# THE UNIVERSITY OF WOLLONGONG

# CAMPUS NEWS



27 March 1990



Back row, from left: David Higgins, Supt, Human Resources Engineering; Prof. Peter Arnold, Head, Mechanical Engineering; Prof. Chris Cook, Acting Head, Department of Electrical and Computer Engineering; Warwick Powis, Chief Mechanical Engineer; Roger Evans, Chief Electrical Engineer; Prof. Lewis Schmidt, Head, Department of Civil and Mining Engineering; Dr Max Lowrey, Sub-Dean, Faculty of Engineering; Prof. Raghu Singh, Professor of Mining Engineering, Department of Civil and Mining Engineering; David Hodges, Executive Officer, Engineering; Geoff Kelly, Chief Process Officer. Front row, from left: Ross Robinson, Assistant General Manager, Engineering; A/Prof. Noel Kennon, Dean, Faculty of Engineering; A/Prof. Nick Standish, Acting Head, Department of Materials Engineering and John Wotherspoon, Chief Development Engineer

SENIOR ENGINEERING academic staff from the University visited BHP Steel International Slab & Plate Products Division on Thursday February 8.

The purposes of the visit were, first, the inspection of high technology installations, at the continuous caster, the hot strip mill and the Wongawilli site.

Second, and more important, lengthy discussions were held with senior BHP engineering staff to consider ways in which increased collaboration in engineering education and research might be facilitated.

The University team consisted of the Dean, Associate Professor Noel Kennon; the Sub-Dean, Dr Max Lowrey, together

with Professor Peter Arnold, Professor Chris Cook, Professor Lewis Schmidt, Professor Raghu Singh, and Associate Professor Nick Standish. Representing BHP were: Mr V.R. Robinson, Assistant General Manager Engineering; Mr R.F.K. Evans, Chief Electrical Engineer; Mr J.R. Wotherspoon, Chief Development Engineer; Mr W.S. Powis, Chief Mechanical Engineer; Mr G.D. Kelly, Chief Process Engineer; Mr V.G. Kolsky, Manager, Manufacturing Services; Mr D.R. Higgins, Superintendent, Human Resources Engineering; Mr D.A. Hodges, Executive Officer, Engineering.

Discussions centred on the proposed common first year for the Faculty of Engineering, which was received with enthusiasm. The introduction of maintenance management, project management and technical communications into Wollongong courses, time-tabling for parttime students, accreditation for industry run courses and increased advanced continued on page 2

Details of May graduation program are on page 5

### **General Notices**

# Dean, Faculty of Health and Behavioural Sciences

PROFESSOR CHRISTINE EWAN accepted an appointment as Foundation Dean of the Faculty of Health and Behavioural Sciences at the end of last month.

Professor Ewan graduated in Medicine from the University of Sydney in 1971 and completed a PhD in Medical Education in 1977, a BA in 1980 and a Masters of Arts in Anthropology in 1985.

She worked as Senior Lecturer in the World Health Organisation Teacher Training Centre for the Western Pacific Region in the medical faculty at the University of New South Wales for 11 years before joining the staff of The University of Wollongong in 1986.

Since then she has developed the postgraduate program in Community Health



Professor Christine Ewan

and contributed to the establishment of the Department of Public Health and Nutrition.

# Opening certain doors to our understanding

#### Artist-in-residence Tia Hua Huang

TIE HUA HUANG, a visiting Scholar to The University of Wollongong and currently artist-in-residence in the School of Creative Arts, is holding a one-person exhibition in the Long Gallery, Mondays to Fridays and Sundays 1.30 to 4 pm, until

### Engineers collaborate

continued from page 1

standing for TAFE qualifications were also discussed.

Research matters that were examined included sabbatical leave in industry for University staff, collaboration in offering thesis and project work for final year undergraduates and contract and collaborative research.

The visit was decidedly fruitful and established a firm basis for major increases in interaction between the two organisations in the immediate future.

April 8; last week's issue of *Campus News* reported briefly on the official opening of the exhibition.

Tie Hua Huang invites staff, students and members of the public to look at his work, talk to him about his painting and, on request, he will demonstrate the basic rudiments of traditional Chinese water-colour techniques on absorbent rice paper, a process which precludes excessive over-painting.

