

# Engineering Tasmania

November 2010



ENGINEERS  
AUSTRALIA  
Tasmania Division

Newsletter of Engineers Australia, Tas Division - Royal Engineers Building, 2 Davey Street Hobart  
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## PRESIDENT'S REPORT



Hi all,

It is said that time flies when you are having fun – if that is true, then I must have had lots of fun in my year as Division President, as it has really flown (although I admit that as I get older, every year seems to go faster than the previous one). While there are still many events left for the year, it is probably worth a quick recap to see whether we stayed roughly to plan and more importantly, whether we achieved anything – I'll leave you to make the judgments!

My personal priority for the year was to make a difference on our road toll following a horror year in 2009. We had Rod Troutbeck present the **Alan Burn Memorial Lectures** in Launceston and Hobart with Road Safety being part of his

presentation. This was followed later in the year with the **Road Safety Forum** during Australian Engineering Week with a panel of experts in the field (the engineers were actually outnumbered on the panel) who gave presentations and then had a forum on the topic with relevant questions and discussion afterwards. Did we make a difference? At the time of writing, the current road toll is standing at less than 50% of the toll to the same time last year. Obviously there are many factors that combine to make a difference to such things, but if we have changed the behavior of only a few drivers, we can claim some success. Interestingly, a recent internet news item predicted cars driven by humans had maybe only 10 years to go before driverless cars became the norm. Such a radical change will no doubt meet many opponents, but driverless cars (often with a token human in the car) are already driving around experimentally in numerous countries. The safety benefits of these cars is a major benefit, but it leads to bigger changes, individual car ownership may be a thing of the past if we have efficient safe transport systems. Such radical changes may be a big help in the climate change battle, but I'm not too sure I am ready for houses without garages – where would I put my mess?

The **2010 Tasmania Infrastructure Report Card** publication was the biggest activity for the year (I know why they are only done every five years!), and was very well received. It seems governments at all levels take great interest in these reports (as they should), and there are not too many political debates where infrastructure is not mentioned. The information in the document is well presented and we would expect it to be a source document for those in the infrastructure or government sectors until the next one is published. Some of our key recommendations from the 2005 report have now been put into place, so while major changes often take a long time, I believe all parties are now understanding the importance of the

standard of infrastructure, not just new infrastructure, but the maintenance of existing infrastructure.

I attended the celebration dinner for this year's **Engineering Initiative** students in Launceston. Tasmania should be very proud of this program as it has no peer around the rest of Australia. Our Division Director, Geoff Harper has been working patiently behind the scenes on a further innovation which would help ensure not only the future of the Engineering Initiative, but all of the other student activities that we support to promote careers in the engineering team to capable students. I can't say any more about this at the moment, but if our endeavours bear fruit, this would also be a situation that I'm sure other Divisions would be keen to emulate.

Of course my year has been made so much easier having Geoff and Catherine to organise things for me and to advise what has been done in the same situation in the past. With both having over 24 years experience in their roles, they are by far the most experienced team in Australia (or should I say they are hopeless so that National Office isn't tempted to poach them?)

We have had a number of eminent speakers on a variety of topics, along with numerous **CPD** activities which hopefully made it easy for those required to keep us their competency standards. We have a good relationship with many of the CPD providers, so if there any particular training courses etc. that you would like to see, let us know. The **Year of Engineering Leadership** provided many opportunities with two very successful events being the breakfast launch in Hobart (where senior engineers were encouraged to bring a young engineering team member along with them), and at Deloraine in a combined Northern and North West group event.

We have had a number of **Professional Development Programs** signed during

the year, and there are a few organisations overdue to resign. The program seems to have a renewed focus and the interest in achieving CPEng seems to be gaining momentum after a bit of a slump (possibly due to the GFC and the workloads of those involved).

Our **National President Doug Hargreaves' recent tour** of Tasmania was action packed over three days. I felt privileged to accompany Doug on visits to; Brighton Bypass (southern section) and the Transport Hub, Revolutionary Design and Incat, Cement Australia, Delta Hydraulics, Tyco Tamar, Aurora Energy Tamar Valley Power Station and the Australian Maritime College. Again I thank all those who volunteered their valuable time to make Doug's tour so interesting. Although Doug is now an academic, his past experience as a fitter and turner and working in various industries as a mechanical engineer, gave him a sound understanding of the various problems and processes we witnessed.

My personal highlight of this tour (at the risk of offending anyone..) was witnessing a friction weld at Delta Hydraulics. While the process and the machine were spectacular, it was the attitude of the team that developed what was a good idea but a very expensive lemon, into a commercial success. This was achieved over a long period of persistence and determination (no I'm not talking about a footy match), with plenty of support from management. It seems to me that all great achievements in engineering are based on a team approach and often with a cooperative client or management being a key requirement in allowing the technical people to "make it so".

