Dr. Magyar has been an IEEE volunteer in various positions. He was secretary, vice chair and chair of the IAS/PELS/IES German Chapter (1998-2004). He was the chapter coordinator of the Germany Section 2005-09 and member 2007-09 and chair of the R8 Chapter Coordination Subcommittee 2009-11. He has served the IA Society as Chapter Area Chair R8 2004-08, as member-at-large 2005, as chairman of the Inter-Society Cooperation Committee 2006-07 as well as chair of the Chapters and Membership Department since 2009. Dr. Magyar is recipient of the IAS Distinguished Service Award 2006 and has been elevated to IEEE fellow 2007.



Tomy Sebastian received the B.Sc. (Eng.) degree from Regional Engineering College Calicut (presently National Institute of Technology, Calicut), India, the M.S. degree

from Indian Institute of Technology Madras,

MA.Sc. and Ph.D. degrees from the University of Toronto, Canada. From 1979 to 1980, he was with the R & D Centre of KELTRON, Trivandrum, India. From 1987 to 1992, he was with the Research and Applied Technology Division of Black and Decker Corporation, Towson, MD. From 1992 to 2013 and with the Delphi Saginaw Steering Systems and Nexteer Automotive in Saginaw, Michigan, where his last responsibility was as the Chief Scientist at the Innovation Centre. Currently he is the Director of Motor Drive Systems at Halla Mechatronics. He also taught several courses on Power Electronics, Motor Drives and Advances Motor Design at University of Toronto, Canada, University of Maryland, College Park, Maryland, and The Ohio State University, Columbus, Ohio at various times.

Dr. Sebastian has done extensive research in the area of permanent magnet motor design and control issues and applications in steering systems. He has published over 50 technical articles and holds 31 US patents. In 2003, he was elected as a Fellow of IEEE. During 2008-2009, he served as a distinguished Lecturer of IEEE Industry Applications Society. He was inducted in to the Delphi Innovation Hall of Fame in 2006. He is the recipient of the 2010 IEEE Industry Applications Society outstanding achievement award. He was the General Chair for the First IEEE Energy Conversion Congress and Exposition (IEEE ECCE 2009) held in San Jose, CA. He also served as Co-General Chair of the IEEE Power Electronics, Drives and Energy Systems (PEDES 2012) in Bengaluru, India. He is currently the President of the IEEE Industry Applications Society.

Professional Activities



Reza Akbarzadeh
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Committee:

Chair: Reza Akbarzadeh

I have been fortunate enough to be a part of Queensland committee since late 2016. This year, I have started my new position as the Professional Activities Chair.

My goal as the professional activities chair is to increase more collaboration between universities and industry in all areas that are affiliated with IEEE Queensland. To start this journey, I organised our first event on Thursday 1 June, titled 'Earthing, Bonding and Stray Currents in Traction Power Distribution Network'. Speakers of this event included Colin Lee (Energex) and James Geoffrey (Aurizon).



Colin Lee - Principle Engineer Asset (Energex)

In the presentation, speakers from Aurizon and Energex provided an insight into the traction power distribution with a focus on traction earthing and bonding, and the

impact of the Gold Coast Light Rail project on electricity earthing systems and underground assets. This was also a good opportunity for old colleagues to reconnect again and attract more IEEE members.



James Goffey - Principle Traction Engineer (Aurizon)



Signal Processing/Communications Societies



Greg Hislop
gregory.hislop@gmail.com

Committee:

Chair: Nasir Hussain
Vice Chair: Greg Hislop
Secretary: Muhammmad Mohtasim

So far this year the chapter has organised seven journal club meetings at a range of venues throughout inner Brisbane. The event takes place on the first Tuesday of each month. A journal paper and a reader leader are chosen several weeks before. We all read the paper (or not) then get together to discuss its merits in a social atmosphere at a pub or restaurant. We are around ten regular attendees including several local academics, industry professionals, CSIRO

researchers and postgraduate students. New comers are welcome. Our August meeting is detailed [here](#).

Ashley Gillman from UQ/the CSIRO will have the honour of leading the upcoming discussion on a new deep learning paper. Member/non-member seasoned professor or undergrad student, everyone is welcome to join in the discussion while enjoying a beer/burger.

Women in Engineering



Marie-Luise Wille
m.wille@qut.edu.au

Committee:

Chair: Marie-Luise Wille
 Vice Chair: Alexandra Posoldova
 Secretary: Negareh Ghasemi
 Treasurer: Hanxiao Zhang

On Monday, 31 July 2017, IEEE QLD Women in Engineering (WIE) Section will organize a panel discussion on the topic of “Transforming the Culture of Engineering: The Role of Male Engineers in Supporting Gender Diversity”. Five distinguished panellists from both genders and both industry and academia will explore the “Why?” and “How?” of gender diversity and will interact with the audience. The event will be held on 31 July 2017 at 5:30-8 pm in room 419, P block, QUT Gardens Point Campus. Come over to meet the panellists and enjoy some refreshments! Please register online [here](#).

