

Engineering Tasmania

February 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



I would like to start by recognising and thanking Immediate **Past President Grant Atherton** for his strong leadership of the Tasmania Division during 2010. We had a very successful year and it is in no small part due to Grant's efforts that Tasmania is recognised within Engineers Australia for being a strong and effective Division.

2010 was the Year of Engineering Leadership where we challenged each of you to be the change you wanted to see. In 2011 we call on you again to continue that leadership role.

→ 2011 year
of
humanitarian
engineering

We are in the **Year of Humanitarian Engineering** – a year in which we aim to recognise the role of engineering in both disaster recovery and improving quality of life. Given the extreme weather events that have occurred across Australia, and throughout the world, recently it could not have come at a more appropriate time. The goal of Engineers Australia this year is to promote the significance and importance of humanitarian engineering to both our profession and the wider community so that humanitarian engineering receives the required support in Australia and abroad to continue to make a difference to people's lives.

As members of the **engineering team** we can and do play a huge role in improving the quality of life of people suffering from disadvantage, as well as helping communities recover from floods, earthquakes and other disasters as quickly as possible. From the delivery of clean water and power, to the design of sanitation services and infrastructure, the ingenuity of engineers and technologists help solve many of the core problems facing communities.

In 2011, Engineers Australia will demonstrate the importance of engineering in resolving humanitarian issues by showcasing projects that have made a difference to disadvantaged communities. As part of the national effort, we will do this in a number of ways:

Educate

- Seek to educate engineering teams about the significance of the positive impact that can be made through humanitarian engineering.
- Build awareness around the enormous local and international needs for humanitarian relief, and the many ways that engineers can make a difference.

- Show people why they should be involved and what they need to know to make a positive difference.

Engage

- Seek to form closer ties with individuals and humanitarian groups such as Engineers Without Borders and RedR to understand the work that has been done.
- Encourage an increase in the number of registered volunteers from engineering individuals, funded projects or sponsorship commitments by engineering firms.

Celebrate

- Showcase the positive contribution that humanitarian engineering makes towards meaningful and lasting community development and disaster relief

To that end our Young Engineers will be hosting the Tasmanian Division's **Launch of the Year of Humanitarian Engineering** on Friday morning 4 February 2011 at the Hobart Function Centre, Elizabeth Street Pier. Our National President Merv Lindsay, and local Young Engineer, David Pointing will be presenting at the event and the national Young Engineers Committee will also be in attendance. The presentations will be followed by opportunities to mingle over breakfast. This event is **FREE** to all members of engineering related professions and our senior members are encouraged to bring one or more of the Young Engineers from their organisation along to this event.

As part of our recognition of the role of the engineering team in disaster relief and poverty alleviation, I encourage you to consider supporting **'Wear Red for RedR'** by wearing red on Friday, 18 February 2011 in support of Registered Engineers for Disaster

Relief (RedR). RedR Australia trains, deploys and supports aid workers to address urgent humanitarian needs following natural disasters and conflict situations. This day is about awareness raising of the important work they do, however if you also wish to make a donation I am sure it would be appreciated by RedR. Please visit www.redr.org.au to do so and learn more about this important organisation.

Apart from our regular events and activities, this is also the Year of our **Engineering Excellence Awards**.

I am very pleased to announce that on the **Main Judging Panel** this year we are honoured to include both Sir Guy Green, AC KBE CVO and Garry Bailey, Editor of The Mercury as judges and Richard Bevan immediate past CEO of Transend Networks as Chair. The Excellence Awards were successfully launched on 24 January 2011. All members are encouraged to consider submitting entries to the Awards this year.

The coming year will also include a number of important initiatives including the development of a national **Engineers Australia Reconciliation Action Plan (RAP)**. I am personally committed to seeking ways to achieve greater reconciliation with our indigenous communities and am part of our national steering committee developing our RAP.

We also propose to launch a **Parliamentary Fellows Program in Tasmania**, mirroring the very successful program implemented in South Australia where selected Fellows are paired with interested Parliamentarians with a view to providing an engineering point of contact. There will be more on these two important initiatives in later newsletters.

We have an exciting year ahead of us, a year in which we will continue to demonstrate that as members of the engineering team, we make things happen. It is a year full of opportunity, and I look forward to serving you as your President.

Greg Walters
FIEAust CPEng Eng Exec

OUR NEW PRESIDENT

Greg Walters - FIEAust, CPEng, Eng Exec

Greg has over 23 years experience in business and project management. He has extensive experience managing multidisciplinary teams across multiple geographies. He is currently the State Manager Tasmania and a Principal of Sinclair Knight Merz (SKM). He is also the SKM Regional Client Manager Telecommunications for South Eastern Australia.

In December 1986 he graduated from the Royal Military College Duntroon and from January 1987 to August 2001 was in the Australian Army as an Officer – Royal Australian Electrical and Mechanical Engineers (RAEME). During this time he obtained a Bachelor of Engineering (Electrical) from University of New South Wales in 1987, Master of Science (Guided Weapon Systems) from Cranfield University, UK in 1994 followed by a Master of Military Arts and Science (Strategy), US Command and General Staff College, USA in 1999.

In August 2001 he joined the consulting engineering firm Sinclair Knight Merz, Australia as Group Manager Defence, then in August 2005 became Manager Queensland Project Delivery Group before moving to India in February 2007 to be Country Manager India, SKM Consulting (India). In February 2009 he was appointed as State Manager Tasmania, SKM, Australia. Greg is also a Member of the Corporate Directors Association of Australia

Within Engineers Australia Greg has been:

- Young Engineer of the Year - Canberra Division 1995
- President Canberra Division 1997
- Deputy President SA Division 2000
- Inaugural Chairman of the Australian Society for Defence Engineering (ASDE) Canberra Chapter 2002
- National President ASDE 2003

Over the years Greg's Major Projects include:

- Project Manager and Project Director for all of the Army's missile projects within the Defence Acquisition Organisation including capability definition phases of \$1Bn+ Medium Level Air Defence System
- Project Director and Client Manager for the naval platform engineering component of the \$4Bn+ Air Warfare Destroyer Project for ASC (formerly the Australian Submarine Corporation).
- SKM Panel manager for 10 Defence Infrastructure engineering panels and two Defence environmental panels in 2002-2006. Comprised over 700 projects a year. This role entailed identifying the appropriate resources to deliver the work, ensuring the best team was put forward and ultimately being responsible for the delivery of those services.
- Project Manager and Business Manager, Electrical Engineering Design Centre, Pune, India. Established and ran this design centre which provided electrical design and drafting support to SKM global projects.
- Operations Manager responsible for establishing the SKM Project Delivery Group in Queensland. This group provided project delivery services for major capital projects, predominantly in the mining sector. Services included safety, risk management, estimating, procurement, contract administration, scheduling, cost control, and documentation control.
- Country Manager India responsible for managing and growing the SKM operations across India. During his time SKM successfully acquired a local Indian civil/structural practice in Delhi and transferred their corporate headquarters to the national capital.
- Member of the board of Sinclair Knight Merz Consulting (India) Pvt Ltd.
- SKM Panel Manager for the Department of Infrastructure Energy & Resources Professional Services Panel
- Project Director on many of SKM's major infrastructure projects in Tasmania.

