# 1E UNIVERSITY OF WOLLONG CAMPUS NEWS

## September 11, 1990

Chris Cook

robotic

machine

with part of a

desianed at Wollongong

University

## Wollongong serving international robotic challenge THE ABC TV Quantum program recently featured a robotic machine — designed and

manufactured by a University of Wollongong company --- that has solved an automation challenge for Qantas.

Thanks to this company, the Automation d Engineering Applications Centre (AEAC) Ltd, economy class travellers on Qantas aircraft leaving Sydney will be served with meals that have been set by a robotic machine.

The machine, now in production operation at the Qantas Flight Catering Centre in Sydney, handles very large numbers of cups, glasses, bowls, mats, serviettes and food items and accurately places them on trays.

These trays are later loaded on to aircraft and ultimately delivered to passengers by cabin crew.

There had been several unsuccessful attempts by overseas organisations to perform the same work.

AEAC was founded in 1983 by electrical and computer engineer Chris Cook, now a Professor of Electrical Engineering at this University.

It has designed and installed several rootic automation systems for Australian industry since then.

The Qantas system is of particular interest because it uses leading-edge, but simple, technology to produce a cost-effective practical solution to setting large numbers of meals.

As a result of this system being installed, Qantas is able to produce many more meals, despite having no more physical space available for expansion.

The system is operated by the same people who previously did all the work by hand.

During the commissioning of the system at Wollongong University, operators were

brought in for formal training on the system and the relevant trade unions were also involved at early design stages.

Comments from experienced Qantas Catering Centre operators were incorporated by the design engineers to ensure a safe, easy-to-use, reliable system.

The success of the system has resulted in delegations from many overseas airlines visiting Qantas and AEAC to investigate the possibilities of AEAC exporting this technology.

It is hoped that substantial export orders will follow in the near future.

AEAC's success illustrates that:

a) Universities, and in the area of industrial automation, particularly the Univer-

Campus News deadline change

SPRING Session recess is from September 24 to October 7. There will not be an issue of Campus News on October 2.

Deadline for copy for the issue of October 9 would normally be Monday October 1, but as that is a public holiday, please deliver any material to the Planning and Marketing Office by noon, Friday September 28.

sity of Wollongong, have an important role to play in modernising our industry to improve its competitiveness.

b) A degree in Electrical and Computer Engineering is good preparation for a career in leading-edge technology and is also good preparation for business management. (Three of the largest companies in the Illawarra Technology Centre were founded by, or are directed by, electrical and computer engineers)

c) Industrial automation systems are readily accepted by the workforce, provided adequate consultation and training are given at all stages of design and manufacture.

d) There is no reason why Australia should not be producing its fair share of the world's best ideas and implementing these ideas in industry. Rather than being surprised that world-beating ideas should come from Australia, our confidence in the quality of our training and in the calibre of our engineers and designers should make us surprised when we find a good idea that did not come from Australia!



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 Telephone (042) 27 0110

Editorial Production: Kevin McDonald

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

Material for publication should be left in the Campus News tray in Planning and Marketing Branch, Administration Building

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## Japanese studies available at Wollongong next year

FROM next year, the University of Wollongong is introducing a new course in Japanese and Japanese studies.

Japanese Language and Culture Studies will be a major in the Bachelor of Arts.

There will also be a five-year course combining the Bachelor of Arts majoring in Japanese with a Bachelor of Commerce.

It is planned that there will be more than 2500 hours tuition in Japanese. The course will use computer-aided instruction with new language and computer laboratories.

The Department of Modern Languages plans the extensive use of Summer Session courses, with Kawasaki, Japan, hopefully the location of the second Summer Session course.

It is also planned for one or two semesters' study at a Japanese University. There will be 50 places available in 1991 - 30 in BCom/BA and 20 in BA.

An active fundraising campaign has started to provide scholarships to assist with travel and residence costs in Japan.

## *Graduation Day will celebrate achievements of 270 graduands*

THE OCTOBER Graduation ceremony will be held this year on Friday October 12 in the Sports Hall.

The ceremony will begin at 10am and is expected to end at 12-12.30pm. Approximately 270 graduands from all faculties will receive their awards from the Chancellor, the Hon RM Hope.

The Chancellor will also confer five honorary awards.

