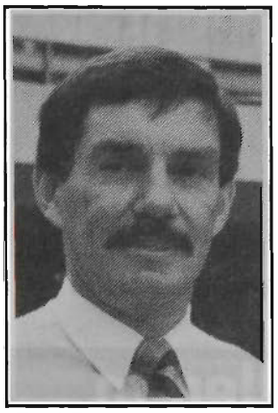
THE UNIVERSITY OF WOLLONGONG

CAMPUS NEWS

November 27, 1990

Marketing Major to be offered at the University of Wollongong



Paul Patterson

A MARKETING major offering study in disciplines leading to a career in marketing management, retailing, market research or advertising is to be offered next year at the University of Wollongong.

The new program, under the auspices of the Department of Management, will prepare Bachelor of Commerce students for a career in marketing management.

Some of the courses in the major will include marketing planning and strategy, market research, international marketing and advertising strategy.

In addition, accounting, statistical analysis, forecasting techniques, law, economics and finance will be offered to provide a well-rounded business graduate. The Course organisers are director Paul Patterson and Constance Hill.

Further information about the new major can be obtained from the Department of Management, tel. (042) 27 0707, or the Faculty Office, tel. (042) 27 3380.

Constance Hill

Environment process poised for second stage

THIS MONTH a demonstration of a revolutionary recycling process was made to senior executives from the Water Board and the Electricity Commission of NSW at the Electricity Technology Centre in Sydney for the purpose of inviting a commercial enterprise to finance, construct and operate a pilot plant to validate the technology and economics of an integrated operation.

The process, called Environment, is a financially viable recycling process using sewage sludge and presently unused steelworks dust to produce marketable foundry iron and pigment zinc oxide.

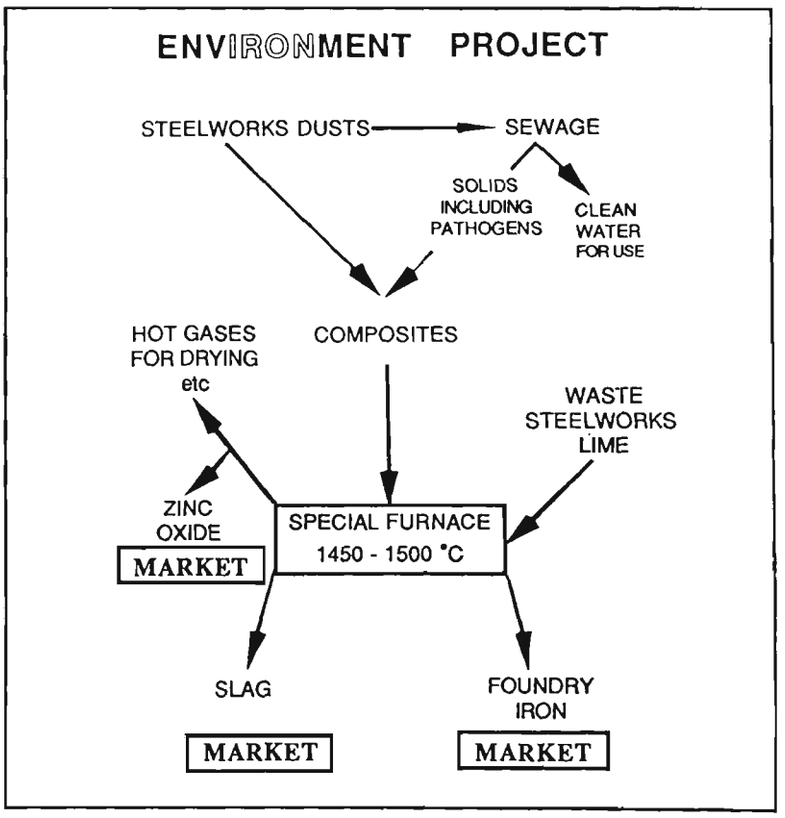
This novel, and environmentally beneficial, process has been developed by Professor Howard Worner and his team at the Illawarra Technology Corporation.

The two processes involved in the technology were demonstrated.

The steelworks dust is used to settle out the sludge, heavy metals, pathogens and pcbs from raw sewerage.