Greg is married to Nicole and has two young children, James (6) and Georgia (4). In his spare time his interests range from the performing arts, acting, singing and creative writing. With a young family he doesn't have much time for the acting and singing lately but he does try to squeeze in a bit of writing during occasional quiet times.



Key Dates

1 Page Entry Form due	COB 6 April 2011
Detailed Submission	COB 18 May 2011
Awards Gala Dinner	Friday 29 July 2011

We strongly encourage all members to review what projects they have worked on since May 2009 and select projects to enter into the Awards to help highlight the contribution engineering makes to Tasmania.

The aims of the Awards are to:

- recognise & reward high achievement in engineering;
- promote excellence in engineering;
- demonstrate to the community how engineering creates wealth and improves living standards; and
- encourage & stimulate young people to join the profession.

Benefits of entry:

- Wide publicity for your organisation and project
- Industry, government and peer recognition
- Winners will be eligible to enter the 2011 Australian Engineering Excellence Awards

The criteria for judging the entrants are:

- Sound engineering practice/principles.
- Originality/ingenuity
- Adherence to budget and program
- Extent to which the work has provided a safe and healthy working environment



Greg Walters (far right) with some of the members of the Main Judging Panel for the Excellence Awards (l-r) Sir Guy Green, Garry Bailey & Richard Bevan

Written submission will be restricted to a maximum of 1,600 words. Entrants will have an opportunity to meet with a judging sub committee and site visits may be undertaken.

For full details relating to the Awards including the Call for Entries brochure and Entry Form, please go to our website www.engineersaustralia.org.au/tasawards



**ENGINEERS
AUSTRALIA
Tasmania Division**

State Stormwater Strategy Launched December 2010

The [State Stormwater Strategy \(December 2010\)](#), is a vital tool to help protect Tasmania's waterways from the negative effects of stormwater runoff.

It was developed in consultation with local government, which has primary responsibility for stormwater management in Tasmania, and is intended as a guidance document rather than a regulatory instrument in its own right.

The Strategy, launched in December 2010, is based on best management practices currently in use at local, national and international levels. It provides practical guidance to assist local government and other organisations with responsibilities for stormwater management.

It helps address recommendations of the Tasmanian *State Policy on Water Quality Management 1997* which emphasises the need to manage stormwater at source and highlights the importance of managing stormwater in new developments at both the construction and operational stages.

For further information about the Strategy and its application please go to the EPA Division's website: www.environment.tas.gov.au/index.aspx?base=10977

or contact:

**Stormwater Management
Officer - Derwent Estuary
Program**
Tel: 6233 0477
EnvironmentEnquiries@environment.tas.gov.au

2010 Rod McGee Medal Winner



*Jake Whitehead (right) receives the
Rod McGee Medal from
Grant Atherton, member of the Civil College Board*

JING
Engineers and Planners

Tasmania
Explore the possibilities

Final year Queensland University of Technology (QUT) Bachelor of Engineering (Civil) student Jake Whitehead, was awarded the 2010 Rod McGee Medal at the Engineers Australia's Civil College awards in Canberra on Thursday, 28 October 2010.

The Rod McGee Medal was established by Engineers Australia to commemorate the contribution of Dr McGee to Australian public works engineering, and encourages final year engineering students to engage in career opportunities in public works engineering. Grant Atherton, 2010 President of the Tasmanian Division of Engineers Australia and former work colleague of Rod McGee, said that Jake Whitehead now joined a very elite group of previous winners through his exemplary academic achievements, his community contributions and passion about sustainability.

Jake Whitehead has a particular interest in the strategic planning of metropolitan transport networks in order to maximise traffic efficiency, minimise environmental impact and maximise urban aesthetics. During 2009 Jake undertook two semesters studying at the KTH – Royal Institute of Technology in Stockholm, Sweden which lead to his 2010 final year project around the results of congestion charging schemes in Stockholm, as well as in London and Singapore. From the research he aimed to determine the suitability of establishing similar schemes in an Australian city, in particular, his home town of Brisbane.

In accepting the award Jake said that he hoped that his research could be used to promote a fair public debate on congestion charging schemes in Australia.

“Congestion charging schemes provide an opportunity to not only combat congestion, but to encourage the use of public transport and provide an alternative public revenue source for raising the capital to construct major pieces of toll-free infrastructure,” Jake said.

Jake said that Rod McGee's life story was a great example of the important and valuable work that can be done in public works engineering, and that the medal has provided encouragement for him to push forward with his work on his PhD studies next year.

The award is jointly sponsored by the Tasmanian Department of Infrastructure Energy & Resources and Johnstone McGee & Gandy Pty Ltd. The prize includes an engraved medallion and a \$2,000 prize.



Tasmanian Model Solar Car Challenge 2010 Report



The State Champions - The Queechy High School team; Declan Geard, Dom Millington, Reece Lyne and Mark Jones who won with their car "Devil's Delirium"

Certificates were presented to all competitors by students from the University School of Engineering.

These teams with their cars were selected to represent Tasmania at the National Finals in Perth during November.

The sprint car state final was delayed and was held on 30 November.

Thanks to the major sponsors Engineers Australia Tasmania Division, and University of Tasmania for their support this year.

The Tasmanian Model Solar Challenge of the Australian International Model Solar Challenge 2010 was held at Newtown High School on Sunday, 17 October 2010.

On a typically overcast day all 20 car teams competed well in their round robin elimination rounds. Teams came from as far a field as Launceston.

The car finals were a close affair with six cars vying for selection. In a close final the Queechy team of Declan Geard, Dom Millington, Reece Lyne and Mark Jones retained their State Champions with their car Devil's Delirium defeating Team Fabio from St Patricks College of Launceston consisting of Natalie Williams and Jacob van Tirnen. Third was the St Patricks team of Alexander White and Kailey Jamieson with their car Luigi which led after the round robin, while fourth was the Rose Bay Team Super S Car Go with Ashlea Schott, Brooke Potter, Sarah Skromanis and Anisha Smith.



