



ENGINEERS AUSTRALIA

Newsletter of the Newcastle Division of Engineers Australia

August 2011

# → 2011 year of humanitarian engineering

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## Presidents Column

The month of August is a busy one with National Engineering Week taking place from August 1-7. Engineering Week in Newcastle included a number of events aimed at encouraging young people to take up an exciting career in engineering. The week then culminated in the celebration of engineering achievement at our Engineering Week Dinner which was our inaugural Sally Chapman Memorial Dinner. Two of our most prestigious awards for the year were presented at the dinner: the Young Professional and Professional Engineer of the Year awards. It was with great pleasure that the Division announced Beau Taylor as Newcastle's 2011 Young Professional Engineer of the Year and Murray Thompson as Newcastle's 2011 Professional Engineer of the Year. Congratulations to you both.

Last month during the 4th – 6th of July our regional members of the Newcastle Division had the opportunity to meet with Mr Merv Lindsay, National President of Engineers Australia during his tour of our region. This tour also gave me the opportunity to visit and meet with our local regional groups. I was

strongly encouraged by their high level of commitment and dedication to both Engineers Australia and engineering in general.

Accompanied by Newcastle Division Director Helen Link, our tour took in some of the regions larger innovative infrastructure projects. Many thanks to the committee members of our regional groups for organising some great site tours that showcased our regions strong engineering capabilities. Later this year our Newcastle based members will be given the opportunity to meet with Merv when he returns for a separate meet and greet function in Newcastle.

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

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



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# Announcing the Newcastle Division 2011 Young Professional Engineer of the Year and the Professional Engineer of the Year

The recipient of the **2011 Young Professional Engineer of the Year Award** is Mr Beau Taylor, MIEAust, from Cargill.

Beau graduated from the University of NSW with a Bachelor of Mechanical Engineering

At the completion of his degree Beau commenced a career in the red meat industry. Over the past seven and a half years he has held various engineering roles and currently holds the position of Engineering Manager at Cargill's Beef processing facility located in Tamworth.

The recipient of the **2011 Professional Engineer of the Year Award** is Mr Murray Thompson MIEAust, from Murray Thompson Water Supply Services Pty Ltd.

Murray has been employed with Hastings Council for the last 33 years in a variety of positions associated with the investigation, design, operation and construction of water supply and sewerage projects.

In his position of Water Supply Manager, Murray was responsible for the development and implementation of the \$150M Hastings District Water Supply Augmentation Scheme. In this position he is also responsible for the day to day operation of Council's water supply schemes, together with Council's electrical, telemetry and mechanical workshop.

The Hastings District Water Supply Augmentation Scheme has included both the delivery of major water supply infrastructure to cater for water supply demands in a sustainable manner and

He accepted the position of Engineering Manager at age 25 and has held this position for the past three and a half years.

The Tamworth facility employs approximately 500 employees and processes 840 cattle per day over two shifts. The industry is labour intensive with both technical & professional personnel few and far between. Through his experiences Beau has gained a broad perspective and appreciation into a number of engineering disciplines which enables

also the implementation of a wide range of demand management initiatives, to reduce current and future per capita water demands.

Recent major projects include:

- The \$25M Wauchope Water Treatment Plant Facilities [120ML/day Lime and CO2 water conditioning system and a 6ML-18ML/day submerged membrane micro-filtration water treatment plant],
- The \$13.5M Port Macquarie Urban Reclaimed Water Supply Scheme [2ML/day MF, RO & UV water treatment facilities and separate 12km long reticulation network, which will deliver 2ML/day of non-potable water supply to existing major water consumers], and
- The \$2.2M Hastings District Water Supply Fluoridation Project [120ML/day capacity Hydrofluorosilicic acid dosing plant].

He has a degree in Civil Engineering



him to function effectively as the senior engineering lead at the Tamworth facility



received from the NSW Institute of Technology in 1985, together with a Graduate Diploma in Electrical Engineering, a Graduate Diploma in Local Government Engineering and a Masters in Engineering Management.

As winners at the Division level both Beau and Murray will go on to the National competition.

Congratulations to both winners.

Entries opening soon - **Newcastle Division Engineering Excellence Awards 2012**

Entry Brochures will be available mid August.

Dates to note: Entry Forms to be submitted by **31st October 2011**

FULL submissions due **31st January 2012**

# National President's Visit – Mid North Coast

Is Humanitarian Engineering an oxymoron? Are they incompatible terms? Or is it the opposite - are all Engineers humanitarians?

