

CAMPUS NEWS

OPEN DAY SUNDAY 29 AUGUST



1992 Open Day. The next century's students learn that university can be fun

The University's Open Day will be held at the end of this month and, as in the past, visitors are expected from all parts of NSW with some from other states.

Planning is well underway and most departments have come up with interesting ideas to inform, entertain and amaze our guests:

- Attend a computer aided robotic barbecue and have food, drink and music served to you by the University's friendliest robots. 12-2.30pm BLD 39

- The Physics Department will be giving lecture demonstrations on "The Nature of Sound" - Listen to and see the sounds of Pavarotti and Beach

Everything is open and everyone is welcome

Boys. See the differences in sound waves produced by a violin and flute. Understand how musical instruments produce the sounds we love - 10.30-11am and 1.30-2pm. You can also see "Tame Lightning" - Straight from the Canberra Science Festival. Follow the development of modern

atom smashers. Understand how radio communications developed. Experience tame lightning - 11.30am-noon and 3.30-4pm. 1st Year Physics Labs, Room 204. BLD 41

- The Australian University Games team will be playing the University of

Continued page three

PROGRAM FOR PROSPECTIVE STUDENTS - Page 2

INFORMATION SESSIONS

The program below will help you make decisions about courses, majors and accommodation. The information session begins at 10.30 am in the Hope Theatre in Building 40 with a General Session on admissions, accommodation, student services and campus life. This will be followed by information sessions which will explain the degrees and courses offered by each faculty and cover areas such as prerequisites, course structures and career opportunities.

10.30 am to 11.30 am	GENERAL SESSION Admissions, Accommodation, Costs, Student Services and Campus Life Hope Theatre BLD 40 Room 153
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WHICH COURSE IS RIGHT FOR ME?

11.30 am to 12.30 pm and 1.30 pm to 2.30pm	BACHELOR OF CREATIVE ARTS BLD 24, Music Auditorium, Room G01
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	BLD 40 Hope Theatre Room 153	BLD 20 Communications Centre Theatre 1	BLD 20 Communications Centre Theatre 2
11.45 am to 12.45 pm	ARTS Bachelor of Arts <i>Communication Studies, Economics, Education, English, Geography, Health Science, History, Industrial Relations, Languages, Legal Studies, Mathematics, Musicology, Philosophy, Politics, Psychology, Resource & Environmental Studies, Science & Technology Studies, Studies in the Visual Arts, Sociology</i>	ENGINEERING Bachelor of Engineering <i>Civil Environmental Materials Mechanical Mining</i> (Computer, Electrical & Telecommunications Engineering - see INFORMATICS)	LAW Bachelor of Laws <i>with Arts Commerce Computer Science Creative Arts Mathematics Science or Information Technology & Communication</i>
1.00 pm to 2.00 pm	COMMERCE Bachelor of Commerce <i>Accountancy Business Systems (Business Applications of Computers) Economics Industrial Relations Legal Studies Management Marketing</i> Diploma in Computer Applications	EDUCATION Bachelor of Teaching <i>Early Childhood, Primary</i> Bachelor of Education <i>Primary, Physical & Health Education</i> Graduate Diploma of Education	SCIENCE Bachelor of Science <i>Biology, Chemistry, Geography, Geology, Physics</i> Bachelor Degrees in: <i>Environmental Science Biotechnology Medical Physics Medicinal Chemistry</i>
2.15 pm to 3.15 pm	HEALTH & BEHAVIOURAL SCIENCES Bachelor of Arts <i>Health Science Psychology</i> Bachelor of Science <i>Anatomy Biochemistry Health Science Human Movement Nutrition Psychology Physiology</i> Bachelor of Nursing	INFORMATICS Bachelor of Engineering <i>Computer, Electrical, Telecommunications</i> Bachelor of Computer Science Bachelor of Science - Bachelor of Engineering (Electrical) Bachelor of Mathematics Bachelor of Mathematics & Finance Bachelor of Mathematics - Bachelor of Computer Science Bachelor of Mathematics - Bachelor of Engineering (Electrical) Bachelor of Mathematics - Bachelor of Law Bachelor of Information Tech. & Commun.	

