



School of Engineering Newsletter

Volume 4 | Issue 2 | June 2010

Head of School Foreword

This issue of the School of Engineering Newsletter follows a recent external review which was held in late March. The review resulted in 7 commendations, 13 affirmations and 19 recommendations. In short however, the review was largely positive and has reflected on the School's ability to significantly improve its research performance and also to make significant improvements to its staffing in the academic, administrative and technical staffing ranks. All of this has also taken place in conjunction with significant improvements in student retention and the quality of our student intake continues to improve, perhaps best punctuated by the ATAR entry level of 99.95 for our Advanced Bachelor of Engineering degrees in 2010. The School will however not be resting on its laurels and will continue to improve on all the aspects of its Research, Learning and Teaching and Engagement Activities.

This issue also welcomes another 175 alumni to the School's ranks following the 21st April Graduation Ceremony which was held at Parramatta. The highlight for the School was the Awarding of Three University Medals, which was the largest number awarded to any School at UWS, Benjamin Chapman, Thomas Bernard Ryan and Christopher Roy Mason all graduated with Honours Class 1 and the University Medal. Benjamin and Thomas graduated in Civil Engineering and Christopher in the Electrical Engineering Key Program.

The School has had significant research success over the last few years in the Australian Research Council (ARC) schemes and this issue highlights its recent success through Dr Swapan Saha in obtaining Australian Learning and Teaching Council (ALTC) funds for a project on Lifelong Learning Pathways: Addressing participation and diversity targets in higher education.

On the international front, this issue reports on the recent Academic Cooperation Agreement signed with one of China's Leading Universities, Shanghai Jiaotong University. This was initiated by Dr Gu Fang in our School through an International Research Initiative Scheme (IRIS) grant. A further successful IRIS grant awarded to Dr Grace Yan and collaborators, also paves the way for a similar initiative with Dalian University of Technology.

On the Engagement front Dr Mithra Fernando coordinated a very successful Manufacturing Expo at UWS during the National Manufacturing week in May. This initiative which sees our School working with the Greater Western Sydney Economic Development Board is an important part of celebrating and showcasing the vast array of skills and opportunities for engineering and manufacturing to the region.

This issue covers many other exciting activities and initiatives that are ongoing in the School. We again welcome four new staff and continue to host significant international visitors to the School and Centre and this will be at its peak in late July when the School and Centre play host to a major international conference on Steel and Composite Structures, ICSCS'10.

Once again, I encourage you to engage with our School, through staff and students and look forward to providing further updates of the School's and Centre's activities in the upcoming September issue.

Professor Brian Uy
Head, School of Engineering &
Director, Civionics Research Centre



Research and International

Research Grants

IRIS Grant

Dr Grace Yan and Professors Zhong Tao and Brian Uy were recently awarded an IRIS grant to collaborate with Professor Ou, Vice President of Dalian University of Technology in China. The project is titled Chinese Research Collaboration on Structural Health Monitoring and Damage Detection for Steel-Concrete Composite Structures Using Fibre Optical Sensing.

ALTC Grant

Dr Swapan Saha and colleagues from RMIT, UTS and Curtin University have been successful in obtaining an ALTC grant on "Lifelong Learning Pathways: Addressing participation and diversity targets in higher education" to the value of \$180k. Dr Saha will contribute as project partner and reference group member.



Dr Swapan Saha

Invitation to Attend ICSCS10 Conference

The School of Engineering and Civionics Research Centre in conjunction with International Conferences and Events Australia will be hosting a major International Conference on Steel and Composite Structures from 21-23 July, 2010 at the Powerhouse Museum in Sydney.

This is the 4th International Conference on Steel and Composite Structures (ICSCS'10). The conference builds on a successful series which were initiated by Professor Chang-Koon Choi of KAIST and held in Pusan, Korea in 2001 (ICSCS'01), Seoul, Korea in 2004 (ICSCS'04) and Manchester, UK in 2007 (ICSCS'07). The conference is supported by and focuses on the themes of the successful international Journal published by Techno-Press, Steel and Composite Structures which is managed by Professor Chang-Koon Choi, and supported by Regional Editors Professors David Nethercot, Christopher Earls and Brian Uy for Europe, America and Asia-Pacific respectively.

