

Research & Innovation News

University of Wollongong



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Issue 7 – July and August 2005

Research Student Centre What’s on & What’s New

Are you going to submit your thesis for examination soon?

If you are about to submit your thesis for examination, please note the following deadline:

In order to avoid incurring fees for Spring Session 2005 (including international tuition fees and student body charges), you must submit your thesis by 31 August 2005. If you submit your thesis after this date, you must enrol for Spring session and pay the appropriate fee. Please note that you must be enrolled at the time of Submission.

For further information, please contact Julie King, Thesis Officer in the Research Student Centre, on (02) 4221 3208 or Julie_King@uow.edu.au

Higher Degree Research (HDR) Student Conference 2005

The Pro Vice-Chancellor (Research) and the Research Student Centre invite our higher degree research (HDR) students, industry partners, academic and general staff to attend our Higher Degree Research (HDR) Student Conference to be held from 12.00pm on Thursday, 29 September 2005.

Presentations to be given at the conference include:

Promoting and Maintaining Good Health

- “The efficacy of a physical activity skill-development program for overweight and obese children” by Dylan Cliff

Frontier Technologies for Building and Transforming Australian Industries

- “Robotic micro/nano manipulators based on conducting polymers” by Stephen John

Scientific Discovery

- “The plasminogen activation system in the progression of human breast cancer” by Gillian Stillfried

Capturing Our Creativity

- “The organization and retrieval of information” by Eric Rayner

Understanding Our Society

- “What meaning...What priority? Young people’s views on life after homelessness” by Judy Laverty

For a more detailed program of the presentations that will be given at the HDR Student Conference go to

<http://www.uow.edu.au/research/rsc/HDRconference/index.html>

Honours Scholarships

Up to 40 scholarships of \$2000 each will be made available to eligible students enrolling full-time in 2006 in an Honours degree at the University of Wollongong. Each scholarship is for one year of study (on campus study only) and will be paid in two instalments. Preference will be given to students undertaking research projects in selected areas of research strengths or emerging strengths, who demonstrate potential to undertake postgraduate research study in the future.

Information, application forms and referee reports are available at:

<http://www.uow.edu.au/research/rsc/student/scholarships/2006HonoursScholarships.html>

or from the Research Student Centre (Ground Floor, Building 20).

Applications for 2006 scholarships close on 15 November 2005.

Research Services Office

Uni in the Brewery

Uni in the Brewery is an opportunity for the general public and UOW staff and students to hear about the research conducted at the University of Wollongong. The location provides a relaxed environment and encourages audience participation.

Our next session will be held Wednesday August 10th at the Five Islands Brewery from 5:30pm. Professor Joseph Ciarrochi and Professor Frank Deane will present recent research findings in the areas of “Emotional Intelligence” and “The Fear of Driving” respectively. Come along and find out about the characteristics of people with a low emotional intelligence, and why more people are developing a fear of driving.

More information at:

www.uow.edu.au/research/unibrewery/2005/2005August10th.html

RSVP to vwallace@uow.edu.au (everyone is welcome).

Uni in the Brewery is a Research Services initiative.

Ethics

The next Human Research Ethics Committee (HREC) meetings (for both Health & Medical and Humanities, Social Science & Behavioural) will be the 16th August (with agenda deadline on the 1st August). More information at: <http://www.uow.edu.au/research/rso/ethics/human/>

A/Professor Rod Nilsen has stepped down as Chair of the Health and Medical HREC, having completed a two year term. Rod has been an extremely dedicated Chair, generous with his time and energy. The members of the HREC and the Ethics Team are very sorry to see Rod go, but wish him an enjoyable sabbatical rediscovering his research. Dr Nadia Crittenden will be acting as Chair of the Health and Medical HREC until a new appointment is made.

Grant Outcomes

2005 ARC Centres of Excellence

A team led by Professor Gordon Wallace, together with partners Monash University and the Bionic Ear Institute, has been awarded an ARC Centre of Excellence for Electromaterials Science, with total funding of \$12 million over 5 years (2005-2010).