Mr and Mrs Efrem Bonacina, prominent members of the Italian community and the Friends of the University; Mr hdo Lelli, an outstanding union leader in the Illawarra; and Mr Bert Flugelman, well-known artist and teacher, will receive Fellowships.

An honorary degree of Doctor of Science will be conferred on Mr Franco Belgiorno-Nettis, Chairman of Transfield Limited and a distinguished engineer and patron of the arts.

The Occasional Address will be delivered by the Hon. Franca Arena, member of the NSW Legislative Council.

This ceremony will celebrate the achievements of all graduands and also pay a special tribute to the contributions made by the region's ethnic communities with which many of the University's staff, students and friends share a common heritage.

The Sports Hall is expected to be full on day.

Guests will be admitted by ticket and are asked to be seated 10 minutes before the ceremony.

The appropriate forms and tickets have been forwarded to all graduands. Academic staff have also received invitations and have been asked to return the appropriate form if they want to participate.

For further information about the ceremony, please contact Trevor Cuthbertson, ext. 3928 or Olena Cullen ext. 3360.

# **Engineering students honoured for their theses**



Mechanical Engineering students Craig Croxton (left) and Craig Pilt

TWO final-year Mechanical Engineering students recently were rewarded for the efforts expended so far on their theses.

At a student presentation night conducted in Sydney by the Society of Manufacturing Engineers, Craig Pilt delivered a talk on his thesis entitled 'A Robot Application in the Ultra-Sonic Evaluation of Manufactured Components', and Craig Croxton spoke about his thesis entitled 'Automatic Welding for Maintenance and Repair of Gear Teeth'.

After some close judging, based mainly on manner and style of presentation, Pilt was awarded second prize, a \$150 cheque, and Croxton won third prize, a \$75 cheque. Peter Dyball, from the University of Technology, Sydney, was first. Pilt and Croxton are supervised by Dr Elias Siores.

## Watch for an influx of prospective students

THE NUMBER of potential students visiting the campus should increase over the upcoming school holidays from September 24 to October 5 and after the HSC examinations.

Year 10, 11 and 12 students have been encouraged to come. They have been asked to start at the Student Enquiry Counter and then to visit faculty offices and the departments they are interested in. Liz Hilton, Schools Liaison Officer, said the value of a warm reception cannot be overstated.

## Law course transfer applications close soon

STUDENTS intending to apply to transfer to Law courses must apply through the Universities Admissions Centre (UAC), Locked Bag 500, Lidcombe NSW 2141.

Application forms are available from the Student Enquiries Office and the closing date for applications is September 28.

Application forms for transfer to all other courses are available at the Student Enquiries Office and must be returned to the University of Wollongong by January 11, 1991.

## Dr Keith Johns invited to Moscow Conservatorium

TEACHER on the piano staff of Wollongong Conservatorium of Music, Dr Keith Johns, has been invited to work at Moscow Conservatorium of Music as Guest-Professor in February 1991.

While at the Moscow Conservatorium, the most important music school in the USSR, Dr Johns will give recitals and lecture-recitals, lecture in musicology and ethnomusicology, and lead master classes.

Dr Johns, a virtuoso pianist and musicologist, is wellknown throughout the world's concert halls and best music institutions as a pianist and musician who blends the insights of original musicological research with the passion of the intuitive artist.

In January-February he will make his third world concert tour, with invitations from the Franz Liszt Museum in Budapest, the Czechoslovakian concert agency in Prague, and music institutions in Europe, England and the USA.

'The invitation to work at Moscow Conservatorium of music as Guest Professor is indeed an honour,' Dr Johns said.



# **Creative Arts academics to exhibit in Florence**

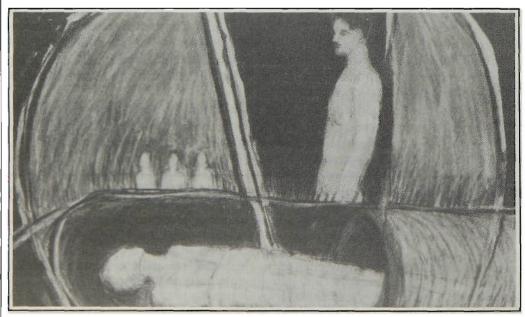
TWO academics from the School of Creative Arts have been invited to exhibit their work at the prestigious Teorema Gallery in Florence.

