

# Engineering Tasmania

November 2011



ENGINEERS  
AUSTRALIA  
Tasmania Division

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



This is the last newsletter for 2011 and I would like to thank all those who contributed to this the Year of Humanitarian Engineering. This includes the ever diligent members of our Divisional office, Director Geoff Harper, Office Manager Catherine Reading and David Pointing our Education and Industry Manager.

To our Divisional Committee and of course to you our members, I say thank you for your continued support. In assessing the success of the year I would like to touch on some of the things that we have achieved.

As I have previously said, our **Young Engineers** are critical to our profession. They are not only our future but our present. It has therefore been great to see the increased enthusiasm and activity of our Young Engineers group this year under the very capable leadership of Sandra Thaow. In particular I have noted their closer participation with the UTAS Engineering Society and their focus on the needs of our student members.

This year saw the launch of our **Parliamentary Support Program** where we matched two senior engineers with each participating member of State and Federal Parliament. This has been significant in that this program now provides us with an opportunity to directly support our Parliamentarians in achieving a more robust and informed debate on the issues of critical infrastructure, which are central to our profession. In so doing this enables us to continue to build on the reputation and relevance of our profession within the community.

Members of Tasmanian Division have been very active in supporting a key activity for the **Year of Humanitarian Engineering**. This was the development and launch of the Engineers Australia's **National Reconciliation Action Plan (RAP)**. Through a number of member events, and meetings directly with engineering organisations we have actively promoted the RAP and remain committed to its ongoing implementation.

The **Engineering Excellence Awards** saw a strong field in both the project and individual awards. Congratulations once again to our project and individual winners who will go on to compete in the National Engineering Excellence Awards in Canberra this month.

This year saw an increased focus on **Australian Engineering Week** and the range of activities on offer to both you our members and the public. This year's program included heritage walks, site visits and networking evenings in the South, and a 'Taster in engineering' for Year 10 students in the North. The very active program in the North West included a range of events on stormwater and lighting as well as the Science and Engineering Super Challenge and networking events.

We thank our  
2011  
Engineering  
Excellence  
Award Sponsors



*President's Report cont .....*

Our members are to be congratulated for running such a comprehensive program.

We once again supported the **Science and Engineering Challenge** and saw great enthusiasm and rivalry from the 37 competing High Schools. This year's final was held in Devonport. Special thanks to Susie Haley UTAS School of Engineering, Outreach Officer for her assistance in coordinating this event.

The **Engineering Initiative Program** which targets Year 10 students from public schools across Tasmania has once again been a key component of our annual education activities. I would like to thank our new Manager for Education Programs, David Pointing for successfully running this and our many other education and development activities.

You would have seen from my President's Columns this year that, through our **Infrastructure Report Card**, I have consistently sought to focus on the state of Tasmania's critical infrastructure and the steps that need to be taken to maintain and improve it. We have achieved a higher profile in the media and through speaking engagements at local conferences on this issue and I encourage a continued focus on critical infrastructure in the coming years. We have a voice on this issue and it is starting to be heard.

Our keynote presentation, the **Alan Burn Memorial Lecture** was recently delivered by Dechlan Ellis in both Hobart and Devonport. His topic was the 'Contribution of Military Engineers to Humanitarian and Relief Operations'. The lecture directly supported two of our aims for the year. They were to seek to educate engineering teams about the significance of the positive impact that can be made through humanitarian engineering and to

build awareness around the enormous local and international needs for humanitarian relief, and the many ways that engineers can make a difference. The lecture was very well received and was well attended at both locations.



*(l-r) Dechlan Ellis and Greg Walters at the Alan Burn Memorial Lecture*

Please note that this month we have the **16th Engineering Heritage Australia Conference** being held at Wrest Point on 13-16 November. This is the latest in the series of the biennial Australia and New Zealand engineering heritage conferences, the last being in Dunedin in New Zealand in November 2009. Congratulations to our own Bruce Cole and his team for organising what looks like being an exceptional event. I encourage you to consider attending.

You are also invited to attend our **Division's Annual General Meeting** to be held at 4.30pm on Monday, 28 November in the Royal Engineers Building, 2 Davey Street, Hobart. The AGM is a good opportunity to voice your opinion, meet the staff and members who have represented you throughout the year and, if interested, find ways to get involved.

As I say my final farewells I believe that I have left the Division in a good position and am confident about the future as I hand over to your very capable incoming President, Keith Midson FIEAust CPEng.

I have greatly enjoyed my involvement with our Division this year and am proud of what we have collectively been able to achieve. It has been a pleasure serving you as your President.

**Greg Walters, FIEAust CPEng EngExec**

Please send any comments and feedback to:

[TasPresident@engineersaustralia.org.au](mailto:TasPresident@engineersaustralia.org.au)



*At the WIE/CELM "Corporate Games" seminar (l-r) Vice President, Keith Midson FIEAust CPEng and Rob Lowther FIEAust*

# PRESENTATION OF FELLOW CERTIFICATES



*At the Alan Burn Lecture in Hobart: (l-r) Peter Clark OFIEAust, Phil Gee FIEAust CPEng, Bruce Lord FIEAust, Phil Cantillon FIEAust with Division President, Greg Walters FIEAust CPEng EngExec*



*At the Alan Burn Lecture in Devonport: (l-r) Division President, Greg Walters FIEAust CPEng EngExec, Ron Bessell OFIEAust, Vere Cooper FIEAust CPEng and Barry Cash FIEAust CPEng*

## UPGRADING MEMBERS



**PHIL CANTILLON,  
FIEAust**

Phil Cantillon graduated from Monash University (former Chisholm Institute of Technology) in 1985 with a Bachelor of Engineering (Civil).

He joined VICROADS (former Road Traffic Authority) that year as a Traffic Engineer involved in the upgrade and linking of signals along tram routes.

In 1988 he moved to Broadmeadows City Council as a Design Engineer, designing and contract managing a range of works, including a bowls green!

By 1990 Phil joined the NSW Roads and Traffic Authority, engaged as an Assistant Works Engineer at Goulburn delivering maintenance and construction projects.

In 1992, he was appointed Resources Engineer, to now also manage spray sealing and line marking and the asset condition assessment programs before becoming Maintenance Engineer in 1993 responsible for overall management of Goulburn Works Office. Later that year, Phil transferred to Deniliquin and was Performance and Productivity Engineer for the Riverina District Office.

In this role, he co-ordinated the resources across three Works Offices and managed the spray seal, line-marking and bridge operations, which included bridge maintenance of the truss/lift span border bridges over the Murray River.

As part of the progressive change within the RTA from a day labour organisation to one that better balanced in-house capability and an outsourced environment, Phil led various

organisation reforms, internal benchmarking and external market testing.

By 1997 Phil and his family moved to Tasmania joining the former Department of Transport as a Project Director, managing the development and delivery of several major works including the \$17 M Port Sorell to East Devonport Duplication, \$40 M Westbury and Hagley Bypasses and \$66 M Penguin to Chasm Creek Deviation.