Doug took the opportunity during his tour to address students and staff at the UTAS Sandy Bay campus, along with members in Hobart, Devonport and Launceston on his current interest in the future population of Australia and how engineers could or should be involved in the debate around population, sustainability, infrastructure, and so on. The topic often strayed from "traditional engineering" to what can best be described as "social engineering". Doug's example of how Brisbane's per capita water usage of 360 litres/day reduced to 140 litres/day due to the drought and associated government restrictions, and then only increased to

170 litres/day after all restrictions were relaxed following the breaking of the drought is a great example of how the community's attitudes and behavior can be permanently changed. Our future battles with carbon and other sustainability issues will need to use similar techniques to succeed.

Doug and I also talked about the new **Code of Ethics**, which retains community wellbeing as a primary concern, along with more emphasis on sustainability. A major topic of Doug's tour in Hobart, Devonport and Launceston was the **2010 Ballot** for the proposed new **Royal Charter and By-laws**, and interesting debates around the major changes and concerns were aired. Doug's main message was for those eligible to vote to take the opportunity. I have already voted (it only took a couple of minutes on the 1<sup>st</sup> day of voting) and voted "Yes". I won't say any more about this as you will have seen enough

information to make your own informed vote.

I invite all members to our **Annual Division Meeting** (we can't call it our AGM, as EA only has one per year), and end of year function. I would also invite anyone considering taking on the role of Vice President to get in touch with me. This position is determined by the Division Committee, and doesn't therefore need to go through the formal election process.

In closing off for the year, having thanked Goff and Catherine above, I wish to thank all of our volunteers, and thank them for their participation and advice. I hope you all have an enjoyable end of year, whatever that may mean to you, and remember to drive safely!

**Grant Atherton, FIEAust CPEng**

## UPGRADING MEMBERS



### **SIMON BENTLEY, MIEAust CPEng**

Simon completed a Bachelor of Civil Engineering with Honours at Coventry University in the United Kingdom, graduating in 1999.

Upon completion of his degree Simon joined Edmund Nuttall Ltd in the UK working as Site Engineer on Heavy Civil Projects.

Following 2 years on site Simon left the UK in 2001 to travel, ending up in Tasmania working as Site Manager for Shaw Contracting on the Woolnorth Wind Farm Stage 1.

Following completion of this project Simon returned to the UK where he joined Costain Civil Engineering and entered into a training agreement with the Institution of Civil Engineers (ICE). Initially he was site based, working as a Project Engineer within the Southern Water Framework gaining experience in refurbishment and upgrading of existing water infrastructure predominantly within Sewage Treatment Works.

In 2005 Simon was seconded to the Ports and Harbours Division of Scott Wilson and completed a 1 year design placement in Dubai to fulfil design requirements of the ICE Training Agreement.

On return to Costain Simon was made Site Manager on a Flood Relief Project again in the UK. He completed his training agreement and passed Professional Review in 2007.

In 2008 Simon immigrated to Tasmania and again joined Shaw Contracting. Since his arrival in Tasmania Simon has worked as Site Engineer on various projects across the state. Most notable projects he has been involved in are the Savage River New Workshop Facility, Swansea Water Supply Upgrade and the Red Hills Creek Diversion. (*this is*

where his photo was taken during the snow fall in September)

Simon is currently working as Project Manager for Shaw Contracting, is based in Launceston and has joined Engineers Australia under the Mutual Recognition Agreement.



### **KYRON FOGARTY, MIEAust**

Kyron successfully completed his Bachelor of Engineering degree with Honours, majoring in Power Systems, in 2006 at the University of Tasmania. During his studies, he worked in his vacation at Tyco Tamar, mainly in technical drafting for electrical switchboards and control systems. Here he also worked on a new generator at an existing hydro power station in southern NSW to assist in its site acceptance testing and commissioning phases.

Upon completion of his studies, Kyron went on to a full time position as a graduate electrical engineer with Tyco in 2007.

This role gave him an opportunity to work as primary electrical engineer on

the mini hydro stations at the new Meander Dam, the Melbourne Water Preston Reservoir energy recovery unit (ERU), the Sydney Water Prospect WTP, and the North Head WWTP. On each he was responsible for designing the auxiliary control systems and interfacing the control and MV power systems, as well as the generator protection systems and primary design and functional documentation on the latter two units. He also commissioned the electrical and protection systems on a similar project at the Melbourne Water Olinda reservoir in 2008.

These projects led to a site management role for a similar Melbourne Water ERU in Notting Hill, on which he was responsible for monitoring the installation of the generator's electrical systems and developed his team leading skills with supervision of the electrical installation crew also falling under his area of responsibility. Following this Kyron was promoted to project manager for the control system & auxiliary plant for the Jounama Power Station, the first major new power station construction project in the Snowy Hydro scheme in over 30 years. As project manager, Kyron led a team of engineers, technicians, electricians and fitters to produce install and configure the auxiliary systems for a 16MW tubular Kaplan turbine-generator, supplied and installed by Alstom Power.

