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Welcome to our first issue of the Research and Innovation Division’s newsletter for 2006, highlighting various research events and achievements, which reflect the University’s vision of Commitment to Excellence.

The University of Wollongong is one of Australia’s best performing research institutions and over the past five years the University has consistently ranked in the top group of institutions in the hotly-contested Australian Research Council Grants schemes.

In an effort to further enhance our research outcomes, there have been some staff changes to the Research and Innovation Division.

Professor Lee Astheimer has been appointed as the ProVice-Chancellor (Research) for a 4 year period and will be involved in a range of internal research and research student management activities. As well as chairing the newly established Research Quality Framework Management Committee (RQFMC), Lee will be responsible for internal grant processes. She will also work closely with RSO Director Sharon Hughes and Grants Manager Julie Matarczyk on ARC and NHMRC grant submissions. Lee will take on the academic responsibilities for HDR student management, working with Kim Roser and her team in the Research Student Centre on all HRD issues (with the exception of scholarships and recruitment).

Dr Troy Coyle is the Executive Officer for Research Development and her duties include: developing a strategy for development of the Illawarra Health and Medical Research Hub, working on commercialization and IP issues, assisting those who are planning to be involved in a new or extension CRC bid and managing the MICD role for Faculty of Law and IPRI.

Ms Julie Matarczyk has recently been appointed as Grants Manager in the Research Services Office, where she coordinates internal and external funding initiatives, advises clients on grant applications and management, and supports the University Research Standing Committee.

Finally, Ms Angela Taylor has been appointed as the Head of Legal and Commercial Unit

The Research and Innovation Division strongly supports research by our academics, research students and partners, to achieve international and national collaborations and recognition, which brings a sustained benefit to our community.

Read on to see how the University of Wollongong makes a difference…

Deputy Vice-Chancellor (Research)
Professor Margaret Sheil

Research Quality Framework (RQF)
The RQF is a new DEST mechanism to assess the quality and impact of publicly funded Australian research. It follows a trend towards global benchmarking of research quality and the results of the RQF will impact on the reputation of the University. It will also form the basis for research funding to Universities. PVC (Research), Professor Lee Astheimer will chair the newly established Research Quality Framework Management Committee (RQFMC) which will include Professor Margaret Sheil, Sharon Hughes, Helen Mandl, Bob Cole, and an RQF Officer (TBA). The RQFMC will work with faculties and key researchers to select and develop the discipline-based groupings of researchers that will be submitted for assessment in the upcoming RQF.

ARC College of Experts
Congratulations to Professor Allan Chivas from the School of Earth and Environmental Sciences (Faculty of Science), who was appointed as a member of the ARC College of Experts from January 2006 to December 2008.

Upcoming external grant opportunities

Friday 3rd March 2006
NHMRC Notice of Intent to Apply for 2007. Development and Project Grants (due to NHMRC)

Friday 3rd March 2006
2007 ARC Discovery Applications (due to the ARC)

Monday 6th March 2006
2007 NHMRC Career Development Award Applications Open (Applications due to NHMRC Friday 21st April 2006)
EXTERNAL GRANT OPPORTUNITIES

NHMRC Development Grants support the development of health or medical research that has commercial potential, may benefit the community, and aim to provide funding for research commercialisation at the early proof-of-concept stage. NHMRC Notice of Intent to Apply for this Scheme is due to the NHMRC on March 3rd 2006. Full applications for this scheme for funding to commence in 2007 open on Monday 6th March. For further information please visit: http://www.uow.edu.au/research/rso/grants/opportunities/external/nhmrc/nhmrc-projects.html or contact Sharon Clarke on x 5815 (clarke@uow.edu.au).

NHMRC Career Development Awards aim to provide self-directed health and medical researchers a capacity for original independent research and develop their leadership skills in research. The scheme has a particular emphasis on clinical, public health and health service research in order to increase knowledge and support the development of evidence based health policies. For further information please visit: http://www.uow.edu.au/research/rso/grants/opportunities/external/nhmrc/nhmrc-careerdev.html or contact Sharon Clarke on x 5815 (e-mail: clarke@uow.edu.au).

