



13 March 1990

# Asian languages taught at Wollongong University

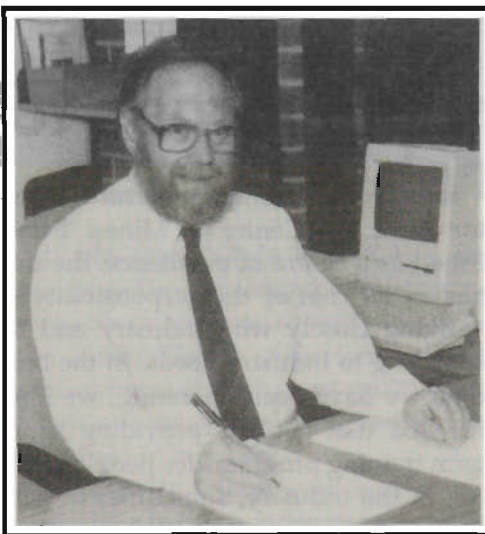
*Bahasa Indonesia/Bahasa Malaysia offered for first time this year*

THERE HAVE BEEN two important developments in the teaching of Asian languages at the University. First, Bahasa Indonesian/Bahasa Malaysia is being taught this year for the first time at 100-level during the Autumn and Spring sessions, as well as during the Summer Session.

The course has a dual focus on oral communication (listening and speaking) and the development of competence in reading and writing. Throughout the course the language is related to its socio-cultural setting. The course provides linguistic competence in the language's national variants as spoken in both Indonesia and Malaysia/Singapore/Brunei. There is extensive use of the language laboratory, and cassettes linked directly to the texts used by students are made available for loan by the department for individual practice in students' own time.

The University has also been given a substantial grant from the National Priority (Reserve) Fund to develop Indonesian in relation to teacher training and in-service courses for teachers. The department will be repeating a course it provided last year for students in the Department of Education who wish to go to Indonesia or Malaysia for their teaching practice, as well as providing courses for teachers who wish either to learn Indonesian from scratch or to refresh their knowledge of the language.

Since the History and Politics Department has recently appointed an Indonesian specialist, it is hoped that in the near future it will be possible to offer a Major in Indonesian/Malaysian which will enable students to reach a high level



*Professor Brian Moloney*

of competence in speaking, reading and writing the language, as well as giving them a deep understanding of the history and the cultures of the countries in which the language is spoken.

Secondly, the Senate and Council of the University have recommended that Japanese and Japanese studies be introduced in 1991.

## ***Undergraduates 'turn green'***

Dr Gerald Nanson reports that the number of applications for the Bachelor of Environmental Science course has doubled this year.

'We have just increased the length of the degree from three to four years. We had about 150 applicants and accepted 60', he said.

Dr Nanson says there is a need for an environmental science degree. Employ-

The National Priority (Reserve) Fund has made a grant available to employ a consultant who will design an intensive course which will incorporate computer-assisted language instruction in order to enable students to achieve a high level of competence. A period of residence in Japan will also be incorporated into the course, which will focus both on Japanese language and on history and culture.

Third, the Department of Languages already teaches French and Italian at all levels, as well as Spanish at 100-level. These new developments mean that in future it will be possible to offer not only a wider range of languages, but a range which is balanced – European and Asian – and is therefore better able to satisfy the needs of students.

Responsible for setting up the courses will be the Head of the Department of Languages, Professor Brian Moloney. Initially, for Japanese, he will be assisted by a consultant, Mr John McBride, formerly Executive Officer with the Australia-Japanese Research Foundation, Canberra.

ers are particularly interested in students with that sort of applied knowledge.

'So many environmental concerns are interdisciplinary', he said. 'A standard science degree is designed to produce chemists or biologists and doesn't generally encourage an interface between the two.'