It works just as the CSIRO has shown in their Sirofloc process using magnetite, except the extremely fine steelworks dusts settle the sludge very quickly,

Continued page four



How the new process works

Alan Towers, David Scott, Headmaster of Parameadows, Mr John Hobson, Associate Professor Bob Wheway, Peter Cable, and Sandro Lucchini with a scale model of the pool access device.

Pool chair installed to help the disabled

A DEVICE designed by students in the Department of Mechanical Engineering for the Department's 1989 Creative Design Competition has been built in the training shop at BHP's Slab and Plate Products Division and installed at Parameadows School for Specific Purposes.

The device, Pool Access for the Disabled, overcomes the problem of placing disabled people in and out of a swimming pool.

Peter Cable, Sandro Lucchini, Alan Towers and David Scott won the Department's 1989 annual design competition for the device.

Meanwhile 1990 competition down to four projects

FIFTEEN design groups of First Year Mechanical Engineering and Chemical Engineering students have been working on various design problems for the whole of the Spring Session.

Preliminary judging has been carried out and four groups have qualified as finalists in the Department's Annual Creative Design Competition.

They will present their designs on Friday November 30 at a public meeting in the Pentagon from 7.30 pm.

The groups are: M Cant, D Chadburn, G Luyten and B Maher with their design, the Post-Cerebro Vascular Accident Arm Support; C Ballantine-Jones, A Brown, G Eggington and I Woodall —The Jar-Jemmy: An Automated Jar Opener; A Glutz, G Wilson, D Connell and D Barnett—A Box Trailer Tipping Device; M Cunnington, A Cartwright, R Ruiz Diaz and S Langham — A Hotplate Safety Device.

At the final judging, two other outstanding groups will demonstrate their models.

T Moss, P Neville, P Davey and N Phillips will demonstrate their model of an Electrical Reciprocating Torque Motor and J Holt, D Miller and J Spackman will demonstrate their model of the Ratchet Wheelchair.

The four judges who will assess the finalists are:

- Mr Peter Cable, Engineering Cadet, BHP Steel International — Sheet & Coil Products Division
- Associate Professor Noeline Kyle, Deputy Head of Learning Studies and Co-ordinator of the Equity in Education Program, the University of Wollongong
- Mr Nick Laszlo, Manager of the Flexible Manufacturing System, the Illawarra Technology Corporation
- Professor Tibor Rozgonyi, Dean of Engineering, University of Wollongong.

The final judging is a public meeting and is open to any person who would like to attend.

The competition is organised by the Department of Mechanical Engineering and BHP Steel International – Sheet and Coil Products Division.

Campus News is published weekly on Tuesday during the academic year — with breaks at Easter and Queen's Birthday 'long weekends'

Editor and Media Contact: Gillian Curtis
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Editorial Production: Kevin McDonald

Deadline for copy is noon on Monday of the week before that of publication

Material for *Campus New* can now be sent by Microsoft Mail to Editor Gillian Curtis. The new service is not available to all staff members as yet.
Those who have the facility are urged to use it. Those who haven't been connected, material for publication can be left, preferrably, on a Macintosh-formatted floppy disk, or on hard copy in the *Campus News* tray in Planning and Marketing Branch, Administration Building.
All material may be reproduced without permission.

Telecom, Uni link in fibre-optics blasting

DR DENIS MONTGOMERY is leading a team from the Department of Civil and Mining Engineering, investigating the effects of close-range blasting on fibre-optic cables.

This investigation has been carried out in conjunction with staff of the Customer Access Network Branch of Telecom, under an R and D contract.

The investigation is being carried out in two stages. The first is field work associated with blasting, and will be followed by design, manufacture and commissioning of a laboratory-based blast simulator.

The field work is being carried out at the Pambula metal quarry of Boral Ltd.

Within and around this quarry, Telecom have had their cable-laying dozers install four different 50 metre lengths of looped fibre-optic cable at distances of three to 150m from the blast.

Reasons for this initial series of tests include Telecom's need to determine what physical damage or signal loss results from adjacent ground vibration due to blasting and other sources.

To monitor the cables, Telecom brought personnel and equipment from both NSW and Victoria to Pambula.