Stephen Knowles
Tasmanian Model Solar Car Committee



**FAREWELL TO
PROFESSOR CHRIS LETCHFORD, FIEAust CPEng
Head, School of Engineering
University of Tasmania**



Professor Chris Letchford said farewell to the School of Engineering at the University of Tasmania last December to take up the Head of Civil and Environmental Engineering at Rensselaer Polytechnic Institute (RPI) in Troy, NY in 2011. *(Chris is picture on the left outside one of the Rensselaer buildings)*

Chris spent 3.5 years leading the School of Engineering in Hobart and increased the visibility of Engineers Australia on campus by hosting many lectures and invited presentations through various bodies associated with EA, including; YEA, WIE and CELM.

The close working relationship between the profession in Tasmania, and Hobart in particular, is one of the assets of the engineering profession in Tasmania. The support of the Division Office, notably Geoff Harper and Catherine Reading is gratefully acknowledged.

Chris and his wife Lois spent several days at RPI in mid-October to celebrate the institution's 175th Anniversary of awarding the first Civil Engineering degree in the English-speaking world.



RPI was also named a National Historic Landmark by the American Society of Civil Engineers to mark the occasion.



More information can be found at <http://www.asce.org/PPLContent.aspx?id=12884902148>

ENGINEERING HERITAGE CONFERENCE 2011

The next Engineering Heritage Australia conference will be held in Hobart on 13-16 November 2011. The venue is the Wrest Point Conference Centre on the shores of the River Derwent.

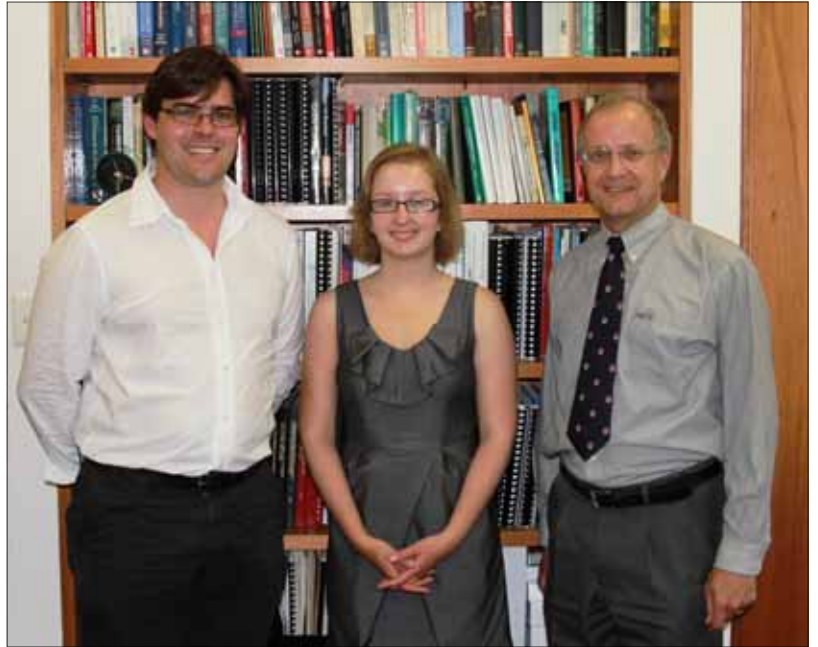
Attendees will be welcomed at a social gathering on the Sunday evening. The three days of sessions will include a Tuesday afternoon breakout for a local tour. The 4 day pre-conference tour will take place from Thursday to Sunday, visiting the North and West of the State.

The Call for Papers was issued in November 2010, and abstracts are due by 28 February 2011.

You can refer to the conference website www.cdesign.com.au/ehac2011 for additional information and contact details.

University of Tasmania ITE Traffic & Transport Student Award

Each year, the Australia and New Zealand Section of Institute of Transportation Engineers (ITE) offers a student prize for undergraduate students in traffic and transport engineering throughout Australia and New Zealand. The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals that is responsible for meeting mobility and safety needs. The ITE is largely based out of USA, but has a strong following in Australia amongst transportation professionals. The ITE has strong connections with Engineers Australia, particularly in Victoria, where technical seminars on traffic and transport engineering are shared between the organisations.



*l-r Keith Midson, Hannah Atkins and
Professor Chris Letchford*

Each year the ITE Student Award consists of two levels: the first is a university level award of which one is available for each university with a significant teaching component in undergraduate traffic and transport engineering; the second is an Australian and New Zealand award of which one is available each calendar year.

This year, the University of Tasmania ITE winner was Hannah Atkins. Hannah's final year honours project was titled "***Residential Traffic Generation in the Greater Hobart Region***". Her report was one of four honours students who were nominated for the UTas ITE award. Keith Midson, who is an Honorary Associate with the University and is also a Director of Midson Traffic Pty Ltd, was responsible for assessing the projects for the UTas component of the award. Keith stated that there were a 'higher than usual' number of traffic engineering projects submitted in 2010. "*As well as the four honours students, there were another four final year engineering students, making a total of eight students completing their final year project in traffic engineering*", Keith stated. "*This is much higher than the two or three that the University generally has each year*". Keith also noted that the quality of final year projects was also very high this year.

The second component of the award was won by Kasun Wijayaratna from University of NSW for his report on Reliability of the South-West Sydney Transport Corridor. Hannah's project was highly commended by the ITE panel of judges.

When asked what prompted Hannah to undertake a traffic engineering honours project, she said: "*I wasn't really interested in undertaking a purely theoretical study. This study enabled me to collect and analyse my own data, as well as providing the opportunity to be outside, and to speak to a number of different traffic engineers and professionals*".

Hannah received a certificate and \$250 sponsorship from Midson Traffic Pty Ltd for her efforts.

Keith Midson, MIEAust CPEng

UPGRADING MEMBERS



FRANCESCO ABATE, OMIEAust

Frank Abate completed his Associate Diploma in Engineering (Civil) in 1995 at Royal Melbourne Institute of Technology and then studied towards a Bachelor of Engineering (Civil) at Swinburne University till mid 2001.

After finishing his diploma in 1995 he worked as a Trainee Draftsperson for WP Brown in Hawthorn Victoria and later for Nader Consulting for a few years on a casual basis while studying for his Degree.

At University he focused on Water and Hydraulics and did a thesis on Drinking Water Quality which involved working and testing water with South East Water for a 12 month period.

