

Dean's Spot

The CSIRO National Flagship Collaboration Fund is set up by the Australian Government and provides CSIRO with money to fund collaboration with Universities. The fund is \$97 million dollars over 7 years and is said to be Australia's largest ever research initiative. The aim is for all flagship research to be driven by 'Big Hairy Audacious Goals' so the research will deliver 'transformational technologies' which will provide the basis of new industries and new wealth for Australia. There are 6 'flagships' and one of particular interest to our Faculty is 'Light Metals' (eg Magnesium, Titanium, Aluminium). Chris Goodes, from the CSIRO Minerals division, and Program Manager for this flagship, recently spent a day here when he gave a presentation about the program to interested researchers and visited our labs. He declared an interest in some of our materials engineering capabilities and we are quite optimistic that some linkages will develop in the future. More information about CSIRO Flagships and funding opportunities is at

<http://www.csiro.gov.au/FlagshipPrograms>



Awards

A team led by Dr. Andrea Schaefer, won an award for 'Field Trials of Solar Powered Water Treatment for Remote Communities' in Papua New Guinea. The team was made up of members from UOW, ANU and Papua New Guinea. An international jury awarded prizes to the best 21 project teams from 28 countries, with 412 teams competing. More than 1,700 young engineers and students from 79 nations registered for

the contest. UNESCO and Daimler Chrysler sponsored the event and awards were presented in Berlin, Germany on 30 May, 2005. Congratulations Andrea and team!

Assoc. Prof. Ernest Baafi was presented with a Branch Service Award by the President of the AUSIMM Awards Dinner on 25 June, 2005, attended by 120 people, including CEOs of various mining companies.

At the same function, Claire Horsley (Mining/Environmental student) was presented with the top student award, the G. B. O'Malley Medal for her thesis research work, "Understanding Upland Swamps of the Illawarra". In her acceptance speech, Claire thanked her two supervisors, Assoc. Profs. Michael Boyd and Ernest Baafi for their guidance.

Visitors

The Faculty welcomes Dr. Dennis Lam from Leeds University, UK, who is visiting the School of Civil, Mining & Environmental as a Senior Research Fellow until August. Dr. Lam's visit has been funded by an international research fellow grant from the Royal Society, UK. During his visit, he and Prof. Brian Uy will conduct collaborative research on applications of pre-cast concrete in composite beam construction, as well as research into the behaviour and design of concrete filled steel columns. Enroute to Australia, Dr. Lam gave an invited paper in Hong Kong at the 2nd Worldwide Codified Design & Technology in Steel Structures Symposium.

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He has been an international advisor to the Hong Kong Steel design code and will give a seminar to the members of the Australian Steel Institute in August.

Grant Successes

The second round of ARC Linkage Grants were announced recently. Congratulations to Prof. S. X. Dou and Dr. Alexy Pan (Polarised Technology).

Drs. Sharon Nightingale and Brian Monaghan also won a Linkage Grant with industry partner, BlueScope Steel, 'Insoluble oxide produce formation and its effect on coke dissolution in Liquid Iron. The project is a fundamental study into the kinetics of carbon dissolution in liquid iron and worth over \$387k over three years. Well done Sharon and Brian.

Dr. Brian Monaghan and Prof. John Norrish have secured \$7k funding from CREAM (Geoff Spinks' group) to study Welding Breathing Zone Fume. Recent international developments have indicated that certain chemical species in welding fume may be associated with chronic health problems in welders. This project will measure the mass and composition of welding fume in the breathing zone of a welder and will be carried out under a standard set of manual arc welding conditions.

The new ARC Centre of Excellence in Electromaterials Science, headed by Prof. Gordon Wallace has won \$12M funding over the next five years. This will fund research into nanomaterials and nanoscience and major contributors from this faculty include Geoff Spinks, Hugh Brown, Hua Kun Liu and Gursel Alici. Members of our Faculty conduct complementary research, including Physics, ISEM and Mechanical Engineering (e.g. nano-actuators).

Prof. Anatoly Rozenfeld has received \$1.1M over five years, which will fund the appointment of a Fellow in Radiotherapy at the Centre for Medical Radiation Physics. This will provide tremendous support for Anatoly and MRP's future research.



In the News

Prof. Anatoly Rozenfeld was on the national news last week and featured in the Mercury last Saturday, highlighting his research into proton radiation therapy for cancer patients. This treatment is non-invasive and has limited side effects. The machine costs \$160M, but funding it is a problem. When the cost of traditional treatment is explored and the side effects taken into consideration, maybe \$160M is not such a big cost to the community. Good luck with your research and your campaign for the machine Anatoly!!

Student IP Ownership

Dr. Troy Coyle will conduct a one hour training session on Student IP Ownership on Friday, 19 August, 2005 from 9-10am (venue to be advised). The seminar will cover student and supervisor IP rights, the University IP policy and will include practical examples and time for questions.

