

CAMPUS NEWS

Research funding success for Department of Mathematics

This year has been noteworthy for research funding for the Department of Mathematics – three of the University's 11 new grants under the Australian Research Council's Large Grants Scheme were awarded to Mathematics.

This is an outstanding result, given that in recent years, fewer than 30 grants have been awarded nationally to the entire Mathematics discipline.

The three successful projects are:

- Associate Professor Rod Nillsen and Dr Graham Williams, 'Finite Differences in Harmonic Analysis and Partial Differential Equations' (three-year grant, \$50,000 in 1996)

Finite Differences have long been used to give local approximations to derivatives.

The project aims to consider, in various contexts, how given functions may be written globally in terms of finite differences, not just as local approximations.

The main significance lies in the fact that these differences shed new light on the behaviour of partial differential operators, even well-known and much-studied ones; and clarify the role in harmonic analysis of the behaviour of the Fourier transform near the 'zero-sets' of the multipliers of these operators.

- Associate Professor Jim Hill, 'Development of New Solutions for Finite Elastic Deformations' (three-year grant, \$35,000 in 1996)

Manufacturers of rubber engineering components such as cylindrical rubber bush mountings and

rubber bridge bearings need to be able to accurately predict their in-situ behaviour.

Recent joint work of Associate Professor Hill has achieved significant advancements in the mathematical analysis of problems involving large elastic deformations of perfectly elastic materials.

This project aims to further extend this work and utilise the mathematical solutions to problems arising in the rubber manufacturing industry.

- Professor Phil Broadbridge and Dr Wayne Read (James Cook University), 'Analysis of Water and Solute Transport in Partially Saturated Finite Porous Media' (three-year grant, \$50,000 in 1996)

**Three Australian
Research Council
grants total
\$135,000 for
1996**

This project will make significant advances in the form of direct analytic solutions for steady water flow, and economical numerical predictions of solute transport in partly saturated porous domains of arbitrary shape, as required in civil engineering and in environmental risk assessment.

The position of the free water table surface, in a complicated flow domain, will be located accurately without ignoring water in the capil-

lary fringe.

The Department has been a regular recipient of ARC Large Grants and ARC Postdoctoral Fellowships.

Since 1990, as well as another grant to Professor Broadbridge and Associate Professor Hill, Associate Professor Martin Bunder has been awarded two grants to support his research in combinatorial logic.

The research of the Mathematics Department has been prominent in other external evaluations this year.

In the March 8 issue of the Higher Education Supplement of *The Australian* newspaper, Paul Bourke and Linda Butler of the Performance Indicators Project at ANU summarised their profile of research concentration in the sciences of Australian universities.

Eight percent of this university's Science Citation Index publications 1988-92 were in the mathematical sciences.

This was the highest mathematical science share of the output of any university in the country.

ANU and La Trobe were next with six percent.

Outside of the ANU, there were only four mathematical science publications that appeared in the top one percent by citation rate.

One of these has been identified as a paper by Associate Professor Hill.

In addition, Professor Broadbridge has a jointly authored earth sciences paper in the top one percent, attributed to CSIRO rather than to a university.

Study could lead to savings for the wool industry

The Wool Task Force and Goulburn City Council recently cooperated with the Centre for Transport Policy Analysis at the University of Wollongong in a major new study of transport efficiency in the wool industry.

The study, which was produced by Dr Ross Robinson and Dr Sophia Everett from the Centre, examined the way wool is moved from farm to broker, to dump to port.

Some extraordinary inefficiencies of movement in NSW were uncovered which mount to \$9.24 million for all NSW wool.

The study found that it may be possible to regionalise the warehousing and dumping of wool.

The Centre's study suggests that Parkes, Tamworth and Goulburn would offer cost effective locations for regional wool centres.

New information technology allows tighter control of storage, movement and inventory, and containerisation and intermodal movements of wool provide new opportunities for cost reductions.

