

Engineering Tasmania

October 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,

I recently attended the **Presidents Forum** in Canberra with the Presidents from the other Divisions and our National President, Doug Hargreaves to compare notes with what was happening at the local level around the nation. It was interesting to note the similarities in some areas and the large differences in other areas, often with the smaller Divisions (which of course includes Tasmania) having experiences almost the opposite of the large divisions (it was pointed out numerous times by the Victoria Division representative that they were in fact the largest Division, although if Sydney and Newcastle combined to form a NSW Division, there may be a different result). The Victoria Division President was actually not able to get to the forum as he

is a local government engineer and his shire was experiencing extreme flooding at the time, yet another example of the value of engineers to the community in times of natural disasters. Also making news along the same lines were the unbelievable floods in Pakistan, which affected numbers similar to the entire population of Australia, and the earthquake in Christchurch New Zealand, where amazingly there was no direct loss of life, but around 100,000 buildings were damaged.

Merv Lindsay, our **2011 National President** also attended the meeting and described the background to next years "Year of the Humanitarian Engineer" which you will hear more about in the lead up to the launch. Merv is from Newcastle and experienced the aftermath of the Newcastle earthquake and could see many similarities in the type of damage experienced. The New Zealand codes recognise the higher risk of seismic events, and the damage experienced in New Zealand illustrates the importance of governments in setting and enforcing building regulations, especially when compared to the lack of such regulation in Haiti, noting both earthquakes were of a similar magnitude. As you would expect RedR (Registered Engineers for Disaster Relief) have engineers in both Pakistan and New Zealand, demonstrating how engineers can benefit the community. I recently heard of a surgical nurse who is now studying engineering so that she can help the community, she was carrying out a critical role, but realised she was only ever going to be able to help one person at a time as a nurse, but whole communities as an engineer.

This year has been the first with all **Division elections** organised at the same time and with electronic nominations. Naturally there were a few teething problems and part of the

President's forum was a review of the process, it was pleasing to note that staff were already aware of the various problems and have taken on board measures to avoid them next year. Once again our Division does not need to have an election, with the number of nominations not exceeding the number to be elected. This compares poorly to some other Divisions who had around 18 candidates for less than 10 vacancies. Adequate succession planning is part of the Committee's role, but it is difficult if there is not some new life being brought in to refresh our ideas and enthusiasm. Thank you to all who put their hand up to take on a volunteer role and also a big thank you to those who have served previously but have not put themselves forward for re-election. If you can't commit to an ongoing role, I would encourage you to register your interest with Catherine for one or more of the many special events we have throughout the year, often involving assisting at the many student events which seek to promote engineering as a career choice.

In line with our support for the community and in line with next years "Year of the Humanitarian Engineer", our Division has sponsored the UTAS engineering students in the **"Live Below the Line"** challenge which is aimed at addressing poverty. The campaign this year was a huge success, with funds to be used on schools projects in Cambodia.

Members should by now have seen the new **Code of Ethics** which now applies, I believe the new Code is modern and gives more simple (yet wide ranging) guidance than our previous Code.

Following on from our **Road Safety Forum** held in early August, unfortunately I have heard of one fatality in the last week and one amazing escape where seat belts were

not being worn – as a personal plea, please drill in to your loved ones that **seat belts are not optional** – I personally would love to see cars that would take over from those of us who take unreasonable risks – starting as simply as no seat belt = car doesn't go.

Members will also by now have received information on the upcoming ballot on the new **Royal Charter and By-Laws**. The proposed documents are the result of much work and need the support of **all** members to be adopted. There is no clause by clause comparison as the existing documents have been completed re-drafted as the many previous minor amendments made the documents difficult to interpret. The major change is the granting of full voting rights to Associates and Technologist members, which the Division Committee has endorsed unanimously. I am aware of a negative campaign that alleges the new Royal Charter and By-Laws would erode professional awards, having studied the documents extensively and debated them at Congress, I can confirm that there is no change to the grades or definitions of membership, and hence there can be no effect on awards. I encourage all eligible members to vote on this ballot and to review the information available to them.

As part of the National President's visit, issues relating to the Ballot will be discuss by Division member. **Please refer to page 4 for more information.**

I write this just prior our **National President, Doug Hargreaves' visit** to Tasmania where he will visit the South, North and North West, and I thank all of those who have volunteered their time (some at the last moment) to make Doug's visit "full on".

I have a fair bit of reading at the moment in my role on the judging panel for the **Sir John Holland Civil Engineer** of the Year award and the **Rod McGee Medal**, these two Awards feature engineers at different ends of their careers, but it is motivating to see the talent that we have coming through from the next generation, as well as those who are at the peak of their careers now.

UPGRADING MEMBERS



**ROYCE ALDRED,
TMIEAust**

Royce Aldred graduated from the University of Tasmania in 1998 with a Bachelor of Technology Degree in Environmental Technology. He was admitted to the Dean's Role of Excellence for outstanding academic performance. He commenced work at the Launceston City Council, in November 1998, working in their analytical laboratory, and was promoted to Environmental Officer in May 1999. At the time, Royce was based at the Ti-Tree Bend Wastewater Treatment Plant, one of the largest in the state.

Royce's role at the LCC included maintaining and developing the Environmental Management System for the Waste Management Department, which covered five WWTPs and the Launceston Waste Centre (LWC). The EMS achieved third party certification during this time. Royce also developed a Laboratory Information Management System (LIMS) from scratch using Microsoft Access (LIMS retail from upwards of \$250,000). Royce also represented LCC for various projects such as the leachate dam upgrade project at LWC, scum removal at Norwood WWTP and tankered waste station upgrade at Ti-Tree Bend WWTP.

In 2004, Royce left LCC to work for Rockdreamers Music School, taking a break from environmental

work to teach singing and guitar, as well as manage the business. At its' peak, the school had an enrolment of around 300 students, employed 12 teachers and one admin staff member, and was a significant contributor to music education in the North of the state.

Royce left Rockdreamers in 2007 to work for engineering and environmental consultancy SEMF Pty Ltd, and became their Launceston Manager in August 2008. Royce has developed key skills in the areas of Wastewater Treatment and Landfill Site Assessments (soil & groundwater), Environmental Management System development and auditing (2nd party), and annual reporting for a range of clients. Royce has developed a desire to see sustainable initiatives and projects advanced in Tasmania, and hopes to help keep SEMF at the forefront in this area.



**NADIA CORCORAN,
MIEAust**

Nadia Corcoran completed a combined Bachelor Degree in Engineering (Civil, Hons) and Science (Geology) at The University of Melbourne in 2003.

On completion of her studies, she commenced work as a Graduate Geotechnical Engineer in February

2004 with Golder Associates in Melbourne. Nadia was involved in a wide range of geotechnical site investigations across Victoria and overseas including the Southern Cross Station Redevelopment, the Ballarat- Melbourne Fast Train Project, the MCG Redevelopment and the Goro Nickel Project in New Caledonia.