Resources

University of Wollongong Environment Consortium Newsletter No.2, July 1993

Establishment of Environment institute

Work on the development of the University of Wollongong Environment Institute is progressing well. The objectives of the Institute have been agreed as listed below:

The Environment Institute will be responsible for fostering the development of environmental research, consultancy and teaching at the university.

In particular, it will:

- provide a single organisational "shop front" for presenting coherently the multidisciplinary environmental research and teaching capabilities of the University;
- contribute to the planning and advise on the future development of environmental education at the University;
- review relevant proposed teaching programs for consistency, overlap and contribution to the university's overall mission in the area of environmental studies;
- attract additional graduate students in environmental studies to the university, and assist in attracting and providing additional support for them;
- facilitate and develop environmental research in the University;

- seek out and attract external funds from the public and private sectors for environmental teaching and research at the University;

- develop the university's capability to carry out effective multidisciplinary environmental consultancy and other commissioned research.

On the membership front it appears that the initial involvement will be at least 60, with participants from the Faculties of Arts, Education, Engineering, Informatics, Health and Behavioural Sciences, Law and Science.

An Interim Management Board with 10 members is being established to oversee the initial activities of the Institute.

Board members represent the collaborating research programs and groups, together with one member representing the environmental researchers not currently in a group or program, and the Managing Director of ITC; the Professor of Environmental Science will act as the interim convenor of the Board.

Present indications are that the staff commitment to the Institute through ongoing and forthcoming research

and consultancy activities will be substantial.

The next step is the production of a strategic plan for the operations of the Institute and the initiation of activities for the remainder of 1993. Meetings to finalise these will be held in the next few weeks.

The Environment Institute Seminar Series will begin in Session 2 and will be held fortnightly on Thursdays in the ITC Conference Room.

The first Seminar, hosted jointly with the Illawarra Public Health Unit, is to be held on 22 July, 12.30-1.30 pm, in Conference Room 1, ITC Building.

The guest speaker will be Dr Paola F. Ricci and his Seminar topic is to be "Longitudinal study of air pollution and mortality in California"

Anyone who is interested in the activities of the Institute can obtain more information on ext. 4134.

Deadline for next edition

Please send information to Environmental Science before Wednesday 15 September.

The nature of sustainable development

Lecturer in the Department of Science and Technology Studies, Dr Sharon Beder, has recently completed a university text on sustainable development which is to be published by *Scribe* later this year.

The book explains the concepts and principles of sustainable development in a simple but balanced way.

It also canvasses the range of views, attitudes and solutions put forward by various sectors of Australian society, including government, business groups and environmentalists.

It covers the debates and discussion over whether

there are limits to growth, whether the environment should be priced, whether economic instruments should replace legislation, whether poverty causes environmental degradation and whether technology can solve environmental problems without the need for social and political change.

It leaves room for students to form their own opinion on these topics and illustrates the issues using in depth case studies on topics such as mining in Australia, ocean disposal of industrial waste in NSW and the valuation of species in the south-east forests.

Water Engineering and Geomechanics Research Program

Coordinator Associate Professor R.N. Chowdhury

Several academic activities and research projects related to the environment have been developed within the Water Engineering and Geomechanics Research Program (WEGRP).

According to the program coordinator Associate Professor Robin Chowdhury, there has been a marked increase in research-related activities over the last four years and motivation among the members of the program is high.

Research areas include studies concerning geotechnical risk and reliability, water quality, flooding, waste management and rehabilitation of mined areas.

Research funding has been attracted from competitive sources such as the Australian Research Council as well as from industry and, over a four year period, the total research support from external sources has exceeded \$1 million.

Research output has been impressive and includes a book "Geomechanics and Water Engineering in Environmental Management" published by Balkema in Rotterdam in 1992.

In addition, there have been three edited conference proceedings in 1990, 1991 and 1993 as well as four book chapters.

From 1990 members have published 125 refereed papers, 38 in learned journals and 87 in the proceedings of national and international conferences.

More than a dozen short-term projects on environmental problems have been successfully completed for industry and 16 short courses on individual environment-related topics have been presented over the same period.