Cost savings could be more than \$7 per bale or \$2.1 million per annum

based on '93/94 figures.

Multiple handling, multiple storage, reverse hauls to processing locations and storage at high-cost locations are among the characteristics of the present wool logistics system which add costs, reduce profits and reduce international competitiveness.

A workshop was held in Goulburn on 31 October at the City Council Chambers to release the report and focus on changes taking place in the wool industry and on ways and means of achieving transport efficiencies.

Saatchi and Saatchi supporting excellence in Dubai



Saatchi and Saatchi Advertising Middle East has made awards available for MBA and Bachelor of Business Administration/Bachelor of Commerce students at the University of Wollongong Dubai Campus.

The awards are part of Saatchi and Saatchi's ongoing commitment to the community and their recognition of the high standard of education in the United Arab Emirates, which is one of the fastest growing business centres in the region.

Executive Creative Director of Saatchi and Saatchi advertising Middle East, Edward Jones, presented the first of these awards at a ceremony on the Dubai campus on 5 October.

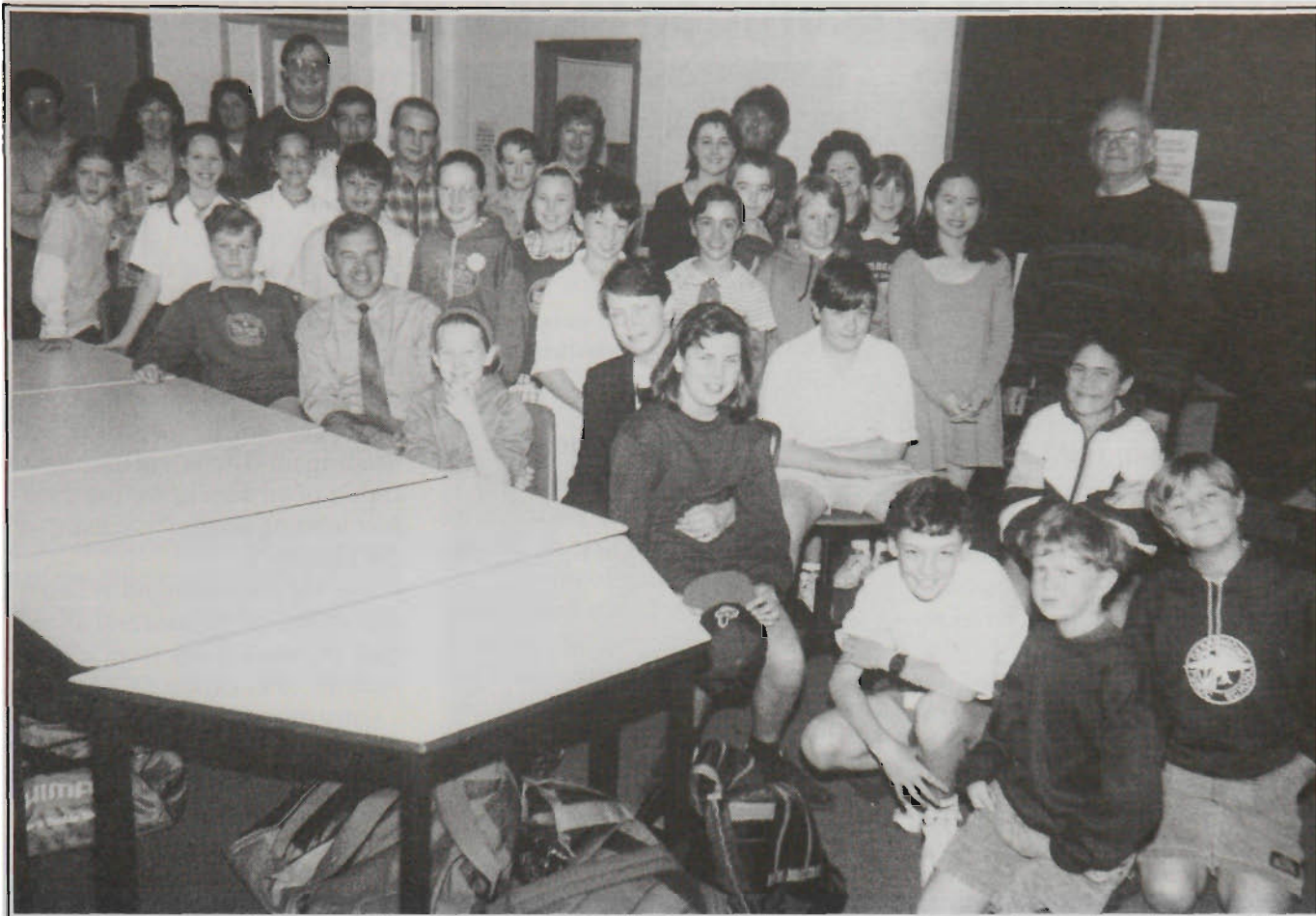
The MBA first prize was awarded to four students for