In 2007 Nadia joined Worley Parsons and was based full time on site as a Geotechnical Site Engineer as part of the EPCM for the Fortescue Metals Group Port, Rail and Mine Development Project. Nadia provided onsite geotechnical/geological support for the construction of the 256 kilometre railway extending from Cloudbreak mine site to the Anderson Point Port facilities in Port Hedland, Western Australia. Her duties included identifying potential borrow targets and quarry sites, undertaking site investigations for borrow sources, reviewing rail cutting stability and design compliance including geological mapping and slope stability, and providing general geotechnical advice during the construction of the railway.

In 2009 Nadia joined Arup as a contract Geotechnical Engineer and was primarily involved with the onshore ground investigation for the Ichthys Gas Field Development at Blaydin Point, Darwin. Nadia's role involved geotechnical logging and selecting samples for laboratory testing as part of the overall geotechnical investigation programme. Nadia was involved in the monitoring of laboratory results and progress at the offsite soil and rock laboratories in Melbourne and collated the final laboratory reports for the MOF&Tanks and Plant Facilities areas.

After several years of working away from home, Nadia decided to seek employment closer to home. Seeing his opportunity, her fiancé Julian finally convinced her to move to his

hometown of Hobart! Nadia joined SKM as a Geotechnical Engineer in April 2010 and has worked on several geotechnical investigations for Tasmanian projects including a new high voltage transmission cable, new watermains and upgrades to road and bridge infrastructure.

Nadia has also provided assistance to the SKM geotechnical group on the mainland including offshore drilling for future port expansion in Port Hedland, Western Australia.

In her spare time Nadia helps her fiancé Julian with his new excavation/construction business and escapes most weekends up to their house at Bicheno.

CONGRATULATIONS / WELCOME

Members joining, rejoining or upgrading

FELLOW

David Pollington, FIEAust

MEMBERS

Royce Aldred, TMIEAust
Simon Bentley, MIEAust CPEng
Nadia Corcoran, MIEAust
Karun Doddajataka Thammaiah, MIEAust
Rodney Jones, MIEAust CPEng

GRADUATES

Samantha Lane, GradIEAust

STUDENTS

(StudIEAust)

Daniel Baker
Jyoti Bhandari
Henry Fowkes
Monica Hudson
Bradley Parker
Lincoln Quilliam
Yee Wong
Yongjiu Xu

ADVANCE NOTICE

SLIDE RULES ON THE COLLECTORS SHOW ABC TV

1 OCTOBER 2010



RALPH RALLING'S IMPRESSIVE SLIDE RULE COLLECTION WILL BE FEATURED ON ABC'S COLLECTORS SHOW ON FRIDAY, 1 OCTOBER 2010.

IF YOU MISS THAT TELECAST, IT WILL BE REPEATED ON ABC2 THE FOLLOWING MONDAY, 4 OCTOBER 2010.

YOU MIGHT REMEMBER THAT RALPH WROTE US AN ARTICLE ON THE HISTORY OF SLIDE RULES IN THE AUGUST NEWSLETTER.

SOME OF THE FILMING FOR THIS COLLECTION WAS DONE IN THE ROYAL ENGINEERS BUILDING.

BALLOT 2010



Go to www.ballot2010.org.au to have your say

How will the Vote Work?

Voting will open at 9.00am (AEDST) on Monday, 18 October 2010 and close at 5.00pm (AEDST) on Monday, 15 November 2010. In accordance with the current Royal Charter and By-laws, only Corporate Members who are not in arrears are eligible to vote.

The voting process will be simple: there will be just one motion and all you have to do is either tick the **YES** box to accept it, or the **NO** box to reject it.

If you have provided Engineers Australia with an email address you will receive, via email, a pin code that will give you access to the voting page within www.ballot2010.org.au. Here you will be able to read the Explanatory Statement, these are the cases 'for' and 'against' the motion before you cast your vote. Your vote will be registered automatically. If you prefer not to cast your vote electronically, simply contact the Member Services Team on 1300 653 113 and a postal ballot form will be issued.

If you are eligible to vote but we don't have your email address, you will be sent a postal ballot form, along with a printed version of the Explanatory Statement. After voting, you should use the enclosed self-addressed envelope to return your completed ballot form. Your vote will be registered manually.

You can check the eligibility to vote criteria by visiting www.ballot2010.org.au or by calling our Member Services team on 1300 653 113.

Engineers Australia has appointed an independent company to operate and manage the online and postal ballot voting in accordance with Engineers Australia's regulations.



From Division President, Grant Atherton FIEAust CPEng (September 2010)

Over more than 90 years, The Institution of Engineers Australia has been well served by our Royal Charter and By-Laws. There have been numerous changes to the Royal Charter and By-Laws over the years, always with good intent, but often in a piecemeal fashion. This has led to the need for a total rewriting of the Royal Charter and the By-Laws to make them a concise and clear set of governance documents for our organisation to operate by. In addition to modernising and clarifying the documents, there are additional provisions required to help maintain our not for profit status with the ATO.

The rewriting of the Royal Charter and By-Laws has been a considered exercise with legal input from

experts in the field of not for profit organisations, and has been overseen by Congress as representatives of the broader members. Mike Green and I as the Tasmania Division Congress Representatives attended the Congress meeting in July where the amendments were thoroughly debated, with some minor amendments agreed by Congress.

The major change in the new documents is the granting of voting rights to Associates and Technologists on ballots to alter the Royal Charter and By-Laws - they already have other voting rights. I believe this is only equitable, if we have them as members, they should be eligible to vote on how the organisation is governed. When this was discussed at a Tasmania Division Committee Meeting, we had unanimous support for ballot voting by Associates and Technologists.

Importantly, the new documents do not change eligibility for the various grades of membership, nor their titles, hence any claims that the changes will affect professional awards is incorrect. I would therefore urge all eligible members to vote in the ballot and to vote yes to support the new governance documents.

What are the Key Issues ?

Clarity

The new documents bring the language of the Royal Charter and By-laws into the 21st century. They are written in plain English with ambiguities and legal flaws removed. We will no longer need lawyers to interpret our governing documents for us.

“The current constituent documents are inaccessible to their intended audience [members, office bearers and staff] both in terms of form and content. The language and style of both documents is out-dated and does not conform to modern, best practice legal drafting. Many of the provisions are poorly drafted, even by traditional standards. Quite a number are confusing or ambiguous.”
Tony Lang, Barrister

Compliance

Unless we insert a winding-up clause in our By-laws we will lose our status as a not-for-profit organisation. Currently we have a special dispensation from the Australia Tax Office in expectation that we will fix this issue at the first possible opportunity. Voting “yes” in this ballot provides that opportunity.

Equity

After 20 years as fee-paying members, Associates and Technologists would be given the right to vote in future ballots affecting the Royal Charter and By-laws.

Giving Associates and Technologists the right to vote does not alter the current governance structure of the organisation. The National Congress will continue to propose changes to the Royal Charter and By-laws and have those changes voted on through membership ballots. Giving Associates and Technologists the right to vote does not represent any power shift. It is simply a matter of equity.

“Members voted 20 years ago to include technologists and associates in our membership. Since then these groups have become an integral part of our diverse organisation.