A significant achievement of the research program was the organisation of an international conference on "Environmental Management, Geo-Water and Engineering As-

pects" held between 7-11 February, 1993. Details of this conference are provided separately.

The Water Engineering and Geomechanics Research Program was established with the aim of pursuing traditional as well as interdisciplinary approaches to research concerning environmental management.

Rational approaches to hazard evaluation and environmental protection are important both nationally and internationally as is evident from the fact that the current decade (1990-2000) has been endorsed by the United Nations General Assembly as the International Decade for Natural Disaster Reduction.

Significant themes which distinguish the WEGRP from research groups within and outside Australia include:

(a) Addressing issues concerning safety and quality in water resource engineering, geomechanics and mining

(b) Development of new methods for the assessment of risk and reliability with particular reference to water quality, flooding, landslip, excavations and mining

(c) Development of solution for the utilisation of industrial by-products, the so-called 'waste' materials.

Outside recognition of the members of the Research Program is highlighted by the following invitations, memberships and activities:

Associate Professor Chowdhury was invited to be Co-Chair of Technical Session V at the World Congress on Natural Hazard Reduction held in New Delhi in January 1992 as part of the International Decade for Natural Hazard Reduction.

He also presented a paper on Research Needs for Management of Landslides. He was invited to Chair the main session G2 and discussion sessions G1-G2 at the 6th Interna-

tional Symposium on Landslides in Christchurch New Zealand, February 1992.

He also contributed a paper on Progressive Failure Conditions in Slope Stability Analysis.

Dr Chowdhury was invited under the UN Development Program, TOKTEN, to present a series of lectures and short courses on Probabilistic Methods in Geotechnical Engineering, in India, December 1991-January 1992, and also presented a lecture on Research Management Strategies to the Central Building Research Institute, Roorkee India, December 1991.

In May 1991 he was included in the International Roster of Experts by the UN commission on Human Settlements (Habitat).

Professor Chowdhury is on the Editorial Board of the International Journal of Surface Mining and Reclamation.

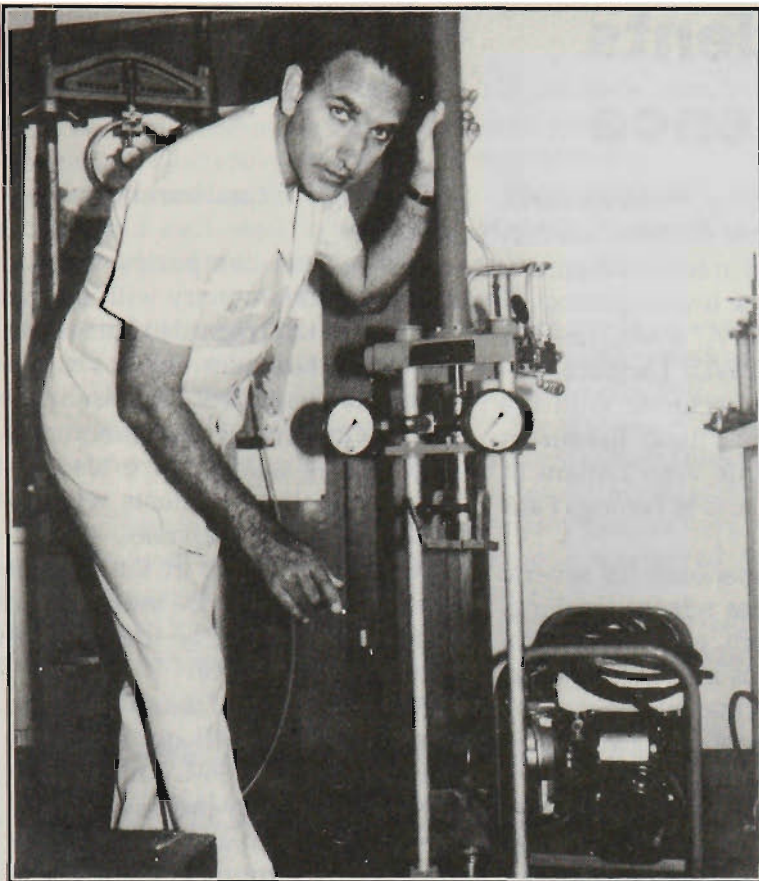
Professor R.N. Singh has been invited to join the Editorial Board of a new journal, the Journal of Mining Research.