Tie Hua Huang opens certain doors to our understanding. Clearly, from the work on the walls and the illustrations in the books in the display cabinets, he demonstrates contemporary Chinese painting including traditional modes of expression, which eschews politics, stretching back for a thousand years – a tradition alluded to by The Vice-Chancellor, Professor Ken McKinnon, in opening the exhibition, when he emphasised that western art was by contrast innovative and experimental.

Equally valuable, in an age characterised by western communication which has reduced our plant to 'a global vil-

## Dean, Faculty of Law

PROFESSOR JOHN GOLDRING has been appointed Dean, Faculty of Law and will start in June. His present position is fultime Commissioner, Australian Law Reform Commission.

From 1981-1989 he was Professor of Law at Macquarie University. Professor Goldring has held academic positions at the University of Papua New Guinea, Australian National University and the Canberra College of Advanced Education.

Professor Goldring obtained his qualifications from the universities of Sydney and Columbia.

lage', where there is much talk about innovation, yet so much popular entertainment and sport coverage has a characteristic conformity, to find artistic forms of expression different from our own. Just as genetic diversity is a form of insurance against disease necessary for survival, so the differences between traditional Chinese painting and western innovative art is to be welcomed: precisely because it is different.

Among the paintings on show are some which make responses to Chinese land-scape, while others make responses to crabs, gourds, grapes, flowering blossom and birds. Several others include paintings of Wollongong and its environs, as might be perceived by a bird hovering over the sheer rock face of Mount Keira, and looking down on the old harbour.

What distinguishes figurative Chinese paintings from western art is that, while the French impressionists and the artists of the Heidelberg School invariably painted direct from the motif, as does Arthur Boyd on occasions, and as did Matisse and Fred Williams (at least one day each week), the Chinese artists always paint conceptually, from memory. It is a conceptual way of creating rather than a perceptual one.

Tie Hua Huang is 'in residence' on Mondays from 9.30 am to noon and 1 pm to 3 pm and on Wednesdays and Thursdays from 9.30 am to noon, in the Upper Gallery. The lower gallery has been temporarily turned into office space after the evacuation of the 'Cottage' and after the discovery of asbestos ceiling sheets. The circumstances make the closure necessary, but represent a 25 per cent loss of exhibiting space – which it is to be hoped will not last too long.

John Eveleigh

# Novel use for sewage

Mix sewage and iron-rich dusts; result - iron, slag, zinc oxide and oils

A NEW METHOD of smelting invented by Professor Howard Worner, CBE, has been researched at the University, through its Microwave Applications Research Centre (MARC) for the past three years.

In earlier work on the invention, low rank coals, peat and sawdust have been used as the fuels and chemical reductants in 'composites' made by briquetting or otherwise compacting those carbonaceous materials with finely particulate iron ores or the iron-rich but rarely used dusts produced in steelworks.

The composites are smelted in special furnaces to produce molten pig iron and usable slag. In the case of the steelworks by-product dusts, there is a third useful product – zinc oxide – which is used in pigments, rubber fillers and pharmaceuticals.

One of MARC's consultants, John Matyear, suggested that it would be interesting to see if sewage sludge could replace part or all of the carbonaceous components in the composites. Preliminary experiments indicate that this is in fact the case. But, of equal interest and potential is the discovery that when the steelworks by-product dusts or sludges are mixed into screened raw sewage, almost instantaneous chemical reactions occur which cause the iron-rich dusts and undesirable components of the sewage (solids, heavy metals and possibly even the pathogens and pcbs) to settle rapidly as a relatively heavy sludge.

It appears that a number of 'ingredients' in the steelworks dusts contribute to this remarkable result. Be that as it may, the clear effluent shows promise of being suitable for re-use or disposal as may be appropriate.

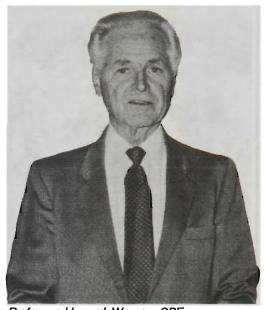
After dewatering the settled, relatively heavy 'mixed' sludge, using conventional technology, the mixture is further dried and either extruded or briquetted. These compacted 'composites' are then heated in equipment which not only permits odour control but also recovery of oils.

