

engineers

canberra

ENGINEERS
AUSTRALIA
Canberra Division

From the President



On 17 February, the Chief of Air Force (CAF) Air Marshal Mark Binskin, gave a very informative presentation on his responsibilities

and the strategic challenges facing Defence. Defence as a whole must find \$20b in savings over the next ten years. One of the ways the RAAF will achieve savings is by reducing the cost of through-life sustainment of its assets. A major challenge, particularly for engineers and technical staff, is maintenance of ageing aircraft.

Air Marshal Binskin joined us for refreshments before his presentation. He asked to be introduced to all those attending, and went around the room, speaking informally with members of the audience to get a feel for their background and interests. This was a unique opportunity for them to meet CAF, ask questions, and discuss issues. I encourage organisers of future presentations to introduce their speakers to those present and in that way, give the speakers the opportunity to get to know their audience and become aware of specific topics of interest.

I also encourage members to use the time we have for refreshments before each meeting as a networking session. I often see people there standing by themselves. Please introduce yourselves. For all of us, but especially our younger members, this is an excellent opportunity

to meet other engineers and technologists with similar interests, exchange ideas, and find out what others are doing in your field. It is also an opportunity, especially for our more experienced engineers, to pass on information to others. We all benefit from networking, particularly in Canberra where so many of our activities are interrelated.

Dr Robert Care, CEO of Arup Australasia, Chairman of RedR, (also a former Chief Engineer of the NCD and Head of ACT Public works,) spoke on the subject of leadership at the annual Canberra Division Centre for Engineering Leadership and Management Presentation on 24 February. Dr Care is not only an eminent engineer but also a very successful manager. He emphasised that to be a good manager you need to inspire, motivate and energise others, and also to reflect on what you are doing, why you are doing it and what are the consequences. Speaking with a conviction based on his extensive experience, he identified essential characteristics such as integrity, courage, good communication skills, decisiveness, competence, empathy and the desire to train and help others succeed. A copy of his excellent presentation should appear on the Canberra Division website shortly.

On 23 February I attended an ANU Public lecture on Climate Change post Copenhagen – Where do we go now? ANU students and staff who attended COP 15 reported on their experiences. Although the press has given us the impression that the Conference was a failure because it did



not achieve international agreement on the way forward, those who attended were much more positive. Significant progress was achieved in side meetings that addressed specific aspects of climate change, such as food security. While there is general agreement to the aim of limiting global temperature rise to two degrees, much work is yet to be done on the effects this would have and what this would mean for global sustainability. It was reported that Non-Government Organisations (NGOs) were well represented in Copenhagen and exerted a strong influence. In my opinion, professional bodies, such as Engineers Australia, have a vital role to play in tackling the issue of climate change and informing our political leaders, who are the real decision-makers. The impact of climate change needs to be considered in every aspect of our day-to-day business.

This newsletter outlines our technical program for the next few months. We have a range of presentations by leading practitioners. These give you the chance to broaden your knowledge and to gain deeper knowledge in your specific field. Please come along, support the hard work the Division staff and your committees have done in arranging the presentations, and enjoy the benefits of your membership.

*Denton Bocking
President*

New Deputy Director of Canberra Division

Hi, I am Colleen Mays, the new Deputy Director of Canberra Division.

Prior to coming to work in Canberra Division, I was working in the National Office in Engineering Practice as a Committee Administrator where I looked after the Civil College Board, the National Committees on Water (NCWE), Construction (NCCE), Transport (NCTE) and Coastal & Ocean (NCCOE), The Australian Construction Achievement Award (ACAA) and The Asian Civil Engineering Coordinating Council (ACECC). I had been in this role for two years, so I am not new to Engineers Australia.

I have lived in Canberra since 1977 coming here when I left school (do your sums!). I grew up on a farm at Rye Park which is out past Yass but not as far as Boorowa.

I have three grown children and two beautiful little grandsons.

My interests include my family, sudokus, walking, reading and would like to find more time to play the piano.

I am looking forward to meeting you all in the near future and you will always be greeted with a smile.

My contact details are:

Ph: (02) 6270 6519, Email: cmays@engineersaustralia.org.au.



Call for nominations for Canberra's Engineering Hall of Fame

The Canberra Engineering Hall of Fame was established in 2002 to mark the 75th Anniversary of Canberra Division.