The gallery is owned by the Masini family, who have been managing private galleries in Florence from the middle of last century.

Senior Lecturer Dr Peter Shepherd will be showing a series of drawings and oil paintings, and Lindsay Duncan will show ceramic sculptures featuring the lustre and black-firing techniques that he has been recently researching. They will be joined for the exhibition by Korean sculptor Tae Hwa Choi.

Ms Choi is one of Korea's best-known contemporary sculptors, who has been working at the Ceramics Institute at Sesto Fiorentino in Italy for some time, and exhibits regularly both in Italy and her homeland.

Dr Shepherd and Mr Duncan have been invited to work in the Verdaccio Studios near Siena for two months, and the director of the gallery in Florence, when shown some of their latest work, requested that they exhibit in her gallery in October.



'They Slip From Death To Life' — one of Peter Shepherd's drawings for the Italian exhibition

It is the first time Australian artists have been represented in the exhibitions of the gallery. Invitations to exhibit in this "city of the arts" are very hard to gain, and it is a definite coup for our two academics.

Dr Shepherd is involved in various forms of art-making, painting and drawing, performing as a musician, conducting orchestral and stage performances, and directing for the theatre.

The form varies from time to time, by he sees it all as the exploration of forms expression, which are personally meaningful, and which hopefully succeed in communicating something to others.

Since 1984, his visual work has dealt with the exploration of male identity.

Lindsay Duncan is producing sculptures which reflect his investigation in the area of gender representation in the visual arts, and specifically the redefinition of masculinity in 20th century western culture.

After their time in Italy, the two Wollongong artists have been invited to work with Swiss painter and performance artist Helen Spoerri in the Stock Atelier in Berlin, where they will also give a series of talks on their work to this community of Berlin artists.

Dr Shepherd is then to go to the National Theatre in London to work with the director on two new productions for 1991.

## In Brief

## Faculty heads until 1994

PROFESSOR J Hagan, Associate Professor P Bolton and Associate Professor J Steinke have been reappointed as Deans of the Faculties of Arts, Science and Commerce respectively until December 31, 1994.

## **Staff development leave**

THE DEVELOPMENT Leave for General Staff Scheme is designed to enable a staff member to complete a program of study and/or visits which will result in benefits to both the staff member and University.

A member of staff whose application has been successful will be entitled to lary while on leave and the cost of travel and accommodation will be paid.

Leave can be taken in Australia and overseas and will not normally exceed three months.

The scheme is competitive and applicants must be able to demonstrate significant personal development and substantial benefits to the University from their proposed program.

All members of general staff are entitled to apply.

Full details on terms and conditions of leave and a suggested application format can be obtained from Robyn Weekes, ext. 3929.

Applications for 1991 will close on October 15 and should be addressed to the University Secretary.

# Personnel re-organisation completed

THE re-organisation of the Personnel Services Branch office space has been completed.

But, according to senior Personnel Officer, Robyn Weekes, many people are having trouble finding the new work areas.

She said the entrance to the old Salaries Office has been sealed and there is just one common entrance to the Branch.

'Understandably many people are now having trouble finding the Salary and Safety service areas,' she said.

'If you want to see any member of Personnel Services Branch please use the remaining entrance (located near the Southern entrance to the Administration Building) and the receptionist will direct you to the appropriate person.

'If you are still wondering where the

Salaries Office has disappeared to, you will find if by turning right then heading east after entering the Branch.'

She said the Academic Staff Unit is in the north-eastern corner of the same office.

The General Staff and Safety Units can be found by turning left on entering the office and heading north.

## **US graduate competition**

THE College of Arts and Sciences, Illinois State University, Normal, Illinois, USA, has announced a competition for graduate study for non-US citizens.

Up to 10 awards will be given for the competition.

These awards may be renewed for one year at masters level and two years at the doctoral level with an application.

The masters degree programs are available in: biology, chemistry, communication, economics, English, foreign language (French, German, Spanish), history, mathematics, political science, psychology, sociology and speech pathology/ audiology.

For further information contact Karen in Planning and Marketing, ext. 3110.

## **Disk found**

A MACINTOSH disk, MFD-2DD, double-sided, has turned up in the Department of Languages. The disk is named 'Law' and contains two files, 'Sociology' and 'Home'. To claim the disk call Christine, ext. 3676.