For the last four months, Kyron has been working as technical power engineer for Megavar Power Testing

## **CONGRATULATIONS / WELCOME**

**Members joining, rejoining  
or upgrading**

### **MEMBERS**

Kyron Fogarty, MIEAust  
Lance Pfeffer, MIEAust  
Matthew Webster, MIEAust

### **GRADUATES**

Will Owens, GradIEAust  
Tobias Reid, GradIEAust  
Andrew Reynolds, GradIEAust  
Oliver Stannus, GradIEAust  
Oliver Walters, GradIEAust

### **STUDENTS**

(StudIEAust)

Jarryd Field  
Benjamin Jones  
Aaron Ralte  
Yin Saw  
Sven Sweetman  
Rui Xu

Services in Launceston. To date, he has been working on the protection system design for the Tamar Valley power station to Georgetown substation 110kV transmission line upgrade. In this role, Kyron has gone from design to testing, and has been given the responsibility of being the primary commissioning engineer for when the upgrade is completed in early November.

# **BALLOT 2010**



Go to [www.ballot2010.org.au](http://www.ballot2010.org.au) to have your say

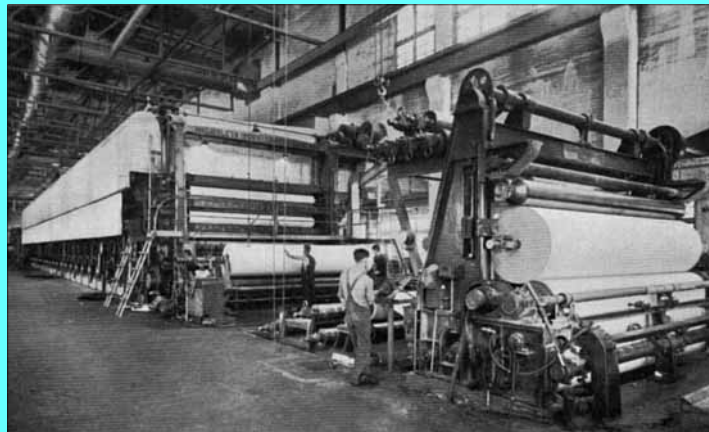
# NOTICE OF 91st ANNUAL DIVISION MEETING

Notice is hereby given that the 91st Annual Division Meeting of members of the Tasmania Division of Engineers Australia will be held on Monday, 29 November 2010 at 5.00pm in the Royal Engineers Building, 2 Davey Street, Hobart preceded by light refreshments at 4.30pm.

The Agenda is:

1. Welcome
2. Apologies
3. Confirmation of Minutes of the 90th Annual Division Meeting
4. Adoption of Annual Report
5. Business Arising from the Minutes
6. Announcement of Division Committee
7. General Business
8. Announcement of Division President for 2011
9. Address by retiring Division President, Grant Atherton
10. Vote of Thanks

## Engineering Heritage National Landmark for the Boyer Newsprint Mill



*The No.1 Machine in action*

His Excellency, Governor Peter Underwood will unveil the Marker at Boyer on **Wednesday, 17 November 2010 at 3.00pm.**

The Mill was the first in the world to produce newsprint from eucalypt fibres, after 20 years of research and trials. Starting up in 1941, the Mill's production avoided a shortage of newsprint in Australia during World War II. It became an established industry which brought prosperity to New Norfolk and Maydena through continuous expansion in the face of global competition. The use of hardwood fibres was phased out in 2009.

Tours of the Mill will be available before the ceremony.

If you would like to attend, please contact Catherine Reading on 6234 2228 and you will be sent an invitation with further details.



*Rail wagons at the mill*

# PROFESSIONAL DEVELOPMENT PROGRAM SIGNED - OCTOBER 2010

## pitt&sherry Pty Ltd



**l-r Kate McIntosh, Geoff Harper (EA, Tasmania Division Director), Barry Neilsen (Director, pitt&sherry), Grant Atherton (EA Tasmania Division President) and Ross Mannering**

pitt&sherry has renewed its commitment to the ongoing development of its engineering staff. On 12 October Barry Neilsen signed a new Professional Development Program (PDP) Agreement for a period of 5 years with Engineers Australia Tasmania Division Director Geoff Harper. The signing was also attended by Engineers Australia State President Grant Atherton and Industry Manager Rowan Crosbie-Goold, as well as pitt&sherry engineers Kate McIntosh and Ross Mannering.

pitt&sherry provides technical and management expertise across infrastructure projects, scientific services in environment, earth science and statutory planning, as well as compliance management associated with building surveying and IT products. Engineers at pitt&sherry have noted that some of their clients are asking for registered engineers on their projects. Engineers Australia recognises organisations are seeing the PDP and Chartered Status plays a key role in obtaining registration.

# NATIONAL PRESIDENT'S VISIT TO TASMANIA

Our National President, Doug Hargraves, in his trusty "purple boots" (pictured below) trekked his way around Tasmania during late September.

Pictured on this page are some of the places he visited in the south; University of Tasmania (he also spoke to a large group of enthusiastic students), the bowels of the engine room of a 120 metre Incat catamaran and its the propeller, and the Brighton Bypass.

On the opposite page we show some of the members at the cocktail function in Hobart where the forthcoming Ballot and impacts of population growth were discussed, members at a North West Group dinner, a visit to Tyco Tamar, in the boardroom with senior staff at the Australian Maritime College and at AETV Bell Bay Power Station. Doug also visited Goliath Cement at Railton and Delta Hydraulics in Devonport and addressed Northern Group members.