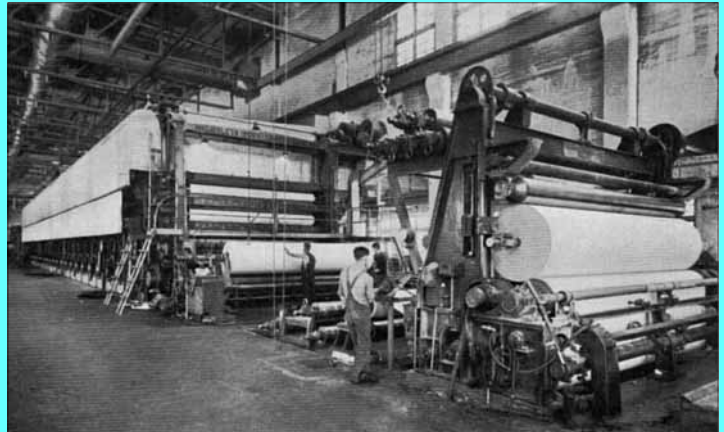
They represent Engineers Australia in senior office bearer positions and have shared in our strategic planning and major program development. This has strengthened, not weakened our organisation.”

*Peter Godfrey, FIEAust CPEng EngExec
Past National President, Engineers Australia
Chair, By-laws Committee 2010*

“I urge all Corporate Members to vote YES to adopt the new governing documents. They fix the fundamental problems that have plagued our outdated Royal Charter and Bye-laws; it is time to update them to make them clear, equitable and robust.”

*Doug Hargreaves, FIEAust CPEng EngExec
National President, Engineers Australia*

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 by **Monday 18 October** and you will be sent an invitation with further details.



Rail wagons at the mill

INSPECTING THE LEVEN RIVER BRIDGE CONSTRUCTION

On a Saturday, 14 August 2010 some 20 engineers and partners descended on the construction site of the new Leven River Bridge in Ulverstone on the North West Coast of Tasmania.

The project is being undertaken by VEC Civil Engineering for the Tasmanian Department of Infrastructure, Energy and Resources – the contract involves the design and construction of a six span 155 metre long bridge, including approach road works and services, to replace the current structure that was built in 1934 and is now at the end of its serviceable life.

Sinclair Knight Merz in Sydney designed the new bridge, with Pitt & Sherry in Hobart providing the road design. VEC's responsibility also entailed the coordination of the design team in the development of a design that would maximise the company's strengths, capabilities and knowledge.

Major features of the new bridge:

- Three metre wide shared path and links to existing footpaths.
- Aesthetic features including pier LED lighting and patterned concrete.
- Durability features including:
 - Silica fume and corrosion inhibitor added to the concrete
 - Stainless steel reinforcing in the tidal and splash zones
 - HDPE covers over the driven steel piles
- Designed as a propped superstructure:
 - Fixed at each abutment with abutments held rigid with embedded anchor blocks
 - Flexible piers as they are a single row of vertical piles
 - Movement from thermal expansion, creep and shrinkage that cause expansion and contraction from each abutment controlled by a large central expansion joint
- Structurally the piers are piles running up to the concrete crosshead.
- The concrete piers are generally aesthetic only and provide corrosion protection to the piles.
- Piles are generally driven to rock and the level varies along the site, therefore piles will range from 6 metres long to an expected 24 metres.
- Superstructure comprises 1500 deep Super T beams for the main spans and 450 deep 'planks' for the end spans – all prestressed and manufactured in Ulverstone.
- The Super T beams span a distance of 32 metres and weigh in at approximately 62 tonnes each.
- Shallow end spans provide clearance over footpaths at each end and minimise required road works.



*Aaron Brimfield, MIEAust CPEng
(General Manager - Structures, VEC Civil
Engineering) outlining aspects of the
construction to attendees*



The bridge is being constructed from each bank with two piers being built from the shore and three from a barge, which is two large barge modules connected together in a catamaran shape with a central construction well. Beams will be erected using an erection gantry.

Construction will be completed in May 2011, with the old structure removed and road connections completed by August 2011. The design life of this bridge is 100 years for all superstructure and substructure elements, including parapet rails.

EMINENT SPEAKER SERIES 2010-2011

COLLEGE OF ELECTRICAL ENGINEERING

Ken Brown FIEAust CPEng

General Manager System Management, Western Power
2010 National Professional Electrical Engineer of the Year



To RSVP for all sessions:

<http://www.engineersaustralia.org.au/eminentspeaker/>

(Please note there is a \$10 charge for Non-Members to attend Engineers Australia Eminent Speaker sessions)

Impacts of Emerging Technologies on Power Systems

The introduction of emerging technologies such as Wind Power, PV, Electric Vehicles and Smart Grids is having a considerable impact on the "traditional" way power systems have been operated and significant changes are taking place.

Ken will pose the question – Can the Engineering Profession keep up with this rapid change?

Ken will also speak on some recent major power systems disturbances that have occurred in the world and how lessons can be learned to help ensure the security of power grids is maintained and improved. He will explore some of the emerging trends that are shaping the energy future and how these trends will have implications for the Australian energy sector.

Mr Ken Brown is a 1975 University of WA graduate who holds the important position of General Manager System Management at Western Power, the principal electricity network operator in the SW of WA.

His is in a very autonomous management role, that for regulatory reasons is "ring-fenced" within Western Power and responsible for operation of the southwest electricity transmission and distribution systems within the electricity market framework. He has successfully managed the systems through a number of major problem events, such as the 2008 Varanus Island gas plant failure. That failure very adversely affected the availability of natural gas, which in WA is used extensively as a fuel for electricity production. His contributions to the State's emergency management framework have been of a very high level.

He is the Convenor of the Australian Panel on the operation and control of power systems within CIGRE, an international technical society on high voltage systems. He is also active at CIGRE's two yearly meetings in Paris, where he has chaired workshops attended by many delegates and in 2006 he was honoured with a major CIGRE Award.

Ken was awarded the Engineers Australia National Professional Electrical Engineer of the Year award in June 2010 in recognition of highly respected ongoing professional work in his area of practice, through which he has demonstrated high level skills and served as a role model for others.

PRESENTATIONS

Hobart

Date: Tuesday 19th October

Time: 5.30pm for 6pm Start

Location: Engineering Lecture Theatre, University of Tasmania, Sandy Bay

Brisbane

Date: Wednesday 10th November

Time: 5.30pm for 6pm Start

Location: Venue Details TBA

Sydney

Date: Tuesday 30th November

Time: 5.30pm for 6pm Start

Location: Venue Details TBA

Other Dates & Locations will be announced soon

2010-2011 SERIES SUPPORTING PARTNERS:



Members of Engineers Australia can claim CPD hours for attendance at this event.
Members should refer to Engineers Australia's CPD Policy for requirement details and conditions.



YOUNG ENGINEERS

*Mike Sylvester, MIEAust CPEng
Young Engineers Tasmania
National Representative*

new minds
new ideas.



The National Committee of Young Engineers Australia (YEANC) held their third quarterly meeting for 2010 at Parsons Brinckerhoff offices in Sydney from 26 to 28 August. It was the first meeting for three new National Representatives, including myself.

We had the privilege to attend the NSW Parliament House on the Thursday evening to watch the first ever Young Engineers vs Young Lawyers debate. The topic was “who makes the better politician, engineers or lawyers?” and was adjudicated by The Hon Tanya Gadiel MP, Senior Civil Magistrate David Heilpern and Dr Chris Nicol. Despite a strong argument from the negative (lawyers) that engineers are best suited to making technological advancements such as “iPhones and other gadgets”, the affirmative (engineers) did nothing less than tear their opposition apart when they misinterpreted the acronym CAD. The adjudicator’s decision was unanimous that the engineers had won the debate.