By 2001, Phil was now Manager Programming & Delivery (later renamed Director Operations). The Branch has around 100 staff and has been delivering annual work programs in excess of \$250 M across activities that span program and project management, agency wide procurement, contract management, network management, transport systems, business services and stakeholder engagement.

Phil is concurrently Project Director for the \$266 million Brighton Bypass/Transport Hub, which used an Early Contractor Involvement (ECI) procurement model for the first time in Tasmania.

Phil is married to Maria and has two daughters aged 17 and 15.



**MICHAEL RICE,  
MIEAust**

Michael Rice graduated from the United States Naval Academy in 1992 with a Bachelor of Science in Mechanical Engineering. Michael was commissioned as a naval officer

and completed 18 months of training required to become a Nuclear Power Engineering Officer. He served on the USS Nimitz for 4 years as a division officer in the Nuclear Power Plant Department. He was the operating team leader of an operational crew as well as stints as the Mechanical Division Officer and Electrical Maintenance Division Officer. He served his final 2 and half years in the Navy in an exchange program with the United Kingdom's Royal Navy and worked as a trainer in electrical theory. Before leaving the UK, Michael completed a Masters of Science in Control Technology at the University of Portsmouth.

In 2000, Michael left the Navy and immigrated to Australia. He started work at Cadbury Tasmania as a Maintenance Engineer and served in this role for 4 years. During that time he was responsible for the maintenance and continuous improvement projects on 4 production lines and was part of a project team that installed 2 new chocolate moulding lines. He then became a production manager for 2 years before becoming the factory asset care manager for 2.5 years. He was directly responsible for electrical and building services maintenance on-site as well as setting up a central preventative maintenance and scheduling department. He also represented the Tasmania Factory in the project team that developed a restructuring plan for all the Cadbury factories in Australia and New Zealand.

In 2008, Michael joined the factory project engineering team. Since then he has been the Project Manager for several major projects including the construction of a truck loading area, a ventilation system upgrade, a major building renovation, and a production line expansion. He also improved the contractor safety program and managed an asbestos removal program.

In 2010, he completed a Post Graduate Diploma in Environmental Management at the University of Tasmania. Michael is currently managing the factory's energy efficiency program which has included a project to convert the site's coal boiler to natural gas.

## CONGRATULATIONS/ WELCOME

Members joining, rejoining  
or upgrading

### MEMBER

Michael Rice, MIEAust

### GRADUATES

Karl Fenger, GradIEAust  
Luke Roberts, GradIEAust  
Uriel Walters, GradIEAust

### STUDENTS

(StudIEAust)

Mohd Alias  
Tom Arnold  
Edward Kay  
Peter Letters  
Brent Thompson

## NOTICE OF 92nd ANNUAL DIVISION MEETING

Notice is hereby given that the 92nd Annual Division Meeting of members of the Tasmania Division of Engineers Australia will be held on Monday, 28 November 2011 at 5.00pm in the Royal Engineers Building, 2 Davey Street, Hobart.

All members of the Division are invited to attend.

The Agenda is:

1. Welcome
2. Apologies
3. Confirmation of Minutes of the 91st Annual General 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 2012
9. Address by retiring Division President, Greg Walters
10. Vote of Thanks

**GOOD LUCK TO THE TASMANIA DIVISION FINALISTS  
AT THE NATIONAL AWARDS TO BE HELD IN  
CANBERRA ON WEDNESDAY, 23 NOVEMBER 2011**



*"Davis Station Antarctica  
- Living Quarters"  
Australian Antarctic Division,  
Hyder Consulting*



*Dr Jane Sargison, FIEAust  
Professional Engineer of  
the Year*



*"Catagunya Dam Restoration Project" Hydro  
Tasmania, D A Tanner Holdings, Entura,  
Wildtribe, Richard Rodd & Assoc, Hawkins  
Engineering, Structural Systems, Sides  
Drilling, Cut and Core*

*Ron Bessell,  
OFIEAust  
Engineering  
Officer of the  
Year*



*Mike Sylvester, MIEAust  
CPEng - Young Professional  
Engineer of the Year*



*"BRA Automated Pellet Handling Facility"  
Tasmanian Consulting Service,  
Botanical Resources Australia*

# EDUCATION & INDUSTRY MANAGER

## Industry Portfolio

dpointing@engineersaustralia.org.au  
Tel: 6234 2228



*David Pointing,  
PhD MIEAust*

## Chartered Status: Important information

**The Stage 2 competencies are being revised, impacting the process to securing Chartered Status, and your feedback is needed.**

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

Professional Engineers, Engineering Technologists and Engineering Officers (Associates) who attain Chartered Status represent the highest professional standards, expressing a commitment to keeping pace with the increasing expectations and requirements of engineering in our modern world. Chartered Status is a credential which affords you international recognition and most importantly, certification that you are competent to practise and exercise leadership within the engineering team.

To apply for Chartered Status, you must be able to demonstrate specified competencies at experienced practitioner level ([Stage 2 competency](#)). **Engineers Australia has listened to the views of members regarding the pathways to demonstrating stage 2 competency and understands that the current system is complex, requires considerable explanation and just does not fit well with some practice areas.**

**A revision of the Australian Engineering Competency Standards Stage 2** is currently underway, and Member comments are invited on the Consultation Draft paper. The 2012 revision clarifies the competencies, which will be more user friendly. Applicants will be able to identify and provide the required evidence of their competency more flexibly while maintaining the standards for Chartered members.

**The revised standard comprises fifteen Elements of Competency** (fourteen for Technologists and Associates), **none of which is optional.**

**Further details about the proposed revisions** and the consultation process can be sourced from [www.engineersaustralia.org.au/charteredstatus](http://www.engineersaustralia.org.au/charteredstatus)

**The first round of the consultation process is to wrap up at the close of 2011.** Further consultation and refinement is to be conducted from March to May 2012.

Further information will be provided in 2012 on how these revisions and the implementation timeline will impact Members who are currently pursuing Chartered Status.

**If you have questions about the revisions, contact David Pointing or attend the Chartered Status forum in Hobart on the 2 November 2011.**

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



### Tasmanian Model Solar Challenge 2011

On Sunday, 16 October, a very rainy day in Hobart, I attended the State Championships of the sprint car component of the Tasmanian Model Solar Challenge at New Town High. The winning team, from New Town High, will represent us at the **Australian International Model Solar Challenge on 26-27 November 2011 at UTAS in Sandy Bay** (at the rugby grounds). **Why not come down and support the Tasmanian teams?** Engineers Australia Tasmania Division is a consistent sponsor of the Tasmanian competition (to attend the National competition).

