Welcome to the second issue of the 2009 School of Engineering Newsletter. This issue was being compiled as our students and staff completed the formalities associated with the Autumn Session examinations. This issue also comes at a time when the School has completed its School Review document. The School of Engineering will be the first of seventeen within UWS to be subjected to an External Review as part of a five-year process of continuous review being coordinated by the Office of Planning and Quality. The School will be visited by the External Review Panel in September, which marks the fifteenth anniversary of the current School of Engineering building (X) at Kingswood. The School is also looking forward to welcoming a new building in 2010, with the renovation and refurbishment of Building Z, which will feature modern laboratories, state-of-the-art design studios, plus research and workshop activities to house the burgeoning activities of the newly established Civionics Research Centre.

Our most recent graduation ceremony was held on April 23. The School had over 110 students graduate from its Engineering, Industrial Design and Construction programs. The Engineering cohort was particularly successful with three University Medals being awarded for outstanding achievements to each of Osem Jibrail, Glen MacDonald and David Talbot. Our students have also been recipients of National and International Awards. James Pirozzi, who was supervised by Dr Ataur Rahman, won the Undergraduate Water Prize by the NSW Branch of the Australian Water Association. Furthermore, Christopher Mason has recently been selected as one of three university students to represent Australia as a United Nations Youth Ambassador at Eco-Minds.

This issue reports on the School’s recent successes with three ARC Linkage grants being awarded to staff of the School with a 100% success rate for the School in this round. Furthermore, the School was also successful in receiving funds from the CSIRO Flagship for a Redmud project. The School also hosted a very successful Australia-Japan Workshop in Structural Engineering co-sanctioned by Engineers Australia and the Japanese Society of Civil Engineers.

The School took part in some very important Community Engagement initiatives recently. The Engineering and IT Expo continues to grow each year and was this year held in Building Z, which will hopefully be its permanent location. The number of industry exhibitors increased this year and included significant employers of our graduates, namely Defence Forces, Energy Australia, PricewaterhouseCoopers, Sydney Water and TransGrid.

The School welcomes four new staff in this issue, namely Professor Tim Hesketh as Adjunct Professor in Engineering, Drs Khoa Le, Vivian Tam and Peter Wong who will all commence on July 6 in time for the second academic session of 2009.

This issue also provides a focus on two major initiatives which the School has recently supported. Drs Samanthika Liyanapathirana, Li Zhou and Olivia Mirza attended the Universities Australia (UA) Executive Women 2009 Forging Industry Links for Women Engineering Academics inaugural workshop held in Wollongong on March 19-20, and the Australian Woman’s Leadership Symposium 2009 held at UNSW on June 10-11. Both of these workshops have been established to promote Women in Engineering and Leadership where they are currently underrepresented.

The School looks forward to actively engaging Alumni, Staff and Students as we look forward to celebrating our building’s Crystal Anniversary in September.

Yours sincerely

Brian Uy.
Graduation
Graduating students in semester 1, 2009 were presented with their testamurs and transcripts on April 23 at the UWS graduation ceremonies held at the Parramatta campus Auditorium. 88 Students graduated with an Engineering discipline degree, 61 from Construction and 50 from Industrial Design. David Talbot [Bachelor of Engineering (Civil)], Osem Jibrail and Glen MacDonald [both in Bachelor of Engineering (Robotics and Mechatronics)] achieved an Honours Class I degree and all were awarded the University Medal for Outstanding Scholarship.

Learning and Teaching in Laboratories
The School has been involved in the Advancing Science by Enhancing Learning in the Laboratory (ASELL) Project, which has been awarded a $220,000 grant by the Australian Learning and Teaching Council (ALTC) to a multi-university team of academics, will investigate how best to achieve student engagement in laboratory activities and what determines such engagement.

Furthermore, the Project will examine and analyse data from a large number of laboratory activities in many universities across the three disciplines: physics, chemistry and biology to inform the development of future laboratory activities through ASELL. Dr Ragbir Bhathal, along with Associate Professor Manju Sharma (University of Sydney), Dr Svetlana Petelina (La Trobe University), Dr Margaret Wegener (University of Queensland) and Associate Professor Marjan Zadnick (Curtin University), are members of the Physics Discipline Team which has responsibility for investigating the teaching and learning in physics laboratories. Dr Bhathal hopes to apply the experience and information gained from this project to laboratory work in engineering disciplines.