He is also the Editor of the journal entitled Mine Water and the Environment. He coordinated the AIDAB-supported training programs for senior engineers and mining executives from India from May to July 1992.

He was a Session Chairman at the International Mine Water Congress in September 1991.

Dr M. Sivakumar lectured on 'Water Quality Research', 'Soil Water Management and Sedimentation Dynamics' at the Indian Institute of Science, Bangalore, Indian Institute of Technology, Madras, University of Malaysia, Kuala Lumpur and Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam.

He was a session chair at the Conference on Hydraulics in Civil Engineering, Sydney, 1991. He was



*Program
coordinator
Associate
Professor
Robin
Chowdhury*

a participant and reporter at the PNG-Australia Colloquium on Mining and the Environment held at Lae, PNG in 1991.

He was also a reporter for two sessions at the International Conference on Appropriate Waste Management Technology, IAWPRC, Perth 1991.

While in Japan he was invited to present a seminar on the "Biofly Concept" at The University of Tokyo, June 1992.

Dr M.J. Boyd was a Keynote Session Chair at the International Conference on Urban Stormwater Management (Feb. 1992) sponsored by the Institution of Engineers (Australia), the International Association of Hydraulic Research and International Association of Water Pollution Research & Control. He presented an invited paper, Effect of Detention Storage in Reducing Total Catchment Flooding to an Institution of Engineers (Australia) Seminar on On-site Detention Systems in October 1992. He gave two invited lectures at the University of NSW in May 1992, on 'Flooding in Urban Catchments' and 'Flood Reduction using On-site Detention Storage'. He also presented a lecture

at the University of Technology Sydney on 'Flood Estimation'.

Dr E.Y. Baafi was Session Chair at the 23rd International Conference on Applications of Computers and Operations Research in Mineral Industry, Tucson USA, April 1992 and delivered an invited lecture on Assessment of Australian Coal Resources to 25 distinguished Chinese Mining Officials, August 1992.

Dr B. Indraratna was a panellist for the Rock Mechanics Session at the sixth ANZ Conference on Geomechanics, Christchurch NZ, February 1992.

Associate Professor D.G. Montgomery was a Senior Session Chair of the third East Asia-Pacific Conference Structural Engineering and Construction, Shanghai, China, April, 1991 and was also invited to be a Session Chair at the Canmet/ACI International Conf. on Advances in Concrete Technology, Athens, Greece, May, 1992.

Dr I. Porter was a Session Chair at the second National Conference on Computers in the Mining Industry, July, 1991 at Wollongong and Session Secretary, International Conference on Reliability in Mining, Wollongong, Sept. 1991.

Land freight transport energy evaluation

The report of a Land Freight Transport Energy Project completed earlier this year by Dr Philip Laird and Ms Gabriella Adorne-Braccisi of the Department of Mathematics was recently released by the Energy Research and Development Corporation in Canberra.

Along with noting Australian examples of "world best practice" in energy use in rail freight and road freight (as per *Campus News*, June 3), the report deals extensively with Sydney-Melbourne land freight and Port Kembla coal exports.

The conclusions of the report follow.

While rail freight fuel efficiency is generally better than road freight fuel efficiency, road freight has shown some impressive gains in energy efficiency in recent years.

On the other hand, in order for rail to increase its energy efficiency and modal share on eastern Australian interstate transport corridors, there will need to be selected upgrading of ruling grades, curves and clearances.

Such upgrading, coupled with rail winning 50 per cent on shorter routes, 65 per cent on medium distance routes and 80 per cent on longer distance routes, would give diesel fuel savings in the order of 125 million litres a year by the end of the decade.

There is also scope to improve the efficiency of the transportation of coal to Port Kembla by completion of an electrified Maldon-Port Kembla railway.