Over the last sixteen years tens of thousands of Australian high school and primary students have participated in this hands-on science program. Each student experiences the excitement of competition and, almost without knowing it, fills his or her mind with knowledge. The competitive spirit is an effective motivator and science, engineering and design & technology teachers all over Australia have classes filled with extraordinarily enthusiastic students building model solar cars and boats. Not only is the learning fun but the learning outcomes are tremendous. Teachers report how students motivated by the competition build an intuitive knowledge of the sciences that permeates the classroom.

[www.modelsolaraustralia.org](http://www.modelsolaraustralia.org)



Over a weekend in September, 160 or so teams with over 400 competitors representing the cream of School Robotics in Australia competed at UTAS in the Robocup Junior Australian Open. This was the first time ever that the final event was held in Tasmania.

### Tasmanian achievements in the Australian Open:

#### Rescue

1<sup>st</sup> Gummybear - Mt Nelson Primary (TAS)

#### Senior Secondary Dance

3<sup>rd</sup> The Lonely Goatherders – Don College (TAS)

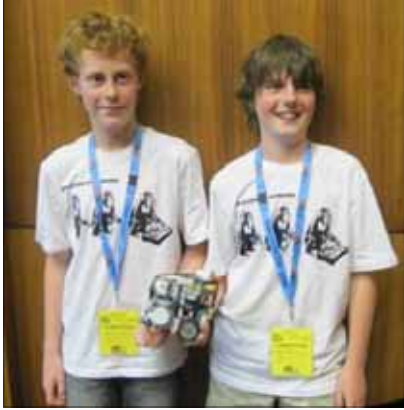
#### UTAS Engineering Innovation Prize for Primary Schools

Monkey Kong – Forth Primary School (TAS)

<http://www.robocupjunior.org.au/nationals>



Graeme Faulkner reports “the Junior RoboCup Rescue section fielded a record 47 teams, Mt. Nelson Primary had four of the top 8 teams (a domination by one School not seen in past Australian RoboCup history), Huonville Primary had 1 in the top 8 (extraordinary for their first year in Rescue), Forth Primary were just 1 point in 400 out of the top 8, again a marvellous effort for first time in RoboCup. Bellerive Primary had their teacher enter hospital for 17 days which severely dented their chances but they still finished in the top half of results.



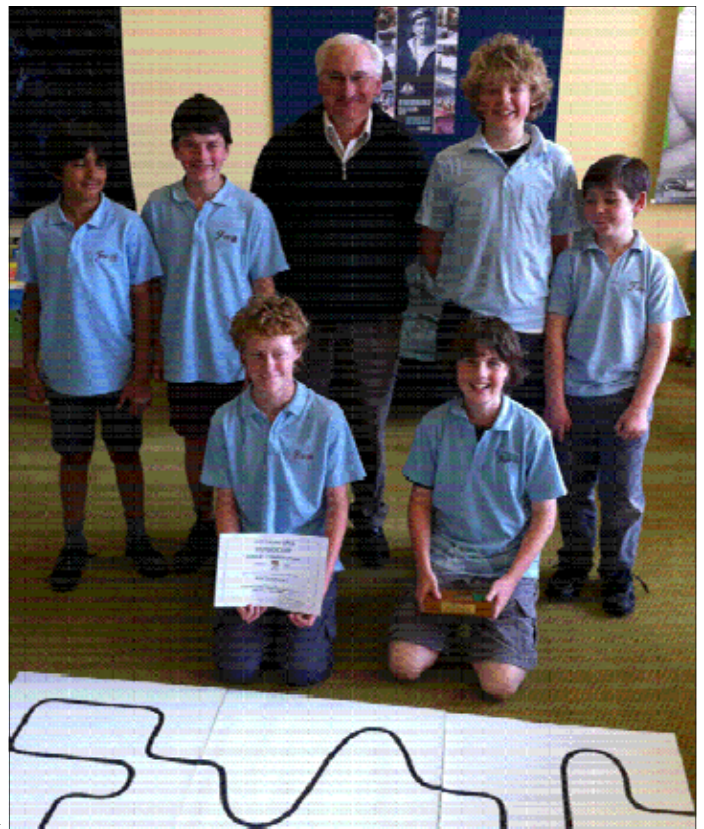
### **"Forth Primary School Robocup Rescue Team "Monkey Kong"**

*L-R Ben Gibbins, Matt Johnson*

*The judges for the innovation prize were impressed with the way the Forth Primary Rescue team had programmed the use of colour sensors on their robot in two modes (as light sensors to follow a line and then switching to colour sensor mode to make direction decisions). The mentor for the Forth Primary Robotics teams is a parent at the school, Peter Johnson. Peter is also an Electrical Engineer with Pitt & Sherry and found the Robocup mentoring role to be a very rewarding experience."*

Samantha Ablitt, Principal, Forth Primary School, reports: “This is the first time our school has entered in the Australian competitions after winning the regional finals in both sections at Table Cape Primary School, last term. All equipment has been purchased by fundraising through our Parents and Friends Committee. Peter Johnson has been instrumental in our involvement – purchasing equipment we need; advising us; organising entries and mentoring the boys in their quest. Peter has provided many volunteer hours helping and guiding and our students are extremely grateful for his contribution.

They have inspired many others and whilst Ben and Matt will move to High school next year they have inspired the other boys in the dance team and other students with a wish to continue. We are very proud of our students and welcome the involvement of dedicated parents in sharing their knowledge and expertise to inspire children to pursue (perhaps careers) in this area.”



### **Tasmania hosts and boasts in the education sector**

Engaging students through competitions and challenges is an important component of Australia-wide efforts to enhance the STEM (science, technology, engineering, mathematics) literacy of our students, and a strategic element of Engineers Australia's efforts to address the engineering skills shortage.

2011 has been a big year for Tasmania, with large numbers of students participating in local, state, national and international competitions. Tasmania also hosted the national or Australasian finals of several competitions, including the Robocup Junior Australian finals (September), the Tournament of the Minds Australian finals (October) and the Solar Car Challenge Australian finals (coming up in November).

Aside from the fun and learning that the students gain from each competition, the foundations laid in local events can lead to the world stage. Brooks High School, for example, are the new world champions of the biggest science and technology competition on the planet, having won the Formula One Technology Challenge in Malaysia in September. The Challenge involves 17,000 schools in 31 countries and tasks students with mastering space age engineering and manufacturing technologies to design and make miniature F1 cars capable of more than 80 km/h. The program raises the awareness of innovation-type career paths and is run in Australia by not for profit organisation, Re-Engineering Australia Foundation.

# 2012 YEAR OF THE REGIONAL ENGINEERING TEAM

REGIONAL AUSTRALIA: THE HEART OF ENGINEERING



## SAVE THE DATE:

### *Year of the Regional Engineering Team* launch dinner in Tasmania

- Tuesday, 21 February 2012 at the Australian Maritime College, Launceston
- Tour of the facilities and dinner.
- The Tasmania Division will organise group transport from Hobart.
- Further details in the February edition of Engineering Tasmania.