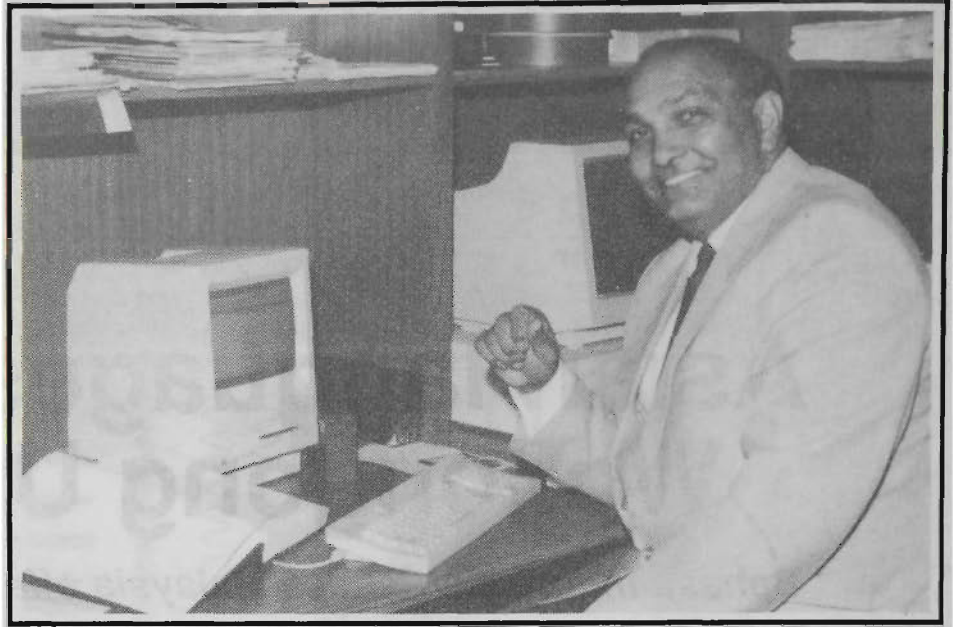
Environmental scientists must be able to interface all branches of science and operate within the social and political climate'.

## Professor of Mining Engineering

PROFESSOR RAGHU NATH SINGH has taken up his appointment as Professor of Mining Engineering within the Department of Civil and Mining Engineering.

Professor Singh came to Wollongong from the University of Nottingham in the UK, where he was Reader in Mining Engineering. He has held positions with mining companies in India and the UK. In 1984 he was Visiting lecturer at Wollongong University. He lectured in a postgraduate course in Mine Water and gave occasional lectures in Rock Mechanics.

Professor Singh obtained his qualifications from Benaras University in India and the universities of Sheffield, Wales and Nottingham in the UK. He was awarded a DSc from Nottingham for his published work: *Aspects of Stability and Safety of Mine Workings*.



## Universities combine forces to boost mining expertise

### Key Centre for Mines opened

MINING, one of Australia's most profitable industries (providing up to 43 per cent of the country's export income), will benefit through the expertise offered by the Key Centre for Mines. A joint initiative of the Universities of NSW and Wollongong, the Centre was officially opened on December 5 by the Minister for Primary Industries and Energy, John Kerin.

Says Professor Charles Gerrard, Director of the Key Centre for Mines: 'Established as a centre of excellence, the unit has as its charter the responsibility of working closely with industry and responding to industry needs. In the brief time we have been operating, we have fulfilled that goal by providing short-term training programs for people working in the industry, sometimes on site, and co-ordinating teams of experts to work on new products or particular industry problems.'

The Centre brings together expertise from both university campuses – the Departments of Mining Engineering, Applied Geology and Mineral Processing and Extractive at the University of NSW; and Geology, and Civil and Mining Engineering at Wollongong. Additionally, other disciplines are called upon as required and the centre forms consortia from both within the universities and among industry experts.

Covering all aspects of mining, from exploration to extraction and primary processing, the Centre offers a range of award courses and short course programs, and co-ordinates contract research, consulting and market study projects.

'The Centre is committed to developing distance education programs to important mining centres', says Professor Gerrard. 'We are developing a Masters Degree in mining which is targeted to on-

site mining personnel. Students undertake some studies at the NSW and Wollongong campuses in addition to receiving instruction at the work place by travelling academics. Apart from the convenience for students, this arrangement accentuates the relevance of the material and is supplemented by an industry-based research project specifically selected to enhance their understanding of the organisational environment.'