The intent of the Hall of Fame is to recognise the accomplishments of engineers in Canberra who have demonstrated outstanding professional achievement and have made a significant contribution to the local community. It also provides a perpetual means of demonstrating to the community of Canberra the contribution that engineering makes to the success of our city.

Details of the Hall of Fame members and their achievements

are featured in a permanent display in Engineering House. Nominations for induction into the Hall of Fame are normally called every two years.

Nominations for 2010 are to be submitted to the Canberra Division Office by 30 June 2010.

Nominees must be members of the engineering team but need not be members of Engineers Australia.

Nominations should include a CV of up to two pages and a two page 'Business Case' addressing the selection criteria. Nominations are reviewed by a judging panel of eminent engineers and Canberrans.

Full Selection Criteria is at www.engineersaustralia.org.au/Canberra.

Volunteers sought for Mechanical Branch Committee

Canberra Division is seeking volunteers to go on the Mechanical Branch Committee.

If you are interested please email Vesna Strika, vstrika@engineersaustralia.org.au or ph: 6270 6519.

Gen X Lunch

21 May 2010
Lunchtime
Hellenic Club, Woden

Leadership in the Engineering Workplace

\$35 per person

Further details will be posted on the Canberra Division website.

www.engineersaustralia.org.au/canberra

ENGINEERS AUSTRALIA CANBERRA DIVISION

TECHNICAL PROGRAM

All presentations will be held at 'Engineering House', 11 National Circuit, Barton unless otherwise specified. For catering purposes please RSVP for all meetings to cmays@engineersaustralia.org.au or phone 6270 6519. Full details of each meeting can be found at www.engineersaustralia.org.au/canberra under Technical Program.

Date/time	Branch/Group	Topic	Speaker/notes
MARCH 2010			
Tue 16 5.30 for 6.00pm	ITE&E Branch, IEEE & IET	Elliptic Curve Cryptology in Wireless Sensor Networks	Mr Ru Mr Pritam Shah, PhD candidate at University of Canberra
Wed 17 5.30 for 6.00pm	Risk Engineering Society	A draft as for Organisational Resilience	Mr Kevin Foster
Thu 18 12.00 for 12.30pm	Transport Branch	Is Resident's Car Park Half Full or Half Empty?	Dean Brodie, Brown Consulting Sydney
Tues 23 3.00 to 6.30pm	SSEE	CodeRed Workshop	Facilitator: David Pointon, FAST Meetings Co. Keynote Speaker Professor Ian Lowe
Thu 25 5.30 for 6.00pm	Mechanical Branch	Will outline the advantages of Cogeneration, also known as CHP (is the combined production of heat and power)	Dalkia Australia Pty
Tue 30 5.30 for 6.00pm	Civil/Structural Branch	Project Certification 1 - The effects of slack certification and documentation	Andrew Montgomery
Wed 31 5.30 for 6.00pm	Joint Presentation: ITE&E Branch, IEEE & IET, and Royal Aeronautical Society	Aerospace Eminent Speaker: Survival of the Fittest: 90 Years of Dutch Aeronautics - RDT&E in a Globalising Environment	Fred Abbink
APRIL 2010			
Wed 14 5.30 for 6.00pm	SSEE	Supporting the use of silver treated ceramic filters for household water treatment, www.rdic.org/waterceramicfiltration.htm and developing sanitation options for floating communities in Cambodia.	Judy Hagan
Thu 15	Transport Branch	NCTE Eminent Speaker: Traffic Operations and Safety	Rod Troutbeck
Tue 20 5.30 for 6.00pm	ITE&E Branch	A overview of advanced Wireless techniques to exploit the NBN and TV spectrum to provide broadband to regional Australians	Professor Gerard Borg, ANU
Wed 21 5.30 for 6.00pm	CELM	Leading Public Sector Reform in Infrastructure Delivery	Mike Mrdak
Thu 22 5.30 for 6.00pm	Civil/Structural	New Orleans Rebirth from the Great Flood	Luis and Elizabeth - US Engineers
MAY 2010			
Tue 4 5.30 for 6.00pm	Risk Engineering Society	Managing the Unexpected Varanus Island gas pipeline ruptures, explosions and fires of 3 June 2008	Christine Miller
Tue 18 5.30 for 6.00pm	ITE&E	TBC	Craig Benson
Thu 20 12.00 for 12.30pm	Transport Branch	Case Study of the Temporary Traffic and Parking Arrangements during the Construction of the Multi-Storey Car Park	Michael Goiser - ACT Health
Fri 21	YEA/WIE	GenX Lunch: Leadership in the Engineering Workplace	Hellenic Club
Thu 27 5.30 for 6.00pm	Civil/Structural	Project Certification 2 - Professional Indemnity	Leanne Hardwicke (Professional Indemnity Standards Scheme plus Darren Pavic from BRIC Bovial Risk)