# NATIONAL PRESIDENT'S VISIT TO TASMANIA





# YOUNG ENGINEERS

*James Porter, GradIEAust  
Young Engineers Tasmania*



## SPEED NETWORKING

Young Engineers Tasmania held a Speed Networking evening on 31 August at the Mercure Hotel in Hobart. The aim of the evening was to provide an environment that encouraged interaction between attendees and a great networking opportunity.

The format of the event was loosely based around that of Speed Dating; a forced rotation system with short 2-3 minute conversations before moving on to the next 'prospective' networker. While I'm fairly sure there were no romantic vibes on the night, the volume of chatter certainly indicated that everyone was making the most of the opportunity to discover



things about their various Speed Networking partners.

A unique aspect of the event that is often not realised at your average networking function, was the ability to talk to nearly everyone in the room, rather than being caught in a small group, or falling into the trap of hanging around with people you know and feel comfortable talking to.

There was a really diverse range of professions in the room, thanks to a combined effort with the Young Professionals Network (YPNT).

There were people in marketing, hospitality, law, engineering, finance, IT, education, and the media, which made for a very rich mix of conversation topics. Some of the hard-core party revellers were still there over two hours later when the MC left the building, so perhaps there was a hint of the event's roots present after all.....



Thanks to all who came along.

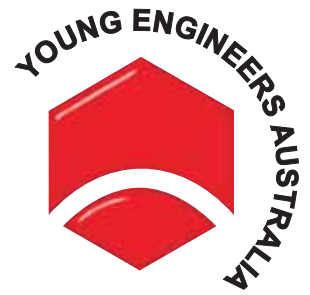
## RECRUITMENT

Young Engineers are looking for people to join the Committee and help shape the way we as a group provide the best services and development opportunities for our members. There are a lot of you out there, and we ask that you come along to a meeting (the last Tuesday of the month, in the Division's office at the Royal Engineers Building, 3 Davey Street, Hobart commencing at 5.40pm) and provide some input! Did I mention that there's cheese and biscuits?

This is leadership experience, this is defining the direction of the profession, this is a demonstration of your desire to see more young engineers develop into world class senior engineers.

**James Porter, GradIEAust**

# Joint Young Engineers, Women in Engineering & Tasmania Division



ENGINEERS  
AUSTRALIA  
Women in Engineering

Please join us at our end of year  
function to celebrate engineering  
achievements and leadership

Wednesday, 1 December 2010

James Squires, Salamanca Square, Hobart

5:30 to 7:30pm

Cost: EA members - \$10, Non Members - \$20  
Price includes drinks and refreshments

**RSVP & PRE-PAYMENT ESSENTIAL**  
by 25 November 2010



RSVP to Catherine Reading by Thursday, 25 November  
Phone: 6234 2228 Fax: 6234 2216  
[creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)



Nyssa Muir, GradIEAust

# WOMEN IN ENGINEERING

**Women in Engineering, Tasmania**  
**Attract. Support. Develop. Celebrate.**  
Our mission is to increase the participation of women in the engineering profession and allow our member's aspirations to flourish.

## Events

### Kingston Bypass Site Tour & Networking Dinner



In conjunction with the Civil Branch, the WIE are organising a site tour of the Kingston Bypass. The site tour will be followed by a networking dinner (pay your own way) at the Beach Café at Blackman's Bay.

**When:** Friday, 26 November 2010

**Time:** 4pm

**More details:** Refer to advertising flyer on page 12

### 15<sup>th</sup> International Conference for Women Engineers & Scientists



Have you been working on something pretty cool or researched something awesome? Then write about it and send your abstract to the folks organising the ICWES. This is an international forum and Australia is fortunate to host it in 2011.

This conference has attracted some very big sponsors and influential speakers so far.

**Abstracts Due Date:** 1 December 2010

**Venue:** Adelaide

**More info:** [www.icwes15.org](http://www.icwes15.org)

## News

### Kaitlin Langdon, StudIEAust is voted UTAS Engi Society President

Since its inception, the UTAS Engi Society has never had a female President. Until now! The WIE committee would like to congratulate Kaitlin Langdon in becoming the first ever female president of the Engi Society.

Kaitlin is a 3rd year Civil Engineering major student (and academic whizz) and has been an active contributor to all aspects of the Engineering Society throughout her time at UTAS.

### GoGirl Brochure

The 'GoGirl' brochure which was produced by the WIE committee has been widely commended for its design and motivating energy. Thanks to all those who submitted photos and stories.



Grade 7 girls (and boys) at Calvin School in Kingston showing their appreciation of their Engineering Brochures!

### Jean Weeding's Retirement

Jean is the secretary of the School of Engineering at UTAS and is retiring at the end of the year after 17 years of terrific service. She has been a great ambassador for the profession of engineering. Jean has visited many schools over these years and has been a passionate speaker and advocate!

Jean at a recent careers expo at MacKillop College with YE Tim Sutton – her enthusiasm is clear!