ARC Discovery Project Grants support excellent fundamental research by individuals and teams with the aims of expanding Australia’s knowledge base and research capability and encouraging research training in high-quality research environments. Applications are currently being invited for this scheme for funding to commence in January 2007. For further information please visit: http://www.uow.edu.au/research/rso/grants/opportunities/external/arc/arc-discovery.html or contact Julie Matarczyk on x 5874 (juliema@uow.edu.au).

Statistical Advice available
The Statistical Consulting Service (SCS) in the School of Mathematics and Applied Statistics provides UOW researchers with statistical advice. The consultants are all experienced statisticians and researchers and most have industry experience. They can advise on planning surveys and experiments, statistical analysis, presentation of results and preparation of grant applications. Statistical advice often has the greatest benefit in the planning stage of a project and researchers are encouraged to consult with the SCS at this stage. For more information, or to arrange a meeting, see http://www.math.uow.edu.au/scs or email statcon@uow.edu.au.

AGENDA DEADLINES AND MEETING DATES FOR YOUR DIARY

Human Research Ethics Committee (HREC) - Health and Medical
Upcoming meeting on March 7th (agenda deadline February 20th)
Next meeting April 4th (agenda deadline March 20th)

Human Research Ethics Committee (HREC) - Humanities, Social Science & Behavioural
Upcoming meeting on February 14th (agenda deadline Jan 30th).
Next meeting March 14th (agenda deadline February 27th)

Animal Ethics
Upcoming meeting 16th February  (agenda deadline January 26th)
Next meeting April 6th (agenda deadline March 16th)
Training Session Friday 17th March  (contact Penny Potter x3350)

Biosafety
Upcoming meeting March 2nd (agenda deadline Feb 16th)


RESEARCH ETHICS

The NHMRC/AVCC has released the second consultation draft of the National Statement on Ethical Conduct in Human Research, the guidelines which direct the processes for reviewing human ethics. The document can be found at: http://www.nhmrc.gov.au/ethics/human/ahec/projects/statementsec.htm and comments are due by 31st March 2006.

New to the Biosafety Website!
There is now a step-by-step guide to applying for approval to work with genetically modified organisms (GMOs) on the Biosafety Committee’s website. See http://www.uow.edu.au/research/rso/ethics/biosafety/

Professorial Lecture Series 2006
General and academic staff are welcome to attend these luncheon lectures, to hear about the research work and achievements of academic staff members who have either been promoted to Professorial level or are recent appointments to the University.

- Wednesday 15th March, Colin Murray-Wallace (Science Faculty) “From amino acids to the movements of continents - reflections on Quaternary geology”
- Wednesday 19th April, Jan Wright (Education Faculty) “Interrogating expert knowledge: Risk and the ethics of body weight”

All presentations are in 14.G01 (12:30pm -1:30pm).
More information at http://www.uow.edu.au/research/proflectureserie...
UNI IN THE BREWERY IS BACK!

Thank you to all who provided feedback and suggestions for the Uni in the Brewery presentations. Our 2006 program includes some very interesting researchers speaking about their work. We hope you can come along and enjoy a beer or wine at the Five Island Brewery. All staff, students and the general public are welcome and encouraged to contribute in discussion.

Upcoming Uni in the Brewery Presentations:

March 22nd
5:30-6:30pm Dr Chris Turney (Faculty of Science) ‘Bones, Rocks and Stars: The Science of When Things Happened’

May 17th
5:30-6:30pm Alan Wearne, Shady Cosgrove (Faculty of Creative Arts) ‘How NOT to write a Best Seller’

http://www.uow.edu.au/research/unibrewery

RESEARCH STUDENT CENTRE

Excellence in Research Supervision
NOMINATIONS NOW OPEN for the 2005 Vice Chancellor’s Award for Excellence in Research Supervision

- Is your research supervisor enthusiastic about your research?
- Does your research supervisor assist you to acquire additional skills and knowledge relevant to your research?
- Is your research supervisor responsive to your particular needs (eg. if you are working, a part-time student, a parent, different cultural background)?
- Is your research supervisor open to communication at times other than those formally specified?
- Do you feel that your research supervisor is supportive at all times (the good and the bad days along the rocky road of research)?
- Does your research supervisor meet with you on a regular basis at a mutually convenient time?