Canberra Division's Annual Leadership Presentation by Dr Robert Care

"Some Thoughts on Leadership – My Way" was the title of the Division's Annual Leadership Presentation by Dr Robert Care, Australasia Region Board Chairman and (international) Group Board Director of consulting firm Arup. The presentation was given at a well attended and enjoyable lunch at the Royal Canberra Golf Club on 24 February.

Robert, well known to many in Canberra as a former Chief Engineer of the National Capital Development Commission (NCDC), is also Deputy Chairman of ACIF (Australian Construction Industry Forum) and Chair of RedR Australia.

His informative and absorbing presentation contained memorable quotes ("Leadership is getting others to do what you want because they want to do it") and was spiced with humour ("Now that I am half-way through my working life I have written here – this is a joke"). But

best of all the Robert frankly exposed his personal views and values on leadership. He told how he chose to be consultative and supportive of others rather than domineering or bullying, not because it was

necessarily more effective but because it was the way he chose to lead.

Thanks Robert for a great leadership presentation.

*Mike Evans
Chair CELM Canberra Chapter*



Left to right: Denton Bocking (Canberra Division President), Peter Taylor (Chief Executive), Dr Robert Care and Mike Evans.

AIRAH Information Workshops on Section J (Volume One)

25 March 2010

Sutherland Theatrette, National Convention Centre, 31 Constitution Avenue, Canberra ACT 2601
Session times are 1.30 to 5.00pm. Registration from 1pm. Light refreshments provided.

Presenter: Doug Elms L.AIRAH

Doug Elms L.AIRAH, one of Australia's pre-eminent energy specialists, will take you through the application of Part J5 – Air Conditioning and Ventilation and J8 Access for Maintenance and Facilities for Monitoring. Doug takes the technical detail in the BCA and delivers it in an easy to understand and apply way – his seminar series in 2008 generated tremendous feedback from both mechanical services professionals, architects and buildings surveyors.

Part of the Australian Government's policy for greenhouse gas emission reduction includes significant improved energy efficiency in buildings. From May this year the Building Code of Australia (Volume One) drastically improves energy efficiency measures in Section J.

According to supporting commentary on the proposals to amend the energy efficiency provisions in the BCA (Vol 1) for 2010 the following provisions were laid out:

- Offices – between 14 and 22% energy reduction
- Department stores – between 22 and 27% energy reduction
- Schools / Universities – between 18 and 31% energy reduction
- Hospitals – between 14 and 40% energy reduction
- Office buildings heating plant improvements up to 12%, cooling plant up to 26%, fans and pumps a massive 52%.

Register online at www.airah.org.au

EMINENT SPEAKER SERIES

ITE&E Branch, IEEE & IET, and Royal Aeronautical Society Joint Presentation
Wednesday 31 March 2010 – 5.30 for 6.00pm
Engineering House, 11 National Circuit BARTON

Survival of the Fittest: 90 Years of Dutch Aeronautics RDT&E in a Globalising Environment

Speaker: Mr Fred Abbink

Fred Abbink is the General Director of the National Aerospace Laboratory of The Netherlands (NLR). He graduated in Electrical Control Engineering from the Technical University Delft in 1968 after which he served in the Royal Netherlands Navy as a project engineer on a number of avionics projects. He became head of NLR's flight testing & helicopters department in 1981 responsible for helicopter, avionics & military operations research and accident investigation. He became the Technical Director in 1988 and General Director

in 2005 with a brief absence due to an appointment at the German Aerospace Centre.