### Made In Dagenham

Made In Dagenham tells the remarkable true story of a group of female factory workers in 1960s London.

Sure, they're saving the world, but few aspiring students can relate to the job portrayed in that format.

I look forward to the day where Engineers have their own TV show! I'm not sure what it would be about (solving technical problems in an entertaining way)? You could argue that engineering principles are used in shows like Top Gear or Mythbusters, however the characters are not presented as engineers nor is the word 'engineering' often used.

So, to highlight engineers in film and TV thus far, I have compiled a short list of the more notable ones...

With humour, common sense and courage they take on their U.S. paymasters, an increasingly belligerent local community, and finally the government itself, to strike an everlasting blow for equal pay for women. The catalyst for the women's struggle is fast-talking, no nonsense Rita whose fiery temper and occasionally hilarious unpredictability proves to be a match for any of her male opponents. This movie compellingly and entertainingly shows how the skills involved in women's work can come to be undervalued. In cinemas soon!

### Reflection

#### Thank you from the WIE Committee



**WIE Tasmania Committee: (L-R) Nyssa Muir, Amanda Halley, Erin Driscoll, Meredith McQueen, Fiona Evershed**

As this is the last newsletter of 2010, on behalf of the WIE committee I'd like to thank everyone for their support of the WIE throughout the year. Whether that has been helping us with one of our events, writing in with suggests or comments or just reading these pages, thank you!

#### Famous Fictional Engineers (and some ring-ins)

Engineers have often been sidelined in film and TV (I can't understand why, calculus is so trendy) and unfortunately this often leads to students overlooking Engineering when choosing Uni courses.

The professions regularly portrayed on TV shows and the Uni enrolments numbers into those related courses are directly influenced.

For example;

- ER, Scrubs - Students enrol in Medicine
- CSI, Bones - Students enrol in Forensic Science
- Ally McBeal, Law & Order - Students enrol in Law

The only engineers you see on telly are usually on the News trying to fix some disaster (oil spill, mine rescue, earthquake).



### MacGyver

Well, what better way to start off this list with a guy who can make a radio out of string, paper clips and bubblegum all while keeping his mullet hairstyle looking oh-so fabulous. His engineering feats have even earned his name verb status (i.e. to MacGyver a solution). Use it in a sentence today!

**Era:** Five TV series spanning the 80s & early 90s.

**Played by:** Richard Dean Anderson.

**Pulling power:** 9/10. Who wouldn't want to be an engineer after watching MacGyver! The explosions, the intrigue, the shoulder pads...



### Howard Wolowitz

Hanging out with his three friends he is constantly reminded that is but an engineer (rather than a physicist), however when it comes to building a robot, Howard is vital (mainly because his friends don't know

how to hold a screwdriver).

**TV Show:** The Big Bang Theory

**Played by:** Simon Helberg

**Pulling power:** 6/10. This character designs stuff for the International Space Station. That's cool, kids! Ignore the turtle neck tops though...



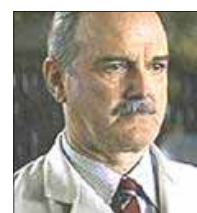
### Dilbert

What would we do on Fridays if it weren't for the Dilbert cartoon emailed around? Dilbert is often seen lamenting bureaucracy and 'seagull' management. Something all engineers can relate to.

**Era:** First published in 1989 and still going strong

**Author:** Written and drawn by Scott Adams.

**Pulling Power:** 5/10. Dilbert appears in 2000 newspapers worldwide in 65 countries and 25 languages. Now that's a readership! Pity the engineering profession is not portrayed as an exciting or fulfilling job.



### Q

With phrases like "see Q for any equipment you need", Mr. Bond was fortunate to have such a creative and skilled engineer working for the secret service. Q was able to devise all manner of cool gadgets; dart pen, self-driving jaguar, anything Mr. Bond or the plot required.

**Movie:** James Bond

**Played by:** Various actors have taken on this part throughout the Bond movies. My fav is John Cleese because he was the only one to wear a moustache for the role.

**Pulling power:** 7/10. Q engineered some awesome gadgets, unfortunately it is Mr. Bond who gets to play with them. Well played Bond, well played.



**Montgomery "Scotty" Scott**

As in 'beam me up Scotty'. Yeah, that bloke from Star Trek who did the space-transporter-beam thingy.

The character played a vital role in getting the space ship out of many a tight spot and earned engineers a reputation for fixing things. The actor tried a variety of accents and decided on Scottish, because he thought that Scottish people made the best engineers.

**Movie/TV:** Star Trek

**Played by:** James Doohan (and then Simon Pegg in the most recent movie).

**Era:** Since Star Trek first began.

**Pulling power:** 8/10. Yes engineers are useful. Yes they can fix spaceships. Yes, you'd all be captured by aliens by now if it weren't for Scotty.

**Quote of the month**

*"I came here to drink milk and kick ass, and I just finished my milk..."*

- Maurice Moss, The IT Crowd.

