This issue of the School of Engineering Newsletter heralds the fourth year of the School's existence in its current form. The School has recently welcomed a new Academic Year and enrolments are at an all time high in each of the disciplines of Engineering, Industrial Design and Construction. The current first year cohort now exceeds 650 students and overall enrolments in the School are now greater than 2000 students.

This year also sees the introduction of the Construction Engineering Key Program of the Bachelor of Engineering (BE) degree. This program will allow students to study aspects of Civil Engineering coupled with Construction Management in the four year BE format at Pass, Honours or Advanced levels. The program will enable our graduates to seek employment for large multinational construction companies where professional engineering qualifications are seen as a global passport to recognition in the construction industry.

The School has recently been given the approval through Academic Senate to introduce a new Key Program in 2011 in Mechanical Engineering in the BE degree. This program will enable students to study units which have typically been unavailable as part of the Mechatronics and Robotics Programs. Units of study which are germane to this program include advanced mechanics, dynamics and thermo-fluids and will provide opportunities for our graduates in the traditional mechanical disciplines which have previously not existed in the Greater Western Sydney region, but have certainly been highly sought after by employers.

The School has had a very active summer period in the research domain. Many international guests have visited our School and the School has welcomed its newest ARC Future Fellow, Professor Zhong Tao. The School also saw the submission of 13 high quality ARC Discovery Project (ARC-DP) Applications. This is an all time high in ARC-DP submissions and it is hoped that the School will welcome some new ARC successes by the end of the year. The School currently has staff involved as Chief Investigators on 15 ARC Discovery and Linkage Grants which is a stellar increase on the singular project which it held three years ago.

Finally, this issue also reports progress on the Building Z refurbishment and the School of Engineering and Civionics Research Centre will be beginning to move some of their activities to this Building. Further reports should be available in the June Issue of this Newsletter.

In closing can I thank all the staff, students, alumni and industry partners for the role they have played in contributing to the activities of the School and Centre over the last year. May I wish you a very successful 2010 and look forward to reporting on the School’s activities and successes throughout the year.

Yours sincerely
Professor Brian Uy
Head, School of Engineering &
Director, Civionics Research Centre
Visitors from Harbin Institute of Technology in China

Professor Deng-Qing Cao is the Chair Professor of Dynamics and Control in the Division of Aircraft Dynamics and Control, School of Astronautics at Harbin Institute of Technology, China. Whilst at UWS, Deng-Qing delivered two seminars on “Nonlinear Coupled Dynamics of Flexible Blade-Rotor-Bearing Systems” on the 12th February and “A novel order reduction method for nonlinear dynamical system under external periodic excitations” on the 18th February. His visit was supported by the University International Research Initiatives Scheme (IRIS) for 2009. The project on Australian-Chinese Research Collaboration on Dynamic Behavior of Steel Beam to Composite Column Joints is in conjunction with Dr Xinqun Zhu, Professor Brian Uy, Dr Fidelis Mashiri and Professor Zhong Tao of the School.

Visitors from Hong Kong City University

Dr. Danny Sai On Cheung, Associate Head of the Department of Building and Construction, City University of Hong Kong visited our School on the 15th March. Dr. Cheung is the programme leader of the BSc (Hons) Surveying programme, full time self-financing mode. During the visit, Dr. Cheung shared with us his experiences on administering a surveying programme in Hong Kong. Dr. Cheung is the Director of the Construction Dispute Resolution Research Unit (CDRRU) in Hong Kong. He has a solid track record in construction law and construction dispute resolution.

In his research projects with our staff Dr. Peter S.P. Wong as the co-investigator, Dr. Cheung has been awarded around $1.1 million HKD in research grants. His visit allowed us to discuss further research collaboration between City University of Hong Kong and UWS in the subject areas of mutual interest.

UWS Future Fellowship – Zhong Tao

Zhong Tao is a member of the Civionics Research Centre and commenced with the School of Engineering on the 3rd March as an Associate Professor in Structural Engineering. Zhong is one of the nation’s first Future Fellows, awarded by the Federal Government in September 2009. Before rejoining UWS, Zhong held the position of Professor in Structural Engineering at Fuzhou University, China, and was previously a full-time postdoctoral research fellow with the University from August 2007 to July 2009. Zhong’s research covers the construction of concrete filled steel columns mainly, and he will further strengthen the research capacity of the Civionics Research Centre.
External Advisory Committee (EAC) for Construction

The School of Engineering has welcomed a new EAC for its Construction Discipline. The Construction EAC met on March 18 and has a new Chair and Deputy Chair, namely Dr Robert Winter, DSTO and Dr Sakdirat Kaenwunruen, Railcorp. The EAC provides important guidance on the directions and graduate requirements of the School’s undergraduate and postgraduate programs in the construction realm. The newly constituted EAC incorporates members from construction companies, local councils, state and federal government departments and manufacturers to reflect the full breadth of graduate opportunities for our students.