The equipment used was most specialised and included an ultra high speed signal unit capable of transmitting 2.4 gigabits/second of digital data over one line — the only such unit in Australia.

This signal rate is approximately equivalent to transmitting 30,000 simultaneous telephone conversations.

University staff designed the experimental programme and project-managed the various field trials and blasting in the quarry.

This included monitoring the levels of the blast at the various distances and the buried fibre-optic cables.

This was achieved using specialised portable and ruggedised computer-controlled data logging equipment — especially designed to capture, display and store wave forms received from several buried geophones, each capable of measuring velocities received in three mutually perpendicular directions.

Data from the field testing program and laboratory simulation will be analysed to provide design information which will be used by Telecom personnel for future routing of cables.

This particular project is being carried out by Dr Montgomery with assistance from Associate Professor Bill Upfold, and is one of a number of industry-based R and D investigations currently contracted through Dr Montgomery.

Steel education kit for Mining Department

THE CIVIL and Mining Engineering Department at the University of Wollongong will be presented with a comprehensive steel design teaching pack by the Australian Institute of Steel Construction.

Civil Engineering lecturers from throughout Australia are to gather in Whyalla for a special two-day Steel Education workshop on December 3 and 4.

Wollongong University will be represented by Professor Yew-Chaye Loo.

The education workshop was organised by the Australian Institute of Steel Construction and BHP Long Products Division.

Professor Loo is to visit the BHP Steelworks at Whyalla and Transfield's fabrication workshop, and discuss the benefits of AISC Education Pack for teaching structural steel design.

Last year this group met at Port Kembla.

AISC already provides lectures to students, and is in the process of presenting models to universities for teaching the simplicity of structural steel connections.

Student support for AISC education initiatives is growing in leaps and bounds with the Institute now having more than 1000 student members.

As Australia's premier steel industry representative body, AISC is playing a leading role in the education of future building and construction industry professionals.

AISC Education Officer, Richard Johns, thanked Professor Loo for being part of this education workshop and for his valuable contribution to this important event.

News in brief

Cleaning arrangements

ALL essential cleaning services will be maintained during non-session time.

Senior Administration Officer of Office Services, Tony Clapham, said that services to non-essential areas — offices, rooms and theatre accommodation not being used — will receive a reduced level of cleaning.

'Cleaning staff are required to take their recreation leave during non-session time,' he said. 'This necessitates up to 50 per cent of the staff being away for at least part of this period.'

Mr Clapham said that all enquiries should be directed to Cleaning Supervisor, Ross Hounslow, ext. 3081.

Cashier's hours over Christmas

UNIVERSITY personnel are advised that the Cashier's office will be open from 9.30am to 4.30pm on all normal working days with the exception on Friday December 21 and Monday December 24.

On those two days the office will close at noon.

Antarctic expeditions

RECRUITING is beginning for the 1992 Australian Antarctic Research Expeditions.

The Careers and Appointments office has an information booklet and forms to send for full application procedures.

The information booklet provides job descriptions for biologists, glaciologists, physicists, electronics engineers and the station leader.

Courses and scholarships

THE Australian Vice-Chancellors' Committee Graduate Careers Council of Australia and the Graduate Connection have produced a new format directory for those interested in postgraduate study.