## Linda Viney on Psychologists' Board

ASSOCIATE Professor Linda Viney of the Department of Psychology is about to take up her appointment for a twoyear term to the Psychologists' Registration Board of NSW.

The Psychologists Act which it administers is being brought into use this year, many years after registration of psychological practitioners has been introduced in other states.

'NSW psychologists are delighted that the protection of such an act is at last being provided for clients,' Associate Professor Viney said.

The Board grants registration only to people of good character, who have a recognised three-year degree from an Australian university (or its overseas equivalent), followed by an approved higher degree in professional psychology or two years of professional practice or research.

## **Co-operative education scholarships**

THE UNIVERSITY of Wollongong, in collaboration with several private and public business enterprise sponsors, is inviting applications from Higher School Certificate students for Co-operative Education Scholarships to begin next year.

Selected students will receive a \$9300 per annum tax-free scholarship for the duration of their degree program.

This sum will serve as a living allowance during both the academic and work experience phases of the educational program.

During the degree program, students will have significant periods of work placement with different employers engaged in a field of enterprise related to their academic course work and career aspirations.

For 1991, scholarships will be offered in the following fields of study:

Civil Engineering, Commerce, Computer Engineering, Electrical Engineering, Environmental Science, Information, Technology and Communications, Law, Materials Engineering, Mathematics (Computer Science), Mechanical Engineering, Mining Engineering, Nursing

School academic achievements and results in the HSC will be important in selecting the scholarships. In addition, other achievements by the student at school or in the community, participation in sport, the arts and in school and community activities will be taken into account.

Sponsors favour students with leadership potential, communication and interpersonal skills

A selection committee will decide on a short list of applicants for interview at the University between November 26 and December 14. Scholarship offers will be made after release of the HSC results.

Enquiries to: Co-operative Educatior Program, tel. (042) 270071 or 270159, Fax (042) 270128.

# CCOnews....

THE Academic Women's Co-ordinating Committee held its first meeting this session on August 28.

Lively discussion and debate on a widerange of topics was the order of the day, and it looks as though this reinvigorated group will be tackling several relevant issues in the near future.

Any academic women who would like to participate in the activities of this group, please notify Debbie Critcher, ext. 3917, and she will put you on the committee's mailing list.

The next meeting is scheduled for Tuesday September 18 at noon.

Sandwiches and juice are provided, so please indicate your intention to attend so sufficient food can be provided and a large enough room booked.

Peg MacLeod, EEO Co-ordinator.



BIDDY Simon, from Marralan Outstation, NT, is talking to Ms Antoinette O'Neill from the Department of Geography, not Dr Lesley Head, as was reported in Campus News on August 28.

Rego. No.

**PPE866** 



## Sale by Tender

The University has the following vehicles available for sale by tender:

### Type of Vehicle

- 1989 Toyota Hilux 4WD Dual Cab Utility
  1989 Mitsubishi Magna Sedan C
  - 1989 Mitsubishi Magna Sedan GLX RBP607
- 3. 1988 Mitsubishi Magna Sedan Executive PCX967

The University offers no guarantee on these vehicles. The University will continue to use all of the abovementioned vehicles until delivery is taken of the replacement vehicles it has purchased. Terms of sale are by cash or bank cheque. For inspection of vehicle number one call Mr G. Kohler, tel. (042) 270442 and for vehicles two and three please call Mr G. Parsons, tel. (042) 270116.

Tenders close 11.30 am on September 14. Tenders should be placed in a sealed envelope addressed to Office Services The University of Wollongong PO Box 1144 WOLLONGONG NSW 2500 and noted "Tenders No 397 and 398 for Motor Vehicles".

## What's on

# School of Creative Arts Diary of Events

September 12, 13, 14 and 15: Third year acting students graduation play, *Vinegar Tom* by Caryl Churchill. Co-direction L. Scott-Murphy and Des Davis. Performance Space 8pm.

September 13: The Art of Lunch — *The Bassethorn* presented by Terry Stirzakes. Music Auditorium 12.35pm.

September 20: School of Creative Arts Biennial. Preview, the Long Gallery 7.30pm.