This project along with upgrading of the Sydney-Melbourne rail track to Fast Freight Train stand

Continued page four

MEnvSc (Hons) Students - Environmental Science

The Honours Master of Environmental Science degree was introduced in 1992.

This degree along with the Bachelor of Environmental Science is coordinated by the Environmental Science Unit within the Faculty of Science.

The degree combines research and course work to provide continuing education for Bachelor of Environmental Science graduates, and environmental science education for science and engineering graduates or professional employees in the environmental science area.

The course structure facilitates the tailoring of programs to suit the individual requirements of candidates with differing undergraduate qualifications and employment experience.

The degree is multi-disciplinary as are environmental issues by nature. Students develop an awareness of the scientific, social, political and legal implications of environmental issues through the various course components.

Seven students (all part-time) enrolled in 1992. In 1993 an additional six students enrolled, with more expected in second session.

The students include nine Australians and four international students. The international students come from Fiji, Ghana, Argentina and Taiwan.

Backgrounds of the students include engineering (civil, structural, chemical), science (botany, geology,

biology, geography, environmental, veterinary). Some students are currently employed in environmentally related positions: investigations officer with the EPA; environmental engineer with PWD; Technical Officer, Mines Inspectorate with the Department of Mineral Resources (Fiji); and Wildlife Veterinarians in private practise and at Taronga Park Zoo.

Past work experience for several students includes science teaching, scientific research, engineering and various positions in environmental monitoring and management.

In addition to required subjects in environmental management, environmental planning and environmental policy, most students undertake directed studies in two of the following areas during the degree: ecology, pollution chemistry, land resources and earth sciences.

Studies completed in this area to date include:

- biological monitoring of urban streams and an aquatic flora and fauna survey;
- investigation into the use of radiotelemetry for the management of feral goats in national parks;
- sediment pollution studies in relation to Lake Illawarra;
- heavy metal contamination and sedimentation rates in lagoons and estuaries;
- slag, sewage sludge and coal wash soil mixes and their capacity to support vegetation;
- a review of the Greenhouse ef-

fect and agricultural burning in Australia;

- a review comparing anodic stripping voltammetry with atomic absorption with regard to trace metal analysis in seawater.

Environmental law, organisational management and environmental engineering subjects are also included for those students with no background in these areas.

A research thesis in the area of environmental science must also be completed as part of the requirements for the degree.

As the majority of the students are part-time, most will not begin the thesis work until 1994. Areas of proposed thesis study include:

- investigation and evaluation of the likely environmental impacts of open cast mining in Fiji;
- bioremediation of oil, fuel, or grease contamination in an urban railway system;
- solid waste disposal;
- heavy metal contaminant studies;
- soil classification and management.

Students enrolled in the course seem interested in applying past experience to their studies in environmental science for the purpose of becoming more marketable, especially in the area of environmental management and protection.

Future issues of *Resources* will provide information about other environmentally related postgraduate studies in various departments at the University of Wollongong.

Land freight transport energy evaluation

From page three

ards were shown to have cost benefit ratios greater than one, with social cost savings excluded.

Rail also has the capacity to allow for significant savings in liquid fuel use by extension of high voltage electrification (25,000 volts AC) in Australia.

The electrification of Hunter Valley coal lines and an electrified

Maldon-Port Kembla railway has the potential to reduce the use of diesel fuel by about 55 million litres a year. Electrification of the existing Sydney-Melbourne rail track after upgrading would save approximately a further 55 million litres of diesel fuel a year.

If proposals are implemented to divert East-West freight (between Brisbane/Sydney and Adelaide/Perth) through Melbourne instead of

Broken Hill, then Sydney-Melbourne track upgrading and electrification would give further savings in diesel fuel.

The ongoing implementation of Ecologically Sustainable Development objectives as they relate to land freight transport will be essential to gain the necessary investment. Improved road pricing measures will also be necessary.

Thefts result in staff dismissals

From time to time the University experiences an increase in theft of both personal and University property.

Recent incidents suggest that some students and staff need to be more vigilant in regard to the protection of property.

While the University's security staff provide a visible and active deterrent to theft, it is not possible for the University to provide total protection, considering the open access of the campus.