Outgoing gases from the smelting furnace rapidly heat the composites still further before they fall into the turbulent bath of the iron-smelter. The iron settles to the bottom and the other components either enter the slag or are burnt completely to form part of the hot furnace gases. The zinc 'fumes' out into the fur-

nace gases which are maintained at over 1500 deg.C and are therefore much hotter than conventional incinerators and able to destroy completely any pathogens and chlorinated or fluorinated hydrocarbons.

Apart from the collection of heat for steam raising and the removal of zinc oxide, some further 'scrubbing' with lime might be desirable to ensure that the gases are free of any breakdown products of the high temperature burning of chlorinated and fluorinated hydrocarbons.

The total system is designed to produce iron, slag, zinc oxide, oils, reusable water and the cleanest furnace gases that are economically attainable.



Professor Howard Womer, CBE

The University of Wollongong research project is supported by the Water Board, ELCOM and BHP. Patent protection for the technology has been sought.

# New 'integrated approach' to teaching Materials Engineering

Metals, ceramics and polymers considered together

THE DEPARTMENT OF MATERIALS ENGINEERING is among the world leaders in developing a new 'integrated approach' to teaching the subject. In this, the philosophy is to consider the three major material types: metals, ceramics and polymers side by side in a topic-orientated consideration, rather than the traditional separation according to class of material.

It is believed that this innovation will facilitate and improve the selection and utilisation of materials by engineers of the future. Great emphasis is placed on the broad engineering perspective in both academic and personal attributes. A personal tutorial system operates to inculcate these skills and increase the awareness of students of their vital role in society.

On the research side, the past two years have seen a substantial increase in research funding, with almost \$2 million gained. Notable among the awards have been involvement in two generic technology awards (low cost ceramic coatings and high speed welding), bulk density

measurement of coal and in the new federal scheme (Postgraduate Industry Research Awards) with the Royal Australian Mint for work on improving coining die life.

An industry-targeted campaign for recruitment secured some \$130,000 in the form of Undergraduate Scholarships and contributions to a professional glossy brochure about Materials Engineering at Wollongong.

The 1990 intake increased to around 35 students all of whom received support from industry through traineeships or scholarships.

Remember
The art of lunch
every Thursday
12.35 to 1.25 pm



Fish behaviour snorkelling group about to get wet. Lady Elliot Island, University of Queenland Field School, out on a typical College for Seniors safari

# Life begins again for the over 50s

### College for seniors educational tour programs

THE AUSTRALIAN COLLEGE FOR SENIORS was founded in 1985 to provide low cost, short-term residential programs for people over 50 who were looking for more than sight-seeing holidays.

A non-profit association managed by representatives of 42 Australian and New Zealand universities and colleges, the Australian College for Seniors uses campus accommodation during the normal student vacation periods, or field or commercial centres for programs held away from the campus.

The objectives of the College are to provide an opportunity for older people to satisfy their needs for intellectual stimulation and new life experiences; to provide an informal and human atmosphere where individuals are important, making new friends is easy and learning a truly liberating experience; to provide new skills and interests in activities which can be continued after the participants return to their normal environments, and, lastly to maintain mental health in retirement by providing opportunities to expand mental activities.

Each week of an Australian program contains between ten and 15 hours of input by staff of the University and the lecture input is co-ordinated with field trips associated with the lecture series.

Topics offered on the Australian programs vary from Marine Biology, The Media and How it Manipulates our Society, to Life in a Country Town (Broken

Hill) or Exploring your National Capital (Canberra).

Funds have been generated from overseas 'retirees' taking the Australian programs to establish a scholarship fund which will assist Australian government pension card holders to attend Australian Programs.

No formal qualifications are required to attend the programs; indeed, for a person interested in life by the age of 50, the experience of living is equal to any formal education in one's youth. There are no examinations or homework. Additional reading is provided for those interested and, for overseas programs, packages of material are sent to participants in the

months leading up to departure, to help prepare them for their overseas experience.