A commitment to international development has seen the Key Centre for Mines participate in consultancy and training programs in emerging nations. For example, the Centre has an ongoing link with a Korean company to train students in Australia and is looking at providing short courses for Chinese students.

### Courses/Conferences

#### A commercial guide to technology law

This one-day course will be presented by Blake Dawson Waldron, Solicitors, at the Illawarra Technology Centre, on Tuesday March 20. The program: *An Overview of the Relevant Legal Rights*, Jennifer Stuckey-Clarke; *The Inventive Rights I – copyright, designs and information technology*, Mark Speakman; *The Representation Rights – protection of business reputation*, John Gilchrist and, *Commercial Dealings with Inventive Rights*, Mark Speakman/Jennifer Stuckey-Clarke. Cost \$70. Information from Graham Frost on (042) 26 8888.

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THE CURRENT term of appointment of the Medical Research Committee of the National Health and Medical Research Council expires at the end of 1990. Nominations are being sought for appointment to the Committee by the Minister for Community Services and Health for the triennium 1991-93.

One membership category for appointment is - 'a person from among persons nominating themselves as interested in appointment, being persons engaged in research in health sciences other than medicine and dentistry'.

Those wishing to express an interest should write to me at GPO Box 9848, Canberra, ACT 2601, by 1 May 1990 enclosing a curriculum vitae which clearly indicates their research interests, track record, and the nature of the contributions they would anticipate making to the Medical Research Committee.

Associate Professor L.L. Viney, Department of Psychology, University of Wollongong, currently holds the appointment. The Medical Research Committee holds three meetings (each of two days' duration) each year, usually in Canberra.

Please contact me (062-89 8062) or Mr Joe Corcoran (062-89 7019) if we can be of assistance.

R. Wells, Deputy Secretary of Council

## Trainee of the Year

FOR THE SECOND year in succession, one of the University's electrical engineering students won the BHP Trainee of the Year Award. David Irvine, a student enrolled in the BE in Electrical Engineering Course within the Department of Electrical and Computer Engineering, was awarded the 1989 Bill Burgess Trainee of the Year Award at the BHP Illawarra Technical Society's Annual Dinner.

David attended Wollongong High School before joining BHP and embarking on his studies with the Department in 1984. Since then he has been working with the process development engineers on the continuous galvanising lines, steering rolls, control and automation projects at BHP Sheet and Coil Division.

Last year, the final of his seven years' part-time program, David completed his thesis project entitled: *Two Phase Resonant Link Inverter* under the supervision of Dr Don Platt. He also completed a management elective which covers business and manufacturing management.

TODAY'S approaches to the reduction of work-related stress can lead to unhealthy practices. There is, however, a positive means by which the rigours of daily living can be alleviated. Simply put, recreation offers an opportunity to be involved in both active and passive pursuits capable of relieving daily stresses.

The University of Wollongong Recreation and Sports Association provides activities for students, staff and the general community with a view towards encouraging a healthy lifestyle.

Far removed from the notion of having to be a good athlete to be involved with the Recreation and Sports Association, the emphasis of the Association is to provide a diverse range of activities capable of meeting the needs of a constantly changing academic population.

The Association offers activities ranging from yoga, Tai Chi and belly dancing

to canyoning, parachuting and hang gliding. Our 'Learn to Play' and 'Outdoor Adventure' activities provide a vast array of opportunities to be involved in recreational pursuits.

Those interested in social, competitive and fun sports can participate in our Intra Mural lunchtime activities. Currently there are activities during each common lunchtime, within session.

Opportunity exists, particularly for academic staff, to be involved in time efficient, stress-relieving healthy activities. Unirobics and Unicircuit are offered at times suitable to staff on a tight schedule.

All activities detailed give but a small insight in to what the Recreation and Sports Association is all about.

How do you find out more? Call in, or phone 28 1266 (ext. 3361).

## Best student presentation

ELIZABETH KUZMANOVSKA, a student from The University of Wollongong, has just been awarded a prestigious prize. The Public Health Association (PHA) made the award for the best student presentation at the Annual Conference of the PHA held in late 1989.