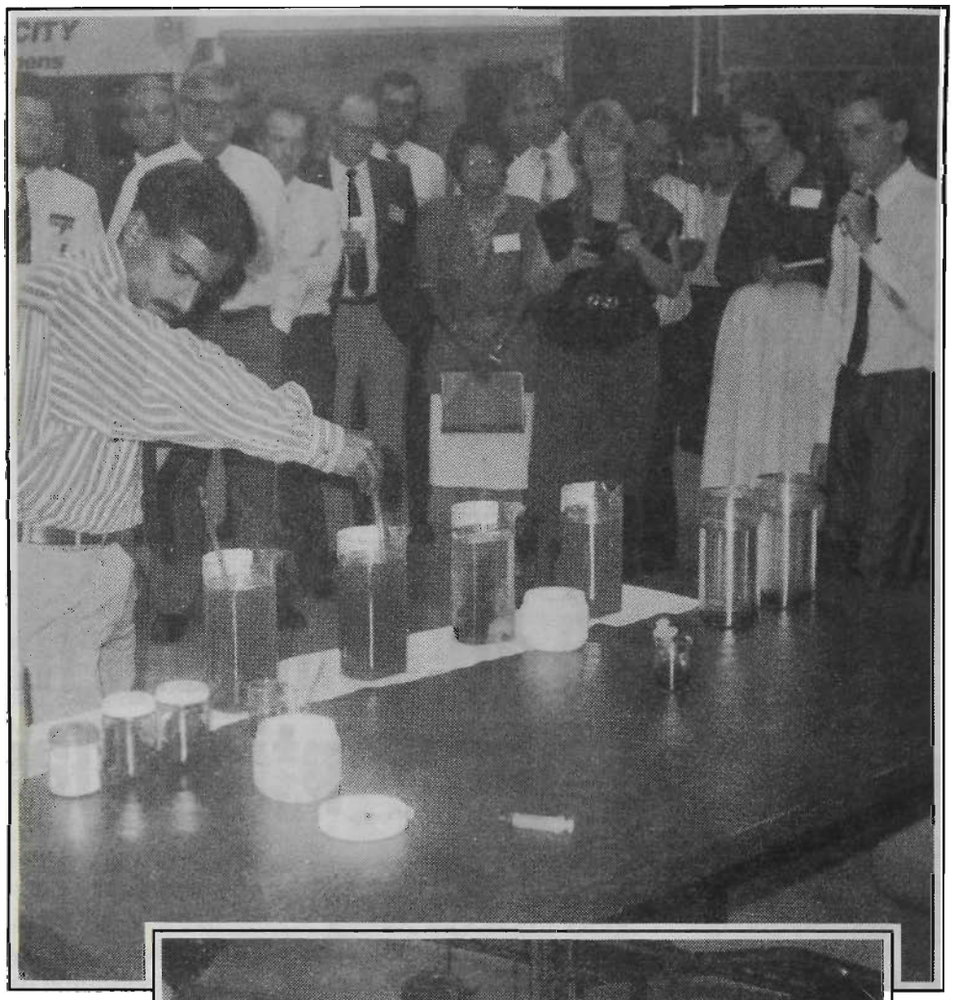
The book is being distributed through the Careers and Appointment Office.

Farewell for Tony Ng

THE DEPARTMENT of Electrical and Computer Engineering is holding a farewell morning tea for Associate Professor Tony Ng.

The farewell will be held in the Department's seminar room, (35.G22) on Friday December 14 from 10.15am.

Contact Tracey, ext. 3065, if you can attend.



ABOVE: The sludge settling process is demonstrated RIGHT: The smelting process.

New process irons out sewage sludge

From page one

greatly reduce the odour and the dusts do not have to be separated for recycling because they are an essential component of the second process.

Following drying, the heavy sludge is smelted in a special furnace producing molten foundry type iron, zinc oxide, and slag; for all of which there are ready markets.

The sewage sludge settling technology has been tested in continuous pilot plants at Port Kembla and Malabar.

The development of the process so far has been supported by the Water Board, the Electricity Commission of NSW, and the University, with help also from BHP.

The next stage involves the development of a complete sewage sludge collection and utilisation system to the stage of process demonstration for commercialisation.

New courses on the way to approval for 1992

IN ACCORDANCE with the first stage of the procedures for gaining approval for the introduction of new courses at the University, the Undergraduate Studies Committee has received concept statements outlining the aims and main features of several proposals to introduce new undergraduate courses in 1992.

Submissions have been received for the following proposals:

- **Bachelor of Nursing (to replace the current Diploma in Nursing);**
- **Bachelor of Engineering (Manufacturing);**
- **Bachelor of Engineering (Software Engineering);**
- **Bachelor of Engineering (Environmental Engineering);**
- **Bachelor of Teaching (Early Childhood);**
- **Joint or Combined Courses in Engineering-Law;**
- **Combined Courses in Engineering-Management.**