The meeting proper commenced Friday morning with a Power Breakfast, represented well by the Sydney Division. We were fortunate to hear from Professor Mike Dureau (Chairman and Executive Director of The Warren Centre) in relation to his engineering career and the choices he has made throughout his time to become one of the countries most influential engineering leaders. It was an absolute privilege to listen to his insights.

As you would be aware from other correspondence, we are encouraged to vote for the amended Royal Charter and By-Laws. This subject was

discussed openly by the National Committee. The primary symbolic policy change being recommended is that associate and technologist members will be permitted to vote in future ballots for changes to the Royal Charter and By-Laws. Congress voted overwhelmingly in favour of this, as a final legacy of 2008 our Year of the Engineering Team and this recommendation is supported by YEANC. I encourage you all to take the time to vote for these changes and for your voice to be heard in the upcoming ballot.

Each year the National Committee budgets \$10,000 to be allocated between the division committees for event funding. The idea being to provide financial assistance for divisions to host events in accordance with our strategic and operation plans. Following the success of our Engineering Breakfast to launch the Year of Engineering Leadership, YEAT intend to do the same next year and we were successful in obtaining \$2,500 from the National Committee budget for this event. Our allocation is 25% of the National Committee budget for a membership base circa 1.5% of the national membership. So well done to YEAT chair, Sandra Thaow, for submitting a great proposal.

YEA has been invited to be represented on the Young Engineers Internal Committee (YEI). YEI represents the interests of young engineers through international networking and attends conferences such as the World Federation of Engineering Organisations (WFEO). YEANC has awarded our International Representative position to Julian O’Shea, who is currently

working abroad as an International Outreach Officer with the Student Platform for Engineering Education Development (SPEED). I look forward to communicating more about Julian’s travels.

YEA has also been invited to attend the upcoming IQPC Bi-Annual Alliance and Collaborative Contracting Excellence Summit to be held in Melbourne at the end of November. Specifically, we have been asked to participate in a panel discussion on the ‘A’ teams of future projects to be held in a focus session on human capital. This panel discussion will allow young engineering team members to contribute to the discussion on the future of alliance and collaborative contracting projects. YEANC intends to call for expressions of interest for up to six panel members. IQPC will cover the conference fees so please give consideration to nominating if you are interested.

A key theme of the meeting that reappeared often through various agenda topics was the young engineer’s contribution to engineering leadership through participation and involvement in committees and subgroups that support the engineering profession. The success of the recent YEA and CELM Engineering Leadership Conference was testament to the role that the young engineer plays. Similar conversations took place as we discussed the National Committee responsibilities of the Young Engineer of the Year and the Most Inspiring Young Engineer awards. If you would like to contribute to the future of the young engineer and take up a leadership role than I strongly

encourage you to participate in the Young Engineers Tasmanian Division Committee. This is your chance to help define your profession's future. Feel free to contact myself or the Division if you would like to participate.

Michael Sylvester, MIEAust CPEng
YEAT National Representative
michael.sylvester@hydro.com.au

**“MEET THE
PROFESSION”
AT THE
AUSTRALIAN MARITIME
COLLEGE**

On Friday, 13 August a “Meet the Profession” session with presentations by three professional engineers was given to AMC students at the Newnham campus by presenters from varied engineering disciplines.

There were 55 eager young minds from the AMC in attendance, who listened attentively to some passionate speakers about their professional engineering experiences, from why they chose engineering as a career, through to some of their professional experiences and achievements and their future endeavors.



FRED BARRETT, MIEAust

Fred Barrett, a Naval Architect from Fred Barrett Yacht Design gave the first presentation on his career following his passion for naval architecture. His presentation clearly indicated his passion for the profession, and it is amazing to hear

his experiences, particularly with regard to his involvement with yacht design across the globe and leading a team to succeed against seemingly insurmountable odds and logistical constraints in the Volvo Ocean Race. It was inspiring to hear about the truly remarkable result that they achieved to place second in a following stage of the race after the yacht was dumped from a tremendous wave, and the repair of the subsequent damage was completed with significant logistical constraints. It was great to hear his candid recount of how engineers can provide remarkable results in less than ideal conditions within very tight timeframes.



ROD JESSON

Rod Jesson, a Civil Engineer from Engineering Edge, gave the next the presentation on his experiences within local government, his exit from and return to the engineering profession, and finally his experience working in a local consulting engineering firm. It was most interesting to hear about his views on how he viewed engineering as an art, with the example of a road being laid in order to ensure that full advantage is taken of the surrounding scenery, whilst providing ensuring maximum possible safety for road users, and the environment through which it runs. That engineering as an art form is certainly an interesting way of thinking about our profession, but in reality I would certainly agree there is an art in providing optimal technological outcomes within the constraints that are placed upon us. Once again, Rod's passion for engineering was clearly demonstrated through his presentation.



RODNEY BUSSEY, MIEAust

Finally, I gave a presentation regarding my own experiences through university and entering the workforce. This included my work in the maintenance and reliability engineering fields in heavy industry, and the parallels between this field and the broader quality assurance field that is, rightly so, such a focus across all endeavors.

Throughout the presentations there was a number of mentions of the role that Engineers Australia plays in the education and career development of engineers throughout their career. This resulted in an almost 100% take up rate of the student membership forms provided, so hopefully there will be a number of new student members signing up!

The presentations were followed by pizzas for lunch, which were enjoyed by all, after which I was given a tour of the AMC facilities, which are most impressive with a number of new additions to the infrastructure having been built since I was last there some ten years ago.

Thanks to Fred, Rod (and Rod Neville for organising Rod in his absence) for presenting, the AMC for giving us the opportunity to present, and Irene Penesis, Leslie Lundie and Sandra Thaow for their invaluable assistance in organising the day.

**Rodney Bussey, BEng (Mech),
MMRE, MIEAust**
Young Engineers Australia,
Tasmania



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



Rostrum Public Speaking Workshops

WIE members (and everyone else) in Hobart are invited to try a couple of Rostrum meetings to see how Rostrum can help people develop their communication and meeting skills.

Rostrum has 4 clubs in Hobart (4 others in Launceston & Burnie) and they meet at the following times every week;

- Tuesday, 1pm -2pm
- Wednesday ,7.30am (breakfast club)
- Thursday, 1pm and
- Thursday, 6.30pm.

All meetings are scheduled for only 55 minutes to enable members to get to their next appointments. Although most Rostrum clubs meet each week, I make the point that many members attend about 50% meetings and get great benefits. Annual cost is typically less than \$100. There is no charge made for visitors.

Rostrum can help WIE and YEA members in their careers (a year or two) and for some, can become a long-lasting interest.

At the breakfast club, most attendees buy breakfast (The Metropole café – Elizabeth mall), the lunchtime clubs BYO lunch and drink (St Davids Cathedral deanery offices), many evening club members buy a counter meal (Globe hotel). At all clubs, an interesting mix of people, professions and interests.

More info: <http://tas.rostrum.com.au/>

15th 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.