## Do you have an idea for a YoRET event in your area?

Contact you local Tasmania Division representatives:

North West Group: Vere Cooper at: [vere.cooper@cmwater.com.au](mailto:vere.cooper@cmwater.com.au)

Northern Group: Royce Aldred at: [royce.aldred@semf.com.au](mailto:royce.aldred@semf.com.au)

Southern Area: Geoff Harper at: [gharper@engineersaustralia.org.au](mailto:gharper@engineersaustralia.org.au)

## Regional engineers wanted for Engineers Australia magazine

Engineers Australia has declared 2012 the Year of the Regional Engineering Team (YoRET). To introduce the Year, *Engineers Australia* magazine is planning a special feature on regional engineering in the January issue of the magazine. The magazine is inviting engineers working in regions outside major cities in Australia or overseas to talk about their work and their experiences - the benefits and the challenges of relying on their own devices, at times cut off from the major supply lines and professional support.

Engineers interested in participating in this feature can email [editorial@engineersmedia.com.au](mailto:editorial@engineersmedia.com.au)

Coming soon:

## 2012 Engineering in Tasmania Photo Competition

Submit your engaging and inspiring images of the engineering profession at work in and across Tasmania's regions, from past to present.

State and regional winners. The prizes: honour, glory and wine.

To be launched in February 2012 - **Get snapping this summer!**





Everything we do as engineers is in the service of humanity and our way of life on this planet.

The focus of this article is however, is on the more typical concept of humanitarian engineering involving the following fundamental areas of activity.

1. Ongoing aide programs.
2. Disaster relief.
3. Conflict induced disasters.

These concepts generally relate to international events and organisations. The funding, operational, logistical and staffing requirements for each of the above are all different, and are overseen by governments, world community organisations such as the UN, or in internationally recognised NGO's including organisations such as EWB and, Médecins Sans Frontières (Doctors Without Borders).

The functions and operations of these organisations are well managed, reasonably well funded and effective and able to respond quickly to any emergency or request for assistance. At all levels, relief efforts activated in response to natural disasters, or humanitarian relief generally rely on relatively small teams of professionals with support from vast numbers of volunteer labour.

In the case of natural or human induced disaster relief the work requires input from a wide variety of personnel with different skills of which engineers are an essential part of the total effort. This scenario is relevant whether it relates to domestic or international disasters.

Where engineers can and do have a more direct leadership role is in the ongoing aide programs funded by government and NGO's. Unfortunately the politics and beaurocracies behind such programs can and often do interfere with the effectiveness of the aide. EWB and RedR are two exceptions where engineers can and do take a leadership role.

The term "Humanitarian Engineering" as it is typically recognised reflects range very specific activities that have been undertaken as an almost instinctive response by humanity to suffering, whatever the cause. All of the above organisations at both international and domestic level play an incredibly important role in the delivery of relief to suffering without which the world would be a much less compassionate place. There is however much wider issues throughout the world that tend to be obscured by the more dramatic and instant problems of disaster relief. This is the problems of disadvantage.

The three basic requirements for existence and survival on this planet are Food, Water, and Shelter.

A measure of the humanitarian need around the world is highlighted in the statistics published by UN Habitat on the extent of slum populations existing in the developing world. Currently there are approximately 1.15 billion people living in slum

conditions in the developing world including Asia, Latin America and Africa. In addition to the shelter conditions this same population has effectively no sanitation, clean water and in most cases insufficient food.

None of these numbers or facts are new, they have been publicised endlessly over many decades and the images of slum conditions are on our televisions and in publications endlessly. Even so there have been only minor improvements that have occurred around the fringes even in our own indigenous communities. These problems appear to be all too difficult because of cultural and political complexities but are of such an unimaginable scale it is difficult to know where to start.



*Some of the typical slum conditions that need to be overcome*

This is the wider requirement for humanitarian assistance and where engineers of all persuasions are in the best position to provide solutions and leadership in the development of systems and schemes designed for progressive development. The problems that exist are practical problems that involve the physical world and as such the solutions should be based on physical solutions, not on economics or politics. These will be sorted as the physical conditions improve. It is the solution to these enormous questions where the engineering profession can not only provide the solutions but should also stand up to take a leadership role.

Just think about this for a few minutes. The field of engineering provides the link between theoretical science and the practical application in all its manifestations. Combine this with the typically practical and pragmatic nature of engineers and we have a profession that is ideally trained and conditioned to take up this challenge.

Typically development starts with project identification application of funds followed by a conservative and conventional design, contract and construction practices dominated and controlled by financial considerations. As a result a large part of the financial benefit does not end up in the hands of the people who need it most. Generally the planning,

control and implementation are under the control of the financial, political masters or business managers. The effectiveness of programs and projects is reduced because of a lack of understanding of the physical constraints.

The scale of work is such that it is imperative that the efficiency and effectiveness of development work be vastly increased just to maintain the status quo. To achieve this we need a complete change in philosophy and engineers have the best credentials and characteristics to implement change and take a leadership role in this process.

Back to the basic requirements for existence on this planet, Food, Water, and Shelter, all of these are the engineer's stock in trade. If we look past the basics to the extras associated with life in this modern world and we come across activities such as, transport, communications, energy, waste collection and treatment, health services (apart from clinical), manufacturing, to name just a few.

Whatever you care to mention, engineers have been crawling all over them from the design, development, manufacturing and/or construction. We as a group sometimes forget just what role we play in the development and maintenance of our society.

All other occupations and professions including law, real estate, accounting etc are generally activated as a result of the activities of the engineering profession and its involvement in industries involved in the delivery of goods and services. The vast majority of people in this country and in fact in all parts of the developed world have had limited if any exposure to the conditions existing in the developing world at ground level with the exception of an occasional overseas trip, business trip, holiday or diplomatic excursion.

Understanding the intricacy and complexities of conditions and cultures requires a person to experience life in the local or provincial environment and being able to communicate with local people on their territory. Apart from doctors, Engineers are probably the one professional group that is most widely experienced in these conditions and just like the doctors have the least influence of the ultimate decision making process when it comes to development. Engineers and Doctors typically place far more emphasis on getting their job done rather than concerning themselves with the politics or business performance. This is probably the one area where we, as a profession, need to change and adapt if we are to make a difference.

The worldwide problem of disadvantage and poverty exists on a massive scale and as such it must be our collective responsibility to provide solutions that are going to create the opportunities and means by which these people can help themselves and eventually control their own destinies.

The answer is not charity or handouts. The programs must be based on commercial reality and accountability not just spending public money. On the other hand a system based purely on private investment is equally undesirable because it concentrates the decision making process, minimises local contributions and has less emphasis on training. The attributes that are the main objectives of the process.