September 20: The Art of Lunch — Musica Troppe presents a composition workshop of music by postgraduate composers including Daniel Yi Sun a Simon Wade. Music Auditorium 12.35phr

September 20, 21, 22: The University Singers present the *Pleasures of the Parlour*, a Victorian entertainment. Theatre South 8.15pm (Matinee Saturday 3pm).

September 20, 21, 22, 23: School of Creative Arts Annual Postgraduate Weekend Conference. This will include the presentation of performance, theatre, writing, music and slide presentations. For more information contact Dr Andrew Schultz, tel. (042) 270302.

September 26, 27, 28, 29: The Shy Pilgrim, directed by Don Reid. The Performance Space, 8pm.

## **Children's Christmas party**

THE UNIVERSITY's children's Christmas party will be held on Saturday December 1 in the area between the Administratic Building and the Greenery from 11am.

The usual sausage sizzle will be held for lunch, and there will be free drinks, ice blocks, chips and sweets,

There will be plenty of things for the children to do — hay rides, fire engine rides, merry-go-round, magic castle, plus a few surprises.

Registration forms have been distributed and must be returned by October 1.

## **Tulip Festival trip**

THE ILLAWARRA Committee for Overseas Students has organised a coach trip to the Tulip Festival in Bowral on Saturday September 29.

Details and tickets are available from the ICOS office in the Union Building next to Careers and Appointments Service, on Tuesday, Thursday and Friday from 9am-2pm. Tel. (046) 270158 or ext. 3158.

## **Research Funds**

### National SIDS Council of Australia

Grants-in-aid are being called for in research into the causes and effects of Sudden Infant Death Syndrome (SIDS). The University closing date is September 14.

### Dairy Research & Development Corporation

Applicants are being called for in the following awards: DRDC Fellowship Awards, Postgraduate Research Studentships and Senior Postgraduate Studentships. All applicants should be studying or working in the fields of high priority to the dairy industry.

The University closing date is September

Previously Advertised	Closing Date
The British Council	
Travel Grants	Any Time

## Seminars

#### **Department of Biology**

Seminars are held in Building 35.G19 on Tuesdays at 12.30pm.

September 18: Dr Ted Steele, Biology Department, University of Wollongong, Reappraisal of the evidence on the health effects of Agent Orange by the Evatt Royal Commission.

October 16: Dr Gordon Wallace, Chemistry Department, University of Wollongong, Biologically active polymers.

Pctober 23: Mr Stuart Thompson, BHP, central Research Laboratory, *Revegetation* of industrial sites.

October 30: Dr Marcia Byrne, Biological Sciences, Sydney University, Starfish dispersal (title tba).

Further information from Dr Rob Whelan, tel. (042) 27 0442 and Associate Professor Ross Lilley, tel. (042) 27 0431.

#### **Department of Business Systems**

Thursday September 13 at 12.30 pm in Pentagon 5: Ilana Kaplan, Human Factors Engineer, Unisys, Usability testing for software interfaces.

#### Department of Economics

Seminars are held on Thursdays from 11.30 am to 12.30 pm in Building 19.1056.

September 13: Perry Shapiro, 1990 Fulbright Scholar, Department of Economics, University of California at Santa 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.

Lillian Roxon	
Travel Grant	September 14
Swiss Government	
Scholarships	September 14
ARFI's	September 14
Columbian Scholarships	September 14
Corpus Christi College	-
Visiting Fellowship	September 14
Illawarra Area Health	
Service Research Grants	September 21
1991 Fulbright Awards	September 21
French Government	-
Scholarships	September 21
Australian Academy	-
of Science Medals	September 21
ARC Course Awards	September 28

Barbara and the Australian National University, *Private preference for public education*.

September 20: Dennis Mahoner, Research Department, Westpac Banking Corporation, Economic Indicators and Forecasts.

October 11: N Kalirajan, Department of Economics, Australian National University, A testing of causality between technical and allocative efficiency

October 18: A Levy, Department of Economics, University of Wollongong, *The external debts of the developing countries*.

October 25: Michael Bittman, Department of Sociology, University of New South Wales (joint seminar with the Department of Sociology), *Gender equity and the future of Australian households*.

Enquiries to the Convenor, Associate Professor Tran Van Hoa, Office 19.2069, fax (042) 27 0477, tel. (042) 27 0659.

