



ENGINEERS  
AUSTRALIA

Newsletter of the Newcastle  
Division of Engineers Australia

April 2011

# → 2011 year of humanitarian engineering

ENGINEERING NEWCASTLE

## Presidents Column

When we set this year as being the year of Humanitarian Engineering we wanted to raise the profile of the engineering work used in improving our quality of life and disaster recovery. With the natural disasters we have faced this year we are all now first hand getting a greater appreciation of just how important this work is to the welfare of our communities. It is sad that with every column I write this year we have been affected by yet another natural disaster, with the floods in Queensland, the earth quake in Christchurch and more recently the devastating earthquake and tsunami in Japan. Following on from these natural disasters communities will now be looking to our profession to provide solutions in the rebuilding and ongoing prevention/limiting of impacts caused by these events on our communities. As a result of the tragic

earthquake in Japan it has brought to the forefront the debate on Nuclear energy and it will be interesting to see where this leads as it is Engineers Australia's position that Nuclear energy needs to form part of the mix in meeting our energy needs.

At the beginning of March I took part in the President's forum which is made up of our 9 Division Presidents and National President. This provided great insights into what plans our other Divisions have set for this year. It was also important from a national EA perspective in ensuring each Division is setting out to meet EA's strategic plan and expectations of the National President. It also provided me with the opportunity to see how we can work more closely with our other Divisions in improving services to our members. We have recently called for nominations for our Professional and

Young Professional Engineer of the Year annual awards. I would especially like to encourage all those employers



out there to put forward a nomination for one of your young engineers in recognition for their contributions to your business's success.

The first of the CELM CEO Speaker series will be held this month on the 13th with a presentation from Newcastle Division's 2010 Professional Engineer of the Year Mr Chris Turnbull.

Remember to keep yourself updated with what events are on through our website and "what's on" newsletter.

**Paul Reynolds**, MIEAust,  
Division President 2011

## Now open - 2011 Professional and Young Engineer of the Year Award Nominations

On line nominations are now open for all categories of Professional Engineer of the Year and all categories of Young Engineer of the Year. This is a great opportunity to highlight the achievements of both your young engineers and more senior engineers

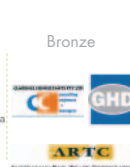
as well as profile your company. This prestigious award will be presented at the dinner in Engineering Week in August and winners will automatically be in the running for the National Awards. Winners will be offered the opportunity to attend the National

Engineering Excellence Awards and a cash prize of \$1000 is available to the winner of the Young Engineer Award.

To nominate just visit 'Awards' on the Newcastle Division website.

Nominations close Friday 20th May

122 Parry Street Newcastle West 2302 • PHONE: 02 4926 4440 • FAX: 02 4929 7121  
EMAIL: [newcastle@engineersaustralia.org.au](mailto:newcastle@engineersaustralia.org.au) • WEB: [www.engineersaustralia.org.au/newcastle](http://www.engineersaustralia.org.au/newcastle)  
PRESIDENT: Paul Reynolds • DIRECTOR: Helen Link



# 2011 REGIONAL CONVENTION ARMIDALE

16th to 18th September

## 'Sustaining Our Regions: The Engineering Challenge'

Streams include: Natural Resource Management, Sustainability, Energy Management and more.....

### Keynote speakers include:

Chris Davis from UTS  
David Hood from QUT

Robin Batterham from ATSE  
Jillian Kilby – Young Engineer of the Year 2010

### Convention incorporates:

- \* Two streams of Papers
- \* Gala Dinner
- \* Site tours Sunday morning (including a visit to a 2010 Engineering Excellence Award winning site).
- \* Partners Program
- \* Welcome Reception on Friday evening

Mark your diary – registration brochure will issue shortly.

### Regional Convention Sponsors

Gold



Silver



Bronze



## Assessment of Engineering Qualifications Stage 1 Competency Clinic

Wednesday 20 April 2011, 10.00am to 11.30am

Do you know anyone who holds engineering qualifications that are not accredited or recognised by Engineers Australia? And are they seeking admission to Engineers Australia on the strength of their qualifications and experience?