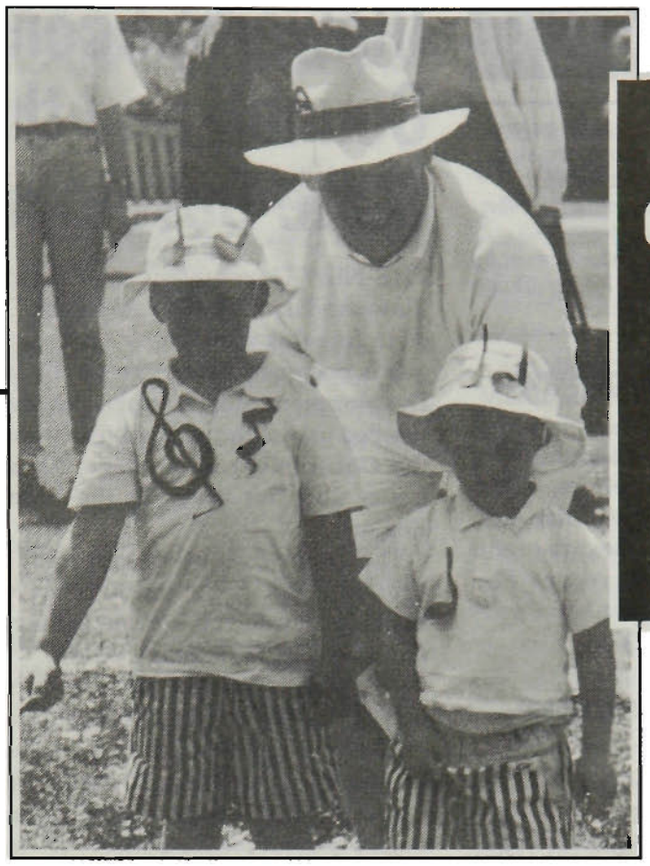
Members of the University community are invited to view any of these submissions and to forward any comments on to the committee.

Copies of the concept statements can be obtained by contacting Stephen Lowe, Student Services, ext. 3794.

Concept statements will be formally considered at the February 1991 committee meeting in light of comments received.

Any comments on the submissions should be forwarded to the Secretary by January 28.

4000 celebrate Open Day at the 'Con'



This family got into the swing of things at the Open Day

MORE THAN 4000 people attended a highly successful and well attended *Open Day* at the Conservatorium of Music on November 11.

The visitors took advantage of the glorious day and perfect surroundings of Gleniffer Brae to enjoy a picnic lunch and be entertained by students and staff of the Conservatorium.

The community was able to enjoy performances and rehearsals by the choirs, orchestras, ensembles as well as studio recitals and demonstration lessons in the Pre Music Literacy area.

Assessments of student potential were also conducted and extensive enrolments within the Pre Music Literacy and Transition program were received.

The newly formed *Friends of the Conservatorium* were very active in supporting the activities of the Conservatorium on the day and their second-hand Music Shop attracted much interest.

There was much favourable feedback and the community at large had a most enjoyable and highly entertaining day.

Next year's Open Day will be held on Sunday November 10.

Training courses to help with switch in phone technology

THE cutover for the new PABX will be on December 15 and 16.

This will directly affect every staff member who uses a telephone, as all telephones will be replaced by new ones with added features.

To assist in getting the most benefit from this new service, all staff will attend training sessions of approximately 50 minutes' duration.

The sessions are: **Administrative staff:**

- Users of Interquartz handsets (ex Envoy phones) in Blg 36, Room 303: Thursday December 13 at 9am, 10am, 11am, 1.30pm, 2.30pm and 3.30pm.
- Users of Digital handsets (ex Commander phones) in Blg 36 Room 303: Friday December 14 at 1pm and 2pm.

Remaining staff:

- Users of Interquartz handsets (ex Envoy phones) in Pentagon Room 5: December 7, 10 and 12 at 9am, 10am, 11am, 1.30pm, 2.30pm and 3.30pm.

PABX operators

- New PABX Room, ITS Ground Floor Blg 15, Friday December 14 at 9am, 10am, 11am, 3pm and 4pm.

No bookings are required. Further enquiries to Information Technology Services, ext 3850.

Property Officer, Geoff Bailey, said that the University's telephone prefix will change to 213 on December 15.

After this date all external callers who dial the existing prefix of 270 will be re-directed.

'However this service cannot be offered to users transmitting by fax,' Mr Bailey said.

'After December 15, if the 270 is used for faxes, a busy tone will be encountered.'