All programs offer a great deal of mental stimulation in a relaxed, comfortable, holiday atmosphere. There is no compulsion to engage in every activity – it is entirely up to the participant to decide how much he/she wants to do each day.

For its overseas programs the College has been able to obtain the services of universities in the countries visited and they are able to organise visits to areas not usually available to tourists, and as lectures to assist in the understanding of what they see.

The Australian College for Seniors is based on campus at The University of Wollongong and with a small very highly qualified team of specialists, administers the College's programs for 42 participating institutions in Australia.

Catalogues are produced twice a year and are available free of charge. To obtain a catalogue and be placed on our mailing list, write to The Australian College for Seniors, The University of Wollongong, PO Box 1144, Wollongong NSW 2500.

# John Anderson moves to NEIS

POUNDATION Managing Director of the Illawarra Technology Corporation (ITC) since it was established in 1985 as the Illawarra Technology Centre, Mr John Anderson has resigned to take up the position of National Marketing Manager with the National Engineering Information Service (NEIS).

Mr Anderson has been with the University for 19 years, and played a major role in the establishment of ITC and NEIS. The University sold the majority holding in NEIS to the State Bank last year. NEIS will continue to operate from Wollongong.

The University will be recruiting a new Managing Director for ITC. As an interim arrangement, Mr Jim Langridge will be seconded from the University to keep ongoing activities well organised.

John Anderson, right, with the Federal Minister for Science, Mr Barry Jones, at the official opening of the Illawarra Technology Centre in 1987



### Graduation- May 1990

FIVE GRADUATION CEREMONIES will be held in May this year. The week's celebrations begin with University Day on May 7. The graduation program will run from Tuesday to Friday in the order listed below:

#### The Ceremonies

Tuesday May 8 - 2.30 pm

Arts: All Arts degrees and diplomas (except for Creative Arts)

Wednesday May 9 - 9.45 am

Commerce: All Commerce and Management degrees and diplomas, including AssocDipAdmin, AssocDipCompApp, and GradDipEdStud (School Admin.)

Wednesday May 9 - 2.30 pm

Science: All Science and Environmental Science degrees and diplomas Health & Behavioural Sciences: All Sports Science, Human Movement and Nursing degrees and diplomas.

Thursday May 10 - 9.45 am

Arts: Creative Arts degrees only. Engineering: All Engineering degrees and diplomas.

Informatics: All Mathematics and Computing Science degrees and diplomas.

Friday May 11 - 9.45 am

Education: All Education degrees and diplomas but not including Grad-DipEdStud (School Admin.).

Prospective graduands are expected to receive their forms and information by the end of March. Graduands should direct all enquiries to their appropriate Faculty Officers.

If you have any general queries regarding the ceremony please ring Trevor Cuthbertson, ext. 3928 or ext. 3360.

# Planning for tomorrow, today

A CONFERENCE on koala management in northern New South Wales will be held at the University of New England, Northern Rivers, Lismore, NSW, on April 27. The conference is designed to bring together the knowledge and expertise required to determine future directions for koala management. Enquiries to Miss Judy Faulks, Centre for Coastal Management, PO Box 125, East Lismore, NSW 2480. Tel. (066) 25 1970, fax (066) 21 2669

### Indo-Australian Workshop

ACTIVITIES arranged as part of an Indo-Australian workshop on interactive science exhibits and open to the public

#### Dinner -

Ghedia's Indian Restaurant, 121 Corrimal Street, Wollongong, at 6 pm, Thursday March 29 (entree, four curries, rice, bread \$18.50; sweets \$3; drinks extra).

# Public Lecture Science Centres in India

S.K. Bagchi, Director, Birla Industrial and Technological Museum and R.M. Chakraborti, Director, Nehru Science Centre at 8 pm, Thursday March 29, Room 3, Building 20 (Pentagon), The University of Wollongong.

RSVP by March 27, the Administrative Assistant, Department of Physics, The University of Wollongong (042)27 0517, if you wish to attend the dinner.