Secondly, Professor Christoph Antons is a Chief Investigator on the ARC Centre of Excellence in Cultural and Media Industries, led by Professor Stuart Cunningham at QUT, with total funding of \$7 million over 5 years (2005-2010).

2005 ARC Linkage Projects (Round 2)

The ARC allocated \$60.4M nationally to Linkage Projects Round 2 (for funding to commence in July 2005) with a national success rate of 42.9%. UOW had a success rate of 30% with 8 grants awarded a total of \$1.169M for the next 3 years to our researchers.

Congratulations to the following successful applicants and their industry partners:

Prof SX Dou, Dr Alexy Pan (Polarised Technology)

Dr Steve Gower (Australian Superconductors)

Prof David Griffith, Dr Glen Bryant (Australian Greenhouse Office, NIWA)

A/Prof Xu-Feng Huang, Prof Linda Tapsell Dr Marijka Batterham (Uncle Tobys)

A/Prof Peter Kell, Dr Tim Scrase, Dr Ruchira Ganguly-Scrase (PALMS Australia)

Prof Amanda Lawson (Australian Centre for Craft and Design Museums and Galleries Foundation of NSW)

Dr Barbara Meyer (MuMega Ingredients, Analytical Reference Laboratories)

Dr Brian Monaghan, Dr Sharon Nightingale (BlueScope Steel Limited)

Further details of these successful grants are available at:

<http://www.uow.edu.au/research/rso/grants/outcomes/external/2005/2005-arc-linkage-r2.html>

2005 Research Infrastructure Block Grants (Pool 2)

The outcomes of the RIBG (Pool 2) Scheme have been announced. For details on the successful grants see our website at:

<http://www.uow.edu.au/research/rso/grants/outcomes/internal/2005/2005-ribg-p2.html>

There were 13 successful applications with a total of \$508,360 awarded.

Looking for Funding Opportunities?

Try "ResearchResearch" a database that provides national and international sources of funding opportunities for researchers which is updated daily. UoW subscribes to the full access and search capabilities of Funding Opportunities and Sponsors. All staff and students have access to ResearchResearch from any computer on the University network. To become a registered user please e-mail Sue Dellit from the Research Office (sdellit@uow.edu.au) with the name of the faculty you are associated with, your position within the faculty and your phone and fax number. These details will be used to create your own ResearchResearch account.

To view the website, follow the link from the Library home page: www.library.uow.edu.au > Research Resources or link directly to: <http://www.researchresearch.com/>

MICDs

Trailblazer Winners

The Innovation competition open to researchers and students at the UoW came to an exciting end with 8 finalists vying for the lucrative first prize. Congratulations to the Open Winner, first year Biological Science student (PhD) Ms Anna Henningham whose research involves the development a vaccine which could provide protection against a diverse range of diseases caused by Streptococcus. Results from the

competition can be found at:

<http://www.uow.edu.au/research/trailblazer>

More information on Trailblazer: Aapo Skorulis (aapo@uow.edu.au) or Troy Coyle (tcoble@uow.edu.au)

UOW Student Innovation Network

The University of Wollongong Student Innovation Network (UOW-SIN) is a networking group run by the Research and Innovation Division for PhD and Masters students, Postdoctoral Fellows and Honours students.

UOW-SIN will allow students interested in research commercialisation and innovation to meet and share ideas in a relaxed and informal environment. It will also allow participants to develop the skills and networks to prepare them for research commercialisation. Guest speakers will give presentations on specific areas of relevance to student research commercialisation and will hopefully expand the student's individual business networks.

For more information on the seminars offered by UOW SIN go to

<http://www.uow.edu.au/research/rsc/student/innovationnetwork.html>

3rd Champions Lunch – Tuesday, 9 August 2005

Louise Earnshaw (PhD student in Psychology and Business Uni. of Queensland)

Presentation on Cash in your Passion!