This conference has attracted 143 contributions from 27 countries and 6 continents. Nine Keynote papers are included which emanate from 7 countries and 4 continents. The broad topics of the conference which will include 27 technical sessions cover the broad areas of Steel Structures, Composite



Steel & Composite Structures



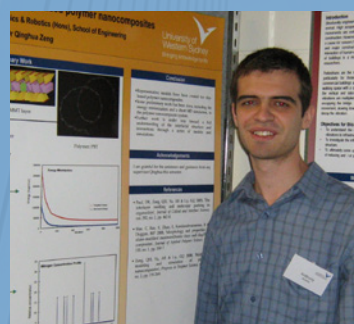
Structures, Bridge Structures, Building Structures, Structural Health Monitoring, Uses of FRP and Sustainability Issues.

The nine Keynote Presenters selected are all international experts in their field and all have contributed to national and international specifications in the fields of steel and composite structures for the Australian Standards, American Institute of Steel Construction, British Standards, Chinese Standards, Eurocodes, Hong Kong Buildings Department, Japanese Standards and Singapore Structural Steel Society. For more information about the conference including details on how to register, please visit the following website www.iceustralia.com/icscs2010

Research Futures Postgraduate Forum 2010

The research futures forum for PhD candidates was held on June 7 & 8 at UWS Werrington South campus. This year students were grouped by 'theme' within the College of Health and Science rather than by School. This allowed students to mix with students from other schools and to see what they each were working on with similar topics.

Winners of the honours poster competition at the same event were, for Engineering and Construction, William Croft (Robotics and Mechatronics student). and for Industrial Design, Balin Lee.



Antonio Aloschi, B Eng



L-R: Namal Sanjeeva, Priyanath Udayanga, Robert Samala, Chris Le Brese, Sumudu Wijetunge, Pushpika Wijesinghe, Shashika Biyanwilage, R Nishanthan, Madhuka Jayawardhana.

Research and International

International, Visitors and Visits

Academic Co-operation Agreement (ACA)

The School of Engineering has played a key role in initiating an Academic Cooperation Agreement (ACA) between UWS and Shanghai Jiao Tong University (SJTU). This agreement has been formally signed by both UWS and SJTU in late March 2010.



Professor Chen and Dr Gu Fang

Visiting Fellows from Tsinghua University

Professor Lin-Hai Han and Dr Fei-Yu Liao from the Department of Civil Engineering at Tsinghua University will be taking up honorary academic appointments within the School of Engineering from July 10 to August 31, 2010.

Professor Han is a Professor of Structural Engineering and also Director of the Institute of Disaster Prevention and Mitigation Engineering at Tsinghua University. Professor Han is also an Eminent Research Visitor to UWS.

Dr Liao is a post doctoral research fellow with research interests in composite structures, earthquake resistance to structures and fire resistance to structures.

Visit to Cornell University, USA

Dr Ataur Rahman spent 6 weeks during April and May 2010 in the School of Civil and Environmental Engineering, Cornell University US where he conducted research on hydrologic modelling. He presented a seminar in the Cornell University on regional flood modelling in Australia. He will be continuing his research collaboration with Cornell University in 2010 and 2011.

Visitors from Saudi Arabia

On June 17, three Saudi students visited our school, accompanied by two staff from UWS International, Mabel Han (International Student Recruitment Officer) and Salem Saqer (Marketing and Liaison Coordinator, Middle East & North Africa). The students are currently undertaking Foundation Studies at UWS College, sponsored by the Saudi government. They will proceed to do a Diploma in Engineering at UWS College in 2011 and then to do Bachelor of Engineering in our school from 2012. UWS International advised that 22 students from Kuwait and Saudi Arabia would join our Bachelor of Engineering course in the coming years.



L-R: Dr Jeffrey Zou (UWS), students Omar Alkatheri, Hissain Mansour, Ghalib Alawarni, Salem Saqer (UWS) and Mabel Hann (UWS)

Learning and Teaching

The Eagle Award

The Eagle Consulting Group will donate prize money over the next five years to support annual prize giving to the School's postgraduate construction program. The Eagle Award of \$3,000 will go to the student who achieves first place in the Master of Fire Safety Engineering course and represents the highest single industry donation for student awards at UWS.