**Women in Engineering Tasmania is proudly sponsored by GHD Pty Ltd.**



**WIE Committee Members:**

Amanda Halley, Vanessa King, Meredith McQueen, Fiona Evershed, Erin Driscoll, Cassandra Blazely, Nyssa Muir and Amanda Larsen

Email: [wietas@gmail.com](mailto:wietas@gmail.com)  
[www.womeninengineering.com.au](http://www.womeninengineering.com.au)

## Joint WOMEN IN ENGINEERING & CIVIL BRANCH



### SITE VISIT TO THE KINGSTON BYPASS

**DATE** Friday, 26 November 2010  
**TIME:** 4.00pm  
**MEET:** At the VEC Site Office, 47 Summerleas Road  
**SAFETY:** Hard Hat, Safety Boots & High Visibility Vest

The Kingston Bypass works are located in the township of Kingston and involve the construction of a bypass of the existing Channel Highway from north of Summerleas Road roundabout to the Algona Road roundabout at Huntingfield (fork in the road). The works include:

1. construction of a bypass road with a single lane in each direction
2. construction of a grade separated interchange at Summerlea Road including a new roundabout
3. construction of a major new roundabout at Algona Road
4. construction of new t-beam bridge overpasses at Summerleas Road and Spring Farm Road
5. construction of gabion and soil nail walls
6. extension of Whitewater Creek recreation trail
7. extension of the existing Kingston pedestrian underpass and construction of a new pedestrian underpass at Algona Road.

Current works underway are earthworks, pavement works, landscaping, major bridgeworks, service relocations and drainage works. In addition, the soil nailing work should have commenced by November which will be an interesting activity not often seen in Tasmania.

Attendees are welcome to meet at the Beach Café, Blackmans Bay for dinner (at own cost) or drinks from 6.00pm onwards

**RSVP is essential by no later than 19 November** to Catherine Reading on 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)

# NORTH WEST GROUP

**DATE:** Tuesday, 16 November 2010

**Activity 1** 3.45 for 4.30 pm at 18 Kelcey Tier Road, Spreyton

## Veolia Environmental Services Recycling Sorting Centre Facility Inspection

Shane Coleman, Northern Tasmania Manager of Veolia's Recycling Division will lead the inspection, which will focus on what is being achieved at the Spreyton recycling facility. There will be an opportunity to find out why it is possible to recycle some items and not others.

**Bring:** High visibility vest and sturdy shoes.

**Activity 2** 5 for 5.30 pm for lecture, 7pm for dinner at Gateway Hotel, Devonport

## PICO (<2kW) HYDRO TURBINES for NEPALI VILLAGE LIGHTING and other RENEWABLE ENERGY R&D for NEPAL

**J.K.Cannell**, BE(Adel), MSc(Birm), PhD(Warwick), CEng, FAIEnergy, FIMechE(London), Dip.Th(ACT). Kathmandu University Professor of Mechanical Engineering.

Partial electrification of hundreds of remote villages in Nepal, using very limited energy supplies, is being considered using efficient pico axial-flow and micro hydro turbines, and solar photo-voltaics. Also wood stoves have been tested which will consume much less fuel. John Cannell will introduce the Nepali power generation scene and discuss some engineering ways to meet primary and urgent energy needs.

### Renewable Energy report

**Julie Hargreaves of Kentish Efficiency Network (KEENER)** will speak about the solar energy community buying projects that they have undertaken, using renewable energy certificates / rebates provided by the Australian Government.

**RSVP:** Those persons planning to attend are to advise Vere Cooper by phone on 6498 7920 or by e-mail at [vere.cooper@cmwater.com.au](mailto:vere.cooper@cmwater.com.au) by Thursday, 11 November 2010. Please indicate whether you are attending the **dinner and activities**, or **activities only**, and **names** of attendees. Partners may find this meeting interesting.

**The inspection and lecture will be followed by a two course meal**

**Meal Cost: \$15 Members and Partners, and \$20 Non Members. There is no charge for those persons attending the inspection and/or lecture only.**



# NORTH WEST GROUP

*Members are invited to a*

## Social Christmas Dinner

*Come & join your local members & partners & celebrate another successful year with a delightful 3 course meal (with choice)*

*Some drinks included, additional drinks available at own cost*

**When: Thursday, 2 December 2010  
6.30 for 7.00pm**

**Where: Casablanca Wine & Dine, Penguin Surf Life Saving Club, Sulphur Creek**

**Cost: Members & Partners:  
\$35.00 per person  
Non-Members:  
\$40.00 per person**

**Acceptances to Simon Heung,  
[sheung@devonport.tas.gov.au](mailto:sheung@devonport.tas.gov.au)  
or telephone 6424 0589 by COB on  
Monday, 22 November 2010**

**(limit 30 persons)**

## Approval of Stornoway Breadalbane quarry expansion vital for maintaining Tasmanian roads and construction industry

Tim Gardner, Managing Director of Tasmanian infrastructure firm, Stornoway, today said he was pleased the Northern Midlands Council had recently approved the expansion of the Raeburn Quarry, Breadalbane.