In 2001 Frank joined Beveridge Williams in Caulfield Melbourne as a Civil Design Engineer in the land development industry. Projects that he was involved in included a 170 lot retirement village and wetland design, Chelsea Melbourne Water Main Sewer Realignment, Upgrading of 2100mm Melbourne Water drain in Carnegie and working closely with Glen Eira Council in design and tendering Capital Works which included full road & drainage reconstructions.

In 2006 Frank joined Connel Wagner (now Auercon) as an Urban Design Engineer, during his time there projects worked on included Freshwater Place 22 storey building stormwater discharge and detention system, and designing for Melbourne City Council road and drainage reconstruction works, this project involved the upgrading of existing drainage and the realignment of existing bluestone kerb and footpath.

From 2007 to 2009 Frank worked SMEC Urban as a Civil Design Engineer, the primary responsibility was to coordinate between Directors, Senior Managers, designers and drafters the design and management of subdivisional works. My main focus was extensive involvement in land subdivision, ranging from 50 lots to 3000 lot stage subdivisions, both in residential and industrial areas.

I have mainly been involved with developments at "Caroline Springs" & "Laurimer" for DELFIN also involved with PEET at Pakenham "The Crest" and AV Jennings with "Riverdale at Plenty".

I have had considerable involvement as part of the "Waterways Alliance" with Melbourne Water/Fulton Hogan & Ecodynamics.

Over the 2 year period some of the major projects I was involved in include:

Caroline Springs Multi Stage subdivision design.

Over 1000 lots were to be subdivided and the developer staged works accordingly to meet sales and construction requirements. Designing included coordinated between developer (DELFIN), water authorities (Yarra Valley Water & Melbourne Water), Melton City Council and service authorities.

Dandenong Valley Wetland (Rigby's).

Working closely with a project team of 20 people which included Melbourne Water, Fulton Hogan & Ecodynamics the design and management of a major wetland near the Eastern Freeway (over 2 kilometres in length) which required me to design wetland cells, sedimentation pond and access tracks using 12d 3d modelling and develop working drawings for construction.

Troups Creek Rock Chutes Design,

This project involved coordination between Melbourne Water, landscape planners and construction team to develop and manage the design of

rock chute size grade and length using Rock Chute Program for a major creek system.

Darebin Creek & Diamond Creek Erosion Control Works,

This project involved working with landscape planners and construction team to develop and manage the design of grade, slope and size of rock works using Rip-Rap Program to minimise and stabilise erosion of the creek.

In 2009 Frank joined Hyder Consulting in Melbourne on a contract basis as an FMS/Conduits Designer, his main role was to coordinate between electrical, structural, civil and construction team the detailed design of Conduits Network (Communication & Electrical/Lighting) and ITS infrastructure (Studs/Loops, AP's, RP's, Cabinets & Pits) for the upgrade of M80 Freeway.

The project was a team of over 200 people from Vicroads, Thiess, PB and Hyder Consulting were involved in a joint venture to design, tender and construct the upgrade of over 15 kilometers of freeway. This included the re-design of entry and exit ramps, adding and deleting traffic lanes and upgrading signage, gantries and civil infrastructure.

In October 2010 Frank moved down to Tasmania to join Devonport City Council as an Engineering Development Officer his main duties include reporting to the Technical Support Coordinator and City Engineer, I am responsible for the assessment of planning, building and subdivisions applications.

The key responsibilities of the role include:

- Assessing Building, Subdivision & Development applications for compliance with Council's infrastructure policies and procedures
- Track retentions and bank guarantees associated to subdivisions
- Monitor engineering compliance finalisation for work executed to design standards.



DR VIKRAM GARANIYA, MIEAust

Dr Vikram Garaniya completed a Bachelor degree in Chemical Engineering in 2003 from the Dharmsinh Desai Institute of Technology (DDIT) – one of the prestigious chemical engineering institutes in India. He completed a Master of engineering science degree from the University of New South Wales in Sydney in 2005. From 2005-2009 Dr Garaniya completed a Doctor of Philosophy under the supervision of Dr Laurie Goldsworthy, Assoc Prof Norman Lawrence and Assoc Prof Don McWilliams at the Australian Maritime College (AMC) - an institute of the University of Tasmania. Dr Garaniya's PhD thesis was entitled 'CFD Modelling of Heavy Fuel Oil (HFO) Spray Combustion using Continuous Thermodynamics'. During his PhD candidature he was supported by IPRS and John Bicknell scholarships.

Dr Garaniya investigated the range of factors that affect the combustion behaviour of fuel in the context of marine diesel engine. He developed fast and accurate mathematical models that provide complete energy and mass transfer information including emissions from a single droplet. He also developed a chemical kinetics model for the thermal cracking and polymerisation rate within the droplets in a burning fuel spray. Further, he studied soot formation behaviour in HFO spray combustion and developed liquid/gas phase soot burnout models. Higher proportion of soot potentially could increase the possibility of damaging the engine piston ring. The work will be useful for engine developers in designing more efficient ship engines. He has published two journal publications from this project and one is currently under review.

In early 2003 Dr Garaniya started his Chemical Engineering career, where he worked with multinational organisation Bayer ABS India Limited as a Trainee Engineer. He joined the research team of Bayer ABS and developed a project report based on advanced research for one of the products which was very useful for the marketing team. Later 2003, he joined Hrishit Industries Limited in Ankleshwar (India) as a plant engineer. In Hrishit Industries, he was responsible for the operation of highly volatile and dangerous chemicals such as ethylene oxide and benzene. He was the team leader of 27 members to produce Phenyl Ethyl Alcohol (PEA). More duties included, consistently met and achieve growing production target rate, preparing estimations and costing plans, scheduling the maintenance work and maintaining progress, consulting the clients and overall safety of the plant.

He moved to Australia in July 2004, he lived and studied in Sydney before moving to Tasmania in Aug 2005. During his PhD candidature (2005-2009) at the Australian Maritime College, he worked as a casual lecturer/tutor and taught various engineering and science subjects which included; Engineering Mathematics, Engineering Mechanics (Statics), Chemistry, Environmental Chemistry, Thermodynamics. In January 2010, Dr Garaniya joined the National Centre for Maritime Engineering and Hydrodynamics of the AMC as a lecturer. Currently he is the unit coordinator of four engineering units; thermal engineering, materials for engineering design, material technology and design of offshore systems. Dr Garaniya has a strong research interest in Chemical and Thermal engineering related areas, such as combustion science, computational fluid dynamics (CFD) modelling of engines, mathematical modelling, evaporation, pyrolysis, thermal cracking, polymerisation, soot burnout, heavy fuel oil, continuous thermodynamics etc.