If you have responded positively to all of the above, you have one outstanding research supervisor on your hands! The nomination form can be downloaded at http://www.uow.edu.au/research/rsc/news/vc-award-res-supervision-nominate.htm or visit the Research Student Centre for a hard copy. The closing date will be Tuesday, 28 February 2006.

Research training seminars for HDR students

Are you a new or re-enrolling research student who would like to get some extra training in different aspects of research? The Higher Degree Research (HDR) Student Seminar Series is a free of charge program specifically designed for HDR Students. Seminars are separated into modules so that you can easily identify the seminars that will suit you based on what stage you are at in your candidature. Some of the Seminars to be presented this session include: Endnote, Thesis Writing, Your Gateway to Research at UOW, Your Rights and Responsibilities to Your Research, Helpful tips for Presenting at a Conference: science model (open to all HDR students), Publishing Tips for New Research Students: science model (1st and 2nd year HDR students), Thesis Submission and Examination. Seminars will begin in the week of 6 March 2006. An email advising of the program will be sent to all HDR students in mid February.

Annual Progress Reports are now overdue

The 2005 Annual Progress Reports (APR) were released to HDR students on 17 October 2005. The APR process for Higher Degree Research (HDR) students is now via SOLS. Guidelines for students, academic staff and a set of FAQs are available at http://uow.edu.au/research/rsc/hdrhb/annual-progress-reports.html

HDR candidates will not be enrolled for 2006 unless a completed APR is received.

Higher Degree Research (HDR) Student Orientation and Enrolment Day

The compulsory autumn session Higher Degree Research (HDR) Student Orientation and Enrolment Day for HDR students will be held from 9.00am on Tuesday, 21 February 2006. If you have any questions about this event or your enrolment please contact Jessica Lopez HDR Events Officer in the Research Student Centre on (02) 4221 5454, jessica@uow.edu.au. A registration form can also be downloaded from http://www.uow.edu.au/research/rsc/news/orientation/

NOTE:
For continuing students – Re-enrolling students will be automatically re-enrolled on receipt of a completed APR.
The Sonic Arts Research Network (SARN) is the new Research Centre in the Faculty of Creative Arts. SARN has been set up under the Strategic Research Initiative scheme and will promote:

- the creation, production and publication of music composition to extend the boundaries of the art form;
- the development and application of smart technologies through enhanced musical instrument design, radiophonic production, gallery installation, text-sound, new media performance and delivery via the world wide web;
- the collaboration between time-based disciplines in the creative arts and collateral disciplines within science and engineering.

While SARN’s research activities are strong and well-defined, principally in the discipline of Music, its membership includes researchers from several disciplines in the Faculty of Creative Arts and the Faculty of Informatics. The Director of SARN is Professor Greg Schiemer (Creative Arts).

During January a delegation from Tribhuvan University in Nepal visited the Engineering Faculty to promote research collaboration in civil engineering, particularly in the areas of geotechnical and water engineering, including landslide studies. A Memorandum of Understanding was signed by the two Deans of Engineering from UOW and Tribhuvan University, for future staff exchanges and to identify potential research collaboration. Professor Indraratna has been invited to visit Tribhuvan in 2006 to advance collaboration.

The Centre for Medical Radiation Physics (CMRP) continues to be recognized internationally and nationally for excellence in cancer research. Recently the Australasian College of Physicists, Scientists and Engineers in Medicine (NSW Branch) held its annual competition for the best research in the field of medical physics. In both Masters and PhD sections students from CMRP were recognized as the best and were awarded the Curie Prize. CMRP PhD student, Andrew Wroe received a Fulbright Award for his innovative research into the interaction of proton radiation on the cellular and DNA level.

UOW researchers are working on a device that will improve treatment for prostate cancer by reducing unpleasant side effects and, therefore, encourage more Australian men to seek medical advice if they have symptoms of the deadly disease. The research capability of CMRP has been strengthened by the recent appointment of Professor Peter Metcalfe to a Chair funded by the NSW Cancer Institute.

