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Message from the Queensland Section Chair

Dr Abbas Bigdeli

This is the first newsletter for 2012. We are already well into the year and our Section Committee is working very hard to organise activities for all members in the coming months. In fact we have had quite a few events held by various technical chapters and affinity groups. This year is promising to be a very active year.

My return to the Chair Position in 2012

As those of you who attended the AGM, may recall, late last year, the Chair of our Section in 2011, Mr. Roelof Swanepoel, decided to step down due to personal circumstances. During his short tenure as Chair of the Section, Roelof contributed greatly to the Section and it was very unfortunate that he was not able to continue in the role. In fact I am hoping that he will soon be able to return to the committee and continue his invaluable volunteer work for the members.

Another complication that our Section faced towards the end of last year due to the same reason was stalling of the nomination and election process for office bearers. In fact, 2011 was the first time ever that we had no elected committee by the time AGM was held.

The unavailability of the Chair was unexpected and therefore no succession plan was in place to replace Roelof to ensure smooth transition and to provide the required leadership for the Section. Therefore, the Committee at its last meeting of the year decided to appoint me as the interim chair and to ensure the nomination and election process is finalised swiftly.

I am pleased to inform you that with invaluable help from members of nomination committees for various chapters and the section committee, we were able to finalise the process before end of January.

In order to ensure continuity and recovery from the dismay, I decided to nominate myself for the chair position. I am honoured to be given the privilege to serve section in this capacity again after only one year being away from it. I have however informed the Committee that I am only able to serve for one year and will not nominate again in 2012.

I look forward to working with each and every member of our Section Committee and will strive to serve our valued members in the Section.

AGM & Dinner 2011

I was honoured to preside over the IEEE Queensland Section AGM and dinner. Continuing with the changes we have made in recent years, we made a few more changes including the venue which allowed us to further reduce the cost to members. The new venue, the St Leos, College in St Lucia proved to be a resounding success. We had a record turnout.

The after dinner talk was given by John Jordan, Manager of Natural Environment and Sustainability Branch, City Planning & Sustainability Division for Brisbane City Council. The presentation entitled was well received by all attendees including non-members.

News from the Aerospace and Electronic Systems Chapter

Dr John Davies

Vice Chair, Aerospace and Electronic Systems Chapter

Technical Seminar

The IEEE Queensland Section Aerospace and Electronic Systems Society Chapter and the University of Queensland IEEE Student Branch participated in a Technical seminar on aircraft system safety on Wednesday 28th March 2012. *Mr Steve Ashfield* from Nova Systems discussed a situation he investigated in 1999 whereby an F-111 aircraft flew a sortie in the Northern Territory and the trainee pilot dropped 3 munitions as planned. However, the mission download later showed that 4 had been dropped, leading to a halt in operations. The seminar explored avionic interfaces, safety critical software, human factors, and safety design features. 25 people attended the seminar and participated in a robust discussion on system safety engineering.

News from the Computational Intelligence Chapter

Assoc Prof Michael Blumenstein

Chair, Computational Intelligence Chapter

IEEE CIS Summer School 2012

The Queensland Computation Intelligence Society (CIS) Chapter held a CIS Summer school on February 16 – 18 at Griffith University.

This workshop targeted academics, researchers and research students of a number of universities and professionals from local industries. There were 40 registered attendees, comprising mainly postgraduate students along with academics and industry delegates. In addition there were many student attendees.

The main goal of the summer school was to provide the participants with the fundamental concepts of computational intelligence and applications of integrated technologies in various fields such as ICT, e-health, robotics, and engineering. Some of the objectives included to:

- Learn about the fundamentals of computational intelligence from thought leader and renowned industry experts;
- Immerse yourself in the topics of innovation and new business creation;
- Share skills, exchange ideas, experience and thoughts;
- Create value by implementing new ideas; and
- Be inspired by innovator speakers.