Student Awards
Ray Slaviero, a 2006 UWS graduate in the Bachelor of Engineering (Civil) degree, has recently won a prestigious Permanent Way Institution (PWI) NSW Young Achiever Award in Railway Engineering for carrying out excellent technical work/reporting on Mega Railway Projects.

James Pirozzi, a Bachelor of Engineering (Civil) Honours I graduate from 2008, who was supervised by Dr Ataur Rahman, has won the Undergraduate Water Prize by the NSW Branch of the Australian Water Association. The awards night and announcement of the winner were held on May 20.

Christopher Mason, who is a student in the Bachelor of Engineering (Electrical) program, has been selected as one of three university students to represent Australia as a United Nations Youth Ambassador at Eco-Minds, an Asia-Pacific youth forum on sustainable development, to be held in New Zealand this month. Chris is currently working on his final year thesis titled “Dual distribution of DC and AC in buildings”, supervised by Dr Upul Gunawardana.

The Penrith City Council Scholarship in Civil Engineering was awarded to Jayden Pilling, a current second year student, with Melanie Taylor being awarded a 2-year scholarship from RailCorp.

Six students from the School received their UWS Careers & Cooperative Education Awards on May 11: Jaspreet Bhatti, Carlo Argente, Paticha Vilaichongs, Madhur Bhandari, Andrew Potts and Elie Bassil.
Grants and Funding

Staff of the School were recently successful in obtaining three Australian Research Council (ARC) Linkage Grants. Dr Gu Fang and Dr Jeffrey Zou with partners from Lincoln Electric and Shanghai Jiaotong University; Dr Samanthika Liyanapathirana with partners from Coffey Geotechnics; and Professor Brian Uy with partners from the University of Sydney, Stramit and Arup. These three new Linkage grants, which are lead by Chief Investigators who are members of the Civionics Research Centre, will bring three new APA (I) PhD scholarships to the school and incorporate a total aggregate income of over $1 million over three years. The School achieved a 100% success rate in this round of ARC Linkage Grant Applications.

A/Prof Chin Leo and Dr Gary Dennis (School of Natural Sciences) have received $240,000 funding from the CSIRO Flagship for their Redmud project, including provision for a postdoctoral/research fellow for two years.

Steel and Composite Structures Workshop

The School of Engineering hosted a joint steel and composite structures workshop on March 31 co-sanctioned by the Japanese Society of Civil Engineers (JSCE) and Engineers Australia (EA), sponsored by the School of Engineering’s Civionics Research Node. Forty attendees listened to keynote speakers from UNSW and Nagaoka University of Technology, before presentations from staff of UWS, Kyushu Institute of Technology, University of Sydney, Technology Centre for Metropolitan Expressway, UNSW, Hosei University, Chodai Co Ltd and Saitama University. Professors Brian Uy and Zhong Tao chaired the workshop and edited the proceedings.

Dr Liaoliang Ke from the City University of Hong Kong visited the School from April 20 to May 20 to conduct collaborative research with Professor Yang Xiang on the analysis of thin-walled structures.

The Formation of the Australian National Structural Health Monitoring (ANSHM) Group

Professor Brian Uy and Dr Xinqun Zhu attended the first meeting of the ANSHM at Queensland University of Technology on June 30.

The objectives of the ANSHM is to coordinate and integrate efforts for better development and application of structural health monitoring techniques in Australia and initially to be confined to Civil Engineering structures.

The ANSHM will be a platform to showcase achievements, exchange of ideas and dissemination of knowledge, as well as engaging in collaborative research nationally and internationally.
Community Engagement

Engineering and IT Expo
The School’s Civionics Research Node was represented by Prof Yang Xiang, A/Prof Chin Leo and Prof Kenny Kwok at the UWS Engineering & IT Expo on April 16 in Building Z in order to promote research careers in the School. Many companies also set up stalls at the event, including Engineers Australia, Defence Force, Energy Australia, PricewaterhouseCoopers, Sydney Water and TransGrid, just to name a few.