### Department of Electrical and Computer Engineering

September 17: Mr D Irvine: Analysis techniques for resonant link inverter. 12.35-1.25pm room 35G45.

## Faculty of Education

### Equity in Education program

Meetings will be held in Building 21.104 at 4.30 pm.

The Equity in Education Program is holding regular meetings which will include reports from research projects.

September 28	
September 29	
September 31	
•	
October 1	
October 12	
October 19	
October 19	
October 19	
October 19	
Gowrie Research ScholarshipOctober 19	
October 26	
October 31	
October 31	
October 31	
November 2	
November 16	
November 16	

These reports will focus on the research process (specific problems, research design and so.on) and aim to provide a forum for sharing research experiences and exchanging ideas. They will not be formal presentations – the emphasis will be on interaction and discussion with colleagues. Researchers outside the program are invited to attend to foster interdisciplinary research and scholarship as well as to facilitate information exchange. The regular Equity in Education Program meeting is scheduled for 4 pm on each of these days and members/associate members are asked to be in attendance at this time.

Friday October 12: Noeline Kyle, Jan Wright, Peg MacLeod, Jan James and Alison Elliott, Women and entry to higher degrees at the University of Wollongong.

Friday October 26: Anna Tait and Noeline Kyle, Award restructuring and women teachers.

Thursday November 1: Alison Elliott, Computers and learning disability

Enquiries to Associate Professor Noeline Kyle, tel. (042) 27 0374 or Ms Jan James (042) 270078. Coffee/tea provided.

#### School of Learning Studies

Seminars are held on Wednesdays at 12.30 pm in Building 21.104

September 12: Dr Colin Lankshear, University of Auckland, NZ, Literacy and Revolution.

October 17: Dr Jennifer Jones and Josie Castle, Women in UK universities; transition to postgraduate study. October 31: Pat Farrar and Dr Ted Booth, Overseas Practice Teaching: Holidays with credit or significant professional development?

November (date to be advised): Professor Michael Apple, University of Wisconsin, Madison, *The Gendering of Teaching*.

Enquiries to Bill Winser, Co-ordinator, School of Learning Studies, ext. 3963

#### Gender and Education Unit

Seminars are held in Building 21.104 at 4.30pm on Fridays (unless otherwise indicated).

September 12\*: Distinguished Visitor — Dr Colin Lankshear, University of Auckland, NZ, Literacy and Revolution.

October 5: One-day conference Women and higher education.

October 26\*: Anna Tait and Noeline Kyle, Award Restructuring and Women Teachers.

November1: A Jones, Gender and the Play Activities of Young Children. End of year meeting, everyone welcome.

\* Seminars offered jointly by the Gender and Education Unit and the NSW Branch of the Australian and New Zealand History of Education Society.

Tea/coffee provided at all seminars. Enquiries to Associate Professor Noeline Kyle, tel. (042) 27 0374 or Ms Jan James (042) 27 0078.

#### Language in Education Unit

September 12: Colin Lankshear, Visiting scholar from New Zealand who will discuss political aspects of literacy. 5pm, Building 22, Room 106.

#### Language in Education Workshop

(Contact Bill Winser for details, ext. 3963)

Research meetings:

Members of the language in Education Unit or others who are interested in meeting on Monday lunchtimes (12.30 pm) in order to share research, undertake analysis of texts, and discuss selected journal articles/publications, please contact Bev Derewianka (27 0320) or leave a message with Kylie Pickford (27 0973).

Equity in Education Research Project and The Gender and Eduation Unit

October 12: Ms Jacquai Preedy: Workin-progress: Home Economics Education. 11am-1pm Room 21.104

October 12: Ms Alison Elliott, Computers and young children with learning difficulties. 4.30pm Room 21.104.

#### Department of Geography

Seminars are held in Building 19.G026 from 12.30 to 1.30 pm and are open to all who would like to attend.

September 12: Dr Brian Lees, Department of Geography, Australian National University, Forest mapping in disturbed and hilly terrain using remote sensing and GIS.

September 19: Dr Peter West, Department of Clinincal Ep[idemiology, University of Newcastle, *Privitising the British National Health Service* (Joint seminar with Department of Sociology, Uni of Wollongong)

#### **Department of Management**

Friday September 14, at 12.30 pm, Room 19-1003: Dr Tselia Romm: Organisational Politics: Definition and Comparison of the Perception of the Concept Across Cultures.