Research Funds

The sources of research funds given below are available to members of academic staff. Further information, including application forms, may be obtained from Lyndal Manton (ext. 3201). Intending applicants are reminded that all research applications must be forwarded through the Office of Postgraduate Studies.

German Academic Exchange Service Scholarships 1991/92

There are 14 one-year scholarships for students and young academics, three-month study visits for Australian academics and a number of research grants for PhD candidates and recent Phd graduates from Australia. The University closing date is November 30.

Tobacco Research & Development Council

Grants are available for research and development projects, training of people, dissemination of information, provision of advice and publication of reports. The following areas are of priority to TRDC; productivity, leaf quality improvement, market oriented selling arrangements, and information dissemination to tobacco growers re self assessment of production, technological & economic viability. The University closing date is February 1.

RG Menzies Scholarship to Harvard 1991/92

This scholarship provides up to $25,000 to a graduate of an Australian tertiary institution who is admitted to a degree program in a graduate school of Harvard University. The University closing date is December 14.

Previously Advertised	Closing Date
The British Council Travel Grants	Any Time
Australian Arts Council	Any Time
Natural Sciences & Eng'g Fellowships	November 30
National Academy of Education	December 7
NHMRC Burnet Fellowship & Eccles Awards	December 14
CSIRO P/Grad Project Awards	December 14
Australian Federation of University Women	January 18
Australian-Greek Travel Awards	February 1
AFUW SA Inc Bursary	February 15
Illinois State University	March 1

Illawarra Economic Development Council and the Department of State Development on campus

THE NSW Government established the Illawarra Economic Development Council In July this year.

It is designed to replace the Illawarra Development Board, but with an expanded role as the peak advisory body to the Government on strategic economic issues and initiatives in the Illawarra Region.

The Council's support staff staff, Manager, Warwick Glenn, and Secretary, Clare Cutis, are located on campus in Stage 1 of the Illawarra Technology Centre.

The establishment of the Council is part of the State Government's overall strategy to make NSW a leading place to do business in Australia and the Asia/Pacific Region and to ensure sustainable economic growth for the State.

The IEDC is sponsored and supported by the Department of State Development.

The Council is chaired by one of the Illawarra's leading business identities Mr Ron Griffiths, Managing Director of David Brown Gear Industries.

Other members are: Mr John McKenna, Dep. Chairman, Mr Grahame Parker, Professor Ken McKinnon, Mr Bob Williams, Ald. Neville Fredericks, Ms Fay Lamont, The Hon Tom Lewis and Dr John Saunders.

The Council meets in the Illawarra Region on a monthly basis. With the support of the Department of State Development and the State Co-ordinator General and a direct line of communication to the Government through the Minister for State Development, the Hon John P Hannaford MLC, the Council and the Illawarra Region will never have a better opportunity to capitalise on the strengths of the Region, to address its weaknesses and so create an environment that will lead to sustainable economic growth and a higher quality of life in the Region.

The Council's first task is to oversee the preparation and implementation of an Illawarra Regional Economic Development Strategy.

The Strategy development process is well underway. Margaret Williamson, formerly economic development planner with the Wollongong City Council, has been engaged for twelve months to co-ordinate the Strategy.

A series of public briefing meetings was held around the Region in October – at Nowra, Moss Vale, Shellharbour, Kiama and Wollongong – to outline the purpose of the Strategy, the development process and most importantly, to seek comment, ideas and commitment from the community.

Consultants drawn from the Region have also been engaged to report on a number of key areas of the regional economy.

Information from all these sources will be integrated into a first cut draft Strategy which will form the basis of a series of 'vision' workshops, again involving key regional people, to refine the draft Strategy for release as a public discussion document in about April 1991.

Warwick Glenn was keen to point out to Campus News that the Council is not waiting for the Strategy to be completed. It is already looking to opportunities to promote the economic strengths of the Region to domestic and international investors, and to co-ordinate approaches by Government agencies, industry, unions and the community on major strategic projects and investment opportunities.

If you would like to know more about the Council or the Strategy, Margaret Williamson and Warwick Glenn can be contacted on (042) 268838.