ROHANA PERERA, MIEAust

Rohana completed his Bachelor Degree in Civil Engineering in 1997 and in 2009 Post graduate Diploma in Structural Engineering Designs from the University of Moratuwa Sri Lanka. He also did a post graduate Diploma in Construction Management from Open University of Sri Lanka which was completed in 2006. He is a Corporate member of The Institution of Engineers Sri Lanka as well as the Society of Structural Engineers, Sri Lanka.

Rohana joined Lanka Transformers Limited, a subsidiary company of Ceylon Electricity Board (The State power utility of Sri Lanka) as a Civil Engineer in 1997 and worked in various positions including Project Engineer Overhead Transmission line constructions, Senior Engineer (Civil/Structural designs) mini hydropower development. During his stay at this company he was actively involved (for Structural designs as well as Constructions) on several different engineering construction projects which included High voltage (132kV) overhead Transmission lines & Grid substations, Underground electricity power cable laying, Mini hydropower generating schemes, Diesel power generating plants, Hot dip galvanising plant and other similar industrial type construction works.

In 2005, he joined Enerfab (pvt) Limited, Sri Lanka as a senior structural design engineer where he worked on the Layout planning and engineering design (civil) of several mini hydropower schemes which are successfully operating and several other conceptual designs of similar

small and mini hydropower development schemes in Sri Lanka and Madagascar.

He has also worked on engineering design and detailing of many tall telecommunication antenna towers of height ranging 12 meters monopole to 135 metres steel lattice structure. In addition, he provided professional services and engineering design consultancy for Structural engineering assessment of existing structures, failure assessments of structures and independent verification of new designs, etc.

From 2009 to August 2010 Rohana worked for Samaka Engineering Consultants Sri Lanka. During this period he worked on Structural designs for two construction projects of high voltage transmission line in Rwanda and Uganda, and the Structural designs of family of 220kV electricity pylons for LTL Projects (Pvt) Limited Sri Lanka. He also was involved in the structural design and detailing of many tall telecommunication structures for Sri Lanka as well as Kenya, including the recently constructed 172 metre tall steel lattice type broadcasting antenna tower at Kokavil Sri Lanka which is the tallest antenna tower/ steel structure in Sri Lanka at present.

In August 2010, Rohana came to Australia with his family and is currently working as a Structural engineer with Entura (Hydro Tasmania). He is married to Hemanthi and they have one child, a 10 year old girl who is studying at Montagu Bay Primary school.



Registered Engineers for Disaster Relief (RedR)

RedR Mission: RedR Australia provides emergency assistance to communities devastated by conflict or major natural disasters by selecting, training and providing competent and effective personnel to humanitarian relief programs worldwide.

RedR Australia maintains a Standby Register of qualified personnel. The skills, knowledge and expertise of RedR Australia Register members are crucial to ongoing humanitarian efforts around the world.

In the past decade RedR Australia has expanded the breadth of its Standby Register and has gained a well-earned reputation for training and providing highly skilled and experienced technical experts for disaster and humanitarian relief to United Nations Relief agencies and to international and national non-government organisations.

Their training courses prepare relief workers for the realities of working in harsh environments and are highly regarded within the humanitarian relief sector.

RedR Australia occupies a specialised area in international relief by offering experienced technical professionals the opportunity to work on short term disaster and humanitarian relief assignments without necessarily having to resign from their regular jobs.

People on the Standby Register have been through a rigorous selection and training process, with their skills and experience coming from a wide range of professions and industries. The type of services they provide may include water supply, sanitation, shelter, camp planning, road and bridge construction, public communications, logistics, project management, air operations, public health, humanitarian protection and field co-ordination.

Following completion of their assignment many return to their usual employment.

RedR Australia are members of:

- Australian Council for International Development (ACFID)
- Asian Disaster Preparedness Centre

RedR Australia is a not-for-profit humanitarian organisation. They are not an employment agency and they do not run their own field projects. They are a member of RedR International, a federated network of offices sharing a common vision of a world in which sufficient competent and committed personnel are available and responding to humanitarian needs.

For more information go to <http://www.redr.org.au/>

**CONGRATULATIONS/
WELCOME**

**Members joining, rejoining
or upgrading**

FELLOW

James Fox, FIEAust CPEng

MEMBERS

Francesco Abate, OMIEAust
Vikrambhai Garaniya, MIEAust
Stephen Masters, MIEAust
Rohana Perera, MIEAust
Martin Schult, MIEAust CPEng

GRADUATES

Adrian Kay, GradIEAust
William West, GradIEAust

STUDENTS
(StudIEAust)

Ngo Bao
Chun Cheang
Nathan Doyle
Samuel Ho
Henry Kadisha
Su Ng

Peter Clark – Transend’s new CEO



Peter Clark started as Transend’s Chief Executive Officer on 1 January 2011.

Peter said that he was pleased and proud to have taken over a business that was in good shape, which was a credit to Richard Bevan, who was the company’s chief executive for 12 years.

“Although Transend is in a stable financial position, I see opportunities for it to improve on its efficiency and effectiveness,” Mr Clark said.

“I am conscious about how Transend affects the external environment, particularly in light of the current focus on the performance of the electricity businesses following the price increases that took effect in December 2010.

“Everyone at Transend needs to recognise that transmission charges have an impact on the profitability of the company’s customers and the amount that Tasmanians needed to pay for their electricity.

“To this end, we need to work closely with the network arm of Aurora Energy to ensure that we deliver the best outcomes for customers in both performance and price,” Peter said.

Peter has been involved in the electricity supply industry for 32 years. He joined the Hydro-Electric Commission shortly after he had completed his Electrical Trades Certificate.

He became involved in power system control in 1987 and this area of work has been his focus to the present day.

Peter’s first foray into system control was as a Power System Operator. After that he was promoted to the position of System Switching Supervisor in late 1989. Just over two years later he was appointed as System Control Manager - a position he held until the system control function was passed to Transend in 2000.

For the next five years, Peter’s main role was as Manager Integrated Operations, which involved managing the real time operation of Hydro Tasmania’s generation assets and the facilities required to implement operational control.

A significant challenge during this period was preparing Hydro’s generation operation and dispatch processes for entry to the National Electricity Market.

From January 2005 until the end of December 2010, he was Transend’s General Manager Transmission Operations.



YOUNG ENGINEERS



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

new minds
new ideas.



Committee Travels

Some of the YEAT committee members have been doing a serious amount of globetrotting in the last 6 months and we thought that the least they could do was share some of the engineering marvels that they saw along the way.

Hello again for another year. I hope that everybody enjoyed their Christmas and New Year break and are revitalised for 2011.