Examples include:

- Candidates holding Australian engineering qualifications that have not been accredited or approved by Engineers Australia
- Candidates holding engineering qualifications from overseas countries with which Engineers Australia does not have formal accreditation or

mutual recognition agreements

- Candidates holding qualifications in fields related to engineering, not recognised by Engineers Australia, who have substantial experience in engineering work.

If they fall within any of these categories, they will need to demonstrate the competencies needed to enter practice as a qualified member of Engineers Australia's engineering team - Professional Engineer or Engineering Technologist or Engineering Associate. This is known as Stage 1 Competency. Subsequently, they could, as members of Engineers Australia, seek Chartered Status and this would require further

assessment of engineering practice competencies.

Dr Guy Beaubois FIEAust CPEng and Dr Maurice Allen FIEAust CPEng,, National Stage 1 Assessors, will be explaining the Stage 1 Competency process at a free Stage 1 Competency Clinic to be held at the Newcastle Division of Engineers Australia, 122 Parry Street, Newcastle West NSW 2302, on Wednesday 20 April 2011 at 10.00am.

RSVP by Friday 15th April to [jpapanicolaou@engineersaustralia.org.au](mailto:jpapanicolaou@engineersaustralia.org.au)

# Nominations are now open for the D. N. Foster Award!

The Fellowship Fund is to encourage engineering students to pursue career opportunities in coastal and/or ocean engineering. Up to four Awards will be offered to final year undergraduate engineering students; with each winner receiving free registration and up to \$1,000 worth of travel and accommodation to attend the Coasts &

Ports Conference in Perth from 28-30 September 2011. Application closes 29 April 2011.

For more information visit:  
<http://www.engineersaustralia.org.au/ieaust/index.cfm?2C00AEB1-AB86-9613-1871-7389EE35C8AA>



## 'Are you eligible to become a Fellow?'

As a Fellow of Engineers Australia you will be recognised as being amongst the true leaders of the industry and profession. Membership is one of the highest accolades that engineering executives can receive. As Australia's centre for engineering leadership and management, Engineers Australia encourages the best and brightest engineers to join.

To be considered for the membership grade of Fellow you will have committed your career to the profession of engineering and either: held a sustained, major responsibility in the design or execution of important engineering work; have relevant education qualifications, and/or made a major contribution to the science or practice of engineering. Your application will be assessed by a

panel of peers.

Fellow membership grades include Fellow (FIEAust), Technologist Fellow (TFIEAust) and Officer Fellow (OFIEAust).

For more information on becoming a fellow and how to apply visit our website:

<http://www.engineersaustralia.org.au/ieaust/index.cfm?BA316A9D-ED90-3525-2ED1-8545E4A34B39>

## SEAg 2011 Conference

Call for Abstracts extended to 4 April 2011 & Early Bird prices close 29 April 2011. Please visit <http://www.engineersaustralia.org.au/seag2011/> for more information.

## What Further education and Professional Development Requirements Are Needed For Construction Engineers?

Engineering Education Australia (EEA) is collaborating with the National Committee on Construction Engineering (NCCE) to research further education and professional development requirements for Construction Engineers.

The survey will take less than 5 minutes of your time, and your response is anonymous. However, by responding you will assist the NCCE to plan further education and professional development activities for

the Construction Industry.

Take the survey now!

<http://www.surveymonkey.com/s/59NHDRV>

# CENTRAL COAST REPORT

The Central Coast Group (CCG) held their first event for 2011 on the 23rd March at the Gosford Golf Club. In keeping with the group's charter to promote social and professional networks in the area, the presentation focused on proposed developments of local significance. Brett Phillips and Robert Kitchen from the Central Coast Regional Development Corporation (CCRDC) discussed with forty members and guests how the community driven "Landing" concept plan for the Gosford CBD and waterfront area will become a reality. Brett discussed the formation and role of the corporation, the three pillars of growth, investment and revitalisation and how together these factors will enhance the economic and social outcomes for the region.

