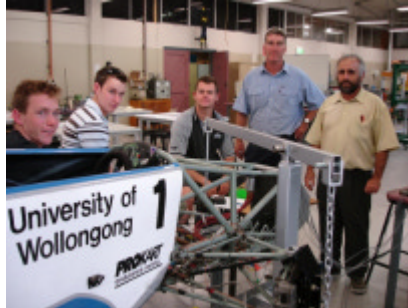


## New Look Thermo Lab is a Great Success

It was a hectic time for Mechanical Engineering Staff involved with the Thermodynamics Lab from November 2005 to February this year. After the Dean won approval for painting and refurbishment from the University senior executive, the race was on to refurbish one of the oldest labs in the university and get everything ready for the start of Semester 1 this year.

First came the "Great Cleanout!". Years of accumulated rigs, equipment, dust and just plain old junk was removed to make way for new experiments and a modern laboratory. Staff, including John Montagner and Arnold McLean, graciously accepted the need for the Great Cleanout and said goodbye to many old friends (ie equipment that was long loved – but not necessarily recently used).



The Formula SAE suspension test experiment with architects Stuart Rodd and Oliver Kennedy on the right.

Stuart Rodd was a powerhouse of efficiency and "can do!". By Christmas the lab was ready for painting and Stuart was hard at work building new mobile benches for experiments and to fit out the lab for a

new, efficient and flexible approach to delivering our experimental subjects.

The success of the refurbishment is evidenced by the smooth running of an entirely new experimental subject MECH252 Engineering Experimentation and Thermodynamics, with many computer-based experiments. The most popular of these being where students measure the behaviour of the suspension of one of the

Formula SAE cars, putting their own strain gauges in place. The set of Dynamics Experiments, developed by Mechanical Staff, that all ENGG152 Engineering Mechanics students complete were also moved to the Thermodynamics Lab, which is now a hive of activity and forms the heart of the student laboratory experience in Mechanical Engineering.

We are very grateful to all the technical staff who helped in bringing the refurbishment to fruition, and special thanks goes to Stuart Rodd who drove the development along and *made it all happen!*



The Refurbished Thermo Lab humming with ENGG152 and MECH226 activity.

### Dean's Spot

Young people today have many exciting careers available to them and if engineering is to attract its share of talented young people the engineering profession must make its presence felt at schools. The knowledge about what engineering is and its vital place in the world is often only poorly understood at the very time when young students are making subject choices which determine their future careers. Dr Bob Wheway from our Faculty has pioneered a competition which provides high school students, and their schools, with prizes for engineering reports on projects which can cover all aspects of engineering. Students carry out this work as part of their formal academic studies at school, but in addition are awarded prizes by an external committee of practising engineers.

This year the competition involved 29 separate engineering projects from 14 high schools. Several thousands of dollars in prizes were awarded to the win-



ning students and their schools at a ceremony on 30<sup>th</sup> August at the University. We are very grateful to our Industry sponsors for providing funding for these prizes;

again it is Dr Wheway who has raised this industry sponsorship to assist the competition.

This competition has been so successful over the last few years that the Institution of Engineers Australia now wishes to make this competition state wide, and so Dr Wheway has received additional funding (including from the Vice Chancellor of our University) to not only to expand the number of schools in the competition but also to expand its subject scope to include Physics in 2007.

This will have a major impact in raising the profile of engineering and physics amongst our youth, and leads to both school teachers and students being a lot more knowledgeable about the potential

offered by careers in engineering and science. Bob is to be congratulated on creating and developing this competition which is making a very positive statement to young students about the nature and value to the community of careers in engineering and science.