This year the Tasmanian Division of Young Engineers (YEAT) is planning a small number of targeted events for our members. By the time this magazine comes out the Year of Humanitarian Engineering Breakfast will have been held at the Hobart Function Centre. A Year of Humanitarian Engineering Dinner is scheduled for the north in March/April so keep an eye on your emails.

YEAT also have the pleasure of hosting the quarterly YEA National Committee quarterly meeting in Hobart in February so look for a report on that meeting in the March newsletter.

In the middle of the year, YEAT, in conjunction with the Young Professionals Network Tasmania and the Northern Young Professionals Network, are planning on holding an investment seminar to provide some advice to young and not so young professionals regarding what they can do with their tax return.

In the second half of the year, YEAT will be holding a CPEng Forum to discuss with organisations and individuals to discuss the CPEng process, the issues that participants and organisations have found and techniques that people have used to deal with them.

And to close the year YEAT will be joining with the Tasmania Division and other EA groups to host an End of Year social function.

In addition to these events, YEAT will be coordinating with the University of Tasmania and the Australian Maritime College (AMC) to provide opportunities for their students to meet and hear from professional engineers and will be assisting Women in Engineering with school visits.

If you are interested in helping out with school visits or being a speaker at the University or AMC, please contact Catherine Reading at the Engineers Australia office on 6234 2228 or send an email to:

yeatas@engineersaustralia.org.au

YEAT have also spent some time reviewing their Operational Plan and some of key our focus areas for the next twelve months are:

- Utilising mediums such as Facebook and the YEAT page on the EA website to encourage discussion blogs around topical subjects to young engineers;
- Establishing a CPEng Mentoring Network where people currently undertaking their CPEng can get in touch with people who have completed a few CERs for their advice and help;
- Providing our members in metropolitan and non-metropolitan areas with CPD hours for their CPD records; and
- Encouraging high achieving young engineers and their organisations to nominate their young engineers for the Tasmanian Professional Young Engineer of the Year award.

If you would like to be a part of achieving this, Young Engineers are always looking for people to join the Committee and help shape the way we as a group provide the best services and development opportunities for our members.

We invite you to come along to a meeting (the last Tuesday of the month, in the Division's office at the Royal Engineers Building, 2 Davey Street, Hobart commencing at 5.40pm) and meet our Committee members.



Sandra on the Great Wall of China

This is me traipsing, although at times it felt like I was climbing it was so steep, the Great Wall of China in August 2010. This particular section of the wall is known as the Mutianyu section, which winds along mountain ridges for over 2 kilometres.

Built mainly of granite, the Mutianyu section is 7-8 meters high and 4-5 metres wide. It was first constructed in the mid-6th century and was rebuilt in 1569, with some renovations on the wall in the 1980's (thanks Wikipedia!)

Amazing experience and the view was fantastic! My tip for those who don't like stairs: don't take the chair lift, or, if you do, turn left when you get on to the wall instead of right... Who needs a stair master when you've got the Great Wall of China?



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

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.

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

Venue: Adelaide

More info: www.icwes15.org

Board Builder Conference 2011



This is the conference for all people who sit on a board, manage a board, work with a board, or want to get on a board. A fresh agenda for Australian community sector boards, committees and governing councils.

When: Friday, 18 February 2011

Where: Moonee Ponds, Melbourne VIC

Cost: \$295 per attendee

More info: www.ourcommunity.com.au/boardbuilder2011

News

School visitation Programme breaks the 1,000 student mark!

Late last year Meredith visited Grade 8 girls at Mount Carmel College. Adela Morton came along as she is an old

scholar of this school. Adela has a combined civil engineering/science degree from UTAS and inspired the girls with photographs of a DN1700 desalinated water pipeline in Victoria that she helped design. Many thanks to Adela for sparing her time. She is a busy girl - working at Southern Water and SKM as well as fitting in a wedding!

Since there were over 55 girls present we have just tipped over the 1,000 student mark for 2010!



Adela Morton (front left) with the Grade 8 students at Mount Carmel College

Interview with Kaitlin Langdon, StudIEAust

Last year Kaitlin became the first ever female President of the UTAS Engineering Society. She was kind enough to donate her time (holiday time too!) to answer some questions for the WIE newsletter.

What work did you perform to achieve this position? What advice would you give other candidates?

I joined the UTAS Engineering Society at the beginning of my second year at university. I would encourage students in any year to come along to meetings and get involved, it is a great way to meet other students in engineering especially in different years. I decided to run for President for my final year to help ensure the growth of the Society continues in size and stature within the university and local community.

When did you decide to become an engineer?

I have always had an interest in maths, science and the physical world, and only realised in year 12 that engineering is a great combination of those interests. I have since realised it is about so much more!

What engineering discipline did you decide on learning and why did you choose that discipline?

I chose to study civil engineering because I was interested in large scale structures like dams, high-rise buildings, bridges (the big impressive stuff!).

Do you have a favourite quote?

“Carpe diem, Seize the day”

What are the best things about Summer Vacation placement work?

I have enjoyed the challenge of learning to apply theory learnt at university in “real world” applications at Southern Water and Hobart Water, this is valuable experience. Also, working with other disciplines, and other professionals in a team environment is great, because after second year most of classes at university are for one or two disciplines.

What do you most enjoy about engineering?

Diversity in work and applications and challenging, interesting work (hopefully)

How have you balanced work and social/family life?

I try and treat university a bit like a job, I work hard between 9am and 5pm and try to complete my assignments in the spare time between lectures.

This usually allows me the freedom to spend my evenings and weekends with friends and family except around busy times like mid-semester and exam study periods (and when I have 3 lab reports due at the same time!).

What do you do to relax?

I enjoy spending time with friends usually just having a laugh and playing in a rock band.

What are your career goals and how do you plan to reach them?

The ability to travel and work as engineer was one of the draw cards for me initially and I hope that by completing work experience and showing continuous dedication to my studies, that it will open more doors and give me more opportunities at the beginning of my career.



*Kaitlin Langdon, StudIEAust
President, UTAS Engineering Society*

Numbers

There are over nine thousand WIE member now! :))

Although, with 85,000 engineers in total in Australia, this represents only 11% :(

However we've come a long way since 1980 when there were only 101 WIE (in the WHOLE of Australia)!

NUMBERS OF WOMEN MEMBERS								
Member Grade	Total Number of Women							
Year	1980	1990	2000	2003	2005	2008	2009	2010
Fellow	0	4	39	46	60	74	73	79
Member	46	263	496	938	1192	1613	1872	2079
Graduate	41	346	1741	2138	1768	1919	2001	1997
Total	87	613	2276	3122	3020	3606	3946	4155
Students	14	467	1295	3904	4318	4760	5200	5745
Total incl Students	101	1080	3571	7026	7338	8366	9146	9900

Source: Engineers Australia Membership Data, July 2010

Reflection

Welcome to 2011!