# Australian Institute of Management

Monthly Meeting (Annual General Meeting)

HOSPITALITY EVENING, Thursday, March 29: Guest speaker: Honourable Mr Justice W.K. Fisher, President, Industrial Commission of New South Wales, Industrial Relations: 1980 in review, the 1990s in Focus

#### Program:

5.30 pm drinks and savouries 6 pm AGM business 6.30 pm address and discussion

To make a reservation contact Mrs Jenny Hamilton between 9.45 am and 2.45 pm from Monday to Thursday on (042) 27 0075.

# Keiraville Public School Centenary

KEIRAVILLE PUBLIC SCHOOL will celebrate its centenary in September 1991. A centenary committee has been formed to organise appropriate celebrations and much work is going into the publication of the school's centenary booklet.

A centenary dinner will be held on Friday 6 September 1991 with a day of activities planned for Saturday 7 September 1991 – exactly 100 years since the school's establishment.

Written memoirs and anecdotes are sought, together with photographs and all other types of memorabilia for the proposed booklet and museum. The publications committee would welcome any written contributions from former pupils, staff and residents and to this end a special questionnaire has been devised and is obtainable by contacting any of these people: Moyra West (042) 29 8607, Lesley Coombs (042) 28 6884, Lisa Johnson (042) 28 6184, Keith Belpitt (photographs) (042) 28 7483.

#### Need child care?

UNIVERSITY home-based care is a new service, established for children of targeted students attending The University of Wollongong.

The service is an extension of the existing Wollongong University Child Care Centre through funds received from a Federal Government Grant from the Department of Employment, Education and Training.

Reliable caregivers look after up to five children including their own from birth to school age in their own homes.

University Home Based Care provides:

- \* full-time care, Monday to Friday
- \* regular, part-time care
- \* before and after-school care
- \* holiday care
- \* emergency care

The 20 new child-care places are reserved for the children of students involved in:

- \* University preparation courses
- \* special admissions programs
- \* Summer Session bridging courses as well as those of targeted groups:
- \* Aboriginal students, and
- \* needy students identified by support personnel.

If this applies to you and you want to know more, talk to Trudy or Lorraine at Kid's Uni, or telephone 27 0072.

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

> Editor: George Wilson Telephone (042) 28 6691 Assistant Editor: Janet Cook Telephone (042) 27 0027 Media Liaison: Gillian Curtis Telephone (042) 27 0926

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

All material may be reproduced without permission but clearance with Gillian Curtis is requested

### 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 Kim Roser (ext. 3201). Intending applicants are reminded that all research applications must be forwarded through the Office of Postgraduate Studies

#### National Soil Conservation Program

The National Soil Conservation Program invites applications for financial assistance for the conduct of research or public education relating to the rehabilitation and substainable utilisation of the nation's soil and land resources.

Applications close with the University April 1.

#### Australian Meat and Livestock Research and Development Grants

The Australian Meat and Livestock Research and Development Corporation

has invited applications for a number of special grants in nominated subjects.

Applications close with the University on April 6.

# Australian Water Research Advisory Council

The AWRAC has invited applications for water research funding. Proposals must fall within one of the following programs: *National Priorities Program* – funding for maximum of three years in areas of national priority identified by the AWRAC.

Partnership Research Program – funds provided under this program must be matched by a third party and must be for a new (not continuing) project.

Applications for fellowships close with the University on April 14.

#### National Multiple Sclerosis Society of Australia Research Grants Seeding Grants and Fellowships

The National Multiple Sclerosis Society invites applications for Project grants for approved clinical, laboratory based, epidemiological or rehabilitative studies; Training Fellowships and Grants for Equipment.

Applications close with the University on May 17.

Scholarships and Fellowships

# Smithsonian Astrophysical Observatory Applications are invited for Predoctoral

Research Fellowships designed to allow students to do their thesis research at SAO working with SAO scientists.

Applications close with the University on April 1.

# The English Speaking Union (NSW) Scholarships

This scholarship was initiated to assist graduates who, at the outset of their careers, sought to further their studies outside Australia.

Applications are open to university graduates, 35 years of age or younger, living in NSW or the ACT, whose intention it is to return to Australia. The award is for \$7,000.

Applications close with the University on April 6.