Memorandum of Understanding between UWS and Fire Protection Association (FPA) Australia

A key post graduate program in bushfire protection at the University of Western Sydney has received recognition from the peak national industry fire protection organisation. A Memorandum of Understanding was signed between UWS and FPA Australia which acknowledges the current program and sets a foundation for exploring future collaborations.

The UWS Bushfire Protection program consists of two courses: The Graduate Diploma and the Graduate Certificate in Bushfire Protection. They are designed for students with either, an undergraduate degree or other tertiary qualifications plus professional experience in building, architecture, engineering or building surveying.

FPA Australia is the peak national industry fire protection organisation providing information and technical services to promote life safety, asset protection and environment protection in Australia against the adverse consequences of fire.

The Association also administers the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Graduate of the Year (GOTYA) program 2009 New South Wales State Award – Ryan Kirkpatrick

Ryan Kirkpatrick received the following awards and an excellent report from Design Institute of Australia Student Council (DIAS)

- Design Institute of Australia (DIA) NSW/ACT Graduate of the Year 2009 (GOTYA). Category: Industrial Design (Degree or Advanced Diploma)
- Equal first prize winner in the DIAS Prize/DIA NSW/ACT GOTYA 2009
- Ryan’s project ‘El’ (elegance) showcased forward thinking in the design and technological requirements associated with the hearing aid. His unique design demonstrates innovation in modernising and eliminating key problems associated with current devices for the hearing impaired. The DIAS council were particularly impressed with the packaging which also functions as the charger for the hearing aid. Ryan’s presentation boards were sophisticated and chic as too was his design.

Outstanding Students Invited to Advanced Engineering Course

Outstanding students in the Bachelor of Engineering course with a GPA (Grade Point Average) of 5.75 or above after their first year of study have been invited to join the Bachelor of Engineering (Advanced) course. So far, four students have accepted the invitation and transferred.

The Bachelor of Engineering (Advanced) course is designed to cater for high achieving students. Students need to maintain a course GPA of 5.5 or above to maintain their candidature in the advanced course.

Ryan Kirkpatrick and (left) his hearing aid design, ‘El’
Staff news

New staff and appointments 2010

In late February and early March the School of Engineering saw commencement of duties by the following new Technical Staff:

Mr Upul Jayamaha was appointed as Technical Officer, to continue from his current position. Upul has a Bachelor of Science and has had training in Geotechnical Engineering, Advanced foundation engineering, Water sampling and analysis, Physical Containment Category 2, Heavy Equipment Mechanical engineering and Information technology.

Dr Jim Wu was appointed as Professional Officer and commenced on the 25th February. Jim has a PhD in computer science and engineering from UNSW and has been working as a network engineer at Favelle Favco Ltd. He was previously a lecturer at UWS in the School of Computing and Mathematics.

Dr Tosin Famakinwa was appointed as Technical Officer and commenced on the 22nd February. Tosin has a PhD in electrical engineering from Chubu University in Japan. Tosin has expertise in industrial robot design, data acquisition and electrical engineering research.

Mr Ranjith Ratnayake was appointed as Technical Officer and commenced on the 8th March. Ranjith has a Master of Science and Naval Architecture from Ukraine University. He also has qualifications and experience in Electrical Engineering, Network Engineering, Mechatronics and prototyping.

Mr Kiran KC was appointed as Technical Officer and commenced on the 1st March. Kiran has a Master of Engineering Practice from the University of Wollongong and has been working as a project engineer with Metropolitan Restoration P/L and was previously a QA engineer with Murphy Carthy Associates.

Dr Hagare Dharmappa has been appointed as the Senior Lecturer in Risk Engineering; he will be joining the School of Engineering on the 1st July 2010. He is currently a Senior Manager for Water and Risk Engineering at Gosford City Council and he has extensive previous experience holding the role of a Senior Lecturer at University of Wollongong.

Dr George Vasdravellis has been appointed as the Postdoctoral Research Fellow in Structural Engineering and he will be joining the School of Engineering, Civionics Research Centre on the 5th July 2010. George will be working on numerous ARC funding projects in Composite Construction. George has extensive experience in Greece on Structural Steel Design and completed his PHD at Polytechnic University in Milan.

Mr Kiran KC

Dr Hagare Dharmappa

Dr George Vasdravellis

Departing staff

Tiffany Courville, Personal Assistant to the Head of School, will be undertaking a 12-month secondment to the Urban Research Centre from the 1st March in the role of Research Centre Administration Officer. Lynette Naidu is currently acting in her role.