Professor Hugh Brown (Faculty of Engineering) is the winner of the 2006 Adhesion Society Award for Excellence in Adhesion Science, sponsored by 3M. This award is the Society’s premier award for outstanding achievements in scientific research relating to adhesion. The criteria for winning include a scientific contribution that has significantly improved our understanding of the phenomenon of adhesion, or a contribution to the technology of adhesion or adhesives that has had significant impact on the adhesion/adhesives industry, and World-wide recognition of that achievement.

Professor Brown was chosen for his exceptionally creative and diverse contributions to the understanding of the mechanisms of adhesion between polymers, including the effect of block copolymers on the fracture strength of polymer interfaces. Professor Brown is the first Australian recipient of this award which has been ongoing since 1987.

Dr Adam Clarke, Senior Lecturer for the Faculty of Health and Behavioural Sciences (Psychology) has recently been awarded one of three Early Career Research Awards (2005) by the Australian Psychological Society, which recognises excellence in scientific achievement in psychology among psychologists who are at early stages of their research careers. This national award is intended for individuals whose achievements stemming from their PhDs and work completed since their PhDs were confirmed are outstanding and place them significantly ahead of their peers.

Submitting your thesis for examination soon?

In order to avoid incurring fees for Autumn Session 2006 (including international tuition fees and student body charges), you must submit your thesis by 31 March 2006. If you submit your thesis after this date, you must enrol for Autumn session and pay the appropriate tuition 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
Dr Lan Nguyen, a recent PhD graduate of University of Wollongong (School of Information Technology and Computer Science) received a ‘Special Commendation’ from CORE (The Computing Research and Education Association of Australasia - http://www.core.edu.au/), after being nominated for a Distinguished Doctoral Dissertation award. The award was presented by Professor Jenny Edwards, President of CORE, at the Australasian Computer Science Week recently held in Hobart. Dr Nguyen’s thesis was entitled ‘Cryptographic Privacy Enhancing Technologies’. He has recently joined CSIRO Information Engineering Laboratory as a Research Fellow.

Professor Salim Bouzerdoum (Faculty of Informatics) has been awarded the Chester Sall Award for the best paper in the IEEE Transaction of Consumer Electronics (2004), a highly prestigious award with the presentation taking place early in 2006 at the Las Vegas Convention Centre.

The Power Quality and Reliability Group (School of Electrical, Computer and Telecommunications Engineering) have recently received two research paper awards:

- The Conway prize awarded by the EESAs prize for the best paper at their annual conference (recipients include: Vic Gosbell, Sean Elphick, Sarath Perera and Neil Browne), and
- The Joint API/ACPE research project award (recipient Scott Abbott and his supervisors within the power quality and reliability group)

Mr Chung Le Tran from the School of Electrical, Computer and Telecommunications Engineering has been granted an Alexander von Humboldt Research Fellowship to work with Prof Alfred Mertins in Oldenburg, Germany. Chung applied for the prestigious fellowship last May, while still finishing his PhD research, and will be graduating this year.

Diane Harland (PhD student in the Biomechanics Research Laboratory and also from the Child Obesity Research Centre) was awarded a student presentation award at the 2005 Annual Scientific Meeting of the Australasian Society for the Study of Obesity (held last year in Adelaide). Her winning poster entitled, “Are the feet of obese children fat or flat?” was voted by the chairs of each session. The award is for those students who made an outstanding contribution to the annual meeting.

Mr Mitch Byrne won first prize for the best presentation given at the 2005 HDR Students Conference by a Faculty of Health and Behavioural Sciences student.