The CCRDC were also putting time into other precincts around the coast including Warnervale and the area around Gosford Hospital. Robert then reviewed the current status of the Landing project and some of the challenges that have been identified. The focus of the current work was on creating a practical set of potential developments that reflected the community supported concepts. Getting people across the busy Central Coast Highway was a major piece of the puzzle to solve. The CBD of Gosford would be closely linked to the waterfront by connecting through to Mann and Baker Streets and using pedestrian over passes. The much discussed concept drawing showing buildings out over the water was to be regarded as a concept only. These challenges will ultimately shape the development plans as they progress



from the concept stage to more realistic proposals and staging. The CCG are focusing on increasing the level of engagement with engineers and technologists who live or work in the Gosford or Wyong Local Government areas. The committee is keen to improve local networks and become more active in promoting the engineering profession. The group comprises members from a diverse range of disciplines and tries to offer at least four local events each year. Events are usually selected to focus on a particular discipline but also to engage the broader engineering community. A number of events linked to the Innovations Festival will be conducted for the first time on the Central Coast during May, in tandem with those already offered in Newcastle. These events will focus on civil, structural and manufacturing related disciplines.

Members who live or work on the Central Coast are encouraged to contribute to the upcoming survey

which will help the committee plan and deliver events of value to the local membership. The committee will also be seeking volunteers to help staff the Engineers Australia stand at the Central Coast Careers market in June. This event attracts thousands of high school students, their teachers and parents and is a great opportunity to promote engineering. Later in the year the group will host a speaker from RedR in keeping with the National focus on humanitarian engineering in 2011.

If you are interested in being a guest speaker, if you have a topic you would like to see presented locally or you want to contribute to the work of the local group, Division Office can put you in touch with members of the committee.

**Melissa Daniels**  
Chair, Central Coast Group

# Engineering Heritage Newcastle display at the Newcastle Show:

Engineering Heritage Newcastle (EHN) again presented a small display of its activities at the 2011 Newcastle Show, 18 -20 March. The presentation was part of a larger heritage Expo organised by Heritage Hunter Region; a coalition of Hunter heritage groups that has now exhibited at the Newcastle Show for four successive years. EHN partners with the RTA and Broadmeadow Locomotive Depot Association to feature stories about industrial heritage in our area.



## CELM April update

### Local

CELM has started the Year of Humanitarian Engineering with a number of activities planned to highlight the humanitarian roles that engineers play in society. This year's CEO speaker series has a great range of speakers with an extremely high calibre of experience and skills in Engineering Leadership and Management. Building on the successes of last years events, CELM are extremely proud to have brought together a combination of CEO's to cover the topic of this years theme of Humanitarian Engineering. As with our previous CEO speaker series we will be providing a reduced rate for booking all 4 breakfast presentations for the year. I encourage all to book in early to ensure that you secure a seat.

To lead off the CEO speaker series presentations this year, our first speaker will be Mr Chris Turnbull,

General Manager, Infrastructure Delivery – Hunter Water. This event will be held on Thursday 26th May 2011 at the Newcastle Club starting at 7:15am.

At following breakfasts we will have the pleasure of hearing from Ms Lizzie Brown – CEO Engineers without borders, Mr Geoff Lilliss – Managing Director, Ampcontrol and Mr Barry Gear – President, World Federation of Engineering organisations 2007-2009.

For our Engineers Australia, Young Engineers [YE's] wishing to take the opportunity of gaining some extremely valuable incite into our CEO's of the CELM serries, we are offering a reduced rate to attend. As with previous year, a YE will be asked to introduce our CEO's as a development opportunity. YE's wishing to be considered should contact their YE Chair, Nick Bates.

### National

The National activities of CELM, has already started with the first joint National committee and Chairs of CELM. The group met in Sydney in March to plan the forward years' events and develop stronger relationships between the National committee and the divisions. These opportunities enable CELM to share and learn from the experiences and successes of each others divisions.

I would also like to thank the new committee for their tireless work in planning and organising this years CELM activities. The forward program is well established to be a big success. I encourage all members to book quickly into the CELM events as places will be filling fast.