On 17 July, a visiting academic (Sailesh Conjeti) from the Technical University Munich, Germany, presented on deep learning and its extensions into mining medical datasets. The speech covered three main machine learning models: metric hashing forests, deep residual hashing and robust multiple instance hashing. Real world applications of cancer diagnosis using neuroscientific image databases and chest X-Ray images were demonstrated. The event got a lot of interest from students and academics of Queensland University of Technology where the event was held.



IEEE WIE Event, 17 July. Credit: Alexandra Posoldova

On 22 June, WIE celebrated the achievements of the Queensland electrical sector with colleagues from IEEE QLD Section, Engineer Australia and Electric Energy Society of Australia. The Electrical Fraternity Annual Dinner 2017 was held at the United Service Club, Brisbane. WIE shared its mission of supporting women in engineering with the wider engineering community and gained support to further promote diversity in workplace.



IEEE QLD Section Delegates at The Electrical Fraternity Annual Dinner 2017 (left to right: Niesh Modi, Tapan Saha, Hanxiao Zhang, Marie-Luise Wille and Xinren Marcus Jiang); Credit: Daniel Eghbal

WIE will also participate in IEEE Sections Congress and IEEE ANZSCON between 10 Aug and 13 Aug in Sydney. Through these two significant IEEE congresses, WIE in Queensland will strengthen its international connections with other sections and volunteers. These events will also help the local volunteers to learn new skills and better serve the WIE community in Queensland.

In May 2017, WIE Chair Marie-Luise attended the WIE International Leadership Conference in San Jose, California (<http://ieeewie-ilc.org/>). It was a great opportunity to connect and interact with more than 1000 (female) engineers and other WIE Chairs from all over the world. In addition to the amazing talks and workshops there were exhibits from major companies, such as Apple, Microsoft, HP, Schlumberger,

and Amazon, just to name a few. WIE Queensland Chair was part of a volunteering team that supported the conference organisers during the conference tracks and workshops. So, to all WIE members, keep an eye out on the next call for volunteers for the WIE ILC 2018, it's a great opportunity!



WIE Chair Marie-Luise Wille at the WIE International Leadership Conference 2017.
Credit: Marie-Luise Wille

Transforming the Culture of Engineering: The Role of Male Engineers in Supporting Gender Diversity

IEEE Women in Engineering (WIE) is organising a panel session with senior female and male engineers from industry and academia to discuss the role of male engineers in supporting gender diversity in the workplace. The panel will explore the "Why?" and "How?" of gender diversity and will attempt to answer questions from the audience.

What is the role of male engineers in Gender Diversity ??

Panel members:



David Lovell
Head of School
Electrical Engineering and
Computer Science,
QUT



Mike Griffin
Chief Executive,
API



Eise Shepherd
Adjunct Professor, CEO in Residence,
QUT



Alan Ainsworth
Engineering Systems & Delivery Lead,
Laing O'Rourke



Bouchra Senadji
Associate Professor,
QUT

When: Monday 31st of July 2017, 5:30-8 pm
Where: Room 419, P block, QUT Gardens Point Campus

Light refreshments will be provided



Advancing Technology
for Humanity



Young Professionals



Rob Makaremi
rob.makaremi@suncorp.com.au

Committee:

Chair: Rob Makaremi
 Vice Chair: Alexandra Posoldova
 Secretary: Rueben Peterkin
 Treasurer: Hamid Moghadam

We started this year with a successful event on 20 April at River City Labs. Our speaker Randal Fernando introduced machine learning and gave a tutorial on Google Cloud platform. The attendees had their laptops and engaged in this interactive tutorial. Randall is a Software Engineer at Suncorp Innovation Labs and has won multiple tech awards from the Australian Government, CSIRO, Hitachi, ODIQ, River City Labs, and the Brisbane City Council. He has background in Behavioural Psychology and Information Technology.



Randal introducing TensorFlow.

Our next seminar was on 13 July and we invited Bertus Pretorius who is a Solutions Architect at LycenSys. This event was at Griffith University, Nathan Campus where he spoke on the topic of automated

identification and the application of NFC and RFIDs. He also elaborated on the security of IoT, including asymmetric encryption systems. Bertus currently works on authenticity and integrity services for positive vehicle identification, and has experience in various areas, including payment systems, information and communication security, and intelligent transportation systems.



Bertus Pretorius at Griffith University.

Connect with us on [Facebook](#) as well as IEEE's integrated on-line community [Collabratec](#).

We look forward to seeing you at our events.