their marketing plan for developing a 'House of Beauty' in Dubai. The team included Auj Iqbal, Wesley Cassidy, Jose Mathew and Amir Alam Mehboob.

The Bachelor of Business Administration first prize went to Kumar Bhagehandani, Nisha Khanolkar, Anju Farswani and Rida Awadh.

Other outstanding performances were recognised including a project by Ali Reza Hassani and Lejla Vrazalic which included the production of a 30-second television commercial.

Ali and Lejla are completing their course at the Wollongong campus and are pictured showing their TV commercial story boards to Dean of Studies at the Dubai campus, Neil Masters.



Students from Koonawarra Primary School and some parents at the presentation of their Website. Michael Arrighi is at the back, right.

Internet project with primary school students

A group of student teachers from the Faculty of Education undertook a pilot/research training project on the World Wide Web as a potential teaching tool this session.

This was an elective subject with Associate Professor John Hedberg, Interactive Multi Media support and Mr Michael Arrighi as instructor.

The objective was to bring a

group of 'gifted' children from Koonawarra Primary school to the Faculty's computer labs for three sessions comprising browsing, researching individual/group projects and finally launching a global interactive Website created by the children and reinforced by the individual project results of the student teachers.

The results were impressive.

Mr Arrighi said the quality of the work done by the students far exceeded expectations.

'Kudos must go to the student teachers themselves who broke new ground – often under perplexing conditions where self-learning was the innovative code,' he said.

'They are very soon going to be well qualified representatives of our New Age educators.'

Wollongong students feature in National Engineers Week

National Engineers Week was held by the Institution of Engineers, Australia recently.

During this week a series of events were held involving the culmination of university student competitions.

The opening of National Engineers Week at the Powerhouse Museum in Sydney was highlighted by the inaugural Paddle Pop Bridge Competition for Civil Engineering students in NSW.

This competition involves students

building a small-scale bridge from paddle pop sticks and glue.

Second year Civil Engineering students, Michelle Carusi and Bryce Robertson, were 10th from more than 50 entries from all universities in NSW and Queensland.

Their entry weighed 98g and withstood a load equivalent to 137kg giving a strength/weight ratio of 1400.

Stephen Lloyd, a third year Civil Engineering Student at the University of Wollongong, who initially won

the campus heats of the public speaking competition went on to win the Sydney Divisional Finals at Harrick's Auditorium at Milsons Point, Sydney on 7 September again as part of National Engineers Week.

Stephen won \$500 as first prize for this presentation on 'Why engineers are not boring'.

Stephen will be attending the National Engineering Conference in Darwin in March 1996 with all expenses paid.

Library issues December loans reminder

Academic staff and doctoral students are reminded that items borrowed for the Spring session are due for return on 4 December.

Items can be renewed from 8 November by connecting to the library catalogue from your desktop, or by using the catalogue terminals in the Library.

To renew items, select view your circulation record from the main menu on the catalogue.