Mr Abbink has served as part-time & visiting professor at many prestigious Universities across the world. He was the President of the International Council for the Aeronautical Sciences (ICAS) between 2006 & 2008 and currently continues a number of Officer Bearer roles on other National & International Aerospace bodies. Mr Abbink is an Officer in the Order of Oranje Nassau, Fellow of the American Institute of Aeronautics and

Astronautics (AIAA), Member of the French Académie Nationale de l'Air et de l'Espace (ANAE), Member of the Netherlands Academy of Technology and Innovation, and Honorary Member of the TU-Delft Aerospace Students Association Leonardo Da Vinci.

Note: There is a \$10 attendance charge for Non-Members.

Members of Engineers Australia & the RAeS can attend for free. RSVP & any payment due is to be made via the online registration links www.engineersaustralia.org.au/eminentspeaker



ENGINEERING
LEADERSHIP
CONFERENCE
2010

Inspiration, Agility, Success

5-7 May 2010
Brisbane Convention and Exhibition Centre
Brisbane, Australia



ENGINEERS
AUSTRALIA

Registrations are now open!



Major Sponsors



In the Year of Engineering Leadership, the Centre of Engineering Leadership and Management (CELM) and Young Engineers Australia (YEA) have joined together to present the Engineering Leadership Conference.

The Engineering Leadership Conference will deliver a dynamic and thought provoking combination of high profile speakers and challenging presentations appealing to experienced engineering leaders and those transitioning into leadership roles.

Confirmed speakers include:

- Andrew Buckley, CEO, Cardno
- Tony Elwood, Director, Queensland Art Gallery and Gallery of Modern Art
- Stuart Glenn, CEO & President, PB International
- Zimi Meka, CEO, Ausenco
- Jude Munro, CEO, Brisbane City Council
- Dr Chris Roberts, CEO, Cochlear Limited
- Bill Wild, COO, Leighton Holdings

www.engineeringleadership.org

Visit the website for further announcements on speakers.

EMINENT SPEAKER SERIES

Transport Branch

Thursday 15 April 2010

Engineering House, 11 National Circuit BARTON

Future Challenges and Responsibilities in Traffic Operations and Safety

Speaker: Emeritus Professor Rod Troutbeck, FIEAus

The transport system will be subjected to considerable change over the coming decade. There will be a much greater reliance on the operation of the system and providing users with an appropriate quality of service. There will be fewer opportunities to widen roads or to build new freeways to increase capacity for free flowing conditions. A recent trend is to concentrate on reliability of service rather than lower travel times through higher road capacities.

As a result of the adaption of the road system, there has been increased road reconstruction adjacent to traffic. Engineers are responsible for the provision of both a safe environment for road users and construction personnel. These are vital concerns to the community and road authorities that need greater and immediate attention. Rod will present recent research on system reliability and safety at work sites.

Rod Troutbeck was the Head of Civil Engineering at Queensland University of Technology from 1994 to 2004. After which he established a consultancy, Troutbeck & Associates and has remained connected to QUT through the Centre for Accident Research and Road Safety-Queensland (CARRS-Q).

Prior to joining QUT, Rod was a Principal Research Scientist at the Australian Road Research Board. In his 15 years at ARRB, he established the effectiveness of safety barriers and warrants for their use, the effect of longer vehicles in the traffic stream on drivers' overtaking behaviour, the performance of roundabouts and innovative video data collection techniques. This research still has national and international recognition to this day. The current Austroads guides still incorporate his research at the Australian Road Research Board.

At QUT, Rod researched the performance of freeways and arterial roads, crash testing of

safety barriers, the effect of drivers' vision on driving performance, the results of oversaturation on traffic movements and the impact of heavy vehicles in urban traffic streams. Rod guided a number of students through their post-graduate degrees.

Rod has been a researcher in US National Cooperative Highway Research Program and US Federal Highway Administration projects. Rod has been a member of several Transportation Research Board committees including the Highway Capacity and Quality of Service and Roadside Design Committees. He has also chaired the Standard Australia's committee on road safety barrier systems and risk management in motor sport.

Note: There is a \$10 attendance charge for Non-Members.

Members of Engineers Australia. RSVP & any payment due is to be made via the online registration links www.engineersaustralia.org.au/eminentspeaker

For updated information on the Technical Program and other events check out the Canberra Division website:
www.engineersaustralia.org.au/canberra