Elizabeth is a third-year nursing student with a background in migrant health research. Her presentation reported on a survey on migrant access to health services in the Illawarra Area Health Service (IAHS). She interviewed 32 health professionals and administrators concerning the level of awareness about cultural differences, use of the interpreter service and their role. She said, 'The survey demonstrated a lack of understanding concerning the Health Department's guidelines, which aim to facilitate migrant access to health services. There is still a considerable degree of ignorance and a lack of sensitivity concerning not only migrants themselves but, more notably, the difficulty of having to contend with

a foreign health system. Every migrant has the right to the use of the Health Care Interpreter Service. There was a near total lack of acknowledgment, by health professionals, concerning this issue. Relatives and friends were often preferred as interpreters because this was 'much more convenient' for health staff. This is disputable by the mere fact that relatives/friends tend to miss or deliberately cut out vital information during a consultation.

What the IAHS desperately needs is a full-time staff development officer. This was the Migrant Health Services major recommendation which arose from the report.'

Elizabeth Kuzmanovska



# Some considerations for the use of microcomputers

## NOT AN INTRODUCTION: MORE A WAY OF LIFE



1. Hardware: protect it



2. Software: beware of pirates ...



and viruses!

THIS DOCUMENT is intended for the user of any microcomputer on campus, whether an Apple Macintosh, an IBM PC, or an IBM-compatible. It aims to alert you to some factors which will assist you in the continued efficient use of the facilities which these little marvels can provide for you. It has been produced, assuming a familiarity with certain computer jargon, to suggest the need for care in the use of these machines and software and raises issues under each of the following headings:

1. Care and Maintenance of Hardware
2. Software and Associated Problems
3. The Need for Backup
4. Data Security Considerations.

This document is NOT intended as an introduction to microcomputers, so please do not regard it as such: it merely represents some points worthy of consideration. If, however, you have any suggestions to make regarding it or queries, please contact the Head of the Administration D.P. Unit on 3376.

### 1. Care and maintenance of hardware

Hardware includes not only the box containing the 'brain' of your computer but also the keyboard, the screen (if a separate piece), any external disk drives and the floppy disks on which you store programs and data: all the physical components of your computer. You should take care to ensure that your hardware remains reasonably clean and in a relatively clean environment. As far as practical keep hardware out of excessive sunlight and away from heat and strong magnetic forces as well as liquids, such as coffee.



3. Remember backup



4. Secure your data

Dust on disks, coffee in keyboards and strong magnetic fields can all contribute to problems with your machine, whether in the form of lost data, in reduced performance or in creating potential electrical problems: keep it in good order and your computer will serve you well.

### 2. Software and associated problems

It is important that you use legitimate copies of software and do not associate yourself with 'pirated' programs. There are two things which you might consider here: prosecution for copyright infringement and infection by a 'virus'.

Any illegal copying in which you are involved renders both yourself and the University liable by law to prosecution by either the author or distributor of the software concerned. Penalties are growing stiffer and dismissal is an option your employer may choose to exercise.

While not all copying is illegal, you should be aware that ANY copying of software, the exchange of data or your own use of someone else's machine may lead to your catching a computer virus. Viruses have already been detected on this campus and they should not be taken lightly. Not all viruses are much more than an irritation and there are 'vaccines' available to remove certain varieties and programs which can monitor for or detect their existence. However, consider the amount of work which you could lose if you find yourself 'infected' by one of these rogue programs.

Furthermore, remember that the University is able to provide cheaper 'academic editions' of many of the more popular programs such as Microsoft Word and Excel, through the Apple Consortium, for both University and private purchase. These come WITHOUT the risks discussed above and WITH the full support of the Consortium.

### 3. The need for backup

Taking 'backups' (copies) of your programs and data at fairly frequent intervals is an important activity often overlooked. P.C. software and hardware are known to have occasional problems, so you should plan routine backup, including backing up your hard disk, if applicable. Consider the amount of work which you might have to re-do in any



## Distinguished visitor

### *Professor Li Xiang from Guizhou University*

PROFESSOR LI XIANG, President of Guizhou University in the People's Republic of China from 1984 to 1989, and now Honorary President, is working with the Dean of the Faculty of Informatics, Professor Martin Bunder, to March 24.