**Christopher Scanlon**  
CELM – Chair Newcastle Division.

# Electrical Branch Presentation - Wed 23 March

## Power Grid of the Future

The use of high voltage direct current (HVDC) at transmission voltages has only been implemented on a small scale in Australia. The presentations were made by David Eccles (Ausgrid - Manager Overhead Mains) and Dr Robert Barr (Electric Power Consulting - Director) and focussed on the newer 'voltage sourced' HVDC technology

which may be more economically used for smaller applications. HVDC is becoming more widely accepted across the world as a means for overcoming instability issues across extended networks (eg stopping blackouts across eastern US), reconfiguring existing 3 phase ac lines to transmit higher energy over a long

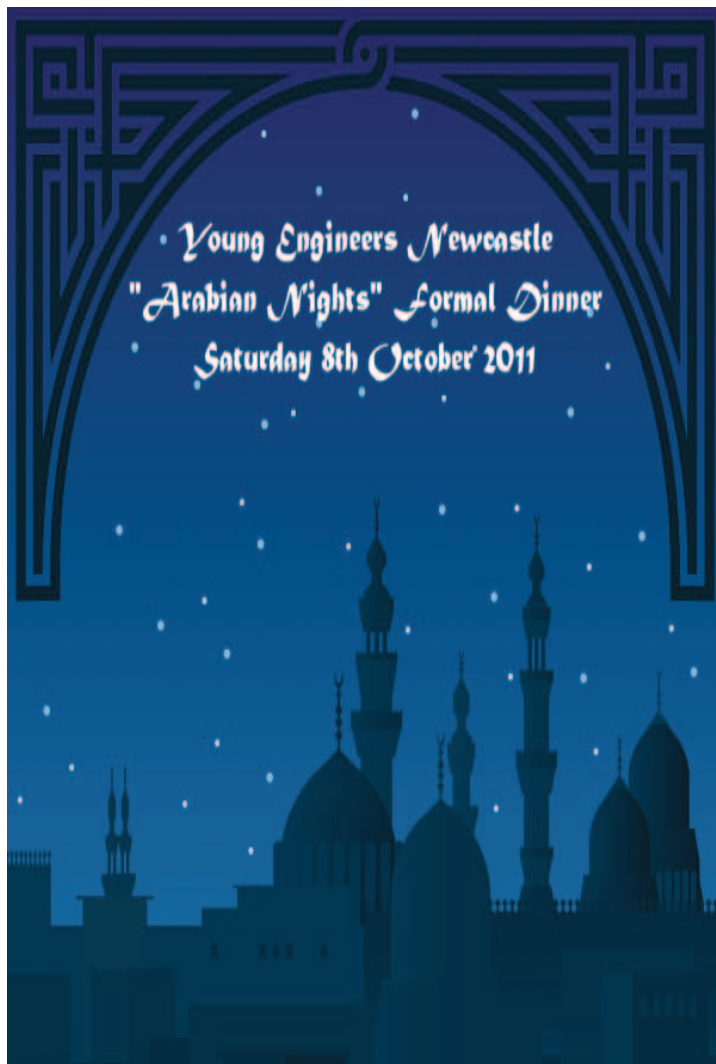
distance (tripolar configuration), limiting fault levels and improving power quality, facilitating the connection of disparate forms of distributed generation, and maximising power transfer under adverse conditions (eg air pollution, bushfire).

**Bill Carmen**

Electrical Committee

## WANTED – CHEMICAL ENGINEERS

We are looking for enthusiastic chemical engineers to reform the Division's Chemical Engineering Branch. No experience required to be part of the committee but you do need to be a current financial member of Engineers Australia. If you are interested please contact the office on 49264440 or email your contact details to Jo, [jpapanicolaou@engineersaustralia.org.au](mailto:jpapanicolaou@engineersaustralia.org.au)



## Volkswagen Group Australia

**Engineers Australia is pleased to partner with Volkswagen Group Australia and offers the following benefits to members**

- Up to 10% discount off the RRP of a new Volkswagen or Skoda vehicle
- Dealer delivery fee of \$1495.00

Please see your local dealer for further details on the discounts available. Engineers Australia members must have been a member of Engineers Australia for a minimum of 3 months to be eligible for the offer.

Please consult with your local dealer for further terms and conditions.

For further information on Volkswagen vehicles [www.volkswagen.com.au](http://www.volkswagen.com.au)

For further information on Skoda vehicles [www.skoda.com.au](http://www.skoda.com.au)



# EngQuest

powered by imagination

EngQuest is a FREE, hands-on problem solving program for primary and middle years students. Last year more than 43,000 students participated in EngQuest!