As you are aware, 2011 is the Engineers Australia 'Year of the Humanitarian Engineer', but this year is also significant for being (according to the UN);

- The International Year of Forests
- The International Year of Chemistry

It is 2011 (MMXI) in the Gregorian calendar (so name because it was introduced by Pope Gregory XIII). Fun fact: The British Empire did not adopt the Gregorian calendar until 1752, when it lost 11 day to catch up from its previous Julian calendar format (so named for Julius Caesar). Clearly, you've really made it in this world when you've got a calendar named after you!



WIE Tasmania Committee: L-R Nyassa Muir, Amanda Halley, Erin Jackson (nee Driscoll), Meredith McQueen and Fiona Evershed

Quote of the month

"There is a theory which states that if ever anybody discovers exactly what the Universe is for and why it is here, it will instantly disappear and be replaced by something even more bizarre and inexplicable. There is another theory which states that this has already happened." – Douglas Adams

WIE Committee Members:

Amanda Halley, Meredith McQueen, Fiona Evershed, Erin Jackson, Cassandra Blazely, Nyssa Muir and Amanda Larsen

Email: wietas@gmail.com
www.womeninengineering.com.au



ADVANCE NOTICE

Family BBQ

Hosted by the
Women in Engineering Committee

Sunday, 3 April 2011

Commencing at 12:00 noon

Longbeach Playground &
BBQ area, Sandy Bay

Cost:

Members and their families - free
Non-members - \$5 per person
or \$10 per family

Sausages, hamburgers and
bread will be provided as well
as some soft drink.

BYO alternative food and drink.

All male and female members
are welcome to come along.

Bring your children, wives,
husbands, partners and friends!

HERITAGE PAGES

HISTORY OF HIGH VOLTAGE DIRECT CURRENT TRANSMISSION



*Owen Peake,
HonFIEAust CPEng*

The November 2010 heritage lecture was given to an audience of 27 by Owen Peake, HonFIEAust CPEng.

At the request of the audience, Owen began by outlining the origins of both DC and AC generation and transmission. He explained the early limitations of both systems, the dominance of power distribution & generation by Thomas Edison who tried to protect his investment in DC energy business. Edison opposed the invention of the transformer by Nikola Tesla, which enabled distance transmission at voltages much greater than the generating voltage and the customer voltage, thus lowering transmission losses by reducing the current. This invention allowed the more efficient transmission of electric power over longer distances. The transformer, by its ability to easily match different voltages together, gradually upstaged direct current transmission.

An early example is Tasmania's Waddamana 6.6kV-88kV-6.6kV line 88 miles to Hobart. Further transformation reduced the line voltage to 415/240 volts, for domestic use. Gradually, as the length of major interconnectors increased, so did the voltage required to transmit the power, to further reduce the line losses.

However, designers turned to cables for transmission underwater and, for this, direct current was the better method. Rotary converters were available to convert the AC/DC but these had major losses and costs. The first commercial High Voltage Direct Current (HVDC) scheme was commissioned in 1954 between the Island of Gotland and Sweden using Mercury Arc Valves (MAVs) to rectify the AC to DC and reverse this at the other terminal. This method had been developed over the period 1927 to 1954.

After the success of this scheme, others were successfully built around the world, until in the 1970s when suitable solid state Thyristor Valves were introduced. Many of the MAVs were replaced by the Thyristor.

Today huge schemes are being put into service to transmit power for great distances overland in Russia, China, etc. These new installations use a new converter called an Intergrated Gate Bi-Polar Transistor (IGBT), and in most old installations the IGBT is gradually replacing the MAVs and Thyristor.

A problem for Engineering Heritage is that, as the mercury is dangerous and valuable, old MAVs are being disposed of and few are surviving for conservation.

The audience was very interested in Owen's presentation, and question time had to be extended to allow him to answer the great many questions put to him.

Tony Lee OMIEAust, Engineering Heritage Tasmania



*Mercury Arc Valve
(HVDC) 1956*

HERITAGE PAGES

Engineering Heritage Recognition for the Boyer Newsprint Mill



L to R: Rod Bester, General Manager, Boyer Mill; Hon. Peter Underwood, Governor of Tasmania; Bruce Cole, Chair Engineering Heritage Tasmania; Grant Atherton, Tas President EA; Prof Doug Hargreaves, Nat President EA; John Laughler, Strategy & Development Manager Boyer Mill

The Boyer Mill was the first paper mill in the world to make newsprint from hardwood fibre.

About 75 guests attended a ceremony on 17 November at the Boyer Mill on the Derwent River 30 km from Hobart, where the Governor of Tasmania unveiled a marker and interpretation panel, awarding Engineering Heritage National Landmark status to the Boyer Mill.

The Mill produced its first newsprint in 1941, averting a shortage of newsprint during World War II. While international experts had advised that Australian hardwoods would not be suitable for papermaking, due to their inherently short fibres, two young Australian scientists, Lou Benjamin and John Somerville, persevered with their work and established a pilot plant at Kermandie in the Huon Valley. By 1926 this experimental work had produced sheets of paper that could not be distinguished from “real” imported newsprint.

In 1934 at Ocean Falls Mills in British Columbia, Canada, Benjamin and staff carried out a large mill-scale test, using 1000 tons of Tasmanian eucalypt. On arrival some logs were lost when the wharfies tossed them overboard expecting them to float, and some of the pulp from Tasmania was stained with coal dust and rust. However the trial was successful in so far as the problems of using this wood for making newsprint were sufficiently resolved to commence the design of a pulp and paper mill.

The Boyer Mill was established by a consortium of Australian newspaper publishers. The Tasmanian Government supported the project by providing a large timber concession area in the Derwent Valley.

Canadian Engineer Percy Sandwell led the design team and supervised construction. While the paper machine and boilers were imported, 65% of the machinery and equipment was manufactured in Australia. Sadly Percy Sandwell died eight days before the first newsprint was produced.

The Governor outlined the 20 years of research and trials before the project was launched. John Laughler described the construction of the Mill and subsequent developments. National President Doug Hargreaves outlined EA’s Heritage Recognition Program and presented the Marker. Mill General Manager Rod Bender accepted the marker. The master of ceremonies was Bruce Cole, chair of Engineer Heritage Tasmania.

The miniature paper making machine used for the trials at Kermandie was on display at the ceremony. It was manufactured in 1908 and loaned by the CSIRO for the occasion. Tours of the Mill were held before the ceremony.