PUBLICATION SUCCESS

Professors Geoff Spinks (Faculty of Engineering) and Gordon Wallace (IPRI) have secured their first publication in the prestigious journal Nature Materials. Launched in 2001 it is now the top – ranked journal dedicated to materials science and has an ISI impact factor of 13. The paper describes and explains some surprising experimental results obtained by an undergraduate student (Shona Prosser) during her final year thesis project for her materials engineering degree. The results and explanations in the publication are very important for the practical use of polymer artificial muscles in areas such as medical devices, robotics and micro-machines. The project also involved collaboration with Professor Seon Jeong Kim and co-workers at Hanyang University in South Korea. This collaboration has been supported through the ARC Linkage International scheme. Full details of the paper are: SJ Kim, GM Spinks, S Prosser, PG Whitten, GG Wallace and SI Kim “Surprising shrinkage of expanding gels under an external load” Nature Materials, 5, January 2006, 48-51.

Prof. Gerald Nanson (School of Earth and Environmental Science) has recently been internationally acknowledged for publishing one of the most-cited works in Geomorphology in the past 10 years. The paper, published in 1992, is on the genetic classification of flood plains, and during the period 1995 to 2004 was one of the most cited works in the discipline of Geomorphology.

Congratulations to Dr Mohan Chinnappan (Faculty of Education) on the electronic publication of his article “A Framework for Analysis of Teachers’ Geometric Content Knowledge and Geometric Knowledge for Teaching” published in the Journal of Mathematics Teacher Education (JMTE). JMTE ranks highly in the journals of mathematics education worldwide and has an approximate acceptance rate of 10%. It looks into issues of mathematics teaching and learning (K-12 and beyond) and has a high impact internationally.

Two new books recently launched at the Faculty of Engineering: *Mechanics of Ballasted Rail Tracks - A geotechnical Perspective* Authors: Buddhima Indraratna and Wadud Salim (University of Wollongong, Wollongong) ISBN: 0415383293. This book was reviewed in Australian Geomechanics, Vol 40, No 4, December 2005. It is recommended that the book should appeal to researchers and also practising engineers specialising in track design and maintenance.

*Ground Improvement: Case Histories* Edited by: Professor Indraratna, (UoW) and Professor Jian Chu, Nanyang Technological University, Singapore (ISBN: 0-08-044633-7)
Trailblazer is back for 2006!

Trailblazer is an innovation competition open to researchers and students at the University of Wollongong, designed to foster innovation, progress ideas, inventions or research outcomes as well as reward our researchers. The competition is in collaboration with UniQuest, The University of Queensland’s commercialisation company.

For more information please contact your MICD:
Craig Peden - Commerce, Creative Arts, Informatics, Engineering (x 5407)
Aapo Skorulis - Health, Education, Arts, Science (x 4578)
Troy Coyle – Law (x 4420) or visit: http://www.uow.edu.au/research/trailblazer

Research Commercialisation Workshops

There has been significant interest from both staff and HDR students for this year’s workshops to be held on 15-17 March for academic staff, and 29-31 March for HDR students. It is an excellent opportunity to enhance knowledge on all aspects of research commercialisation from consulting through to patenting and establishing spin out companies. The presenters have very real experiences in these areas and it is also an excellent opportunity to meet colleagues from the University of Queensland.

2006 Commercialisation Expo

On 18 - 20 June 2006 there is a ‘commercialisation expo’ to be held at the Melbourne Convention & Exhibition Centre. It will showcase Australia’s R&D capabilities and commercialisation opportunities.

The Peter Doherty Prize for innovation is valued at $100,000 and submissions must be in by 21 April 2006, contact your MICD for further information or visit: www.expo2006.com.au

Research Notebooks

An update on the information supplied in the last Research & Innovation Newsletter with respect to the notebooks is that we have secured sponsorship from Davies Collison Cave Patent & Trade Mark Attorneys and we hope to have the Research Notebooks available in the UniCentre bookshop by mid year.

NEWS FROM THE LIBRARY

Providing you with access to more information for your research...

The Times Digital Archives

The recent purchase of the Times Digital Archives provides researchers with access to information and page images from 1785-1985. The London Times is an extraordinary resource for historical research activities with the database containing articles, advertisements, opinions, classifieds and images. The database is easy to use and has many limiting options including births, marriages, property, politics and parliament, stock exchange tables and a picture gallery.