Western Sydney Manufacturing Week
The 2009 Western Sydney Manufacturing week was held from May 18-22 and hosted by the Greater Western Sydney Economic Development Board, chaired by Bob Germaine, General Manager of the Greater Western Sydney Economic Development Board. From the School of Engineering, Mr Sasha Alexander and Dr Mithra Fernando attended the event, as well as a large number of manufacturing and related business owners and representatives.

Futures West 2031 Forum
Futures West 2031 Forum, an event showcasing the potential of design to support the adaptation of our communities to a climate-changed future, was held in Parramatta campus on June 01 and facilitated by A/Professor Jonathon Allen. A panel consisting of John Pearson from the NSW Business Chamber, Phillip O’Neill of the Urban Research Centre, Geoff Scott, Pro Vice-Chancellor Quality and Leader of the Greening UWS Strategy, and leading design scholar, educator and sustainable design consultant Dr. Tony Fry led an interactive discussion, where this vision and these ideas were presented, challenged and debated. The Futures West 2031 initiative will now liaise more closely with some of the industry and local government participants to develop projects for the future.

Call for Alumni
Calling all past and recent graduates of Construction, Industrial Design and Engineering disciplines, become part of UWS Engineering Alumni by filling in the keep in touch form, via http://www.uws.edu.au/alumni and take advantage of the benefits and opportunities on offer. Membership is free. Alumni Services will facilitate ongoing communication and involvement in the UWS community by creating a series of networks, providing a diverse range of activities, services and opportunities to reconnect former colleagues and other graduates. For further information regarding the ‘Official Launch’ of the UWS Engineering Chapter, visit http://www.uws.edu.au/alumni/chapters/uws_engineering_alumni_chapter. We look forward to hearing from you!

College Research Futures Postgraduate Conference
The College of Health and Science hosted its annual Research Futures Postgraduate Conference on June 2-4 on the Werrington South Campus. This year there were over 100 graduate student presentations and approximately 150 poster presentations with all Schools of the College represented. The Vice Chancellor, Professor Janice Reid, opened the conference and Dr Maria Nowotny of the Solar Energy Group was the keynote speaker. An Industrial Design student, Daniel Anderson, won best poster prize with his project titled ‘designing for both sustainability and acceptance within the motorcycling community’. Daniel’s project researches the cultural and social aspects of the motorcycling community, its place in wider society, the people involved and why they are attracted to motorcycling; as well as profiling the current state-of-the-art in motorcycles as products; the markets, materials, and range of possible sustainable power technologies.

Daniel Anderson and his winning poster

Civionics Node stand at the Engineering & IT Expo
Professor Tim Hesketh has recently been appointed as an Adjunct Professor to the School of Engineering, having completed his term as Head of Electrical Engineering and Telecommunications at UNSW, and who has in the past been an Associate Dean (Academic) and Acting Dean of Engineering at UNSW. Tim will assist the School in strategic initiatives and is currently on the College of Health and Science UWS Honours Review Committee.

Dr Samanthika Liyanapathirana, Dr Li Zhou and Dr Olivia Mirza attended the Universities Australia (UA) Executive Women 2009 Forging Industry Links for Women Engineering Academics inaugural workshop held at Novotel, Wollongong on March 19-20 as well as the Australian Woman’s Leadership Symposium 2009 held at UNSW on June 10-11. The UA workshop was a gathering of about thirty female engineering academics from Universities across Australia from the Biomedical, Civil, Computer, Electrical, Environmental, Mechanical, Materials, and Telecommunications Engineering disciplines. It provided a great networking opportunity for women academics in Engineering who are underrepresented in the University sector in Australia. The Australian Women & Leadership Forums have been developed in recognition of leadership abilities and potential of Australian women represent an enormously under-utilised national resource. The leadership skills and professional insights imparted by the forums empower participants to initiate the cultural change required to recognise the particular value of women as leaders.

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Dr Vivian Tam of Griffith University, Gold Coast has been appointed as a Senior Lecturer in Construction Management, to commence with the School on July 6.

Dr Khoa Le of Griffith University on the Gold Coast has been appointed as the School’s new Senior Lecturer in Electrical Engineering (Electronics), to commence with the School on July 6.

Mr Jeffrey Scott and Mr Paul Toner have reached personal milestones at UWS, both recently being awarded certificates of service for 20 years and 15 years respectively.

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