When prompted, enter your name and the barcode number displayed on your identification card.

Display the items checked out to you, then choose the renew option and select the items you wish to renew.

A new date will be assigned for those renewals accepted by the system.

A renewal will be denied if the item is on hold for another patron; the item has been renewed once before; it is overdue; or if it is too soon to renew the item.

For example, in the case of academic renewals, items cannot be renewed any earlier than four weeks before the original due date.

Library items may also be renewed over the telephone by contacting the

Library News

Library Loans Desk, phone 213 545.

Have your identification card handy, as your barcode number will be required.

Slight delays may be encountered with telephone renewals during busy periods.

Interlibrary loan renewals

Although it is possible for clients to renew items on loan by phone or by using the library catalogue, the exception is interlibrary loans.

The Interlibrary Loans department has to contact the lending library to gain permission to authorise a renewal.

Therefore, if you require a renewal please contact the Interlibrary Loans Department, phone 213 552.

Note, the late return of an interlibrary loan will attract an overdue fine.

Saving catalogue searches using email

A new email feature is available to those people who connect to the library catalogue from their desktop or

via remote access.

This feature allows the user to save records displayed during a session and then export them to an email account.

Catalogue entries can be exported in two forms, brief or full.

The brief record contains call number, author, title and imprint details.

The full record gives the complete catalogue entry, including subject headings and details of the number of copies of an item as well as their current lending status ("On loan" or "In the Library").

The export command is listed under additional options and allows the user to select items from a range of records, or to export all items found.

Once items are selected to complete the export, return to the catalogue's main menu and choose the export marked records option.

Note, at this stage the email option is only available for the two (full or brief) ASCII formats.

It is possible to download records from the catalogue in Pro-Cite or EndNote format but this requires using telnet capture software.

Inquiries: Karen Lunt, ext 3336, or your Faculty Librarian.

New Zealand honours our Kiwi teaching

The New Zealand Consul-General, Mr Doug Law, visited the Department of English on Friday 27 October to make a presentation of books and meet people for discussions.

Volume Two of the New Zealand Dictionary of Biography now accompanies the first volume donated by the previous Consul General, Mr Paul Cotton, and a dozen works on New Zealand history and culture will also be lodged in the Centre for Research in Textual and Cultural Studies.

A separate set of the Dictionary of Biography and works on language, pottery and printmaking will be placed in the University Library.

Some works were also presented to the Department of Geography, represented by New Zealander, Dr Laurie Brown.



Dr Paul Sharrad and New Zealand Consul-General, Mr Doug Law.

The Librarian, Mr John Shipp, and Ms Sandra Wills from EMS/PAGE were present to discuss links between Wollongong and New Zealand, as was the Dean of Arts, Professor Jim Wieland, and resident English Department Kiwis, Dr

Graham Barwell and Associate Professor Dorothy Jones.

Head of English, Dr Paul Sharrad, expressed the Department's appreciation of this continued recognition of its teaching and research in New Zealand literature and film.

A celebration of cultural diversity

International Night is one occasion in the year when the University's international students can celebrate their rich cultural diversity.

More than 250 guests attended International Night on Saturday 14 October at Wollongong Town Hall and were treated to a colourful evening of international cuisine, costumes and entertainment.

The night was sponsored by the International Committee for International Students (ICIS) and the coordinating committee included students from 15 countries and several members of the University staff including President of ICIS, Diana Wong, Accommodation Officer Michelle Carden, and International Student Adviser, Denise Hull.

All the food was prepared by the students and the rich menu included such delights as Indonesian satays, Mongolian lamb, Thai fish cakes, Indian curries, Singapore Hainan chicken and much more – and that was just the main course!

Guests were also treated to some wonderful performances by an Islander dance group, Indian singer, Indonesian dance group, African fashion parade, a Thai students' dance group and then the evening finished up with a disco.



Director of the International Office, Eric Meadow, and Bachelor of Commerce student from Fiji, Mirise Kati, enjoying the festivities.