Mr Geoff Davis, Director, Eagle Consulting Group. and Dr Yaping He



Greater Western Sydney Manufacturing & Engineering Career Expo

The Greater Western Sydney Manufacturing and Engineering Careers Expo was held on May 8 and was organised by Regional Development Australia, Sydney. A number of regional industry partners took part in the expo including Energy Australia, Arnotts and National Instruments. During the day, industry partners, teachers and students visited the exhibits to view career opportunities within the industry and receive advice on CV preparation. The event presented the School an opportunity to showcase the Civionics Research Centre to industry and prospective research students.



UWS Day Campbelltown

UWS Day at Campbelltown was held on June 7 and hosted on behalf of the School of Engineering by Dr Ragbir Bhathal. Dr Bhathal gave a presentation to prospective students on the topic of 'Great Engineering Projects for Australia' which was well received and attended by more than one hundred students.

Engineering Challenge

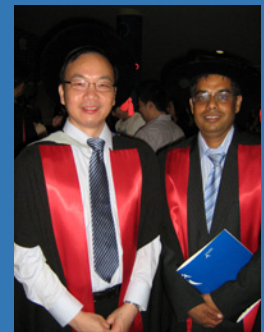
The School of Engineering participated in the Engineering Challenge, a program designed to attract year 10 students into Civil Engineering on April 14, at Nirimba Campus. The theme of this year's presentation by the School was Civionics; where students were introduced to structural health monitoring principles and bridges through an instrumented deck which could detect the response of participants as they walked, jumped and danced. The Engineering Challenge is organized by a committee which includes Breed Community Partnership, Penrith City Council, School Industry Partnership, RTA, 5th Combat Engineer Regiment, TAFE-Western Sydney Institute and Blacktown City Council. Dr Mithra Fernando, Dr Xinqun Zhu, Dr Fidelis Mashiri, Murray Bolden and Robert Marshall contributed to the successful running of this year's Engineering Challenge. Another Engineering Challenge is planned towards the end of the year.

Graduation

The School of Engineering welcomed another 175 alumni into its ranks following the graduation ceremony held on the eve of 21st April 2010, at Parramatta.

Staff, students and their families attended the Graduation Ceremony at the Sir Ian Turbott Auditorium on the Parramatta Campus. Graduates in undergraduate and postgraduate programs across the disciplines of Engineering, Construction and Industrial Design were in attendance.

One of the highlights of the evening was the awarding of three University Medals for Outstanding achievement. Benjamin Chapman, Thomas Bernard Ryan and Christopher Roy Mason were each awarded Honours Class 1 and the University Medal. Benjamin and Thomas graduated in Civil Engineering and Christopher in Electrical Engineering.



Australian International Design Awards

Ryan Kirkpatrick (B Ind Des, 2009) was a finalist in the Australian International Design Awards. (March ed) The Executive Dean, Prof Branko Celler, received a Design Award for his TeleMedCare Health Monitor.

Staff news

New Staff Commencing

Magdalene Wong-Borgefjord joined the Civonics Research Centre on May 3 in the position of Executive Officer. Magdalene is on secondment from UWS International and has the challenging task ahead of setting up administration functions for the centre as well as settling staff into the newly refurbished Building Z.



Mitchell Quirk, Indigenous Apprentice to the School of Engineering commenced work on May 15 with the technical team and is working in the structures lab. Mitchell was previously a student at Newcastle TAFE and Wollondilly Anglican College, Tahmoor.

Jennifer Gaynor commenced in the position of PA to HOS on June 15. Jennifer has previously been employed within the insurance industry and brings to UWS extensive PA experience.



Dr Yingyan Zhang, will commence on July 5 with the School of Engineering as a research lecturer. Dr Zhang obtained her Bachelor degree from Dalian University of Technology, China and Master and PhD degrees from National University of Singapore. Before joining UWS, Dr Zhang was working at the School of Mechanical Engineering and Automation in Fuzhou University as an overseas talent. Dr Zhang's research interest include numerical methods in solid mechanics, atomistic investigation of nano-materials such as carbon nanotubes and graphene.

Dr Dharma Hagare is due to commence on July 5 to the position of Senior Lecturer in Risk Engineering. He is currently a Senior Manager for Water and Risk Engineering at Gosford City Council and held previously a Senior Lecturer position with the University of Wollongong.



Staff Promotion

Dr. Tosin Famakinwa has been appointed to the position of Technical Supervisor within the School.