Student Activities Chair



Mojtaba Moghimi
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I am Mojtaba Moghimi, IEEE Queensland Student Activities Chair for 2017. The main reason I took this responsibility is to help students to get more involved in IEEE Queensland related activities at Universities. To do so, I have planned a couple of student driven events at different universities in Queensland. The main purpose of the series of events is to introduce IEEE to students and the benefits this society has for students during and after their studies. The other aim of these events is to get the students know more about industries which are active in the electrical, electronics and computer areas. Beside the events I have planned, Queensland Section has been successful in being selected as part of IEEE Region 10 STUDPRO project and winning the grant for the project, which looks at keeping students connected to IEEE after leaving university. As a part of this project, I will organize events to encourage students to keep in touch with IEEE after graduation. These are the series of events, which I have planned for the second semester of 2017:

Benefits of IEEE in the Energy Industry and Overview of Australian Energy Market Operator: July 2017 – Griffith University-Nathan Campus

The first event of the series of events was held at Griffith University – Nathan Campus with the help of Griffith University IEEE Student Branch – Nathan. In this presentation, Dr. Nilesh Modi did provide information about IEEE and benefits of joining IEEE and Power & Energy Society. The role IEEE can play in shaping your career and provide a bridge between university and industry. The talk did also provide useful information about the Australian Energy

Market Operator (AEMO) and the role of AEMO in managing Australian Energy system security. The talk also covered the South Australian black out event in brief.

Dr. Nilesh Modi is Senior Engineer at the Australian Energy Market Operator and Vice-chair of IEEE Queensland Section. He completed his Ph.D. from the University of Queensland in electrical engineering. He joined AEMO in 2012. Nilesh worked in the network planning team where he was involved in the annual planning report and other key documents published by the team. He has been involved in AEMO's future power system security program. Recently, he was involved in various projects related to renewable integration, under-frequency load shedding design and system strength for South Australia, Simulation and modelling of SA black system. He is recipient of UQ Dean's research higher excellence award and AEMO's 'above and beyond' recognition. He is a senior member of IEEE and Adjunct Fellow at the University of Queensland.

The event was held on 25 July at Griffith University Nathan Campus and we had a total number of 21 attendees mostly IEEE student members. Light catering was provided for the audience after the seminar.

IEEEExtreme: August 2017 – QUT

For the second event, it is planned to invite Prasanth Mohan to give a presentation at IEEE Queensland Section. Prasanth Mohan is an Associate Engineer at REDD, an Indian company that manufactures 3D Printers. He is the 2017 Program Chair of IEEEExtreme and serves on a committee of the IEEE Educational Activities Board. In the previous two years he served as Vice Chair (Students

and Young Professionals) of the IEEE Computer Society's MGA Board. Prior to this he served as the Student Activities Committee Chair for the IEEE India Council and prior to that as Chair of the IEEE Computer Society Student Chapter at his university. He is a past winner of the IEEE Computer Society's Richard E. Merwin Award and an IEEE Computer Society Student Ambassador. He now serves on the Awards and Recognition Committee of the IEEE Computer Society as part of the team managing the global student ambassador program. Prasanth graduated in 2014 with Bachelor's degree in Computer Science from Sri Muthukumaran Institute of Technology in India.

IEEE in Power Industry and Energex: August 2017 – UQ

This presentation gives an overview of the unprecedented changes in the power industry and integration of emerging technologies and renewable energies. The change could be challenging however it brings life-time opportunities for young engineers. Continuous professional development, obtaining new skill sets and data analytics are becoming more important than ever in this environment. IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. This presentation highlights the benefits of joining such an organization to students, young professional who are the future leaders of the industry.

Daniel Eghbal is a Future Network Strategy Engineer at Energex and an adjunct research fellow at the School of ITEE, The University of Queensland. He received his B.S. and M.S. degrees in power system engineering in Iran and PhD degree from Hiroshima University, Japan in 2009.

Prior to joining Energex, Daniel was with Queensland Geothermal Energy Centre of Excellence (QGECE) at the University of Queensland, where he was working on the feasibility of connecting large-scale remotely located geothermal power to the Queensland transmission network.

Since 2012, Daniel has been working with Network Capital Strategy & Planning at

Energex on medium to long-term planning for sub-transmission and distribution projects, and investigating the impacts of emerging technologies on electricity demand. In his current role, Daniel investigates the benefits and impacts of emerging technologies (mainly grid-connected battery storage systems).

Daniel has been collaborating with the PES research group at the University of Queensland, and co-supervising undergraduate and postgraduate students. Daniel is a Senior member of IEEE and the chair of IEEE Queensland section.