These were the questions posed by Mr Merv Lindsay, National President of Engineers Australia, to engineers and their partners at the recent Mid-North Coast dinner. Are we engineers destroying the planet with our contribution to development? Or are we making the planet a better place by improving quality of life and the environment? Why did you become an engineer? Was it just because you were good at maths, or do you like solving problems? Do you make people's lives better with the engineering you do? Merv charmed us over dinner with stories of initiatives taken by remote indigenous communities and in developing countries via RedR and Engineers Without Borders, and inspired us by reminding we "ordinary" engineers working in towns and cities that the everyday work that we do improves life for local people.

To see an example of everyday work by engineers that improves the lives of many, Merv, Paul Reynolds and Helen Link (from Newcastle Division), and Mid-North Coast committee members (Meg Teasdell, Michael Ward, and Tim de Grauw) toured the Essential Energy Control Room in Port Macquarie. 1.6 billion people in the world have no electricity in their homes (IEA 2010), and yet here we were in the lucky country seeing first-hand how 200,000km of power lines and 1.4 million power poles and associated equipment are kept operational in Country NSW, improving the lives of its customers with a reliability of

supply that many do not experience. Perhaps there is some aspect of all engineering that is humanitarian, and in 2011 Year of Humanitarian Engineering, we engineers should all celebrate our own contributions towards society and continue to think how we can help others.

We also see the value in sharing our engineering experiences, at events like Discover Engineering held during Engineering Week, with students who may be considering a career in engineering and the bright future that it holds.

If you would like to participate in our Mid North Coast on-line discussion forum please email [tim.degrauw@alliancepoweranddata.com.au](mailto:tim.degrauw@alliancepoweranddata.com.au)

**Meg Teasdell** – Secretary / Treasurer

**Tim de Grauw** – Chair Mid North Coast group



*l to r: Michael Ward, Meg Teasdell, Merv Lindsay, Paul Reynolds, Tim DeGrauw*

# National President's Visit – Northern Rivers

National President Merv Lindsay, Division President Paul Reynolds and Division Director Helen Link made their official visit to the Northern Rivers Group during July. Merv was guest speaker at a dinner meeting in Ballina, where he spoke on the Year of Humanitarian Engineering and the importance of strategic long term planning. The party also inspected components of the Grafton Maclean Lawrence Townsend Ilarwill Sewerage Project, which was awarded the 2010 Newcastle Division Regional Engineering Excellence Award and McFarlane Bridge at Maclean, which had previously been recognised with a Heritage Engineering Marker.

**Greg Mashiah**

Chair Northern Rivers Group



*l to r Glenn George, Greg Mashiah, Paul Reynolds, Merv Lindsay, Helen Link, Cr Karen Toms, Col Woods*

# CELM Update August

The CELM committee would like to thank you for your continued support this year as the CELM events have been very well attended. As we all start the new financial year

and now that the shortest day of the year is behind us, CELM is presently considering the rest of the year's activities. A survey will be issued to members in the coming months and

we would appreciate any suggestions or feedback you may have on how the CELM team can improve or any ideas that you might like to propose.

# Local News: Mr Geoff Lillis, Ampcontrol.

The 3rd CEO Speaker series breakfast was held on the 21st of July with Mr Geoff Lillis CEO/Managing Director, Ampcontrol giving his presentation. CELM would like to thank Mr Lillis for taking time to speak at the breakfast.

Mr Lillis has over 36 years of experience and an extensive background in the Energy Sector. The large group in attendance on the morning reflected the interest in the topic areas covered and the industry relevance.

The presentation gave a detailed overview of the status of the energy sector, especially in relation to the recent announcements relating to the carbon tax.

Mr Lillis covered numerous topic areas relating to power generation in all forms including solar and wind and detailed how these sat in the wider context of generation capacity and options available for the state and Australia. The presentation also included the Australian position in the



*l to r Chris Scanlon, Geoff Lillis & Brad Foot*

global framework. Mr Lillis covered the demand areas for power and the policies that have been utilised in the various areas with the associated affects. The large line of people queuing to discuss further aspects of the presentation well after the presentation concluded demonstrated a very successful morning and a very high level of interest in the topic.

CELM would like to thank AECOM for their continued support as without sponsorship, the CEO series would not be the success that it is. Further to the CEO series success, booking early will ensure that CELM are able to cater effectively and that you do not miss out on securing a seat.

## National News:

The National CELM Chapters have submitted their division reports to the National Committee last month and this has highlighted how CELM is continuing to play a proactive part in raising the profile of Professional

Engineers Nationally. The chapters have targeted a range of topic areas and speakers including risk management, reconciliation and various other presentations including a presentation from RT Hon Malcolm

Turnbull MP. Locally, CELM will be leveraging from the lessons learnt from other Divisions to assist in improving our activities.

## CELM, WiE & Young Engineers

CELM continue to create opportunities for WiE & Young Engineers to become actively involved with CELM and the CEO Speaker series. CELM would like to thank Jemima Jackson of PowerServe who completed the introduction of Mr Geoff Lillis at the recent CEO breakfast. Independently from Mr Lillis's presentation, Jemima reflected the concerns and issues around energy utilisation from a Young Engineers perspective by way of introduction. The presentation was a

great example of the skills, incite and abilities that Young Engineers have into very current issues facing our communities.