Louise's research has found similarities between successful entrepreneurs and youth at risk which she has termed "the Chutzpah Factor". Chutzpah is Yiddish for cheekiness, audacity, guts and gall - the entrepreneur! The workshop will encourage you to find your own Chutzpah Factor and will show you how to turn your passion (ie your PhD!) in to cash! Louise has commercialised her own work, spinning off a business and a charity from her research methodology and findings. She has secured private investor and corporate capital, and commonwealth government funding to implement her work in four states. Her work of turning maverick' kids into entrepreneurs is currently the subject of the 7.30 Report to be screened later this year. For more

information contact Aapo Skorulis by email to aapo@uow.edu.au

Industry: seeking artistic people

Young Achievers Australia (YAA) hosts an annual Biotechnology Entrepreneurs program through which students can gain valuable experience in the progresses of setting up a company from beginning to end. Competing against student teams from other universities, the University of Wollongong has this year created its first team. Under the company name Industria, 16 postgraduate students from faculties/schools such as Chemistry, Engineering, Commerce, Health & Behavioural Science and Biological Sciences have come together with the hope of producing a biotechnology children's book. Currently in the process of selling shares, conducting market research and designing a basic book layout, we are now seeking students from the Faculty of Arts or Creative Arts to assist with the aesthetic appeal of the book. These students have the opportunity to join the company or assist through goodwill. Any assistance or advice would be greatly appreciated.

If you are interested, please contact Yasmine Probst, Marketing Director, Industria: A Young Achievers Australia Company at yasmine@uow.edu.au

Library News

Surfing for CURFs

Would your research benefit from statistics that are based on large samples and endorsed by the Australian Bureau of Statistics (ABS)? If the answer is yes, then Confidentialised Unit Record Files (CURFs) may be just what you're looking for.

CURFs contain data sets from most of the key ABS social and labour surveys, and are the most detailed level of information that the ABS can release. Data is available on a broad range of topics, including: business growth and performance; child care; education and training; household expenditure; income and housing costs; labour mobility; and national health and nutrition.

A guide to CURFs and how to access them through the ABS is available on the Library website, at: www.library.uow.edu.au/services/research/abscurfs.html

Get the Research Edge

Improve your research skills and get the edge with the newly revised Research Edge online tutorial! The improved tutorial includes a range of interactive learning features, which show you how to search for the information you need.

Learn about different types of information and master the research process by:

- Effectively preparing for your research
- Using various search tools such as the Library Catalogue, databases and the Internet
- Evaluating the information you find
- Storing and organising your information to help you avoid plagiarism

Access the tutorial under Teach Yourself on the Library homepage: www.library.uow.edu.au

What's on in the Faculties?

See CAPSTRANS website for details on The Malaysia Australia Higher Education Forum to be held on 2,3 & 4 November 2005 at the University of Wollongong. -

<http://www.capstrans.edu.au/resources/conferences/conferences-2005-iceaps.html>

Check out the TITR Newsletter at <http://www.titr.uow.edu.au/newsletters/index.shtml>
TITR Newsletter

Awards and Achievements

Congratulations to **Prof Linda Tapsell**, and **Dr Peter Willaims** both from the Faculty of Health and Behavioural Science on being appointed as Fellows of the Dieticians Association.

A/Prof Sandra Jones, Faculty of Health and Behavioural Science and **Prof John Rossiter**, Faculty of Commerce, received a Highly Commended Paper award at the Emerald Literati Club Awards for Excellence 2005 for their paper "Believability of messages about cannabis, cocaine and heroin among never-triers, trier-rejecters and current users

of Cannabis", Health Education, Vol. 104 No. 6, 2004.

Congratulations to **Professor Jennifer Seberry** on being elevated to the status of Chartered Scientist by the British Science Council This elevation is in recognition of Professor Seberry's world class achievement and it is also a feather in the cap of the University of Wollongong, Faculty of Informatics and the School of Information Technology and Computer Science.

Ian Kwan, Centre for Medical Radiation Physics has received a \$75000 three-year PhD scholarship from the Australian Rotary Health Fund and Rotary Clubs to develop a technique that he hopes will reduce common complications of prostate cancer treatment.