Abstracts Due Date: 1 December 2010

Venue: Adelaide

More info: www.icwes15.org

Victorian NAWIC Awards Presentation Dinner

Taswegians were also eligible to nominate for these awards (we're part of their VIC/TAS chapter). I've been to these NAWIC awards nights a couple of times before and they're a LOT of fun with building competitions, big sponsor prizes and bubbly champagne!



Date: Friday, 8 October 2010

Time: 6.30pm for 7.00pm

Venue: Savoy Ballroom, Grand Hyatt Hotel,
123 Collins Street, Melbourne

Cost: \$170.00

Dress Code: After five.

More Info: <http://www.nawic.com.au>

Lifting the Lid - National Forum Rural Regional & Remote Australia

As part of the 2010 Year of Women in Local Government, the Regional Development organisation is putting together a forum to discuss the issues facing regional and remote Australia. This forum will also feature guest speakers such as Mike Munro & Mia Freedman.

Date: 20 - 21 October 2010

Venue: Dubbo NSW

Cost: \$165

More info: <http://www.rdaorana.org.au>

News

TASMANIAN HONOUR ROLL OF WOMEN

Can you think of any women in your company, team or even family that has given a significant contribution to the Tasmanian or global community? Any women or girls who have demonstrated awesomeness in their chosen field or pursuit? Then go online and nominate them! Selection of new members to the roll will be guided by the following criteria:

- Personal, academic and professional achievements - past and current
- Key achievements in advancing social justice
- Contribution in their relevant field
- Contribution to the development of regional communities
- Degree of difficulty of the achievement
- Voluntary activity - nature and length of involvement.

More info: www.women.tas.gov.au/



Thanks to Meredith

As part of her tireless efforts to promote engineering, our committee member spoke at the Rotary Club of Sandy Bay last month. Accompanying her was young engineer, Jannell Nolan.

Meredith spoke about *what* engineers actually do and her work encouraging school kids to pursue the awesome career of engineering.

Reflection

“Diversity in the Workplace” A Joint CELM / WIE Seminar

On Tuesday, 14 September the Tasmanian Centre for Engineering Leadership and Management (CELM) and Women in Engineering was fortunate to have Dr Marianne Foley, MIEAust CPEng visit Hobart and talk about Diversity in the Workplace.

Dr.Foley’s seminar was very interesting and she had some excellent statistics which demonstrated the challenges ahead, both for women and company managers.



Dr Foley presenting at the Woolstore Theatre

Whilst women under 30 tend to believe that there is not a problem, it is when they gain more experience, that the lack of diversity and ‘subconscious discrimination’ becomes apparent. Introducing diversity to the general ‘white alpha male’ leadership groups improves the performance of businesses and our professions. She gave many examples of how Arup are pursuing diversity in their company and the challenges they face in resourcing the right people.

The CELM team organise some excellent and well attended seminars and I encourage everyone to go along. These seminars count towards your CPD, they are interesting, and you get to network with fellow professionals over lunch.

Quote of the month

“Nothing worth doing is ever easy. The tastiest ice cream is the hardest to scoop.” Anonymous

Women in Engineering Tasmania is Proudly sponsored by GHD:



WIE Committee Members:

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

Email: wietas@gmail.com

www.womeninengineering.com.au



CALLINGTON MILL at Oatlands, Tasmania

A story of Booms, Busts and Recoveries

This heritage lecture was presented by Martin Farley of “Creating Preferred Futures”, the Principal Consultant for the restoration to a fully working historic flour windmill. Originally Martin was to be assisted by Neil Medcalf of “Traditional Millwrights” but, as Neil was actually engaged on site, mounting the sails on the new cap, he was unable to attend.

The original owner, John Vincent was regarded as a early version of Allan Jones, someone who would look about him to see any opportunity to make money. But why build a mill at Oatlands? Martin said the land was suitable for grain growing, Oatlands was a convict administration centre with a large work force requiring flour which was fetching high market prices elsewhere in the colony and, as the local pub owner, he needed to invest his grog money by speculating to accumulate.

Built in 1837 the firm of Cleghorn and Anderson did an excellent job, even to tapering the stones to match the reducing diameter as the tower rose. The original machinery, including two pairs of French grinding stones, was imported and erected by two of the colony’s most important millwrights, Easby & Robertson.

The Mill is a Lincolnshire 20 metre tapering stone tower mill fitted with a cap, fantail and sails. The four “Patent sails” each 12 metres long allowed the miller to adjust them, even when the mill was working, to control the speed of the millstones. The fantail, the small windmill on the cap, automatically turns the cap and sails into the wind. The windshaft is the vertical axle which transmits the power to the stones and ancillary machinery. The Hobart Town Courier in 1838 described it as “one of the first rate windmills in the country.”

However the business outlook for Tasmania radically changed during the period 1840 to 1880. Tasmania was replaced as the Australian grain bowl and severe depressions followed. Despite the addition of a steam mill and separate grinding stones, a further setback occurred when the new railway spur brought competition for the raw material from the Hobart-based Gibson’s mills. In 1892 the mill closed. This was followed by a fire in the mill and a storm blowing the original cap into Lake Dulverton.

The mill remained almost derelict until bicentennial funds in 1988 bought new floors & new cap (though not correct for this mill), and the surrounding buildings were partially refurbished as a tourist attraction but not completed.

In 2004 a feasibility study for a working mill was completed. It was followed in 2006 by a business plan & structural analysis which gained funding approval in 2007 from the State (1.2M) and Federal (1.2M) governments, and Southern Midlands Council (250k). By 2008 a contract was issued for fabrication of machinery and, in 2009, the millwright carried out site measurements. The construction of milling equipment was done in United Kingdom at Boston.

In 2010, the millwright, Neil Medcalf had assembled the new machinery and on the night of the presentation in June was busy fixing the new sails to drive the machinery.



Restoration work in the tower

Tony Lee OMIEAust
Engineering Heritage Tasmania

Professional Indemnity Insurance - understanding the risk.

Darren Pavic, Broking Manager, Bovill Risk & Insurance Consultants

Engineers Australia Tasmania Division



Event Details

Date: 11 October 2010

Time: 5:00pm for
5:30pm start

Venue:

Royal Engineers
Building
2 Davey Street
Hobart TAS 7000

Cost: Free

RSVP:

Friday 1 October 2010
to: Tasmania Division
[creading@engineers
australia.org.au](mailto:creading@engineersaustralia.org.au)

Professional Indemnity is an area of importance not often considered by many practising professional engineers.

In this presentation Mr Darren Pavic will explain Professional Indemnity insurance and its role in managing risk for the professional engineers. Darren has extensive experience in insurance and risk consulting and will impart his knowledge on the current approaches to both.

The purpose of the presentation is to address key questions facing practising engineers so if you have specific questions please email them to creading@engineersaustralia.org.au and Darren will be able prepare a response and share them with the audience at the presentation.

Darren Pavic has been arranging professional indemnity for engineers since 1998.



Darren Pavic, Broking Manager
Bovill Risk & Insurance Consultants (BRIC)

Darren has a Bachelor of Commerce, is a Qualified Practising Insurance Broker and a member of the Australian Professional Indemnity Group.

BRIC is the recommended insurance broker for EA members.