#### Australian Academy of Science - Rudi Lemberg Travelling Fellowship

The Australian Academy of Science has called for applications for the Rudi Lemberg Travelling Fellowship.

The Fellow may be drawn from any field of biology but special consideration will be given to those areas in which Professor Lemberg had an especial interest, namely bio-chemistry, conservation and the Australian flora.

Fellowships are awarded to enable overseas scientists to visit Australia and Australian scientists to spend time visiting scientific centres and delivering lectures within Australia.

Applications close with the University on April 16.

#### Sir George Murray Award

The prestigious George Murray Award offers a prize of \$1,000 for an essay on any topic within the field of public administration.

Applications close on August 24.

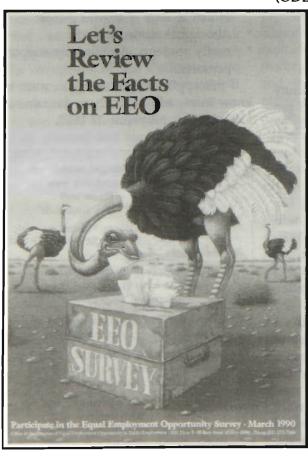
#### Royal Geographical Society Expedition

Expressions of interest are invited for a scientific expedition to the Cape York Peninsula.

The expedition is potentially of interest to those working in the fields of Zoology, Botany, Geography, Environmental Science and Resource/Land Management.

# CCO news....

# The Survey



TODAY, March 27, you should receive your EEO survey through the internal mail system. The state-wide survey is being carried out in all areas of public sector employment and higher education institutions by the office of the Director of Equal Opportunity in Public Employment (ODEOPE).

Your co-operation is requested in filling out the survey promptly and returning it to the EEO Unit in the envelope provided.

There is no identifying information on the questionnaire. There will be no way of knowing which employee completed which individual questionnaire. The numbered card provided with the questionnaire is for follow-up purposes only. It is returned to a separate location to that of questionnaire and will enable a reminder letter to be sent to staff who are late in returning the questionnaire.

The success of the survey depends on a high response rate. Enquiries may be directed to Faye Franklin. EEO Unit on 3030.

Please give the completion of this survey your highest priority.

Peg MacLeod EEO Co-Ordinator.



## Staff Roundup

#### **Vacancies**

The closing date for applications is indicated in italics. Further details from Ross Walker, ext. 3934.

Senior Lecturer or Lecturer – continuing appointment or limited term, five years (convertible), Department of Chemistry. Reference AC 90-7. *April* 3.

Senior Lecturer – continuing appointment, Department of Business Systems. Reference AC 90-8. *April 3*.

Lecturer – limited term five years (convertible), Information Technology and Communication Unit. Reference AC 90-9, *April 3*.

Associate Professor in Health Planning/ Systems and Policy Analysis – continuing appointment, Department of Public Health and Nutrition. Reference AC 90-10, April 27.

#### Casual pay variations

ANZAC DAY, April 25, is the Wednesday before pay day. In order to have casual pay prepared on time, deadlines by which all information must reach the Pay Office have been brought forward one (1) day.

Part-time teaching returns must be received by noon on Friday April 20 and the casual timesheets by noon on Monday April 23.

#### The University Union

THE ANNUAL GENERAL MEETING of the Union will be held in the board room on Thursday April 12, at 12.30 pm. Copies of the 1989 *Annual Report* may be obtained from the Union in due course.

A special meeting of the Board and all general meetings of members may consider only the business set out in the notice convening the meeting.

All Union members are invited to attend.

Noel Diffey Secretary Manager

#### Agenda

- 1. Minutes of annual general meeting held on 20 April 1989.
- 2. Business Arising.
- Presentation of Annual Report and Accounts for the year ended 31 December 1989.

- 4. Appointment of auditors for 1990.
- 5. Motions of which due notice has been given.

#### Student elections to University committees

ARRANGEMENTS have been made to hold student elections for membership of University committees other than Council in conjunction with the SRC elections on April 9 to 12. Nominations close on Wednesday March 28.

To be eligible to nominate a candidate, or to be nominated for any position, a person must be enrolled in a degree or diploma in the University, as well as being enrolled in subjects or courses as required for the electorate to be represented, where applicable.