The solutions must provide for following general outcomes:-

1. Benefit to the people and local communities that need the benefit through employment, training and encouragement of local enterprises. There must be an emphasis on engagement of local professionals (particularly engineers) and training of trade skills. A system that imposes responsibilities on the beneficiaries, and encourages the beneficiaries to take control of their own destiny. The system must ultimately transfer both legal and moral authority to the people.
2. Provide a comprehensive scope of development work which would act as a catalyst for the development of a whole community economy. This will include public and private infrastructure projects as well as building construction.
3. Maximising the use of locally produced materials maximising opportunities to local businesses.
4. Introduction of alternative construction methods, alternative technologies – particularly alternative energy systems how we deal with waste and alternative materials, control of waterborne diseases and a multitude of ideas that may be appropriate thus opening up further education and training opportunities.
5. Encouraging the development of local customs and ideas that are consistent with their own culture and customs and climate not simply acceptance of western ideas and construction methods. The end result must be appropriate for the climate and culture.
6. Gives as much of the decision making processes to the local population.
7. Invests both responsibility and authority on the local beneficiaries.
8. Minimises the opportunities for corruption by empowerment of all people engaged in the process. Current practice on large scale projects is to concentrate power not dissemination
9. Maximises the opportunities for training, skill development and further education.
10. Creating an environment for private small business to flourish for the supply of goods and services to the local people.
11. Provide the opportunity for the community authorities provide more public utilities and services. – I think this is called “capacity building”
12. Creates the environment for the advancement of community based volunteer assistance organisations to advise and assist community members.
13. Take the opportunity to introduce all the new technologies available including environmentally friendly technologies. This is one area where these communities can develop in such a way that will put them at the forefront of low carbon societies but still enjoy the relative benefits and standards the western world is accustomed to.
14. Most importantly the process must provide the environment where people can take control of their own destiny and lives for their own advancement and not be beholden to outside assistance or charity.

Every project and every community will inevitably provide different circumstances that will require different approaches and with the right system tailored to suit the circumstances can be the means of transforming or creating a self sustaining or self perpetuating local, provincial or national economy

We as engineers can and should stand up and be counted and take the lead on all these issues because of our vast knowledge,

understanding and experience in these matters. This must be done in good faith without sounding patronising or colonial but maximising the benefit and opportunity for local people.



*Mixing concrete - Concrete aggregate up to 75mm max size. Concrete batched by hand on the footpath. Note the safety boots !!!*

The problems of the disadvantaged also occurs in our country both with the urban poor and indigenous communities.

The high profile development models that have been tried and tested by governments and the private sector have had some minor effects to improve the living conditions of the affected communities but have largely failed since the degree of disadvantaged has not significantly decreased over the decades despite the expenditure of vast sums of money. It is for this reason that a totally different approach should be considered. It would no doubt be considered as a high risk and untested process and the people in control of the public purse would no doubt be reluctant to adopt a different approach. But what have we got to loose and what have we got to gain?

The development process can be vastly improved to the advantage of the people that it is our intention to assist. It is the people that must be the beneficiaries of vast the amounts of money invested in aid programs not just the corporates ,the large and trusted companies and the public departments. To achieve what is possible we do however need to place ourselves at the forefront of the discussions at the highest levels.

**Ross Proud, MIEAust, CPEng  
RPA Engineers**

## NORTH WEST GROUP

**Bring Your Family and Friends!**

**DATE:** Friday, 11 November 2011  
**TIME:** 11.00am to 2.00pm or longer!  
**PLACE:** The Redwater Creek Railway  
(corner of Spring & Main Streets in Sheffield)

## THE POWER OF STEAM



The pre-conference tour for the National Engineering Heritage Conference will be visiting the North West Coast - Sheffield on Friday, 11 November. This is your chance to welcome the 46 member tour group all too briefly to our area and to experience some live steam action! The Redwater Creek Railway is hosting the group over lunch on their way to the West Coast.

North West Members are invited to join them for the following activities:- Morning tea at 11.00am - they should arrive about 11.15am



Train rides with photo opportunities on the 1km long Redwater Creek Railway Experience the worlds oldest oil engined tractor - the link between diesel and steam in action - the Hornsby Ackroyd hot bulb compression ignition tractor - designed in 1896.

Try your hand at driving one of the engines that will be in steam - the Marshall Road roller, the McClaren Steam Tractor, the 7 horse Marshall Traction Engine or the Burrell Traction Engine.

View the collection of heritage equipment or have more train rides before a lunch of beef in red wine and veggies, quiche and salad or gluten free veggie lasagne with salad. Sweets will be fruit salad & chocolate mousse with home made ice cream and cream.

For more information view the society's web site on [www.redwater.org.au](http://www.redwater.org.au)



**RSVP:** Chris Martin - [chris@csetas.com.au](mailto:chris@csetas.com.au) or phone 6428 3994 by 4 November if staying for the meal. Prices as: \$15 for the meal and \$10 for the steam activities.

**This event warrants 1 hour CPD**



**Hannah Atkins, GradIEAust**



The Young Professional Network Tasmania held a ‘Carbon Tax for Dummies’ forum at the Mecure Hotel on the 5<sup>th</sup> of October. This was the third YPNT event for 2011, following the successful and well attended quiz night and personal finance forum earlier in the year.

The Carbon Tax for Dummies session was attended by approximately 50 young professionals, and was an evening of interesting discussion followed by the opportunity to chat to people from a number of different industries.

The panel composed of Phil Harrington (Executive Manager of Climate Change at pitt&sherry), Mark Bowles (Chief Economist with TCCI) and Todd Houstein (CEO of Sustainable Living Tasmania), with discussion facilitated by YPNT’s president, John Cooper (Hydro Tasmania).

Panelists were asked to give a brief overview of their professional background and explain an area of the tax relevant to their position. The floor was then opened to attendees to ask questions and discuss their views on the tax and the impact it will have.

Phil Harrington presented an overview of what the tax is about and the impact that it is expected to have on Australia and the environment. He particularly focused on the fact that the carbon tax is not really a tax, but rather a cap and trade scheme which regulates emissions released by some industries. He highlighted that Tasmanians currently produce around 17 tonnes of carbon per person annually. According to the IPCC, to have a better than 50% chance of limiting global warming to 2 degrees above pre-industrial levels, this value has to be reduced globally to approximately 1 tonne per person per year – by the year 2050.

Mark Bowles then spoke of the cost of the tax, particularly on Tasmanian’s import and export industries due to their reliance on rail, shipping and air freight. He also noted that there are no credits for existing biomass, which is a significant pitfall for Tasmania. On the other hand, he highlighted that the tax is designed to improve the viability of renewable energies, and will encourage increases in efficiencies in industry and energy generation.

Finally, Todd Houstein discussed how young professionals could minimise the impact of the tax. He explained that the cost of the tax on a single, childless young professional earning \$50,000 per year is approximately \$304. The same professional is, however, expected to receive \$303 in support from the government. Using these figures, he explained that if you can tailor your lifestyle accordingly, the carbon tax could actually be of financial benefit. A number of practical solutions were suggested to achieve this, including rethinking of transport options, shopping for goods locally (thus supporting local industries as well as reducing emissions), and considering the impact of the tax on your career.