BRIC Bovill Risk &
Insurance Consultants



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2010 YEAR OF
ENGINEERING LEADERSHIP



Further your engineering studies with a Master of Maritime Engineering

The Australian Maritime College is now offering Master of Maritime Engineering (Technology Management) and Master of Maritime Engineering (Naval Engineering) degree programs, designed to provide engineering graduates with in-depth exposure to a wide range of subjects relevant to the development and procurement of maritime engineering systems.

These programs are aimed at engineering professionals with limited exposure to the maritime engineering sector. You can work while studying to gain a relevant professional qualification.

Interested? For further information contact

Associate Professor Norman Lawrence
National Centre for Maritime Engineering and Hydrodynamics
t | (03) 6324 9571 f | (03) 6324 9337 e | l.saunders@amc.edu.au

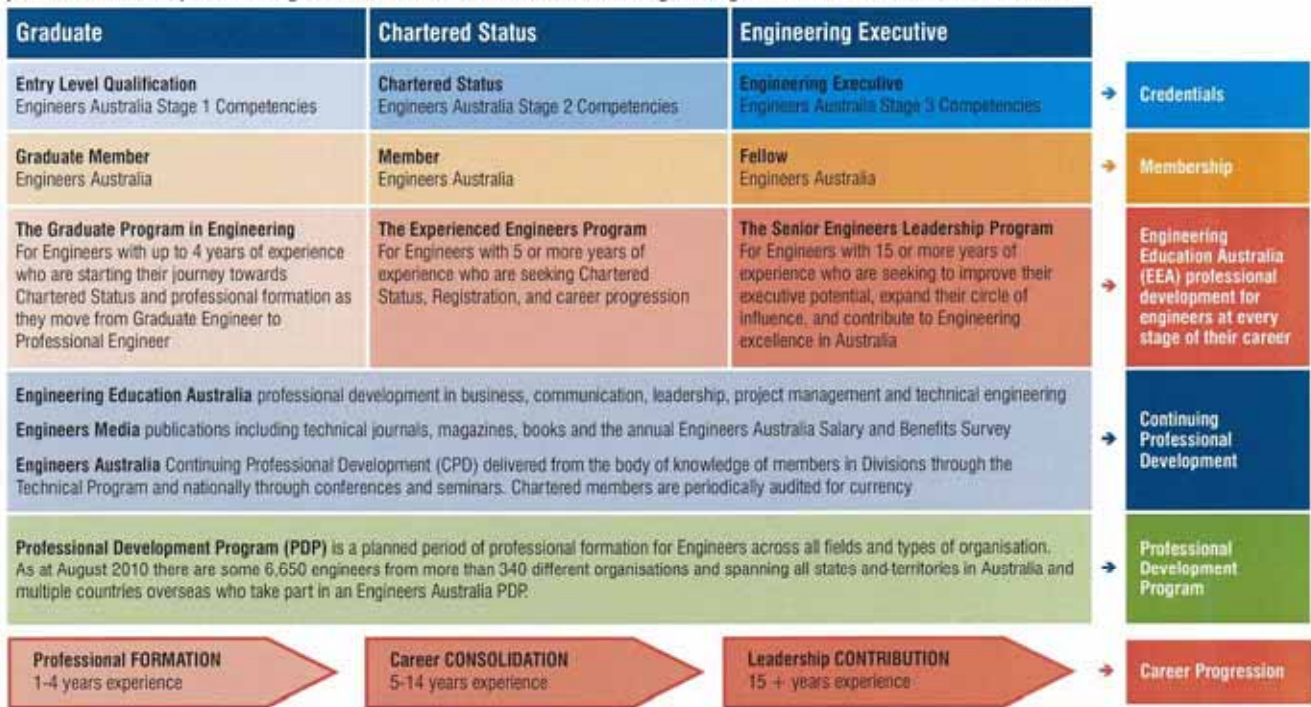
www.amc.edu.au



Engineering Capability Development Model

Skills on Hand, Career in View

Engineers Australia provide structured development pathways for the advancement of Engineering and the professional development of Engineers to ensure that the standards of Engineering Practice in Australia are world class



August 2010



www.engineersaustralia.org.au

Engineers www.engineersmedia.com.au



Engineering Education Australia

www.eeaust.com.au

Thursday, 14 October 2010 - Salamanca Inn, Hobart
FREE OF CHARGE

9.00am to 10.30am - RSVP to Alison on 9274 9600 or Alison@eeaust.com.au

Chartered Status - HAVE YOUR QUESTIONS ANSWERED

For those heading towards Chartered Status:

- Are you struggling with writing your CER?
- Are you unsure about what is required to write to demonstrate competency?
- Do you want to know how to use your relationship with managers & mentors to help you with writing CERs, and for your career development?



*Rowan Crosbie-Goold
Vic/Tas Industry Manager*

To experienced engineers:

- Do you know why Chartered Status is increasingly relevant & important for younger engineers you manage?
- Are you aware of the recent legislative changes affecting engineers' ability to practice and the regulatory trends?
- Are you confident in providing meaningful mentor support to assist them in their career development, without wasting your time?



If the answer is “yes” or you have other questions relating to Chartered Status then come along to a free Questions & Answers session with Rowan.

LAUNCESTON

When: Tuesday, 12 October 2010
Where: Mercure Hotel
3 Earl Street, Launceston
Time: 5.30pm

HOBART

When: Wednesday, 13 October 2010, 5.30pm
Where: Royal Engineers Building
2 Davey Street, Hobart
Time: 5.30pm

Light refreshments will be provided

RSVP to creading@engineersaustralia.org.au or 6234 2228

Timber Structures Overview Seminar



Thursday 14th October - Hobart

Time: 12.15pm – 5.30pm

(Registration & light lunch from 11.45am. Drinks & Networking will follow the seminar till 6.30pm approx)

Venue: Gretel Room, Hobart Functions & Conference Centre
1 Elizabeth Street Pier, Hobart City

Cost: \$95 inc GST (EA & Other Professional Association Members) or \$125 inc GST (Non-Members)

[Register on flyer located at www.engineersaustralia.org.au/tasevents](http://www.engineersaustralia.org.au/tasevents)

(Registration & Payments due by Monday 11th October)

Engineers Australia presents an afternoon seminar designed to give you an overview some key areas of Timber Structures.

Given the growing recognition of timber as a good environmental choice, users and specifiers need to be aware of how to effectively utilize the timber products that are available to them.

This seminar will give engineers, contractors, architects and builders the knowledge needed to confidently specify and use some common timber products in their projects.

It is focused on key topics of timber piling, timber connections, timber stress & proof grading & fire protection, with an overarching presentation regarding the durability of timber. There will also be a presentation looking at designing in timber vs other materials, particularly steel and when it is best to use each type of material.

This seminar has a practical focus so attendees will be given the basics of design and specification in each case, will be shown examples of do's and don'ts and will be updated on current practices, ensuring the best utilization of the resource, and the best result for the end customer.

Topics & Speakers:

Timber Piling: Nathan Spencer – Koppers Wood Products

Connection Design: Dean Ashton – MiTek

General Durability and Treatment: Dr Laurie Cookson – CSIRO

Fire Protection: Boris Iskra – TPC Solutions

Timber Stress & Proof Grading: Geoffrey Boughton – TimberED Services Pty Ltd

Timber vs Steel in Construction: Jim Gandy – Gandy and Roberts Consulting Engineers



This Seminar is supported by **Forest and Wood Products Australia**

Engineers Australia members can choose to record **CPD Hours** for attendance at this event. Members should refer to the CPD Policy for requirements and conditions.