If you are a YE and would like to be involved in these opportunities, please contact Division Office or your YE representative for further details.

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



*l to r Jemima Jackson & Chris Scanlon*

## The Division would like to welcome the following members as a Fellow of the Institution

**Keian Barnard** – OFIEAust from O'Donnell Griffin

**Tony Dawes** – FIEAust from Aurecon

**Bradley Food** – FIEAust from BHP Biliton

It was with great pleasure the Division was able to present Bradley with his certificate at the recent CELM CEO Speaker Breakfast.



*l to r Chris Scanlon & Brad Food*

## How Risky is a Fig Tree??

Professor Mark Stewart from The University of Newcastle's School of Civil Engineering and Bill Jordan from Bill Jordan & Associates, took a tag team approach to the analysis of the risk posed by the 14 fig trees located in Laman street, adjacent to Civil Park. The presentation was attended by 40 members and 20 members of the public, including 4 councillors from Newcastle City Council.

The fig trees had been the subject of extensive public debate over several years as Newcastle City Council and local public interest groups sought to decide the future of the trees. As part of the investigation process Newcastle City Council retained a number of independent arborists to assess the health and structural stability of the trees. The arborists had also undertaken risk assessments of the safety of the trees.

Council was provided with a Risk Assessment that indicated that the trees represented a 1 in 2 probability of causing a death or serious injury each year. In other words the trees were expected to cause a death or serious injury every 2 years. This risk could be expected to be found to be unacceptable in any circumstance.

Bill Jordan examined the imposed actions (applied loads) set out in AS 1170, that the trees would be required to withstand. Professor Stewart, an expert and widely published author in the field of Risk, provided a rational assessment of the risks presented by the trees. Professor Stewart demonstrated that the council's consultants had grossly over-estimated the risks posed by the fig trees.

A lively question and answer session



*l to r Mark Stewart & Bill Jordan*

followed the presentation, culminating in the Lord Mayor, Councillor John Tate, inviting the speakers to represent their presentation to the next council meeting, prior to the council deciding the future of the trees.

*Postscript: Despite being demonstrated that the fig trees do not pose an unacceptable risk to the public, Newcastle City Council has decided to remove the fig trees.*

## Regional Convention - Armidale 16th - 18th September 2011

**Venue:** University of New England, Duvall College Conference Centre

**Keynote speakers** at the convention include:

**David Hood** - Adjunct Professor, Faculty of Built Environment and Engineering, QUT, National Deputy President Engineers Australia

**Chris Davis** - Commissioner of the National Water Commission

**Jillian Kilby** - 2010 Young Professional Engineer of the Year (National winner)

**Martin Toms** - School of Behavioural, Cognitive and Social Sciences, UNE

Guest Speaker at the Gala Dinner - **Dianne Boddy**

**To register visit Newcastle Division Events or contact the Division Office for a brochure.**

# 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>Electrical</b>			
31st August	5.30pm	Machines that Go PING Presenter: Prof Karen Reynolds	122 Parry St, Newcastle West
7th September	5.30pm	Site Visit to OneSteel's Newcastle Rod Mill	Mayfield, NSW
14th September	5.30pm	IBM'S Global View of Grid Operations Systems Presenter: Steve Hoy	122 Parry St, Newcastle West
12th October	5.30pm	HVDC Techniques for SWER & Capacitor Energy Storage Presenter: Mr Craig Harrison	122 Parry St Newcastle West
<b>Newcastle Division</b>			
16th- 18th September 2011		Regional Convention 2011 'Sustaining Our Regions: The Engineering Challenge'	Armidale, NSW
<b>YEN</b>			
23rd August	3.00pm	Resume Writing & Interview Techniques Presenter: Jenny O'Donovan	University of Newcastle
25th August	5.30pm	The Great Engineering Debate (GenX)	Customs House
22nd October	6.30pm	YEN Formal Dinner	Newcastle Jockey Club
<b>WiE</b>			
13th Sept	5.30pm	"Communicating to Get What You Want" Presenter: Tarnya Davis, Clinical & Forensic Psychologist	Engineers Australia 122 Parry St, Newcastle West

## Online Division Nominations now open for Congress, Division Committee & College Boards

### 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)

### Registration for the 16th Engineering Heritage Australia Conference

Registration for the 16th Engineering Heritage Australia Conference in Hobart in November 2011 is now open. Full details are on the website [www.cdesign.com.au/ehac2011](http://www.cdesign.com.au/ehac2011) where the Registration Brochure, Registration Form and on-line registration are all available.