Approval of the expansion will take the annual output of crushed and screened rock up to 500,000 tonnes.

When complete in 18 months time, the project will represent a total investment of almost \$5M in new plant and crushing equipment and the creation of up to 12 jobs. In addition the project will also provide Stornoway with the ability to recycle concrete and bricks.

Mr Gardner said the expansion of the Raeburn Quarry is vital for Northern Tasmania as it supplies crushed rock for local government maintenance as far away as Tullah, Burnie, Smithton, Swansea and the southern midlands. Mr Gardner added crushed rock is a core component of the foundations every building constructed.

“Stornoway supply crushed and screened rock from the Raeburn Quarry to nine councils to enable them to maintain their roads. Also the site provides the crushed rock needed for Stornoway and other contractors to carry out major road maintenance for the state government, in northern Tasmania.

“The Raeburn Quarry supplies twenty-six types of gravel and crushed rock for specific applications, and the expansion will help us meet strongly growing demand.

“Crushed rock is vital for the entire Tasmanian economy, while it sounds like an everyday product, the truth is it’s produced to exacting standards, and without it, building or road construction and maintenance could take place in this state.” Mr Gardner said.

Mr Gardner added Stornoway had been operating the quarry for over twenty years, and actively planning for the expansion project for over two. He said during the planning process, particular attention was paid to protecting the environment.

“Stornoway takes its’ environmental and social responsibilities very seriously indeed, and we have worked very carefully during the approvals process to make sure the project meets or exceeds all statutory and planning requirements.

“We carried out extensive dust, vibration, traffic, visual impact and noise modeling to ensure that the project will be operated with minimal environmental impact under comprehensive production and environmental management plans, including 1km buffer zones”, he said.

Mr Gardner said he looks forward to work starting on the project as soon as possible.

**For more information contact Richard Gerathy 0419 203 075**

## HERITAGE MEETING

**DATE:** Wednesday, 17 November 2010

**TIME:** 7.30pm

**PLACE:** Royal Engineers Building  
2 Davey Street, Hobart

### OWEN PEAKE, HonFIEAust CPEng

Owen Peake worked as an electrical engineer in the Northern Territory from 1968 until 1997, rising to CEO of the Power and Water Authority 1994-97.



He then worked in other government roles before retiring in 2002. He has taken a lead role in engineering heritage conservation both in the NT and more recently in Victoria. He has written many nominations for historic engineering works to receive awards under EA’s Heritage Recognition Program. He is currently in his second term as Chair of the national board of EHA where he is doing a sterling job. He has an abiding interest in stationary steam engines. Appropriately the view from his Latrobe Valley house was of the Loy Yang power station, but unfortunately the property was destroyed in the Victorian bush fires.



### “HISTORY OF HIGH VOLTAGE DIRECT CURRENT TRANSMISSION”

Owen identifies three eras in the HVDC transmission story. The first covers the development of mercury arc rectifiers, the engineers who strove to improve their reliability, and the transmission systems built with this equipment. The second era describes the use of thyristor valves for the conversion, both in upgrading existing systems and building new ones. Technology for the third era is the Insulated-Gate Bipolar Transistor (IGBT). Owen will explain in lay terms how the different types of equipment work, and the importance of conserving some of the remaining items of heritage significance.

HVDC has advantages for transmission of power over long distances and through undersea cables.

**RSVP:** Catherine Reading on 6234 2228  
[creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)

# Financial Management

22 & 23 November 2010  
Salamanca Inn, Hobart

Download flyer at:  
[www.engineersaustralia.org.au/tasevents](http://www.engineersaustralia.org.au/tasevents)

This **two day** course provides an introduction to financial and accounting information necessary to successfully operate a business or project.

A particular focus on practical examples and exercises are worked through to ensure that a sound level of financial literacy and practical understanding is achieved.

Participant workbook is accompanied by a post-graduate level text book on Financial Management.



**Target Audience** For those who are in levels of management with financial responsibility (eg budgeting), or who operate their own business.

## Course Outline

### Introduction

Financial Management – what is it all about and how does it apply to engineering businesses/organisations and projects of all sizes

### Financial Reasons why Businesses Fail

Eight financial policies to avoid.

### Understanding Accounting Terminology, Jargon & Theory

The language of accountants: contributing to solving financial problems.

### Financial Statements

Understanding and analysing financial statements; statement of financial performance (income statement); statement of financial position (balance sheet); cash flow statements; financial analysis of a business.

### Reading Financial Reports

Understanding and analysing financial reports; profit concepts; debtor collection rate; liquidity; gearing; stock turnover; return on investment; analyse the financial results; forecast financial problems before they occur.

### Employee or Contractor?

Consider forming a company? Workers Compensation insurance; ABNs and GST; taxation implications.

### Introduction to Capital Investment Decisions

How investors financially analyse the economics of proposed capital expenditure including return on investment; payback period; discounted cash flow – DCF, NPV, IRR; time value of money.

### Lease or Buy?

Important factors to take into account in a lease versus buy decision for plant and equipment and motor vehicles.