A lot of hard work and dedication went into the organisation of the night, but judging by the many requests for

a repeat of the evening, next year's event promises to be even bigger and better.

Conference on the Timor and Arafura seas

A major international conference was held in Darwin on 1-2 November to address bilateral cooperation between Australia and Indonesia on matters related to the Timor and Arafura seas.

About 80 delegates from both Australia and Indonesia attended the conference.

The conference was called 'Neighbours at Sea – The shared interests of Australia and Indonesia in the Timor and Arafura seas'.

It was organised by the Centre for Maritime Policy at the University of Wollongong in conjunction with the Center for Archipelago, Law and Development Studies in Bandung, Indonesia.

It was sponsored by the Department of Foreign Affairs and Trade and the Northern Territory Government.

Topics covered at the conference included resource management, shipping, traditional fishing, marine environmental protection, surveillance, aboriginal maritime claims and cooperative marine scientific research in the Timor and Arafura Seas.

The organiser of the conference, former Australian naval officer, Commodore Sam Bateman said 'Australia and

Indonesia have one of the longest maritime boundaries between any two countries in the world.

'It stretches more than 2000km from the Torres Strait to the north-west Indian Ocean, as well as between Christmas Island and Java,' he said.

'A sea boundary still has to be agreed between Indonesia and Australia. 'There is a seabed boundary in most of the Timor and Arafura seas, but no permanent water column boundary.

'The potential problems were highlighted by Australia's declaration last year of a 200-mile exclusive economic zone which overlapped that of Indonesia.'

Commodore Bateman referred also to the obligation of Australia and Indonesia to cooperate on the management of the Timor and Arafura seas, especially with regard to resources and protection of the marine environment.

Both countries were parties to the 1982 UN Convention on the Law of the Sea which established this responsibility.

The conference was opened by Minister for Primary Industry and Fisheries, Northern Territory Government, the Hon MJ Palmer.



Associate Professor John Patterson (left), Mr Brian Ferry and Ms Deslea Konza from the Faculty of Education and (seated) Deputy Vice-Chancellor Peter Robinson greeted the Chinese visitors.

Visit strengthens ties with China

Deputy Vice-Chancellor, Professor Peter Robinson officially welcomed visitors from China to the Education Faculty last month.

The visitors were:

- The Deputy Director, Beijing Municipal Bureau of Education, Mr Zhang Jia Xiang, who is specifically responsible for Senior Vocational High Schools;

- Director of General Affairs, Beijing Municipal Bureau of Education, Ms Sun Gui rong; and

- Professor of Education, Beijing Educational Institute, Ms Wang Song mei.

They held discussions with the Dean of Education, John Patterson, and Lecturer in the Faculty of Education, Brian Ferry, who is the coordinator of the student practice teaching programs run by the Faculty in China.

Mr Zhang Jia Xiang had received favourable reports about students from the Faculty of Education who visited China for practice teaching and was interested in visiting the University.

Discussions centred around the possibility of arranging exchanges of teachers between Wollongong and the Beijing Municipal Bureau of Education.

Degrees of Quality

Invitation to Course Information Evening

7pm, Wednesday 29 November

The University Centre, 210 Clarence Street, Sydney

Discover our postgraduate programs in:

Total Quality Management (TQM)

Maintenance Management Systems Engineering

Study options include:

University of Wollongong Campus University Centre, Sydney

PAGE (Distance Education) One week blocks

Short courses and workplace-tailored courses

RSVP before 24 November or call for a complete course brochure:

Faculty of Engineering

Tel: (042) 213 491 Fax: (042) 213 143

Life in Unanderra... Christmas '75

The Dismissal may have been Australia's greatest political crisis, but when it happened, life in the Labor heartland of suburban Unanderra went on.

So begins the newest work by Mt Kembla playwright Wendy Richardson.