The security staff's service relies on members of staff and students taking appropriate measures to ensure that personal and University property are adequately secured at all times.

There have been two recent incidents involving acts of theft by University staff.

These incidents related to theft of property from another member of the campus community and the University.

Both incidents were referred to the police and resulted in criminal charges being laid.

The University, having confirmed the facts in both cases, also took strong action, terminating the staff members' employment on the grounds that the actions warranted summary dismissal.

The University will always invoke strong action in similar circumstances.

Friends News

A newly constituted Community Involvement Team met on Friday 23 July.

Its members are Warilla medical practitioner and long-time Friends member, Dr Sultan Aly, Coordinator of the Cancer Care Centre, Ms Jennie Dransfield, Ms Mary Franks (WINTV), Mr Jeff Jones (solicitor of Atkins and Jones), senior branch manager of the Commonwealth Bank, Mr Geoff Kyngdom, Associate of Kell Heard & McEwan and post-graduate student of Law at Wollongong, Ms Franca Parolin, University Librarian, Mr John Shipp, Ms Vivien Twyford (Twyford Communication), and member of the University Council and of the Friends Board of Management Dr Winifred Ward.

In receiving their tasks "to recruit, induct and involve members" of the Friends it was agreed that there are many people who are interested in and potential contributors to discussions at some of the seminars planned by academic units on campus.

The potential benefits of the units' work could be increased and community perceptions of the University enhanced if these people could attend.

Many units already seek such external participation, but it often does not include many people who could benefit.

It is seen as a role of the Friends to try to facilitate such interaction.

Members of the University who are following seminars and see the potential for such interaction are requested to talk to Professor Christine Ewan, who is working with the Friends to develop this concept.

John Bell
Acting Executive Officer

Minerals matter at the Science Centre

For the coming weeks the Wollongong Science Centre is home to the new exhibit called 'Minerals Matter'.

Shaped like a giant crystal, Minerals Matter is a walk-in exhibit which focuses on the Australian Mining Industry.

The exhibit presents the details of the mining and processing of Australia's six major mineral deposits including magnesite, lead, iron ore and diamond.

Details of the export value of the minerals, their chemical composition and their commercial applications are covered.

Minerals Matter also examines related topics such as the environmental impact of a contemporary mine and modern techniques for the detection and measurement of mineral deposits.

In keeping with the Science Centre's aim of providing 'hands-on' science exhibits, Minerals Matter combines information with interactive demonstrations. The exhibit features computer programmes operated by touch-screens which allows the visitors to quiz themselves on their knowledge of mining and conservation or be guided by 'Mag Man' through the process of mining and manufacturing magnesite.

Video displays explore the latest developments in mine planning through the use of virtual mining. There are also specimens of certain minerals such as magnesite and copper to touch.

The exhibition is on until 19 August. The Science Centre is located at Campus East, Fairy Meadow and is open to school groups during the week and the public on weekends between 1-5pm. Admission \$3 child \$5 adult. For further information call 836665.

Open day - everyone welcome

From page one

NSW in a wide variety of sports throughout the day - water polo, rugby, hockey and netball. Games begin at 10am and finish at 3pm (Bld 13).

There is much to see, but try not to miss *The Magic Chemistry Show* (11am, 1pm and 3pm Bld 14), *Creative Arts Performances* (Bld 24 & 25), *The International Food Bazaar and Cultural Display*

(Ampitheatre outside Bld 36) and *The Trial of the Fairly Sensible Pig* (Bld 20 Theatre 5, 12.30pm).

For information about courses and accommodation attend the "Information Sessions" (details on page 2) or the "Enquiry Centres" in the Union Hall which has been extensively refurbished since the 1992 Open Day to hold 1000 people.

Clowns not wanted on Voice-mail

Many staff on Campus are taking advantage of the benefits of using Voice-mail to assist with their communications.

One of the features of Voice-mail is that you can record your own greetings - one for internal callers and one for external callers.

This is extremely useful in letting people know when you will be available, and in particular, when you are returning from leave.

When recording your greeting you may be tempted to say something highly individual, but first consider the image it portrays of the University and use something appropriate.