AARNet seminar to explain academic network

THE INFORMATION Technology Services are holding a seminar on using the Australian Academic Research Network (AARNet) on Thursday December 13 at 12:30 in Pentagon Theatre 1.

AARNet provides a network of computer-based communications to the Australian academic and research community with access to institutions across Australia and all over the world.

If you would like to find out how to access AARNET from your terminal, personal computer or workstation, then come along to the seminar or contact the Network Support Office, ext 3191 or 3850.

Advertisements

HELP AVAILABLE

Going overseas on a sebbatical or a holiday? Who will look after your humble abode, pets and garden? Look no further!!

A professional married couple, experienced in housesitting, will 'look after' your house from Feb 1991. Excellent references from university staff. Tel. Gary or Mary (042) 378626.

WANTED TO RENT

Caravan to put in yard in Keiraville December 22 to January 4. Tel. Di, ext. 3612 or (042) 292061 ah.

TO LET

Fully-furnished, 3br house in Mangerton from January to July 1991. Convenient location and rent negotiable. Further information tel. ext. 3340 or 3254 or (042) 29 9969.

TO LET

Fully-furnished 2br unit with l.u. garage 100m from North Wollongong beach. Available all December and January (dates and rent negotiable). Further information call ext 3872 or (042)294986.

TO LET

FERNTREE near Hobart. 4-5br family home avail. early Dec. 1990. $165 pw. Lease negotiable up to 1 year. 10 km to Tas Uni and City Centre. Glorious water and mountain views. Enquiries ph. 002 294170 (Hobart) 065 527129 (Taree).

TO LET

Furnished 3br bv house in Keiraville, 10 minutes walk to Uni. Available from mid-Nov '90 to mid-Feb '91. Ideal for small family or 2-3 students. Contact Tran, ext. 3659 or tel. (042) 262450 (home).

TO LET

New, unfurnished, 2br unit. Hindmarsh Gardens, next to International House, $150 per week. Ext. 3113 or 3830.

School of Creative Arts Diary

November 29: Preview, Art Arena Gallery. Peter Day, paintings, (until Dec 9).

December 4: The University Singers, Christmas concert.December 7: Preview, Long Gallery, Paul Counsel, DCA submissions, ceramics, 7pm.

December 13: Preview, Art Arena. Christmas show (until Dec 23).

TO LET

4-berth caravan with annex at Swan Lake Caravan Village. Contact Gaye, ext. 3958.

TO LET

Available early February until July 1991, 3-br house in Corrimal. Suit visiting academic. Contact Toni O'Neill, tel (042) 270765 (w), (042) 833764.

TO LET

Unfurnished or partially furnished 3-br house in Mt Ousley. Available from January 1 to December 31. Ideal for small family. Contact Ross Sparks, ext. 3807 or (042) 261449.

WANTED TO LET

Visiting professor and spouse from US need furnished home to rent July-Dec 1991. Preferred near rail or walking distance to campus. Phone Dr Mark Anshel, ext. 3023 or message ext. 3881 or write Dept of Human Movement Studies.

FOR SALE

One LOOK Carbon Fibre 55cm Racing Frame & Forks (Bernard Hinault Team Issue) Never been ridden. Still in factory box from France. Will also consider swapping for 53cm carbon fibre frame. $1000 ONO Call Lyndal on (042) 270 201 or home on (042) 288219.

FOR SALE

Datsun 200B sedan 1980. Rego 7/91. Good condition and running order. $2500 ono. Tel (042) 711464 (work), 711735 (home).

FOR SALE

1975 Ford Falcon, 5 months rego, $950. Ext. 3642 (8am-5.30pm)

FOR SALE

One wardrobe and dressing table, one entertainment unit, one Brother sewing machine. Contact Frances, ext. 3456.

FOR SALE

1930s lounge suite. 3-seater and two chairs, recently recovered in beige-toned velvet fabric costing $70 per metre. $1200 ono. Contact Judith, ext. 3925.

FOR SALE

Vertical drape, 2.1m x 1.8m, top quality fabric, excellent condition, beige in colour. $120 ono. Contact Ian Bridge, ext. 3041 or 3141.