ENGINEERS AUSTRALIA

ADVANCE NOTICE

Joint WOMEN IN ENGINEERING & CIVIL BRANCH

SITE VISIT TO THE KINGSTON BYPASS

DATE: Friday, 26 November 2010
TIME: 4.00pm



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.

More information will be in the next newsletter

NORTH WEST GROUP

SITE VISIT

“BOTANICAL RESOURCES AUSTRALIA (BRA) - NEW PELLET STORAGE FACILITY INSPECTION”

DATE: Wednesday, 20 October 2010

TIME: 5.00 for 5.30 pm at Botanical Resources Australia (BRA), Ulverstone

PLACE: 44-46 Industrial Drive, Ulverstone.

Leigh Bryan (Tasmanian Consulting Service) & Ray Howe (Botanical Resources Australia) will lead the inspection, which will focus on the design and operation of the remotely controlled facility incorporating automated infeed, reclaim and aeration systems to minimize the requirement for operators to work in a dusty environment. The custom designed facility with a floor area of approximately 2500m² is capable of storing up to 4500 tonnes of pyrethrum pellets and was constructed in only 23 weeks during some of the wettest weather experienced on the North West coast in recent history.

BRING: High visibility vest and safety shoes

RSVP: Those persons planning to attend are to advise Subhrajit Sinha by phone on 6424 9085 or by e-mail at Subhrajit@tascon.com.au by Friday, 15 October 2010

The inspection will be followed by a two course meal at Pedro's 'The Restaurant', Ulverstone.

Meal Cost: \$15 Members and Partners and \$20 Non Members.

Attendance for inspection only is free of charge.

THIS MEETING WARRANTS 1.5 HOURS CPD

The Centre for Engineering Leadership and Management (CELM) enhances professional opportunities for members of Engineers Australia by developing, recognising and promoting their ability to participate in a lead business, innovation and change.

Tuesday, 26 October 2010

12.15 for 12.30pm till 2.00pm

**Old Woolstore Theatrette
1 Macquarie Street, Hobart**

“Leadership in Continuing Professional Development”

CELM Tasmania invites you to a lunchtime forum and panel discussion on leading Continuing Professional Development in your organisation. The presenters represent government and consulting bodies and education providers. With a scarcity of experienced engineers and an aging workforce CPD will become increasingly important in meeting the growing gap between the raw university trainees and the white-haired retiring experts. The presenters are:



PETER TODD, General Manager Roads and Traffic, Department of Infrastructure, Energy and Resources, Tasmanian Government

Peter Todd graduated from the University of Adelaide in 1980 with an Honours degree in Civil Engineering. He has a Masters of Business Administration through Deakin University. He has more than 30 years experience in road transport engineering having worked in both South Australia and Tasmania. Peter has experience in road planning, bridge design, materials engineering, pavement management, asset management, and field operations. Currently he is the General Manager of the Roads and Traffic Division in the Tasmanian Department of Infrastructure, Energy and Resources. He has responsibility for leading the Division in the planning, development, management and operation of the State road network.

RAY FARRELLY, MIEAust CPEng - Executive Manager – Development, CPEE

At the end of 2007 Ray concluded over 27 years as the Chief Executive Officer of AAPA ,having played an instrumental role in AAPA being a highly regarded professional organisation, recognised both nationally and internationally. During this period he had considerable involvement on various industry committees , including those of Standards Australia, a member of Council of the Centre for Pavement Engineering Education (CPEE) and a member of Council of the Road Engineering Association of Asia and Australasia (REAAA) - Australian Chapter. Ray is a qualified civil engineer, a Member of the Institute of Engineers (Aust), a Chartered Professional Engineer. At the start of 2008 he was appointed as the Executive Manager : Development, with the Centre for Pavements Engineering Education (CPEE), which fosters the enhanced knowledge and skills in the roads and pavements sector. This is a role Ray is very passionate about with an organisation he was instrumental in establishing in 1994.



LOCHLAN GIBSON, Manager, GHD Tasmania

Lochlan is the GHD Tasmania Manager of a business with over 160 engineers, architects, planners, scientists and technicians in Hobart, Launceston and Burnie. He has over 15 years experience with a practical and business focus to solving problems using sustainability solutions to a background in the Oil and Gas, Mining and Infrastructure industries. Previous roles within GHD include the Business Group Manager, Environment and Planning for South Queensland, where he managed the business growth from 45 to over 100 people. Prior to joining GHD, Lochlan was a Partner and Principal of a Health, Safety and Environmental consultancy starting operations in Houston, Texas U.S.A. His career has included working on projects in all States of Australia, USA, Indonesia, Trinidad & Tobago, Qatar, Egypt and New Zealand.

A light lunch will be provided at the meeting. For catering purposes please contact Catherine on creading@engineersaustralia.org.au or 6234 2228 to confirm your attendance prior to Thursday, 21 October 2010

Risk & Liability Management

This **two-day** course presents how current and emerging risk and reliability tools and techniques can be used to achieve engineering due diligence for organisations and projects. It is based on the very sensible ethical position of the common law, namely, that all reasonable practical precautions are in place based on the balance of the significance of the risk verses the effort required to achieve it.

The first day focuses on risk philosophies including the ideas and implications of the Rudd Government's model Safe Work Act 2009. The second day provides an overview of risk and liability management techniques and explains the strengths and weaknesses of them and when each is most appropriate to use.



27 & 28 October 2010
Salamanca Inn, Hobart
 Download flyer at:
www.engineersaustralia.org.au/tasevents

Target Audience For risk advisers in major engineering organisations, regulators, lawyers, general managers, responsible project managers and those who wish to improve current approaches to risk management.

Course Outline

Taxpayers and shareholders expect critical assets to work reliably and safely. Boards, Government Ministers and CEOs need to ensure that the precautions put in place to manage threatening, critical issues are effective and appropriate. The reasoning to achieve this outcome should be transparently documented in a way acceptable to shareholders, taxpayers, regulators and the courts, if required.

This was never easy in a complex, technological society like Australia. But in a global recession errors in technological judgment can easily be fatally amplified. In order to address such concerns, engineering due diligence is required.

This course provides an overview of risk philosophy, existing and emerging risk management techniques, key tools and techniques to identify, manage and minimise technical risk. It explains the strengths and weaknesses of each technique and when the use of each is appropriate.

This course is based on extensive risk management experience applied to engineering projects of all sizes within Australia and abroad. The theoretical basis of the ideas is documented in the provided Risk & Reliability Associates (R2A) text, currently in use at four Australian universities. The course covers the first two parts of the R2A Text.

Risk & Reliability Concepts

Insurance risk versus speculative risk philosophies; business risk verses safety risk; historical perspective; relationship of risk to reliability and quality.

Risk Management Paradigms & Safety Cases

Asset management approaches like HazOp and RCM; threat based SWOT or vulnerability assessments; market based risk as variance approaches; best practice versus hazard based risk management; computer simulated neo-Darwinism; risk culture approaches.