Those in attendance agreed that the evening was interesting, and provided insight into a complex issue - as well as the chance to mingle with other young people over a beer afterwards.

The final YPNT event for the year will be an end of year function to be held at the Lower House, on Friday, 18 November. This event is shaping up to be the highlight of YPNT’s calendar – so get your RSVPs in early! (See below)

## YPNT 2011 End of Year Event



To celebrate the end of a successful year, all young professionals are invited to attend the 2011 YPNT End of Year Event

Come and join us for a great evening of drinks, networking and music. Plus, hear the story of a high achieving young Tasmanian.

**When:** Friday 18 November 2011

**Where:** The Lower House, Despard Street, Hobart

**Time:** 5.30pm for 6pm start

**Cost:** \$10/head, drinks & nibbles provided

Places are limited; please RSVP to Catherine by downloading the registration form at [www.engineersaustralia.org.au/tasevents](http://www.engineersaustralia.org.au/tasevents)



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# YOUNG ENGINEERS



*Sandra Thaow, MIEAust CPEng  
Chair,  
Young Engineers Tasmania*

new minds  
*new ideas.*



Some of you may breathe a sigh of relief when you hear that this will be the last article I write in this particular role.

As enjoyable as the experience has been, **2012 brings a new Committee** of young engineers with new minds and new ideas...(cliché, I know).

I would like to congratulate and introduce Tim Sutton as the 2012 YEAT Chair and Adela Parnell as the 2012 Vice-Chair. Tim and Adela have both been active members of YEAT for the last few years and I am sure that they will do a fantastic job. I won't be too far away but it's definitely time you heard from somebody else.

By the time that this article comes out, YEAT would have held our **Chartered Status Forum** at the Hobart Function Centre. As I write this article, I cannot predict the outcome of this event but what I can do is assure our members that YEAT and Engineers Australia (EA) have the best interest of our members at heart and will endeavour to address the issues that have been raised to the best of our abilities.

In line with this, and with fear in my heart of sparking mass panic, EA are currently undertaking a major review of the current Chartered Status process and the competencies with an estimated introduction date of 1 July 2012 for the new system. At this point in time there will be a transition period to accommodate the change in framework and CPEng participants will be assessed to determine if it is best for them to complete their CPEng under the old system or transition across to the new system. The revised competencies will be available for review and comment online once they have been finalised.

Another hot topic item is the case for engineering registration. The **National Engineering Registration Board (NERB)** was jointly established by a number of engineering associations and organisations, EA being one of those, ensure that the community is safeguarded from work provided by engineering and related professions.

Since mid-2010 the NERB has been working with EA and a number of other organisations to raise the case for national registration of engineers to the attention of the

political leaders in each state and nationally. There are currently fourteen different Acts and other legislation in each state and territory that regulate the engineering services. NERB believe that national registration will:

- Enhance the mobility of engineers to work across the different jurisdictions;
- Assure the public that engineers are capably managing risk;
- Build community awareness of the engineering skills required to protect the community;
- Enhance the safety of the public; and
- Increase the efficiency of legislation by having consistent legislation that allows an engineer to register just once to practice Australia wide.

Queensland is currently the only state that requires engineers to be registered, however the Western Australian government is currently considering introducing similar requirements. If you would like some more information regarding registration and where the NERB is at, go to <http://www.engineersaustralia.org.au/nerb/index.cfm>

YEAT will be celebrating the end of the year with panache at our **End of Year Event**. More details to follow but block out Wednesday evening on **7 December!** Come along and enjoy a casual evening celebrating the achievements of EA's various groups for the year and take the opportunity to meet some new people or simply reacquaint yourself with some old, and not so old, acquaintances.

## Don't Forget

The University of Sydney's Warren Centre for Advanced Engineering has opened nominations for the 2012 **Innovation Heroes Award**, bestowed upon individuals or team that have created successful products or services from brilliant engineering ideas and inventions.

Designed for the engineering/technology space, the Innovation Heroes Award recognises the Australian individuals, teams and/or companies behind innovations that were conceived and developed in Australia and that have been profitably commercialised or otherwise delivered real value.

Nomination forms are available on the Warren Centre website at <http://sydney.edu.au/warrencentre>

We are still **seeking expressions of interest** from any members that would be interested in participating on a combined Information, Telecommunications and Electronics Engineering (ITEE) and Electrical Committee in Tasmania. The ITEE College aims to support and promote the work of engineers in the fields of communications, computer systems, electronics, information and software engineering.

Please send expressions of interest through to Catherine Reading at [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)

## Join the Committee

Have you been happy with the service you received this year from your YEAT committee?

Would you liked to have seen a few more events or different types of events?

Would you like the opportunity to meet some new people and collaborate in a great team environment?

If you would like the opportunity to voice your opinion on the YEAT Committee's direction and events for 2012, come along to our end of year event on 7 December and speak to one of our Committee members about attending one of our meetings or email us at [yeatas@engineersaustralia.org.au](mailto:yeatas@engineersaustralia.org.au)

## MEET YOUR YOUNG ENGINEERS TASMANIA COMMITTEE

### Introducing Tim Sutton, MIEAust



Tim began his career in the electrical industry with Russell-Smith Electrical as an Apprentice Electrician in 1999.

In addition to his trade certificate studies, Tim worked part-time toward a Diploma of Electrical Engineering through TAFE Tasmania. After completing his four-year trade qualification and working a further year as a technician, Tim decided to pursue engineering full-time and enrolled at the University of Tasmania in 2004.

Tim chose to study electrical engineering mainly due to enjoying prior time spent in the industry, but also because he wasn't fond of concrete or engines. Tim graduated from UTas in 2007 with a Major in Electrical Power.

Tim commenced employment with Aurora's Network Division on their Graduate Program in 2008. During this time Tim worked for different work teams on projects such as the pole-mounted capacitor bank trial on the Tasman Peninsula, improving capacity constraints at a Hobart substation involving critical infrastructure and an automated power restoration scheme in the state's North East.

In late 2009 Tim gained a substantive position as Network Engineer in the System Performance team, where he worked on a number of supply reliability improvement projects across the state. He became involved in planning and analysis work for Aurora's upcoming pricing submission to the Australian Energy Regulator, and also performed technical assessments for customer embedded generation applications.

In early 2011 Tim moved into his current position with the Network Planning group, where he undertakes capacity planning work at low voltage, high voltage and substation levels across Tasmania.

Tim has been a member of Engineers Australia since university and a Committee member of Young Engineers Tasmania since 2010. Tim is presently working toward attaining Chartered Status and hopes to have sign-off very soon.

Tim enjoys spending time with his lovely wife, going fishing and bushwalking (in that order!)