### Introduction to Budgeting & Costing

Control by budgeting; fixed and variable costs; analysing variances; break-even analysis; pricing; using standard costs.

### Putting it All Together

Financial Management in the workplace – how this is applicable to all concerned – implementing key learnings in day to day operations

## Course Objectives

At the end of the course participants will be able to:

- Relate to the financial reasons why businesses fail
- Understand accounting terminology, jargon and theory
- Read financial statements (and carry out analysis)
- Understand financial reports and have an appreciation of what is behind the key financial figures that are reported
- Determine the differences between employees and contractors from a workers compensation, insurance and taxation perspective
- Identify with the capital investment decision making process and how this applies to engineering businesses and large projects
- Apply simple budgeting and costing processes
- Carry out a gap analysis on their competency level relevant to the Engineers Australia Financial Management competency for Executive Engineer

**\$770 Tas Div Members**  
**\$990 Non Members**

“Very appropriate for a non-finance person and very impressed with the course.”

*Operations Senior Supervisor  
Lakaka Civil and Construction*

Recognised for Continuing Professional Development (CPD) by Engineers Australia [refer to EA CPD Guidelines]

# CALENDAR 2010

For up to date information on these and other events, please visit [www.engineersaustralia.org.au/tasevents](http://www.engineersaustralia.org.au/tasevents)

## NOVEMBER

**Tuesday 16 – North West Group – SITE VISIT– (Part 1) Veolia Environmental Services Recycling Sorting Centre Facility Inspection - Attendees must have High Vis vest & sturdy shoes-** 3.45 for 4.00pm - **(Part 2) PICO (<2kW) HYDRO TURBINES for NEPALI VILLAGE LIGHTING and other RENEWABLE ENERGY R&D for NEPAL** - 5.00 for 5.30pm drinks then 7.00pm Dinner & Lecture – RSVP to Vere Cooper on 6498 7920 or [vere.cooper@cmwater.com.au](mailto:vere.cooper@cmwater.com.au) (Refer to page 13)

**Wednesday 17 - Heritage - History of High Voltage Direct Current Transmission** - Owen Peake, HonFIEAust CPEng - 7.30pm - Royal Engineers Building, 2 Davey Street - RSVP to Catherine Reading on 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au) (Refer to page 14)

**Monday 22 & Tuesday 23 - EEA 2 DAY SHORT COURSE** - Financial Management - 8.30am to 5.00pm each day - Salamanca Inn - **HOBART - \$770 (EA Members) - \$990.00 (Non Members)** (Refer to page 15)

**Friday 26 - Joint Women in Engineering & Civil Branch - SITE VISIT - Kingston Bypass** - 4.00pm - Meet at the VEC Site Office, 47 Summerleas Road - You must take your own hard hat, safety boots & high vis vest - **RSVP IS ESSENTIAL** by 19 November to Catherine on 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au) (Refer to page 12)

**Monday 29 - ANNUAL DIVISION MEETING** - 4.30 for 5.00pm - Royal Engineers Building, 2 Davey Street, Hobart - Light refreshments will be offered (Refer to page 4)

## DECEMBER

**Wednesday 1 - Joint Young Engineers, Women in Engineering & Division End of Year Function** - 5.30 to 7.30pm - James Squires, Salamanca Square - \$10 Members, \$20 Non Members - **RSVP & PRE-PAYMENT ESSENTIAL** by 25 November to Catherine on 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au) (Refer to page 9)

**Thursday 2 - North West Group - Christmas Dinner** - 6.30 for 7.00pm - Casablanca Wine & Dine - \$35.00 Members & Partners, or \$40 Non members - RSVP to Subhrajit Sinha on 6424 9085 or [Subhrajit@tascon.com.au](mailto:Subhrajit@tascon.com.au) (Refer to page 13)



Engineering Education Australia

### Graduate Program in Engineering

The Graduate Program in Engineering is for Engineers with up to four years experience who are starting their journey towards Chartered Status and Professional Formation. It is delivered over a two year period, within a structured framework of professional development workshops, supporting online resources and a Community of Professional Practice (CoPP).

The Graduate Program in Engineering is delivered in alignment with the Engineers Australia Stage 2 Engineering Competencies for Chartered Status and is recognised by Engineers Australia for Continuing Professional Development (CPD) in accordance with Engineers Australia CPD Guidelines.

**Limited to 25 positions on the next group starting in Hobart on 26 April 2011 and for more detailed information and to register please visit;**  
<http://www.eeaust.com.au/graduateprogram.html>

Alternatively please contact EEA on 9274 9600 or [info@eeaust.com.au](mailto:info@eeaust.com.au)

*I'd rather be on the*

**NORTHERN SUBURBS RAILWAY**

**DATE:** Thursday, 25 November 2010

**TIME:** 5:30pm - 7:00pm

**PLACE:** Brighton Civic Centre - Theatrette

Come and hear about the exciting proposal to establish a modern passenger rail service between Hobart's waterfront and the northern suburbs. The track is already there and the parallel roads are congested - what are we waiting for!?

Special guest speaker: Mayor Tony Foster

For further information call 6233 2617 or 0437 967 786