Dr Chris Fox to be Secretary-General, World Council of Comparative Education Societies. Dr Chris Fox has just returned from Malaysia after a meeting of the World Council of Comparative Education Societies (WCCES) and is extremely pleased to announce that she was elected as the incoming Secretary-General of WCCES. This is an appointment for 5 years and means that the WCCES Secretariat will be based at our Faculty of Education from 2005-2009. The final vote for the position took place at the formal Council meeting on 29th May at UKM, Malaysia after an international search and selection process. The WCCES is an international organisation of comparative and international societies worldwide. It is an NGO in operational relations with UNESCO, and promotes research involving scholars in over 50 countries, with 33 constituent societies.

The 2005 Rail CRC Student Workshop/Conference was held in Brisbane from 22-24 June 2005. The following PhD students from the Faculty of Engineering gave presentations:

Joanne Lackenby - School of Civil, Mining, and Environmental Engineering (CME),
Behzad Fatahi - Civil, Mining and Environmental Engineering
Nural Islam - School of Mechanical, Materials, and Mechatronic Engineering.

Sakdirat Kaewunruen - Civil, Mining and Environmental Engineering

Zakir Hossain - Civil, Mining and Environmental Engineering

Congratulations goes to **Joanne Lackenby** for being elected one of the winners of the 2005 Best Student Presentation. It was a closely fought contest with a very high standard of student presentations over the two days. Joanne will receive up to \$2,000 Rail CRC sponsorship towards professional development/conference attendance in 2005.

Faculty of Science student **Joshua Larsen** has received an award from the Betty Mayne Scientific Research Fund for his project entitled "Petrology and Geochemistry of Cainozoic basalts from Barrington Tops, NSW". This work forms part of Joshua's Honours project which involves systematically mapping the geology of Barrington Tops and analysing the chemistry of the volcano which is expected to provide new insights how the volcano evolved and operated.

National plantation estates are projected to expand to 3 million hectares by 2020 and **Tina Hsu** from the **School of Biological Sciences** is set to answer some important conservation questions regarding this practice. Tina has recently been awarded a prize from Joyce Vickery Scientific Research Fund for her PhD work investigating whether these plantations will provide suitable habitats for native bird species.

Department of Chemistry researchers **Dr Susan McGinty** and **Dr Siritron Samosorn** have done outstandingly well both receiving prizes this year at the Royal Australian Chemical Institute's National Conference in Sydney recently.

This year in the Biomolecular Division Susan McGinty won the **Inaugural Bionomics Best PhD Thesis Award**. Susan presented a short summary of her thesis work at the conference entitled "Design and Synthesis of Novel Alpha1-Adrenoceptor Modulators". Again in the Biomolecular Division **Siritron Samosorn** was awarded a Poster prize

(sponsored by Alchemia) for her poster on "Berberine-Indole Hybrids with a Dual Mode of Action-Coping with Drug Resistant Bacteria'. Both of these awards recognise the great work of these researchers and the hard work of their supervisor **Prof. John Bremner**.

Scott Needham's poster titled NiO nanotubes: Synthesis and Electrochemical Performance for use in lithium ion batteries, was awarded the Best Poster Award at the Symposium of Materials for Rechargeable Batteries, Hydrogen Storage and Fuel Cells, the 3rd International Conference on Materials for Advanced Technologies, (3-8 July 2005). The Best Poster Award recipient will receive a certificate, SGD 100 cash and a complimentary conference banquet ticket.

Dr Andrea Schaefer received a Mondialogo Engineering Award 2005, organized by DaimlerChrysler and UNESCO, for the project proposal "Remote Community Field Trials of Solar Powered Water Treatment for Remote Communities in Papua New Guinea". The proposal is a joint development with UNSW, UTS and ANU. This project was one of 21 winning projects, selected from among 217 entries demonstrating the value of intercultural teamwork in the engineering sciences.