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 members' aspirations to flourish.*

## Events

In the pipeline for 2012

- More joint events with WISS, YEAT and CELM
- Another site tour at Nyrstar Zinc works
- Site tour to the Tungatinah Modernisation Project
- Professional Seminars
- Before or after work networking

If you have a fabulous idea for an event, the WIE committee would love to hear it. You can email us at [wietas@gmail.com](mailto:wietas@gmail.com)

## News

### AMC Luncheon

In September, our tireless committee members Erin and Meredith travelled north to attend the AMC (Australian Maritime College) luncheon near Launceston.

Erin & Meredith were joined by Rachael Cox of SKM and between the three of them they were able to talk to the students about many aspects of professional life and why they enjoyed the engineering career so much.

There was excellent feedback from the students who came along. The WIE group is committed to helping WIE at all stages of their careers from students to professionals. A big thank you to AMC (particularly Irene) for facilitating the lunch and to Rachael for taking time out of her day to attend.



*Future WIE at the AMC lunch*

## A Blog worth reading



Dianne Hayes is a Civil Engineer who created her own successful business after having her first child and staying at home. Now, she shares some insights as a work from home business woman, mum and engineer via a Blog.

“I hope women can relate to my blogs on work life balance and provide some inspiration to help retain women even when they become mums” she states.

Her blog is funny, entertaining and has some great tips for female engineers and everyone else too.

<http://professionaldomesticengineer.blogspot.com/>

### ‘Corporate Games’ Seminar

We were extremely fortunate to get Mark Toner and Gunilla Burrowes down to Hobart in September to present at the WIE/CELM seminar titled ‘Corporate Games’. The event was sponsored by Aurora Energy.

Approximately 50 people attended and learnt about the unwritten rules of the corporate game, how to increase your ‘personal power’ and how to enhance your career prospects. Mark and Gunilla were both excellent presenters and it was both an informative and entertaining evening.

## Reflection

### Last newsletter for 2011...

This year has completely flown by, as they all do. This is the last WIE newsletter for 2011. It'll be back in February 2012. It's been fun writing this and usually done at the last moment, but I work best under pressure. There's a time-management principal that states that 'no matter how much time you allocate to a task, regardless it will still be completed at the last minute'. I.e. I have a whole month to write this article, however, it shall still always be done on the day it is due. Procrastination also plays a role, but quoting time-management principal sounds much more sophisticated...

Talking of procrastination, I came across a very interesting article titled 'A blokey culture that costs the country billions in wasted resources' written by William Pesek on [www.theAge.com.au](http://www.theAge.com.au) website. In it he cites the following facts;

- Women earn about 17 per cent less than men. Narrowing this gap by just 1 percentage point could boost gross domestic product by \$4.4 billion, the Committee for Economic Development of Australia reports.
- Sexism bias costs the \$1.3 trillion coal and iron economy as much as 13 per cent in lost annual production, Goldman Sachs estimates.
- Sexism is bad economics.
- Australia has only one female chief executive among its 30 biggest companies. At 8.4 per cent, Australia's female board representation lags behind major English-speaking nations.
- For an economy to fully use only half its labour force is to tie a limb behind its back.

An interesting article outlining that, yes, sexism is bad for women, however, it's also bad for the economy. We knew that, but putting a dollar figure on the wasted money & resources makes it staggering. As Mark Toner alluded to in his September seminar, it's great to get the message to the female members of the profession, however they're rarely in a position to make changes, you need to get the company managers on board (who are typically men). Win their support. Then you have the possibility of change for the better. And if your manager won't listen to you, he'll definitely listen to the money!!

### Quote of the month

*"Does the world happen to you, or,  
do you happen to the world"*

'White Teeth' author Zadie Smith

### Women in Engineering Committee Members:

Meredith McQueen, Fiona Evershed, Erin Jackson (nee Driscoll), Cassandra Blazely, Nyssa Muir and Sarah Kube.

Email: [wietas@gmail.com](mailto:wietas@gmail.com)



*Mark presenting at the Woolstore theatre*

## Site Visit to Nyrstar Zinc works

Last month we were extremely fortunate to have the opportunity to visit the Nyrstar zinc works. We were able to see the casting process first hand where the molten zinc is poured into the moulds. We were shown around by the experienced and knowledgeable engineers and operators. Afterwards, we were treated to lunch overlooking the Derwent River and got to chat with other women engineers at Nyrstar. Many thanks go to Amanda Halley for organising and James & Adrian who were our gracious tour guides on the day.



*Adrian explaining the electrolytic process to Sarah and Fiona*



## Supporting Colleagues with a Mental Health Issue

*Mental illness is more prevalent than many people realise. Around 45% of Australians aged between 16 and 85 will experience a mental illness at some point in their life, while one in five Australian adults will experience a mental illness in any given year. (1)*

*Despite the prevalence of mental illness nearly half of all senior managers believe none of their workers will experience a mental health problem at work.(2) Preliminary research shows that Australian businesses lose over \$6.5 billion each year by failing to provide early intervention/treatment for employees with mental health conditions.(3)*

*A recent survey has highlighted that Engineers are less confident in supporting a colleague with a mental illness than other professionals.*

As part of the 2011 Beaton Consulting Annual Business and Professions Survey, *beyondblue: the national depression initiative* was invited to investigate levels of awareness and attitudes regarding mental health problems, and how individuals and organisations respond to mental health issues in the workplace. This follows on from a similar survey undertaken in 2007, which investigated the prevalence of mental health problems, and knowledge and attitudes surrounding mental health.

Data was analysed for a total of 17,980 respondents. The study sample was 66.8 per cent male and 33.2 per cent female, with an even distribution of ages. Senior leaders (e.g. CEOs) made up 31.1 per cent of the sample, while managers made up 18.3 per cent and general staff were 50 per cent.

Engineers accounted for 1,887 of the respondents.