Professor Li is the author of three books and many papers on Computational Theory and Logics related to Computer Science. He is editor or editor-in-chief of three journals and a series of monographs, a Council Member of the Chinese Mathematical and Computer Societies and is also a member of the National Committee of the Chinese Association for Science and Technology.

During his current sabbatical leave, Professor Li has also worked at the Australian National and Monash Universities. He has been awarded a Distinguished Visitor Fellowship for the period of his stay in Wollongong.

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problem situation in order to recover your records/systems: keep a track of your P.C.-based activities in order to facilitate any necessary backtracking.

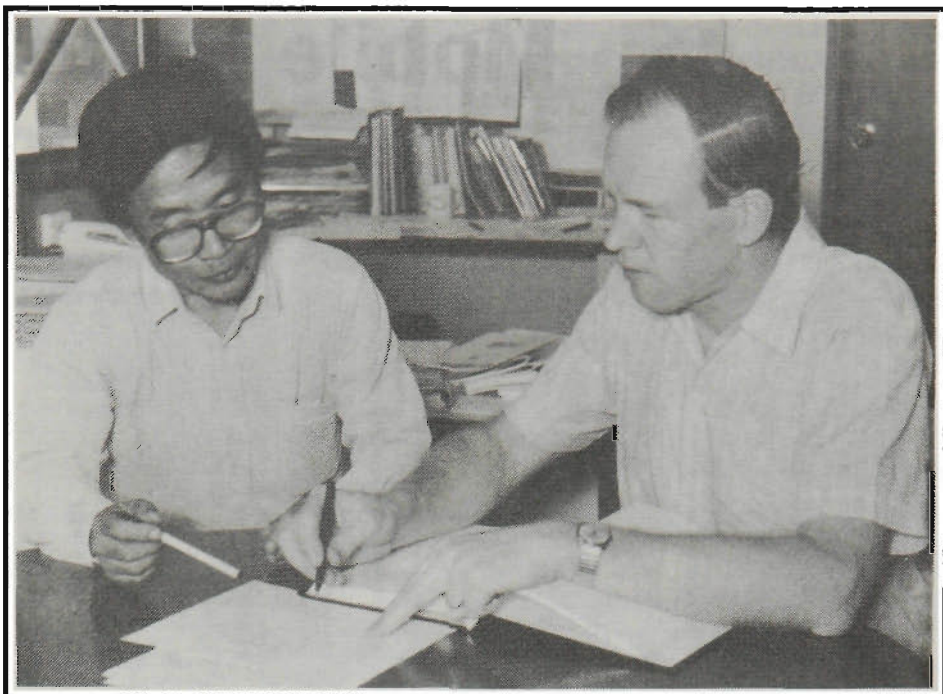
Obviously you should also consider keeping your backup disks in a secure and separate location from your machine to cover the possibility of loss through theft or fire and consider the possible need to protect your P.C. from power surges and the damage which can result.

#### *4. Data security considerations*

Although you may not automatically think of it, there may be things which you keep in your P.C. which you would not want available to others. In much the same way as you would lock your filing cabinet overnight you should, particularly if you are attached to a network, secure your data.

This might suggest that you make use of password entry to files/folders on your Mac, or it might mean using hidden files on your IBM P.C. Ensure that you don't leave your machine unattended in an unlocked office, lock away your floppy-disks and beware of keeping sensitive files on your hard-disk or a file server in a network. Take care directing output through network output devices and be careful not to leave sensitive printed reports 'lying about'.

**ADP Unit,**  
University Administration



*Professor Martin Bunder, Dean, Faculty of Informatics, with visitor from China Li Xiang*

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## Visitors from Britain

WAYS of improving links between industry and higher education, a sharing of experiences of what is happening in that area in Britain, and observations on what is taking place in Australian industry: these were the main objectives behind a visit made to this University on February 12 by two distinguished visitors from Britain.