Topics and speakers included:

- Exponential Technologies and Impact on Industry (by Dr Clarence Tan)
- Ageing and Age-care (by Prof. Jeffrey Soar)
- ECG Abnormality Detection based on Physical Activities (by Bruce Satchwell)
- Metaheuristic Optimisation and Estimation of Distribution Algorithms (by Dr Marcus Gallagher)
- Evolutionary approaches to circuit design and self-repair on Field Programmable Gate Arrays (by Dr Ross Hayward)
- Solving Hard Combinatorial and Optimisation Problems in Computational Intelligence (by Dr Wayne Pullan)
- Computer Vision and Image Processing (by Dr Alan Liew)
- Programming for Android (by Patrick Cilly, Kalvinder Singh)



News from the Power and Energy Chapter

Dr Mehdi Eghbal
Chair, Power and Energy Chapter

The Power and Energy Society (PES) chapter had a successful year in 2011. Details of 2011 activities can be found in the PES annual report from PES chapter web page at:

http://ewh.ieee.org/r10/queensland/v2/lib/exe/fetch.php/chapters:pes:pes_annual_report_2011.pdf

In 2012, PES office bearers had an annual planning meeting on February and are meeting regularly to implement their plans. The other officer bearers this year are:

Prof Tapan Saha	Vice Chair
Ms Alexandra Price	Secretary
Mr. Kazi Nazmul Hasan	UQ Student Branch Power and Energy Chapter

Student travel award

A 2000\$ student travel award was established in 2010 for student members to attend and present their papers at IEEE PES General Meeting conference. In 2012, applications must be submitted electronically to the PES Chapter Chair no later than 15 April 2012. The review committee will announce the winner of the travel prize on 15 May 2012. Details of the application process can be found from the QLD section PES website. To be eligible to apply, applicant must:

- hold a current IEEE student membership and a full time candidature in a research higher degree (Masters by research or PhD) at one of the universities in Queensland Section (Central Queensland University, Griffith University, Queensland University of Technology, University of Queensland and University of Southern Queensland).
- be the first author of an accepted full-paper for 2011 IEEE PES General Meeting and the paper must be adjudged to be in the field of Power Engineering.

Technical Seminar

PES chapter joint with Electrical and ITEE Branches of Engineers Australia organised the following seminar:

Seminar title: *Reducing Network Investment through Demand Management and Energy Conservation*

Speakers: Mr. Terry McConnell, Business and Industry Relationship Manager, ENERGEX

Date & time: 14 March 2012, 6pm

Venue: Hawken Auditorium-Engineers Australia, 447 Upper Edward St, Spring Hill, Qld

Abstract:

Rapid growth in electricity consumption, peak demand and CO2 emissions can be attributed to Queensland's strong economic growth. This is led by the mining industry boom coupled with high population growth and consumer appetite for energy intensive appliances such as air conditioners, computers and large size televisions (and the number of these appliances per household). The combination of these factors has resulted in an increase in electricity consumption and an even larger increase in peak demand with a significant impact electricity prices due to the resultant requirement for network augmentation. This augmentation alone is an unsustainable way to reduce peak demand. This presentation will describe the challenges faced by ENERGEX as a distributor in South East Queensland and will outline the approach taken to combat or Bend the Forward Demand Curve.



Mr. Terry McConnell presenting *Reducing Network Investment through Demand Management and Energy Conservation*

IEEE UQ PES Student Branch

In 2012, PES student branch has planned for few technical events especially targeting student members and working closely with IEEE student branch at the University of Queensland (UQ). IEEE UQ Student Branch was the winner of a 2010-2011 IEEE Student Enterprise Award (\$1500) for the project entitled *Engineering Young Australians*. This project sets out to inspire young Australians to consider pursuing studies in engineering related areas. The program is targeted at fifth grade students at schools in low social-economic areas. A committee has been formed to implement the project and in the coming months IEEE volunteer will visit the candidate schools.