Bruce Cole, FIEAust CPEng(Ret)
Chair, Engineering Heritage Tasmania



L to R: Rod Bester, Len Johnson, Hon. Peter Underwood, Governor of Tasmania and Allan Pearson.

Len and Allan were the original operators of the miniature paper making machine.

AMC Catches Up With Friends



Front Row L/R: Mr Rodney Gowland (Tasmania Division, Engineers Australia); Dr Jack Edwards; Captain Charles Black (Tasmanian Ports Corporation); Mr Raj Gupta; Professor Neil Bose (Director-AMC NCME&H); Mrs Maureen Gupta

Back Row L/R: Mr Troy Crevatin (P&O Maritime Services); Captain John Lloyd (Director-AMC NCP&S); Mr Brett Charlton (Agility Global Integrated Logistics); Professor Malek Pourzanjani (Principal-AMC/PVC-UTAS)

Apologies: Professor Peter Boyce; Mr John Watson; Mr Steven Schmied and Ms Pauline Geleynse; SBLT Tracy Hanson (Australian Navy Cadets)

A group of seven guests reinforced their close ties to the Australian Maritime College with a tour of its world-class facilities on Tuesday, 16 November 2010.

The Friends of AMC group enjoyed a light lunch before hearing about the college's latest developments and plans for the future. This was followed by a tour of the AMC's research and commercial facilities.

Professor Malek Pourzanjani welcomed the opportunity to show the group around.

"We are grateful to Friends of AMC for their ongoing interest and support in the college, and look forward to further growing this important relationship in the future," he said.



Have you saved the date April 6-8, 2011?

EECON2011 - the 87th EESA National Conference and Exhibition Wrest Point Conference Centre, Hobart, Tasmania

Registration is now open. Sponsor and Exhibitors are coming on board.

You are invited to Dinner at the Bellerive Oval where you will be able to visit the fabulous Tasmanian Cricket Museum pre-dinner and then have dinner looking out over the most southern test cricket ground in the world. The Tasmanian Cricket Museum offers a special experience for cricket enthusiasts with innovative displays, video and state-of-the-art interactive technology. Tasmania's rich cricket heritage dating back to the very early years of settlement is illustrated through displays and video and the most recent addition to the Museum is the Ricky Ponting Corner.

We have secured 3 keynote speakers for the conference program.

- **Prof Felix Wu**, Professor in Electrical Engineering, The University of Hong Kong
- **Prof Jovica Milanovic**, The University of Manchester, School of Electrical and Electronic Engineering
- **Ken Brown** FIEAust CPEng, Western Power

The technical program is currently being organised and will be posted on the web site once suitable detail is available. The Call for Papers has now closed.

Pre-conference seminars are being organised – details on the web. An Overhead Lines Seminar will be held on Tuesday April 5th at Wrest Point. This 1 day seminar will provide an overview of the new standard AS/NZS 7000:2010 – Design of Overhead Lines from a team of subject experts drawn from around Australia involved in the preparation of the new standard. The seminar will focus on the application of this new standard to pole line construction in distribution networks.

And please remember that our theme - ***“Future energy ... empowering sustainable solutions”*** - is designed to encourage greater participation from young engineers. Are you bringing along a colleague?

All conference details are available at the Conference web page <https://events.conventionwise.com.au> and you can download a Sponsor and Exhibitor Prospectus from the web pages also

Further details from Convention Wise

Email: conference@conventionwise.com.au Phone: (03) 6234 1424

Thank you to our current sponsors



Silver Sponsor



Conference Dinner Sponsor



Name Tag/Lanyard Sponsor

CALENDAR 2010

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

FEBRUARY

Friday 4 - Year of Humanitarian Engineering Breakfast - 7.45am to 9.00am - Hobart Function Centre, Elizabeth Street Pier - **FREE** to members of Engineering related professions - RSVP to Catherine Reading 6234 2228 or creading@engineersaustralia.org.au

Monday 7 - HOBART - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Tuesday 8 - ULVERSTONE - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Tuesday 8 - LAUNCESTON - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Thursday 10 - HOBART - AS2870 Residential Slabs & Footings (Revision of AS2870-1996) - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Tuesday 15 - ST HELENS - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Wednesday 16 - TRIABUNNA - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

Wednesday 16 - North West Group - ANNUAL GENERAL MEETING & Dinner Meeting - "Forensic Engineering - Investigations into Structural Performance" - Dr Rob Heywood - 6.00 for 6.30pm - Ulverstone Civic Centre - \$15 Members or \$20 Non Members - RSVP by 10 February to Simon Angilley 6424 9085 or simon@tascon.com.au (Refer to this page)

Friday 18 - WEAR RED FOR RedR DAY - Refer to advertising flyer for more details at: www.engineersaustralia.org.au/tasevents

Tuesday 22 - STRAHAN - Building & Construction Industry Security of Payment Act 2009 - **FREE** event - Refer to online registration form at: www.engineersaustralia.org.au/tasevents

NORTH WEST TASMANIA GROUP

Annual General Meeting & Dinner Meeting

"FORENSIC ENGINEERING – INVESTIGATIONS INTO STRUCTURAL PERFORMANCE"

Presented by: **Dr Rob Heywood, FIEAust CEng**

Wednesday, 16 February 2011

6.00 for 6.30 pm.

Ulverstone Civic Centre

Forensic engineers investigate structural failures to understand why they occur and provide critical feedback to the engineering profession. In the case of partial or total structural collapse, knowledge of the cause can prevent future collapses, while with less catastrophic failures – such as, excessive deflection, leaking facades, or indeed any situation where a lack of performance occurs – knowledge of the cause provides a sound bases for accurate and efficient solution development.

The presentation will focus on the application of the forensic process to resolve day to day structural failures, and will highlight the common pitfalls associated with using design processes in a forensic context. Key resources – in the form of international journals, committees, conferences and guidelines – will be identified for those interested in enhancing their forensic engineering knowledge.

Speaker

Rob Heywood is the Technical Director of Texcel Expert Services, which specialises in the forensic investigations of structures. He has 35 years of experience in design, construction, research, education, in-service performance measurement and forensic engineering. Rob is a Fellow of Engineers Australia, the Queensland representative of Engineers Australia's Structures College Board, a Member of ASCE's Technical Council on Forensic Engineering (TCFE).

COST: Members: \$15.00 Non Members: \$20.00

RSVP: By Thursday, 10 February 2011 to Simon Angilley
simon@tascon.com.au or 6424 9085

THIS MEETING WARRANTS 1.5 HOURS CPD