The visitors, both members of the British Council for Industry and Higher Education, were Mr Patrick Coldstream, Executive Director of the Council, and Mr Robert Reid, who is also Chairman and Chief Executive of Shell UK. The visit was arranged by Mr John Dawkins, Federal Minister for Employment, Education and Training, who accompanied the visitors to Wollongong.

## SCA hosts artists and writers

THE School of Creative Arts will be host to several Artists and Writers in Residence this year. Among them will be Tie Hua Huang, scholar and master painter, at the School for six weeks in Autumn Session (an exhibition of his work is on display in the Long Gallery to April 8); Duo Contemporain (Henri Bok and Evert le Mair), musicians, for two weeks in March; Clifford Frith, sculptor, four weeks in April/May; Joanne Burns, writer, for six weeks in April/May; Kathy Nix, paper artist, for three weeks in July/August; Charles Reddington, a painter, for three weeks from August 6 to 24; Lisa Moore,

pianist, three weeks in August; Vincent Plush, composer, three weeks in September; Anthony Gilbert, composer, for four weeks in the Spring Session.

Further details of these noted artists will be published as their visits draw close.

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## Need child care on campus?

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

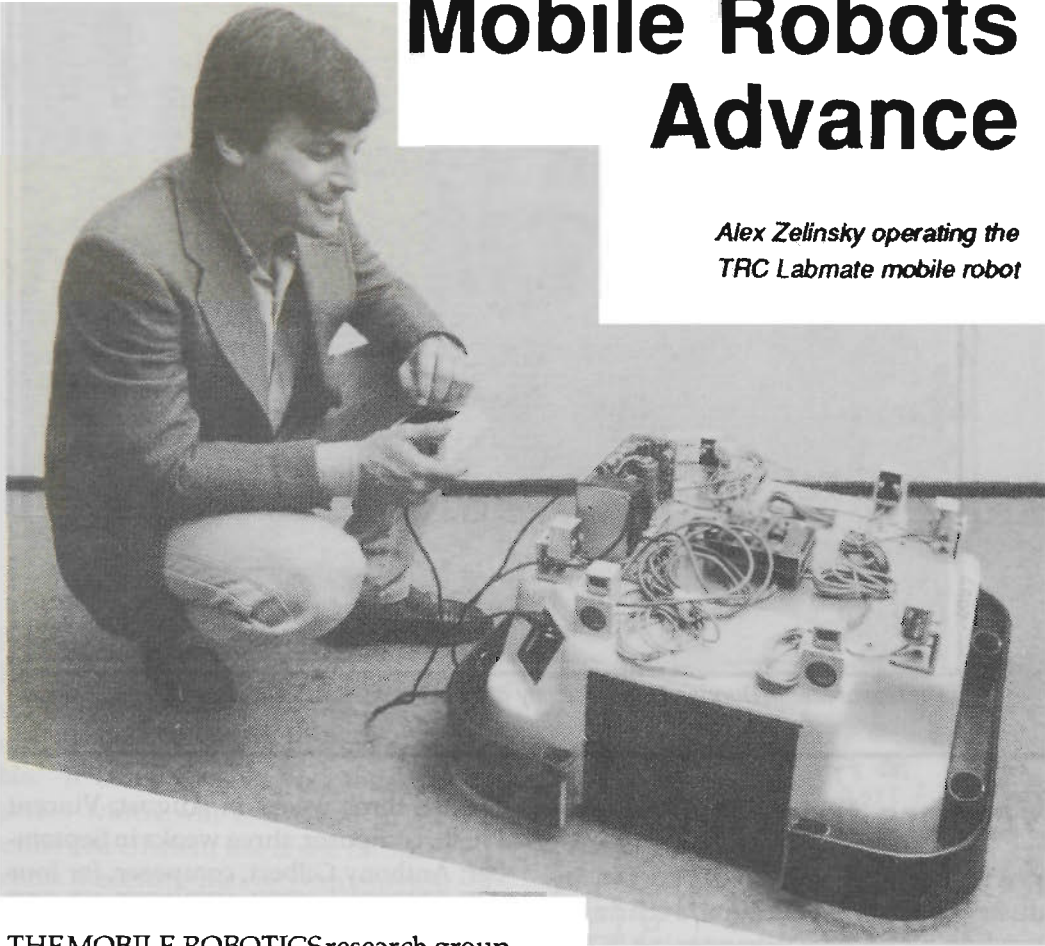
The 20 new child-care places are reserved for the children of students in:

- \* 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.