Industrial Design’s Tara Andrews has received an APA (Australian Postgraduate Award) to undertake her PhD with the Urban Research Centre, to commence on the 1st March, but will remain as a Teaching and Learning fellow 1 day per week with the School of Engineering in that time.
Community Engagement

Orientation Day
The UWS School of Engineering opened its doors to more than 460 smiling, happy and enthusiastic first year students on February 23.

The day started with course information sessions providing information and advice on the student transition into university and the skills and strategies needed to succeed. Following the sessions, a treasure hunt was organised to familiarise students with campus resources and where to find them which ended in a BBQ for students and staff.

In the afternoon, students split into smaller groups to attend workshops giving them the opportunity to meet their Head of Program and ask questions.

Congratulations to the winning teams from the Engineering and Industrial Design disciplines that completed the treasure hunt.

PhD Submission

Sasha Alexander has submitted his PhD for examination.

Sasha, who is Head of Program for Industrial Design, has investigated the physical and economic journey a high valued added forest product (a dining chair in this case) takes from the forest resource to the end-consumer purchase in a furniture retail outlet and the value adding (and waste) processes from a value-to-end-consumer perspective.

Annual UWS Engineering & IT Careers Expo – 7th April 1.30pm - 4pm Building Z Kingswood campus
Employers are on campus in April targeting Engineering & IT students for their 2011 graduate intake.

Don’t miss the chance to speak to employers from a range of organisations in a single location to find out more about their graduate programs, internship and vacation schemes and what they are looking for when hiring graduates.

The Expo is primarily for final year and penultimate students however students from all years are welcome to attend.

UWS Student ID card is required for entry.

For Expo tips, exhibitor list and further details, visit www.uws.edu.au/careers

This is an important event for final year students as it gives them the opportunity to meet with graduate employers face-to-face and collect information about career options.

We ask that you encourage your students to attend, and hope that you will join us at the event.

Building Z update
All the School technical resources that were located in the BX building of Werrington South were relocated to the refurbished Z building. A number of laboratory classes have already been conducted in the Z building. The two computer Labs and workshops are being commissioned and OH&S checked to facilitate operation.

Congratulate the following staff on the arrival of their first child
Dr Khoa and Dr Vivian Tam on the arrival of their baby daughter Tamsyn Taylor Le. She was delivered at Nepean Hospital on Tuesday 16th March.

Dr Tosin Famakinwa and his wife Natasha on the arrival of their baby boy Tobi Famakinwa. He was delivered at Liverpool Hospital on Monday 15th March.

Mauricio Novoa has experience in advertising, marketing and design both in Australia and America and celebrates five years of service with UWS.

Mauricio teaches design management, sustainability and design studio in the industrial design program, has received a delegation from Latin America in recent years forging academic exchange, and continues to publish academic papers in the design field.

Dr John Zhang, Senior Lecturer, Head of Program, Undergraduate Construction celebrates his fifteen years of service with UWS. Dr Zhang joined as a Senior Lecturer at UWS in 1995 in the area of construction. John is involved in teaching for Construction Technology units in the area of Steel and Concrete structures. John has been Head of Program for Undergraduate Construction programs and his research interest is in the use of straw bale for arch structures and wall panel construction.

Dr John Zhang
Senior Lecturer
Head of Program
Undergraduate Construction

Congratulations to the following staff from the Engineering and Industrial Design disciplines that completed the treasure hunt.

Sasha Alexander
Head of Program
Industrial Design

Forest and Wood Products Australia research scholarship awardee and University of Western Sydney doctoral student Sasha Alexander has submitted his PhD for examination.

Sasha Alexander


Exhibition Area and Mechanical Workshop, Building Z

PhD Submission

Sasha Alexander

Sasha Alexander

Sasha Alexander

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In Year 10 & keen to try Civil Engineering?

We dare you to take the Engineering Challenge...

Guaranteed no boring bits!

So what will you be doing on the day??

- Building a bridge - create a real life model. Learn about Civionics.
- Surveying - evaluate where the best spot is to put a new road
- Field engineering - learn how to problem solve anything at anytime
- Construction materials testing - mix concrete that will last for more than five minutes
- Designing on CAD - that's computer aided drafting

When: 10am to 4.30pm on Wednesday, April 14th, 2010

Where: Building T5 Nirimba TAFE. Eastern Rd, Quakers Hill
(it's only a 10 min walk from the station)

Cost: only $15 to be paid when you arrive

To book, simply email your name, School & School year, email address & contact phone number to Nirimba B.D.C. on bdc@nirimba.com.au (Be QUICK)

For more information please call Cheryl Kitto on 0448 852 769