Legal Liability

Common law principles & due diligence; inquisitorial versus adversarial legal systems; human law versus laws of nature; adversarial legal system contradictions; the consequence driven nature of the courts.

Causation

A view of the future of risk; minimalist legal human error approaches; time & energy sequence approaches; culture/hazard versus vulnerability versus pathogen based; rise of the risk society in a context of globalisation.

Risk Criteria

Use of probabilistic criteria in Australian jurisdictions; societal risk criteria; environmental criteria; insurance criteria; ethical criteria.

Top Down Techniques

SWOT assessments vs threat and vulnerability assessments; risk characterisation systems & AS/NZS 4360: 2004; risk profiling processes & residual risk allocation; use & limits of risk audit systems; enterprise vs project risk profiling; risk ranking registers; acute OHS hazards; property underwriting; integrated risk based investment approaches.

Bottom Up Techniques

Technical risk assessment techniques HazOps; FMEA, FMECA and RCM; QRA; HACCP; different approaches.

Modelling Techniques

Reliability block diagrams; cause-consequence modelling (fault & event trees); threat barrier diagrams; risk based availability modelling; human reliability analysis.

Generative Techniques

Generative interview techniques; generative solution techniques; independent rapid risk reporting techniques.

Course Objectives

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

- Gain an appreciation of what constitutes common (case) law due diligence
- Understand why target levels of risk or safety and supporting Quantitative Risk Assessment (QRA) cannot survive post event legal scrutiny in Australia
- Explain how to show fiduciary responsibility for technology, especially in essential service organisations
- Understand criticality, risk and reliability concepts in a common law context
- Appreciate the different risk management organisational 'sign-off' paradigms
- Apply top down risk management techniques to organisational and project risk issues
- Understand the strengths and limitations of bottom up techniques like Failure Mode and Effect Analysis (FMEA) and Hazard and Operability Studies (HazOps)
- Apply a more comprehensive approach to risk management

“ Good explanation of risk management and the diversity that it involves. Well presented by Richard's knowledge and experience. ”

*Director
Thwaite & Associates*

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

\$770 Tas Div Members
\$990 Non Members

www.eeaust.com.au



CALENDAR 2010

For up to date information on these and other events, please visit www.engineersaustralia.org.au/tasevents

OCTOBER

Monday 11 - Bovill Risk & Insurance Consultants - Professional Indemnity Insurance, Understanding the Risk - Darren Pavic (Broking Manager, BRIC) - 5.00 for 5.30pm - Royal Engineers Building, 2 Davey Street - RSVP to Catherine Reading on 6234 2228 or creading@engineersaustralia.org.au (Refer to page 13)

Tuesday 12 - LAUNCESTON - CHARTERED STATUS, YOUR QUESTIONS ANSWERED - 5.30 for 6.00pm - Mercure Hotel, 3 Earl Street - RSVP to Catherine Reading on 6234 2228 or creading@engineersaustralia.org.au (Refer to page 15)

Wednesday 13 - HOBART - CHARTERED STATUS, YOUR QUESTIONS ANSWERED - 5.30 for 6.00pm - Royal Engineers Building, 2 Davey Street - RSVP to Catherine Reading on 6234 2228 or creading@engineersaustralia.org.au (Refer to page 15)

Thursday 14 - EEA - Engineering Capability Development Model "Skills on Hand, Career in View" -The Engineering Capability Development Model presents a structured development pathway for the advancement of Engineering and the professional development of Engineers to ensure that the standards of Engineering Practice in Australia are world class - 9.00am to 10.30am - Salamanca Inn, Gladstone Street - Attendance is **FREE** of charge - For more information & to register please contact Alison on 9274 9600 or Alison@eeaust.com.au (Refer to page 14)

Thursday 14 - Timber Structures Overview Seminar - 12.15pm to 5.30pm - Hobart Function Centre, Elizabeth St Pier - \$95.00 EA Members or \$125 Non Members - Register at www.engineersaustralia.org.au/tasevents (Refer to page 16)

Tuesday 19 - Electrical - Impacts of Emerging Technologies on Power Systems - Ken Brown (2010 National Professional Electrical Engineer of the Year) - 5.30 for 6.00pm - UTAS Engineering Lecture Theatre, Sandy Bay - RSVP to Catherine Reading on 6234 2228 or creading@engineersaustralia.org.au (Refer to page 7)

Wednesday 20 - North West Group - SITE VISIT - Botanical Resources Australia (BRA), Ulverstone, New Pellet Storage Facility Inspection - Leigh Bryan (Tasmanian Consulting Service) & Ray Howe (Botanical Resources Australia) - Meet at Botanical Resources Australia (BRA), Ulverstone reception at 5.00 pm for 5.30 pm - **Attendees must have suitable safety equipment** - RSVP to Subhrajit Sinha on 6424 9085 or Subhrajit@tascon.com.au (Refer to page 17)

Tuesday 26 - CELM - Continuing Professional Development in your Organisation - Forum Discussion - Peter Todd (DIER), Lochlan Gibson (GHD) and Ray Farrelly (CPEE) - 12.15 for 12.30pm - Old Woolstore Theatre, 1 Macquarie Street - RSVP to Catherine Reading on 6234 2228 or creading@engineersaustralia.org.au (Refer to page 18)

Wednesday 27 & Thursday 28 - EEA 2 DAY SHORT COURSE - Risk & Liability Management - 8.30am to 5.00pm each day - Salamanca Inn - **HOBART - \$770 (EA Members) - \$990.00 (Non Members)** (Refer to page 19)

MIKE Courses

1 - 2 November 2010

The Old Woolstore Hotel
1 Macquarie Street, Hobart

Short Description: For the first time, DHI is offering MIKE11 and MIKE FLOOD Software training in Hobart. These two day introductory courses will focus on hands on application of dynamic hydraulic models for analysis of flooding in channels and floodplains.

Discounts apply for EA members download registration flyer at:
www.engineersaustralia.org.au/tasevents

Introduction to MIKE11 (2 days)

The 2-day course aims at enabling the participants to apply the basic functions of MIKE11 such as setting up simple models and evaluating their results. Move from HEC-RAS into a fully dynamic hydraulic modelling environment.

Topics

- Introduction to hydrodynamic modelling with MIKE 11
- Concepts behind 1D hydrodynamic modelling
- Understanding data requirements for building and using MIKE 11 models
- MIKE 11's Graphical User Interface
- Running simulations
- Presentation and interpretation of simulation results
- Introduction to modelling of hydraulic structures
- Hands-on exercises

Prerequisite: None

Introduction to MIKE FLOOD (2 days)

This 2-day course aims at enabling attendees to develop 2D overland flow models coupled with 1D river models to simulate the fully integrated flow dynamics between channels and surrounding flood plain areas.

Topics

- Overview of MIKE FLOOD
- Introduction to 2D overland flow modelling
- Topographic data handling
- MIKE FLOOD graphical editor; coupling of 1D and 2D models
- GIS integration
- Implementation of fine scale structures in coarse grids
- Tips and troubleshooting with model coupling
- Results viewing and presentation
- Hands-on exercises

Prerequisite: Some experience with MIKE11/HEC-RAS (or equivalent 1D models)