ACCOMMODATION WANTED

Furnished one or two bedroom house/flat February 1 to 30 June 30, 1991. Water views a bonus. Academic Visitor from Melbourne. Note: Possibility of swap for a house in Brighton, Melbourne. Phone Leslie (03) 592 0976 (Home) or (03) 810 3322 (Work).

Seminars

Centre for Advanced Manufacturing and Industrial Automation

December 4: Professor Günter Arndt, *An introduction to total productive maintenance — putting quality into maintenance,* Wollongong Surf Leisure Resort, Fairy Meadow.

December 6: Dr Y Yao, Lecturer in Manufacturing Engineering at Wollongong University, *Condition monitoring and diagnostics of machines and processes,* Wollongong Surf Leisure Resort, Fairy Meadow.

December 10: Dr D P Saini, of the Department of Mechanical Engineering at Wollongong University, *Strategic Maintenance for optimisation of equipment availabilty,* Wollongong Surf Leisure Resort, Fairy Meadow.

Booking and enquiries to: tel. (042) 270354 or fax (042) 270101.

School of Human Movement Science

November 30: Mark Brown, *Bioelectric correlates of innacurate motor performances.* 12.30pm

*Post-graduate student seminars

All seminars are held in the Recreation Laboratory in Building 8. All enquiries to Mark Brown, ext. 3495.

Stop Press

Annual Evaluation and Development Review

WORKSHOPS to train staff at all levels throughout the University before undertaking the annual evaluation and development review are being held.

Those coming up are:

General staff members who are not supervisors: Wednesday December 12, 9am-noon or 2pm-5.pm Pentagon 1.

General staff supervisors: Deans and Senior Staff - Thursday November 29, 9am-noon.

Build & Gr, Security, Cleaning - Friday December 7, 9am-noon and Tuesday December 11, 12.30pm-3.30pm. Room G005, Bld 19.

Due to some people not being able to attend, further workshops may be scheduled.

Contact Robyn Weekes, ext. 3929.

(PAID ADVERTISEMENT)

Alligator Rivers Region Research Institute
Jabiru, Northern Territory

Senior Scientific Manager
Executive Officer

The Organisation

The Alligator Rivers Region Research Institute is the research division of the Office of the Supervising Scientist (OSS), a statutory office of the Commonwealth Government. The Institute undertakes tactical and problem-oriented research on the impact of mining on the environment. The research program is multidisciplinary and covers a range of fields in the biological and physical sciences. The Supervisory and Assessment Branch of the OSS interacts directly with mining companies and regulatory authorities and ensures that environmental protection practices are based on sound environmental information.

Senior Scientific Manager

We are seeking a senior scientist who will provide support to the Director in the management of the research program, will coordinate interaction between the Institute and the Supervisory and Assessment and the Policy branches of OSS, and will be responsible for the management of Institute resources. Applicants should have had experience in research and in the application of research to environmental protection problems. Preference will be given to applicants with broadly based scientific expertise and an extensive background in managerial areas where environmental protection concepts are dominant.

Executive Officer

We are seeking someone with a background in the administration of scientific research, preferably with a science degree. The Executive Officer will assist the Director in the monitoring and management of the executive business of the Institute including evaluation of proposed and existing projects, implementation of Office policy, provision of advice on financial and staffing matters, and supervision of the publication program of the Office.

Salary and Conditions

Appointment of the Senior Scientific Manager will be at the level of Science 5, salary range $48,363 - $51,180. (Reclassification to Senior Officer A, salary $54,000, is currently under consideration.) The Executive Officer will be appointed as Senior Officer C, salary range $40,906 - $44,435. In addition a remote location allowance of $4,660 is payable to staff with dependants, $2,740 for those without dependants. Other benefits include special tax concessions, 5.4 weeks' annual leave and provision of family return airfares to southern Australian cities on an annual basis; all staff are provided furnished, air-conditioned homes at a subsidised rent. Appointment may be as a permanent officer of the Australian Public Service or by engagement on a fixed term (3 - 5 years) temporary basis.

Enquiries and Applications

Further details of the positions are available from Dr A. Johnston on 089-799700. Copies of the duty statement, selection criteria and application details may be obtained from Ms M. Nguyen, Office of the Supervising Scientist, PO Box 387, Bondi Junction, NSW 202, or phone 02/3870654; applications should be lodged by 7 December 1990.