George Mickhail, Faculty of Commerce took part in organising the Critical Perspectives in Accounting International Conference held in Early June in New York, USA. The Virtual Professor Abe Briloff Encyclopaedia of his accounting research was launched at the conference. The encyclopaedia builds upon Mr Mickhail's "Virtual George" innovation and is a collaborative project with a research team from Baruch College at the City University of New York (USA).

George Mickhail was also invited as the plenary speaker at BKR International Europe, Africa and Middle East Regional Conference on the 5-8th of May 2005 in Cairo, Egypt. BKR International is an association of independent accounting and business advisory firms, with more than 143 member firms and 340 offices in over 66 countries around the world. His talk discussed contemporary innovations

in 4G wireless and mobile technologies and their implications for Accounting Practice in the future. He also presented the first prototype of its kind of a Virtual Accountant, which is built upon the new XBRL (eXtensible Business Reporting Language) innovations that are driven by the largest accounting and technology firms in the world.

A joint paper with MSKCC on real time spectroscopy dosimetry and instrumentation for urethra dosimetry for permanent implant LDR brachytherapy was recognized as the best paper and poster and was awarded The First Prize at The American Brachytherapy Society (ABS) annual conference held on 1-3 June , Hyatt Regency, San Francisco, California.

The Judith Stitt Award was awarded by the American Brachytherapy Society to **A B Rosenfeld** (Faculty of Engineering), D Cutajar, **M Lerch** (Faculty of Engineering), **G Takacs** (Faculty of Engineering), J Bucci, **L Duggan** (Library), M Zaider, M Zelefsky and G N Cohen for their poster titled "Alarm Urethral Spectroscopic (AUS) Probe for Prostate Implants". The award reflects the interesting poster scientific material as well as the visual effects on the poster.

Andrew Wroe, PhD student at **CMRP** has received a travel scholarship from International Radiation Research Society to present a talk on microdosimetry to predict biological doses for space crew in space radiation environment within space aircraft on the Annual Radiation Research Society Conference to be held in New Orleans in October 2005. The research fulfilled at CMRP in this field is very highly regarded by the Radiation Research Society.

Prof Anatoly Rozenfeld has been selected to be on the International Scientific Advisory Committee , International Conference on Microdosimetry (MICROS 2005), Venice , Italy, November, 2005

Development of magneto-radio-therapy is a new direction at CMRP which was supported by special grant at ESRF (European Synchrotron Radiation Facility), Grenoble, France . First experiments were

recently carried out at ESRF by **Dr Michael Lerch** with PhD student **Heidi Nettelback** on Microbeam Radiation Therapy(MRT) on a synchrotron medical beamline. Obtained results will be transferred to Australian synchrotron and are the first step to understanding of the effect of magnetic field for improvement of MRT theoretically simulated by Heidi and **Dr George Takacs**.

New researcher **Dr Hans Frimmel** from **Uppsala University**, Sweden has recently joined CMRP , . Hans is an expert in radiological imaging (CT, MRI) and will essentially contribute to this growing area in medical radiation physics at CMRP including THz laser imaging as well as lecturing in medical physics and other physics subjects . This position is supported jointly by UoW , Westmead Hospital and Toshiba Medical Systems. CMRP is the first Centre in Australia where teaching and research in diagnostic medical physics will be seriously addressed. It is expected that Dr Hans Frimmel with existing researchers of CMRP will initiate new grant applications in this field. Hans had his postdoctoral training in the Department of Radiology , School of Medicine , Chicago University followed by his appointment in Uppsala University, Radiology Department, where he was working mostly on MRI imaging.

Dr Iwan Cornelius has established strong computational capabilities at CMRP by access to multiprocessor computer facility AC 3 . He was granted with more then 3000 h simulation time for CMRP to run Monte Carlo simulations in radiation medical physics to support several projects in radiation therapy.

The next issue of Research & Innovation News will be available on the web on 1 October 2005. If you have a research event happening or have some news on research achievements and awards you would like to include in the next newsletter, please email the details to Jessica Lopez at jessica@uow.edu.au before Friday, 16 September 2005.