## EngQuest 2011:

- offers a great choice in student projects, including a new 'Rebuild a community' project
- features a new flash entry animation and fun IWB interactives, games and quizzes for students
- includes curriculum-linked support material in PDF and SMART Notebook formats
- engineer volunteers available to provide support via the online forum and where possible, through special school visits.

Join the educational fun in maths, science and technology. Each student receives a participation prize and colourful merit certificate.

Visit the website today [www.engquest.org.au](http://www.engquest.org.au)



## Obituary Notice - Malcolm Leslie Clark 7/6/46 to 7/3/11

It is with deep regret we advise the passing of Malcolm Leslie Clark. Malcolm, an electrical engineer and Fellow, had been an active member of Engineers Australia since 1971.

He became heavily involved the Institution of Engineers and always believed that the Institution should involve itself in community affairs.

He ensured that this was the case when he was President of the Newcastle Division from 1997-1998 and continued with this conviction in his volunteer role as the Chair of the Central Coast Group which he held for a number of years and as a member of Engineering Heritage Newcastle. In honour of his belief in Engineers Australia, Malcolm requested he be dressed for his final ceremony in his best suit, wearing his favourite tie - the tie of the Institution of Engineers. Those who knew Malcolm, will fondly remember his enduring Yorkshire accent and his willingness to help others. He gave his support to many community groups throughout his life including Apex, Rotary and Toastmasters.

Engineers Australia was formally represented at Malcolm's funeral service by two past Newcastle Division Presidents (one a past National President) and the Chairman of Engineering Heritage Newcastle.

Our condolences go to his family.

# Continuing Professional Development (CPD)

Engineers Australia Newcastle Division offers CPD in a number of streams, enabling members to undertake a variety of CPD providing them with the opportunity to gather skills and knowledge to assist in all aspects of their career. The streams we have identified are as outlined below.

Date	Time	Event	Venue
<b>YEN</b>			
15th April	6.00pm	YEN Networking Evening	GT Bar, Newcastle University
8th October		YEN Formal Dinner	Newcastle Jockey Club
<b>Division</b>			
6th May	7.15am	Structural Eminent Speaker - Breakfast – Paul Grundy	Newcastle Club
16th- 18th September 2011		Regional Convention 2011 'Sustaining Our Regions: The Engineering Challenge'	Armidale, NSW
<b>Electrical</b>			
25th May	5.30pm	Site Visit to OneSteel's Newcastle Rod Mill	Mayfield, NSW
<b>Northern Rivers</b>			
7th May	6.00pm TBC	Structural Eminent Speaker - Dinner – Paul Grundy	Ballina Beach Resort
<b>CELM</b>			
26th May	7.15am	CEO Speaker Series - Breakfast 2 Speaker: Lizzie Brown, CEO, Engineers Without Borders	Newcastle Club
<b>Women in Engineering</b>			
19th May	5.30pm For 6.00pm	Women of Inspiration – Kelly Jones Non-executive director, Red Cross Blood Service and Sarah Miller, Research Scientist, CSIRO	Engineers Australia 122 Parry St, Newcastle West
21st June	5.30pm For 6.00pm	Tanya Davis 'Communicating to Get What You Want'	Engineers Australia 122 Parry St, Newcastle West

## Newcastle Division Video and DVD Library - Earn CPD points

Don't forget, there are a number of presentations available in DVD or Video format that can be borrowed from Division Office 4926 4440. Each presentation counts toward your CPD points. The full listing of titles has been updated on our website, to view please visit:

[www.engineersaustralia.org.au/newcastle](http://www.engineersaustralia.org.au/newcastle)

## Engineers Australia Webcasts - ONLINE CPD

There are approximately 550 presentations available online covering a wide range of topics across all disciplines. Viewing these counts toward your CPD accruals - and you can do it from the comfort of your desk!

Online presentations are available for viewing at:

<http://www.engineersaustralia.org.au/search/events/mediavision>

Some event dates and times are subject to change. Please check our website [www.engineersaustralia.org.au/newcastle](http://www.engineersaustralia.org.au/newcastle) for up-to-date information.

All registration to events is now done online via [www.engineersaustralia.org.au/newcastle](http://www.engineersaustralia.org.au/newcastle)

For further information relating to any of the above events please contact the Newcastle Division office at [newcastle@engineersaustralia.org.au](mailto:newcastle@engineersaustralia.org.au)