### Department of Materials Engineering

Seminars to be held jointly with the Wollongong University Student Chapter of the Metallurgical Society on Tuesdays from 4.30 to 5.30 pm in Building 1.134 (unless otherwise specified). Enquiries to Associate Professor D. Dunne, tel. (042) 27 0014.

September 11: Professor Howard Worner (MARC), Microwave Processing

September 18: Dr Geoff Spinks (UW), Mechanical Properties of Polymers

October 9: Mr Wayne Renshaw (BHP CPD), Internal Friction for Interstitial Analysis in Low Carbon Steels

October 23: Dr Alan Wingrove (Bisalloy Steels), Development of BIS 60 Quenched and Tempered Steel.

#### **Department of Mathematics**

September 13: Professor GE Wall, FAA, Department of Pure Mathematics, The University of Sydney, *Linearisation in Group Theory*. Room 15.204 (Austin Keane Building) 1.30pm.

Visitors wishing to park on the University grounds will be charged as \$1 parking fee. This will be reimbursed by the department.

## Department of Public Health and Nutrition

Seminars are held in Building 5.G03 between 12.30 and 1.30 pm on the dates given. Anyone who is interested is cordially invited.

Wednesday October 31, Ms Heather Yeatman, Healthy cities – nutrition.

Enquiries to Ms Linda Tapsell, Lecturer, Department of Public Health and Nutrition, tel. (042)27 0152 or ext. 3152.

#### Department of Sociology

September 12: Dr Deborah Kalekin-Fishman, School of Education, Department of Sociology, The University of Haifa, Sound: The meeting ground of Evolution and History, (Constructing a bridge between Perception and Social Structure). 12.30-1.30 pm. Room 19/2102.

#### School of Creative Arts

Postgraduate series seminars, which are held in the Music Auditorium, Building 24, from 4.30 to 6.30 pm, are open to the public and admission is free.

Thursday October 25: Subjectivity in history, Paul Carter, author of The Road to Botany Bay and editor of The Age Monthly Review, will discuss his own creative work as the writer of several radio plays.

Enquiries to Dr Andrew Schultz, Director, Postgraduate Studies, School of Creative Arts, tel. (042) 27 0985.

#### Social and Psychological Health Research Program

All seminars are held on Tuesday Building 19.1056 from 12.30 to 1.30 pm

October 9: Beverley Walker, Exploring dependency.

November 6: David Jeffs, Childhood accidents, social conditions and public education. Contact Sheree Anshel, ext. 3499

## Advertisements

#### WANTED

Subjects for research study for pay. You receive \$30. Males, ages 18 to 35, who are not currently engaging in an exercise program. Call Dr Mark Anshel, ext. 3023 or (message) 3881.

WANTED

2-drawer filing cabinet, child's bicycle seat. Tel. Roger ext. 3439 or Anna (042) 287913.

TO LET

Available February to July 1991, 3-bedroom house, Corrimal. Furnished or unfurnished. Could be made available January if required. Tel. Toni O'Neill ext 3765 or ah (042) 833764. TO LET



Northern suburbs residence offered to mature staff members. Fully self-contained, 2-3 bedroom duplex near beach. 7 days or part week. Enquiries (042) 674210 or PO Box 140, Thirroul 2515.

#### TO LET

An attractive 4-bedroom furnished or unfurnished house with large swimming pool and garage. 10 mins' drive to university. Close to school, train and beach. Available until January 1991. Rent neg. Further information tel. ext 3707 after 2.30pm or (042) 831448

#### FOR SALE

Private Sale – Townhouse. Northern suburbs on tidal lagoon. Five minutes stroll to surf beach or boat ramp. Modern two-bedroom town house in block of three facing reserve area and bicycle track. Professionally decorated. Must see to appreciate. Reduced to \$99,900. Tel. Peg MacLeod on ext 3917 or (042) 847095. Weekends (044) 651017.

#### FOR SALE

Spacious two-storey weatherboard and brick home on large level block. 4 bedrooms or 3 bedrooms and study, lounge, family room, two bathrooms, modern kitchen, spacious deck, garage with internal access and utility room. Close to schools, shops and university. Price \$210,000 ono. Phone (042) 296251 after 8am Saturday and Sunday and after 5pm weekdays.