SourceOECD

An excellent resource for researchers providing publications and statistics in areas such as economics, social issues, education, trade, science and innovation. Date ranges vary depending on the publication type. OECD publications are widely used for their statistical value allowing comparisons of variables over several years.

• You’ll find these resources under the Databases link on the Library homepage.

What’s New and Database Trials

Are you wondering what’s new in your research area or what database the Library is trialling? Click on the Databases link, from the Library homepage www.library.uow.edu.au, and scroll down to view the latest information tool the Library has purchased under the heading What’s New. For example, Sage publications for science, geography and education, Royal Society of Chemistry Archive and United Nations Treaty Collection. Trials lists databases under consideration. The Library is currently investigating databases in health and psychology.
Last December the Centre for Medical Radiation Physics (CMRP) hosted two international workshops at UOW to discuss the latest ground-breaking developments in cancer detection and treatment. The International Workshop on Micro and Mini Dosimetry (radiation protection and therapy) and the International Prostate Cancer Treatment Workshop had speakers from Johns Hopkins University School of Medicine, the Memorial Sloan Kettering Cancer Centre (USA), the University of Trieste (Italy), Toronto-Sunnybrook Regional Cancer Centre (Canada) and the Institute of Nuclear Physics in Krakow (Poland). Australian radiation oncology institutions also took part, including St. George Cancer Care Centre, St. Vincent’s Hospital, Peter MacCallum Cancer Centre and the Illawarra Cancer Care Centre. The conferences will play an important role in improving treatment for prostate cancer and developing new approaches for radiation dosimetry and its application in radiation therapy.

**STEP**

Twenty doctoral students from five universities gathered for the 15th STEP Doctoral consortium at the University of Wollongong last December. STEP stands for ‘science, technology and economic progress’ and is an annual inter-university programme that aims to help PhD students undertaking socially orientated research into the application of science and technology. The consortium was hosted by the Centre of E-business Applications Research (CeBAR-DSL) and funded as a joint initiative by the Commerce and Informatics Faculties. The Apple University Consortium also sponsored the consortium. Organisers were Associate Professor Sam Garrett-Jones and Will Tibben.

**International Symposium on Electromaterials Science - The Role and Impact of Nanostructure (15th-17th February 2006)**

The ARC Centre of Excellence for Electromaterials Science (based at the University of Wollongong) will host the first international symposium on electromaterials science at the UOW. The symposium will provide a forum for the discussion of recent advances in this research area, particularly the role and impact of nanostructure. Topics have been selected that will probe the enormous potential of nanotechnology at the interface of science and engineering.

Coinciding with the workshop will be the official opening of the ARC Centre of Excellence for Electromaterials Science by Professor Peter Høj, Chief Executive Officer of the Australian Research Council. The Centre will build upon the core multidisciplinary program in the current ARC Centre for Nanostructured Electromaterials, and aims to create the electromaterials required for a new generation of artificial muscles and nerve repair systems, and the bio-batteries and bio-fuel cells to drive them.

**Distributive Leadership: Implications for Practice (16 – 17 February 2006)**

Hosted by the Australian Centre for Educational Leadership (Faculty of Education)

For more information contact: Associate Professor Narottam Bhindi, Director for the Australian Centre for Educational Leadership (nbhindi@uow.edu.au ) or visit: http://www.uow.edu.au/conferences/leadership

**AVETRA (19 –21 April 2006)**

The 9th annual Australian Vocational Education Training Research Association conference, held at the UoW this year, will explore questions about the international, national and local context of VET. More information at: http://www.avetra.org.au/annual_conference/index.shtml

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**Starting out on your research path?**

**Session for New Researchers**

The Library subscribes to many thousands of resources! Knowing how to locate and access information for your literature review will save you time and give you a jump start to your research. Understand the literature review process, identify research concerns and find out who can help you, by joining the Gateway to Research@UOW class.

**When:** 7th March

**Time:** 10.30am -12pm

**Where:** Seminar 2, Library, First Floor

**Register:** At the Research Student Centre, Building 20.

For more information please contact the Research Training Librarian, Lucia Tome, ph: 4221 3066 or e-mail: lucia_tome@uow.edu.au