Until 20 August: **Indigenous Peoples Week Art Exhibition** by Trish Woods, Jeffery Timbery, Kevin Butler, Robert Storm and Coomaditchie Artists Co-op. Bistro Lounge, Union Building 2- 4pm Monday -Friday

7 August: **Wollongong Symphony Orchestra 'Nights at the Opera'** Tickets: Illawarra Performing Arts Centre.

9 August: **Biological Sciences-sponsored evening seminar.** The Progen Seminar on experimental leukemia given by Dr Geoff Symonds (R.W Johnson Pharmaceutical Research Inst., Sydney) 'Bone Marrow repopulation to study oncogene-induced leukaemia'. 8pm Bld 35 R105

29 August: **University Open Day.** Everything is open and everyone is welcome

10 September: **Postgraduate Research Student Open Day.** Union Function Centre

28-30 September: **1993 ANZAAS Congress.** Curtin University, Perth.

1993 Accountancy Doctoral Consortium

The 1993 Doctoral Consortium will be held on 6 August at the University.

This is an all-day research seminar to which all interested are invited (whether undertaking a doctorate or not). The aim of the day is to focus attention on research strategies for accounting and finance.

The morning is set aside for presentations by international scholars and the afternoon for discussion/debate and panel question time.

This is the fifth annual consortium and all others have been very successful. This year three international scholars of high repute will be speaking:

- Alistair Preston from the University of New Mexico, US, who has published widely and is well known as an expert in the use of case studies in accounting research. He has also researched extensively in many other areas such as the health industry.

- Stewart Clegg, an internationally acknowledged expert in organisational studies. His books include the well known Frameworks of Power (1989), Power, Rule and Domination (1975) and a text on introductory organisational theory.

- Eammon Walsh, like most Irishmen has a wealth of humorous stories, but in his many more serious moments has researched extensively in finance and accounting

Campus News is published weekly on Wednesdays. Send material, preferably by Microsoft Mail or on disk, to Gillian Curtis (042) 21 3110 by noon on Monday of the week before that of publication

What's On

Illawarra Committee for Overseas Students events for this year are: 7 August, Snowy Mountains; 18 September, Blue Mountains; 26 and 27 September, Canberra; 16 October, Sydney Aquarium and harbour cruise; 4 December, Australia's Wonderland. Tickets and details are available from ICOS office, 3rd Floor, Union Retail Centre on Tuesday, Wednesday and Friday from 9.30am to 2pm or phone 21 3158.

10 October: **Annual University Service** at 7pm at St John's Anglican Church, Eastern St, Gwynneville

9-10 November: **International Conference on Islamic Banking**, organised by the University's International Business Research Group and sponsored by Al Baraka Investment And Development Co., Jeddah, Saudi Arabia. Venue: The University Centre, Sydney. Enquiries: Dr Nelson Perera, phone 21 4028

Considering further study or just some recreational reading? Visit the **Campus Alumni bookshop and gallery book sale** at Campus East, Fairy Meadow. The stock of used books covers: Science & Engineering, Social Sciences, Arts & Music, Education, Fiction & Non-Fiction, Young Readers' Stories & Classics. Open every fourth Saturday and Sunday of the month from 1-5pm, the bookshop is located at Cowper Street, Fairy Meadow (opposite the Science Centre). Your donations of any material are invited. These may be left any weekend afternoon at the Science Centre (Please mark 'Booksale'), or The Library or Students Enquiry Desk during the week.

Animal Experimentation Ethics Committee meeting dates, with agenda deadlines in brackets, are: 9 August (30 July); 22 November (12 November).

Human Experimentation Ethics Committee meeting dates with agenda deadlines in brackets are: 24 August (10 August); 5 October (21 September); 16 November (2 November); 21 December (7 December).

Undergraduate Studies Committee meeting dates, with agenda deadlines in brackets, are: on the following dates: 31 August (17 August); 9 November (26 October). Submission to Trevor James, ext. 4457, by 5pm of deadline date.

Stop Press

Book Launch

'Growing up Italian in Illawarra'

Friday 6 August

Illawarra Technology Centre

Guest speaker Franca Arena MP

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