The terms of office of all positions shall be for one year except for the Undergraduate Studies Committee and the Board of Research and Postgraduate Studies Committee which shall be for two years.

Full details of the committees and election details are printed on the yellow posters titled 'Student Elections' displayed on student notice boards throughout the University.

K.E. Baumber, Returning Officer

### **Sport**

AN INAUGURAL MEETING was held for the formation of The University of Wollongong Touch Club. Tremendous interest was shown and it appears that the Club will field six to seven teams in May, in the Men's, Women's and Mixed Divisions. All interested players should attend the first training night on Monday April 23 at 5.30 pm, and every Monday thereafter. Meetings will be held at the bottom University Oval under coach Jill McGuiness and Duncan Davison.

The following people were elected:

President: Vice-President: Secretary:

Treasurers:

Barrie Keenahan Dr Paul Webb Jodi Maguire Glenn McGuiness

and Darren O'Brien
Equipment Officer: Tim Brown
Publicity: Ricky Tavish
Social Director: To be filled

Representative to Wollongong Touch

Association: Murray Cleal.

The Club will now submit its Constitution, Executive and players to the Sports Association Executive for ratification.

#### Selected for NSW country

TWO PLAYERS from The University of Wollongong Rugby Union Club have been players selected for NSW Country: Mark Giacherri and James Heiler.

Five players have been selected in the Illawarra District Senior Representative team: James Heiler, Mark Giacherri, Jeremy Sherman, Tim Brown and Simon Illiffe. Wayne Cotton made the Under 19 Representative team.

Any interested players should attend training at the bottom University Oval on Tuesdays from 6 to 8 pm and Thursdays from 7 to 9 pm.

#### ITC Uniadvice Limited

SHORT COURSE on *Analytical Techniques* for Environmental Monitoring, April 18 to 20, at The University of Wollongong; numbers 30 to 40. For information contact Margaret Prendergast, (042) 27 0076.

## Seminars

#### Department of Accountancy

Seminars are held in room 2001, in the Department of Accountancy, The Social Sciences Building at 11 am. Anyone who interested cordially is come.Inquiries to Hai Yap Teoh, Seminar Convener, telephone 27 0625.

Friday April 6: Associate Professor Hai Yap Teoh and Mr David Brooks, International harmonisation of accounting standards and practices: issues and prospects and Associate Professor Hai Yap Teoh, Use of Self-ratings and explicit weights in performance evaluation research

#### Department of Biology

Seminars are held from 12.30 to 1.30 pm in Building 35, Lecture Theatre G19, on Tuesdays.

March 27: Professor Duncan Brown, Tuross Head, NSW, Microbial turgor/volume control with metabolites

April 3: Professor H.M. Garnett, Department of Biology, The University of Wollongong, Biological highlights of the Galapagos Islands and South America

April 24: Dr Chris Dickman, Department of Zoology, University of Sydney, Diversity of insectivorous mammals and reptiles in the arid zone of Australia: an experimental analysis

#### Department of Business Systems

Thursday April 5 at 12.30 pm, Kemira Room, Union Building: Bill Filson, Manager, Systems Engineering State Bank, Telecommunications in the Banking Indus-

Thursday April 26 at 12.30 pm, Pentagon 3: Dr Perry Morrison, Department of Mathematics, Statistics and Computer Science, University of New England, Human-computer interaction: a survey of research directions

#### Department of Chemistry

Seminars, except where indicated, are held on Fridays in room 18/206 at 11.30 am.

March 30: Mark Imisides, Department of Chemistry, The University of Wollongong, Stripping analysis and other fun things you can do with polymers

April 6: Dr Trevor Hambley, School of Chemistry, University of Sydney, Modelling the interaction of platinum anti-cancer drugs with DNA

April 27: Dr Graham Heath, Research School of Chemistry, ANU - title to be announced

#### 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 April 5: Performance as research: discovering new work, Evert Le Mair and Henri Bok (Duo Contemporain) from the Rotterdam Conservatory will play and discuss a new work The Art of Puffing with its composer, Andrew Ford, as well as the joys and problems of playing new music. Enquiries to Dr Andrew Schultz, Director, Postgraduate Studies, School of Creative Arts (042) 27 0985.