Titled *That Christmas in '75*, the play centres on the happenings of Tuesday November 11, when mil-

lions were shell-shocked by Labor Leader Gough Whitlam's extraordinary sacking by Governor-General Sir John Kerr.

But as the effects of the Dismissal ripped through Australia, life in the multi-cultural mix in Unanderra continued.

The play is a bird's eye view into the backyards of four families.

It is a poignant portrait of subur-

bia in the '70s to life through 80-year-old Thelma Anderson and her very unusual neighbours.

Commissioned and produced by Theatre South, *That Christmas in '75* opens at the Bridge Theatre in Coniston on 23 November and runs until 9 December.

There are big discounts for group bookings.

Phone 296 144 for bookings.

**WORLD
PREMIERE**

Wendy Richardson's
**...that Christmas in
'75**

**November 23
to December 9**

THEATRE SOUTH 

Bridge Theatre, Coniston

BOOKINGS ph:(042) 296 144

General

The Campus Alumni Bookshop is open on the second and fourth weekends of each month. Campus East, Cowper Street, Fairy Meadow (opposite Science Centre). All proceeds directed towards campus projects. Donations of material are invited. Enquiries to Alumni Office, phone 213 249 or 291 951.

Until 9 November: Business and Economic Development in Middle Eastern and Mediterranean Countries. This international conference is being run by the International Business Research Group. Venue: The University Centre, 210 Clarence St Sydney. Enquiries: Mokhtar Metwally, Dept of Economics, University of Wollongong. (042) 214 017 Fax (042) 213 725.

OZCHI '95 at Wollongong

OZCHI (Australian Computer-Human Interaction) is the annual national conference devoted to the interchange of work and ideas between researchers and practitioners in the area of Human-Computer Interaction.

The 1995 conference will be held at the University of Wollongong from 27-30 November.

The Department of Business Systems is coordinating the conference which will bring together researchers and practitioners involved in the theory, development, deployment and analysis of interactive, computer-based systems.

OZCHI attracts participants from many backgrounds, including psychology, human-computer interaction, software engineering, design, social science and management.

Contact: Helen Hasan, OZCHI'95 Conference Chair, Department of Business Systems, University of Wollongong, Northfields Ave, Wollongong 2522.

E-Mail: OZCHI95@uow.edu.au

Phone: (042) 213 757 or 213 958.

Fax: (042) 214 474.

OZCHI '95 has a WWW page at:

<http://www.uow.edu.au/public/ozchi/ozchi.html>

What's On

26 November: Conference on surveillance, 10am to 5pm. Cost: \$20. Enquiries: Brian Martin at the University on 213 763 or 297 393 at home, Ann Aungles 213 745, Richard Joseph 213 606 or Graham Sewell 213 642.

27-30 November: Australian Computer-Interaction Conference (OZCHI). Enquiries: phone (042) 213 757, fax (042) 214 474.

Long Gallery

Exhibition program for 1995:

13 November – 10 December: BCA graduating exhibition.

University Social Club

Become a member and enjoy a variety of social events. A chance to meet others across the campus. Contact Jim McKee by E-Mail or ext 3376.

Union Activities

8 November: ABC concert, Don Spencer in the Union Hall. \$6 a ticket (or \$5 for groups of 20).

24 November: Henry Rollins and Babes in Toyland, all-ages concert. \$25 Wollongong Uni students. \$30 guests.

Stop Press

BIOSENSORS

The first Asia Pacific Symposium on biosensors will be held at the University from 4-6 December. This conference will bring together researchers and industrialists in the Asia Pacific region with an interest in the development of biosensors.

Topics to be covered include Advances in Immobilisation Techniques, Novel sign generation methods, Advances in Biosensor Instrumentation, Applications for biosensing technologies (biomedical, environmental, food industry etc.).

Speakers are from Australia (including CSIRO, UNSW, UWS. Monash), Hong Kong, USA (including US Army) and Britain.

For information E-mail v.wallace@uow.edu.au or Ph/fax (042) 261736

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