IEEE in Power Industry and Powerlink: September 2017 – Griffith University – Gold Coast Campus

The fourth event of the series of IEEE-Industry-University events is planned to be held at Griffith University - Gold Coast. The speaker will be Dr. Sudarshan Dahal from Powerlink. Dr. Dahal is also the Membership Development chair of IEEE Queensland.

STUDPRO: September 2017

Students dropping out from IEEE has been identified as the main challenge in R10. The project is expected to maintain the student membership until they graduate, by opening a pathway for them to find their career through IEEE.

This project encourages industry related activities among students, and thereby derive benefits to students who join industry after graduation. This is also expected to meet the requirement specified for the Membership Activities Committee for the year 2017 by the Regional Director – “ Student retention and continuation to Young Professional”.

QUT Student Report



Nima Khoshirat
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Committee:

Chair: Nima Khoshirat
 Vice Chair: Afsaneh Narimani
 Secretary: Venkata Satyavani
 Treasurer: Aaron Liu

Follow us on



IEEE QUT student Branch activities May to July period

- 1- In a non-technical talk on 3 May 2017, Mr. Aaron Lei Liu who is an IEEE member and IEEE-QUT student branch committee member shared his experiences with members in a talk, titled: **“Success and Lessons for a PhD”**. The event goal was to help early year research students to get more prepared for the PhD journey by discussing and answering a few common questions for PhD scholars. For example, when should I start doing tutoring? What it takes to get a PhD? What will happen after getting a PhD?



- 2- **“Big data management of future smart homes”** seminar by Dr. Ghassem Mokhtari on 12 May 2017. He is IEEE Queensland section committee member and postdoc fellow at CSIRO Australian E-Health Research Centre. The aim of this seminar was to present a new smart home architecture which can deal with big data generation and processing of future smart homes. This presentation also includes some real world IOT and data driven studies in the smart home environment.



- 3- **“Young engineers and scientists career development”** non-technical talk was given by Adjunct Professor Else Shepherd on 29 June 2017. Else was named one of the most influential engineers in Australia a number of times. She was the first chairperson of Powerlink, a position she held for 17 years.



Powerlink is a Queensland government owned electricity utility with billions dollars of assets and is responsible for high voltage electricity transmission in Queensland.



Else has also served on many other boards and was a director of the Australian national electricity market management company. She is a trained musician and a pioneer in breaking barriers to women’s professional acceptance. She shared stories about engineers’ career path and development with our members.

- 4- **“Application of Natural Fibre Composites in Aerospace Industry”**. Is the title of a technical talk that will be given by Dr Parnia Zaki Khani on 28 July 2017. In this event Parnia wants to build a bridge between nanotechnology and aerospace industry by reviewing the natural fibre composites electrical and mechanical properties and their application in the aerospace industry. The event is scheduled for 2pm and will be held in the QUT Science and Engineering centre (P Block, Room P638), Gardens Point Campus.

UQ Student Branch



Glen Javier
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Committee:

Chair: Glen Javier
Vice Chair: Viet Dzung Nguyen
Secretary: Andrew Le

UQ IEEE Student branch planned events for August and September

Benefits of IEEE in Energy Industry

Date: 24 August 2017
Location: UQ (room TBA)
Presenter: Dr Daniel Eghbal

Description:

This presentation gives an overview of the unprecedented changes in the power industry and integration of emerging technologies and renewable energies. The change could be challenging however it brings life-time opportunities for young engineers. Continuous professional development, obtaining new set of skills and data analytics are becoming more important than ever in such environment. IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity and this presentation highlights the benefits of joining such an organisation to students, young professional who are the future leaders of the industry.

Thesis Poster Tips & Tricks Workshop

Date: Around teaching week 8 or 10
Location: UQ (room TBA)
Presenter: To be confirmed

Details:

Unfortunately, designing an academic poster isn't a five-minute job. In this hands-on workshop, we'll be covering a few tips and tricks that can help make your poster stand out from the crowd. Some topics include: Organising your ideas visually for maximum impact

- Using different grid systems to structure your layout
- Fundamental graphic design and typographic principles
- Some specific differences between designing for print and designing for screens
- A basic introduction to Photoshop (for the extra keen).

These skills will also be useful for PHD students preparing for a conference and apply to all engineering and scientific disciplines.

UQ PES Student Branch

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Committee:

Chair: Lakshitha Naranpanawe
Vice Chair: Ebby Thomas

For the first event of this year, we invited Mr .Peter Black, an expert in the field of career development and professional networking. The title of the talk was “Plan and Execute Your Career Strategy - Starting Right Now”. Almost all the attendees were postgraduate and undergraduate students who were close to the end of their studies.



Attendees actively interacted with Mr. Black to clarify their career related questions. The talk covered a broad range of topics such as understanding the employment market, CV writing, maintaining LinkedIn profiles and networking.



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We look forward to seeing you at our events