#### Department of Electrical and Computer Engineering

Research seminars

Monday April 2, 12.30 to 1.25 pm in room 35G45: A. Prof. T.S. Ng, Advanced Telecommunications Research program at The University of Wollongong

#### Department of Geography

Wednesday March 28, room 19G027 from 12.30 to 1.30 pm: Dr Ian McDougall, The Australian National University, Geological context and chronology of the hominidbearing sequences in the Turkana Basin, northern Kenya

#### Department of Languages

Monday April 2, Building 19, room 2103 at 5.30 pm: Professor David Bellos, Head, Department of French Studies, University of Manchester, Balzac - a nineteenth century feminist?

#### School of Learning Studies

Seminars are held on Wednesdays at 12.30 pm in room 21.104

April 4: Noeline Kyle, Trends in UK education (1989-90)

April 11: Brian Cambourne and Jan Turbill, SLIC (Secondary Literacy Inservice Course): What it is, how it works, the theory base, the evaluation

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

### What's on

#### the art of lunch

Thursday 12.35 - 1.25 pm during Session Music Auditorium, School of Creative Arts, University of Wollongong Entry to Auditorium through Performance Space Foyer

#### March 29

Writer-in-residence Joanne Burns reads from her recent work.

#### April 5

The visiting Dutch ensemble Duo Contemporain give a recital of contemporary music for bass clarinet and keyboard percussion.

#### April 12

Aboriginal writers forum

#### April 26

Musica Troppo (David Vance, piano, Andrew Schultz, clarinet, Nicole St. Ilan, viola, and David Piper, cello) play a program of pleasant prandial pieces.

#### May 3

Writer-in-residence Joanne Burns joins writing students for a joint presentation of readings.

### **Advertisements**

#### FOR RENT

Three-bedroom fully-furnished home available for rent between July and November, Mt Ousley, close to University and schools. Contact David Ayres, ext. 3440 (Biology) or 84 0521.

#### ACCOMMODATION WANTED

Visiting Lecturer in Education with wife and three small children require accommodation in Wollongong area, Feb/Mar/Apr 1991. Contact Michael Stone, ext. 3321,

#### FOR SALE

Wedding dress size 10, pure ivory silk, v-neck with organza leaves, leg of mutton sleeves, pearl buttons on back and sleeves. Cost \$899, sell \$500 ono; also, two size 10 bridesmaid's dresses - apricot taffeta with lace and pearl appliqué, tulle skirt overlay. Cost \$180 each, sell \$200 loi. Tel. 61 2272.

#### WANTED

Duplo, Lego, good-quality toys, Tel. Roger ext. 3439 or Anna 28 7913.

#### SALE BY TENDER

The University has the following items for sale by

- 1. Eight Shinwa synthesized UHF/FM radio telephones model no SH405G.
- Seven leather cases for the above.
- 16 NI-CAD battery packs, type ZG 35 600MAH.
   Six single unit charges model \$0765D.
- 5. One eight-unit battery processor model S0768.

The University offers no guarantee on these items. Terms of sale are by cash or bank cheque. Enquiries to Mr G. Parsons (042) 26 0116.

Tenders close at 11.30 am on April 2.

Tenders should be placed in a sealed enveloped addressed to: Office Services, The University of Wollongong, PO Box 1144, Wollongong, NSW 2500 and noted Tender for Communications Equipment'.

#### SALE BY TENDER

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

Ford Falcon GL station wagon, 1987, Rego #000 654

Ford Falcon GL station wagon, 1988, Rego #0YW 084 The University offers no guarantee on the vehicles.

Terms of sale are cash or bank cheque. For inspection call Mr G. Parsons (042) 27 0116.

Tenders close at 11.30 am on April 2.

Tenders should be placed in a sealed envelope addressed to: Office Services, The University of Wollongong, PO Box 1144, Wollongong 2500 and noted Tender for motor vehicle'.

#### **BOOKCASES**

Made to measure; fixed or adjustable shelves. Materials of your choice, laminated or solid timber. Tel. 84 9275 for quotation.