If you are interested in attending please contact Troy on X4420 or tcoble@uow.edu.au

Taking it Easy



Assoc. Prof. Denis Montgomery now has more leisurely things on his mind and has retired. Although his wife, Helen, may have other plans in store for him, which include long lists of chores to be done around the house.

Denis began working here in 1973 when we were still part of UNSW. Denis was promoted to Associate Professor in 1992 and was Sub Dean of the Faculty from January 1997– December 2000. He was Associate Dean for one year until December 2001 and was also Head of School from March 2003-August 2003.

Friends, colleagues and family attended a retirement bash for Denis on Friday, 24 June at Food Re Thought, where we were entertained with a couple of very long and very funny speeches from Denis and his long standing friend and colleague, Max Lowrey. We thank Denis, not only for his academic and administrative skills so adeptly executed in the Faculty, but for the major contribution to banter and laughter in the lunch room.

Assoc. Prof. John Montagner has also decided that the good life is beckoning and will retire this month. A farewell function will be held at Food Re Thought on Friday, 22 July 5-7.00pm. The cost will be \$20 per person, including a contribution to a gift. Please contact Roma in the Faculty Office if you would like to attend.

Just Beginning

Brian Monaghan has been celebrating the birth of his and Isabelle's second child, Frances (Frankie) Rose Monaghan on 8 June. Mother and Father are delighted and exhausted!



Careers Markets

Marina and helpers have been very busy at careers markets in various parts of the state during May and June. Marina attended markets in Forbes, Dubbo, Bathurst, Campbelltown and the Illawarra and Warren covered the southern Sydney area. Over 11,000 students attended these career markets and the majority of enquiries were for Civil, Mechanical and Mechatronic Engineering.

Seminars

The School of Mechanical, Materials & Mechatronics continue to have great success with their weekly seminars. As well as academic staff and postgraduate students giving presentations, we have had a number of international visitors presenting. The seminars are well attended, with audiences numbering between 30 and 40 each Tuesday, including staff members from BlueScope Steel. The MMM seminar schedule is currently being updated and will be available in the next newsletter.

Medical Radiation Physics also run weekly seminars on a Tuesday, which are well supported. Prof. Buddhima Indraratna's Geotech group conduct seminars every second Wednesday.

Early Entry

Organisation is well under way for 2005 Early Entry interviews and applications have started to roll in. Pam Burnham is coordinating this huge event and interviews will be held 27 & 28 September, 2005.

Staff on the Move

Prof. Brian Uy had a busy month in June as he presented papers at three international conferences. The first was the 4th Eurosteel conference in Maastricht, The Netherlands. He also presented a paper and chaired a session at the 4th International conference on Advances in Steel Structures in Shanghai, China.

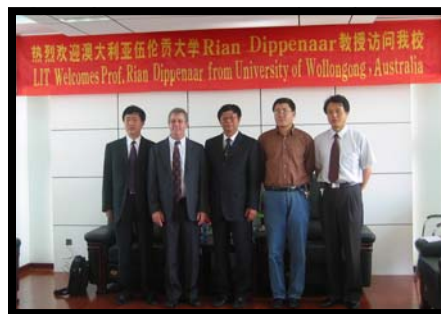
Brian then went on to Hong Kong where he delivered an invited paper at the 2nd Worldwide Codified Design & Technology in Steel Structures Symposium. This symposium was organized by the Hong Kong Institute of Steel Construction, Hong Kong Polytechnic University and Ove Arup and Partners, Hong Kong who have coordinated the development of the new limit states design code for structural steel released in June 2005. Brian has been an international advisor to this code.

Prof Rian Dippenaar had a very successful trip to China from 13-24 June. He visited the Liaoning Institute of Technology (LIT) in Jinzhou, The Anshan University of Science and Technology (AUST) in Anshan, The Shanghai works of BaoSteel and the University of Science and Technology, Beijing (USTB).

He conducted workshops with, and presented selected research results to postgraduate students and staff at each institution, discussed the possibilities of collaboration and attempted to give an overview of the activities in our Faculty.

Prof Wang, President of LIT, and a highly respected metallurgist, has a research group whose activities centre on the modification of solidification structures and there is a lot of commonality with the work conducted in our Faculty. We are currently in serious discussions about research collaboration.

AUST staff and postgraduate students were also interested in collaboration, they are conducting very interesting research on titanium alloys. Very intensive workshops were held at the USTB and there is a lot of common interest in phase transitions, recrystallization studies and grain growth. There are many opportunities for collaborative research and we are at present exploring the prospects of such interaction.



Diary Dates

12 July	FEEC meeting
18 July	Session 2 begins
19 July	WAC meeting
2 August	CME School Committee meeting Physics School Committee meeting MMM School Committee meeting
3 August	Withheld Autumn results due
9 August	MMM School Safety Committee