**Number of Engineer respondents by Sector**

Government & Community	452
Manufacturing, wholesale & retail	138
Finance & Insurance	7
Primary Industry, infrastructure & utilities	555
Professional & other services	428
Property & Construction	307

**One significant finding was that Engineers differed to other professionals in terms of their confidence in supporting a colleague with a mental health issue – only 38.3 per cent were confident, compared to the sample average of 48.4 per cent.**

Psychological health issues are a significant cost to business and the community:

- A total of 3.2 days per worker are lost each year through workplace stress(4)
- Stress-related workers' compensation claims have doubled in recent years, costing over \$10 billion each year(5)

- A survey of over 5000 workers indicated that 25% of workers took time off each year for stress-related reasons (6)
- In relation to psychological injury claims, work pressure accounts for around half of all claims and harassment and bullying for around a quarter of claims(7)
- According to the National Health and Safety Commission, work-related stress accounts for the longest stretches of absenteeism.
- Each year, undiagnosed depression in the workplace costs \$4.3 billion in lost productivity and this excludes Workcover/insurance claims, part-time or casual employees, retrenchment, recruitment and training.(8)
- On average, every full-time employee with untreated depression costs an organisation \$9,665 per year.(9)
- Each employee with depression will, on average, take three to four days off work per month which is equivalent to over six million days lost each year in Australia.(10)
- In addition to absenteeism, depression accounts for more than 12 million days of reduced productivity each year.
- Results of the VicHealth and Melbourne University *Estimating the economic benefits of eliminating job strain as a risk factor for depression(11)* study found that “job strain”, where workers have little control over their job but are under high pressure to perform, accounts for 17 per cent of depression in working women and 13 per cent in working men.
- According to the previously mentioned VicHealth and Melbourne University study, job-related depression costs the economy \$730 million every year. This includes lost productivity due to absenteeism and presenteeism and government subsidised medical care, including counselling and antidepressants.
- This equates to \$11.8 billion over the average working lifetime, with the biggest loss accruing to employers. The report also revealed an \$85 million cost of absences for depressed workers who do not have access to paid sick leave, a significant cost to employees.

*JobStress* is a risk factor to mental health in the workplace. There are eight clear risk factors:

1. high demand (work overload)
2. low support from co-workers and supervisors
3. lack of control
4. poorly defined roles
5. poorly managed relationships and conflict
6. poor change participation
7. lack of recognition and reward
8. organisational injustice(12)

A poor work environment, job strain or a workplace incident can cause considerable stress and exacerbate, or contribute to, the development of mental illness.(13)

There are many environmental factors that can contribute to job strain. As well as pressure due to the skills shortage and today's economic conditions, technology has been

highlighted as adding significant work stress. Mobile phones, emails, text messaging and laptop computers have increased accessibility for out of hour's business and have created an expectation of immediate responses. This also results in increased relationship conflict at home.

A survey, by the Australian Psychological Society, found that about 70 per cent of managers were stressed by the number of emails they received and the speed at which they were expected to deal with them.(14)

Unfortunately Australian engineers are amongst those workers at risk of experiencing work place stress. There are certain individual and job characteristics that may predispose engineers to "burnout". As a group of professionals we have a well developed sense of social responsibility, our work often involves balancing expectations of different stakeholders with potential for role conflict, increasing safety and environmental imperatives and the threat of personal liability in the event of unforeseen incidents are likely to increase work-related stress amongst engineers.(15)

For engineers, role conflict between professional standards, budget constraints and time constraints, is often associated with severe 'life and death' consequences increasing the level of work stress.

**So now we know about the issue – what are we going to do about it!**

The good news is that help is available. *beyondblue* have been working with a number of professions and industry groups to raise awareness of mental health issues and deliver early intervention and prevention programs.

In 2004 *beyondblue* developed and implemented the *beyondblue* National Workplace Program (NWP). NWP is designed as an awareness, early intervention and prevention program specifically for workplace settings and aims to increase the knowledge and skills of staff and managers to address mental health issues in the workplace. It works closely with other *beyondblue* work focusing on research, policy and best practice.

In some cases the programs have been adapted for specific professional groups such as the legal profession and accountants. The 2011 Professions Survey found that 63.4 per cent of professionals who received training would suggest a colleague see a psychologist, compared to 54.8 per cent of those who had not received training. Those who had undertaken training in dealing with mental illness rated their organisations' ability to manage mental health issues higher (see **Figure 1**).

The 2011 Professions survey has highlighted the need to improve the capability of Engineers to support colleagues with a mental health issue. As a profession we need to take up this challenge.

For more information on the *beyondblue* National Workplace Program, please email [workplace@beyondblue.org.au](mailto:workplace@beyondblue.org.au) or call 9810 6161. The Info line number is 1300 22 4636 or email [infoline@beyondblue.org.au](mailto:infoline@beyondblue.org.au) Web: [www.beyondblue.org.au](http://www.beyondblue.org.au)



**Figure 1. 2011 Professions Survey Response.**

**How well is your organisation equipped to effectively manage mental health issues in the workplace?**

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**Dan O'Toole, FIEAust**

# CALENDAR 2011

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

## NOVEMBER

**Wednesday 2 - Young Engineers - CHARTERED STATUS FORUM** - "Chartered: To be or not to be ..... " 5.15 to 7.30pm - Gretel Room, Hobart Function Centre, Elizabeth St Pier - Light refreshments will be offered - **FREE** Event - RSVP to Catherine Reading 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)

**Friday 11 - North West Group - The Power of Steam** - 11.00am to 2.00pm - The Redwater Creek Railway - Lunch available \$15 for the meal or \$10.00 for steam activities only - RSVP to Chris Martin [chris@csetas.com.au](mailto:chris@csetas.com.au) or 6428 3994 by 4 November (Refer to page 12)

**Tuesday 15 - Heritage Recognition Ceremony for the Tasmanian Transport Museum** - to receive an invitation contact Catherine Reading 6234 2228 or [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au) (Refer to this page)

**Friday 18 - Young Professionals Network - End of Year Event** - 5.30 for 6.00pm - The Lower House, Despard Street, Hobart - \$10 per person - Limited Numbers & Pre-registration essential to Catherine at [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au) (Refer to page 13)

**Saturday 26 & Sunday 27 - Australian International Model Solar Challenge** - UTAS Sandy Bay Rugby Grounds

**Monday 28 - DIVISION ANNUAL GENERAL MEETING** - 4.30pm - Royal Engineers Building, 2 Davey Street, Hobart (Refer to page 5)



## DECEMBER

**Thursday 1 - North West Group - CHRISTMAS DINNER** - 6.30 for 7.00pm - Oz Rock Inn, Ulverstone - \$25 EA Members or \$35 Non Members - Limited to 30 people only, so book early - RSVP by 21 November to Andrew [andrewboyd@wadams.com.au](mailto:andrewboyd@wadams.com.au) or 0438 017 525 (Refer to this page)

**Wednesday 7 - Joint Young Engineers & Division End of Year Event** - Details to be confirmed

## FEBRUARY 2012



**Launch of the 2012 "Engineering in Tasmania" Photo competition. Get snapping this summer !!!!**

**Tuesday 21 - Launch Dinner for Year of Regional Engineering Team** at AMC in Launceston. Dinner & Tour of facilities. EA to facilitate group transport from Hobart.

## INVITATION TO MEMBERS

### HERITAGE RECOGNITION CEREMONY TASMANIAN TRANSPORT MUSEUM, GLENORCHY

On **Tuesday, 15 November 2011** the Governor of Tasmania and National President, Merv Lindsay will unveil an Engineering Heritage Marker at a ceremony starting 3.30pm. Members of Engineers Australia and their partners are welcome to attend.

If you would like an invitation, please advise Catherine Reading on 6234 2228 or email her on [creading@engineersaustralia.org.au](mailto:creading@engineersaustralia.org.au)