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## UoW Graduate News

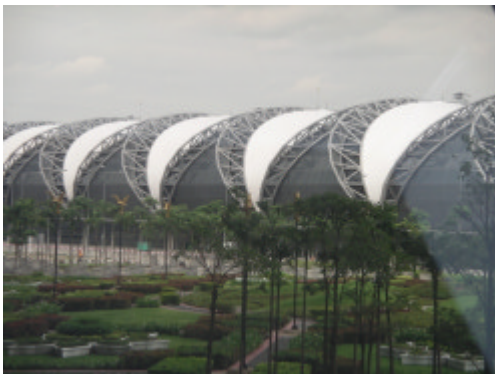
UoW Graduate Ian Kennedy has won the Engineers Australia Graduate Electrical Power Engineer of the Year Award for 2006. Ian graduated from UoW with a Bachelor of Electrical Engineering (hons) in 2001. He is currently a Senior Design Engineer, Power Systems Group at RailCorp.



## Staff News

### Thailand

Three members of the School of Civil, Mining and Environmental Engineering attended the tenth East Asia-Pacific Conference on Structural Engineering & Construction (EASEC-10) which was held in Bangkok, Thailand. Denis Montgomery attended as a member of the organising committee, Sakdirat Kaewunruen presented two research papers and Muhammad Hadi presented one research paper. During the conference both Denis and Muhammad attended a site visit of the new Bangkok airport where they observed an example excellent of work on vertical drains.



Bangkok's new international airport

### China

#### ASCCS Secretary General

Professor Brian Uy has been elected Secretary General of the Association of Steel-Concrete Composite Structures (ASCCS) for the next three years. The election took place at the General Meeting of ASCCS members at the 8th International Conference on Steel-Concrete Composite and Hybrid Structures which was held in Harbin, China from 12-14 August.

## Public Presentation Competition

On Wednesday 2 August the Young Engineers Australia - Illawarra held their Campus Heats for the Public Presentation Competition.

The winner of the Heats was Kirsty Last (Mechanical Engineering), who will go on to represent UOW at the Division Finals in Sydney on Friday 8 September. Kirsty's presentation was on: "The Importance of Industry Placement Initiatives for Young Engineers, specifically the Women In Motor Sport Scholarship".

Second Prize was awarded to Li Ping Wee from Computer Engineering, and Elana Bont, from Materials Engineering, received third prize.

ASCCS, formed in 1988, has over 150 members from 30 countries and one of its central tenets is to stage an international conference every three years. Professor Sumei Zhang, Harbin Institute of Technology, was also elected the first female president of ASCCS at the General Meeting and will serve for the next three years.

#### Tsinghua University Visit

Professor Brian Uy and Mr Ee Loon Tan spent three days visiting Tsinghua University, Beijing (TUB). Brian and Ee Loon were hosted by Professor Lin-Hai Han and Dr Jin-Feng Wang from the School of Civil Engineering. They also held significant discussions with Professor Jianguo Nie, Director of the Research Institute of Structural Engineering which has the largest and most well equipped structural engineering laboratory in China. Recently, the research institute was involved in carrying out significant experimental testing for structural steel components to feature in the main stadium for the 2008 Beijing Olympics. Professor Nie is one of only four Cheung Kong Scholars in Structural Engineering in China, which is equivalent to the Australian Research Council Federation Fellow Scheme. TUB is considered to be the leading comprehensive university in China and has many of the leading research institutes housed on its beautiful campus adjacent to the Old Summer Palace in Beijing.

#### Keynote Paper at ISSEYE-9

Professor Brian Uy delivered a keynote speech on "Novel Composite Steel-



Professor Morino (Mie University, Japan) and Professor Uy chair the 7th General Meeting of ASCCS Members

Concrete Systems Incorporating High Performance Steels: Applications, Behaviour and Design" to the 9th International Symposium on Structural Engineering for Young Experts (ISSEYE-9), 18-21 August 2006, Fuzhou and Xiamen, China.

## Visiting Fellow

Associate Professor Mohamed Sakr from Tanta University (Egypt) is currently visiting the School of Civil, Mining and Environmental Engineering as Visiting Research Fellow for 3 months. He is conducting research with Prof. Buddhima Indraratna on the Stabilisation of Soft Clay. A/Prof Sakr is also discussing the mutual interest and possible collaboration in establishing a Centre of Excellence in Geotechnical Engineering at Tanta University, which is intended to be funded by the Egyptian Government.

## Diary Dates

**12 Sept.** School Safety Committees

**19 Sept.** School Committees