# Mobile Robots Advance

Alex Zelinsky operating the TRC Labmate mobile robot



THE MOBILE ROBOTICS research group in the Department of Computer Science has taken delivery of a new mobile robot. The model was purchased with funds allocated to the Industrial Automation Research program, a joint program between Computer Science, Electrical and Computer Engineering and Mechanical Engineering.

Robotics research began in the Computer Science Department in 1979 with the purchase of a 'Turtle' robot. As the 'Turtle' suffered from poor directional control, it was replaced in 1980 by an Australian-made 'Tasman Turtle'. This was used for teaching and research in conjunction with computer literacy courses in local schools. Turtle robots are, however, inadequate for the extensive research into intelligent autonomous systems being undertaken by Dr Phillip McKerrow and Mr Alex Zelinsky.

The two have worked together in robotics research since 1983, when Phillip taught the department's first robotics course in their newly established robotics laboratory. Alex was a student in that course and developed the control software for a robot arm as his honours project.

Currently, Alex is working on navigation and planning algorithms and Phillip is working on auditory mapping using echolocation. Their research integrates in the control of the mobile robot.

The Labmate robot was manufactured by Transitions Research Corporation (TRC) of Danbury, Connecticut. TRC is owned by Joe Engleberger. Joe is known as the Father of Robotics because he started the first company to manufacture industrial robots - Unimation. After selling Unimation, he started TRC as a research company to develop mobile robots for use in service industries. Phillip visited their research laboratories in January, and saw a nurse's-aid robot and a floor-scrubbing robot. Both of these are undergoing field trials.

The acquisition of the Labmate mobile robot will enable Alex and Phillip to continue their own research and to tap into the research at TRC. In addition, they are collaborating with researchers in Tsukuba, Japan, and Edinburgh, Scotland, on mobile-robot research projects. This collaboration was established through study leave and attendance at international conferences. Alex was sponsored to attend the 'Intelligent Robots and Systems Workshop' in Tsukuba by the Japanese MITI organisation, and Phillip was co-sponsored by the University of Edinburgh to attend the 'Intelligent Autonomous Systems Conference' in Amsterdam.

## Preparing today's students for technology's tomorrowland

STUDENTS leaving Australia's secondary education system in the future must be able to cope with and capitalise on change. The challenge now facing researchers is to find out what new training and education these students will need so that they can survive and thrive in a technology-dominated tomorrow.

Wollongong University's Centre for Technology and Social Change (TASC) holds the Federal Department of Employment Education and Training contract for a national survey to discover the level of technological awareness among Australia's secondary school students. The project is being directed by Barbara Lepani.

Pilot studies in the Illawarra are refining the basic questionnaire to be used nationally early next year. Findings are to be reported to Canberra by May.

Ms Lepani sees students of the future needing expertise in creativity and risk-taking to give them the courage to take each day as an education experiment and experience. She says they have to be prepared to enter a business and commercial world where creative thinking will be one of the tools being used to break the boundaries of established perception and assumptions and expectations. She says Australian students must develop the emotional and intellectual capacity to cope with change, to capitalise on its opportunities and to manage its potential negative aspects.

Learning strategies, management methods, work design skills, methods of group integration and teamwork, visioning, mental reframing and cross-cultural understanding and communication would be the soft technologies enabling students of tomorrow to operate in the new global economy. Ms Lepani sees these skills as the 'invisible glue' binding together communities, enabling them to capture the benefits from new technologies.

Researchers have determined, she says, that Australian youth is having difficulty capturing the perspective of social benefit evolving from technological change. Students would have to be skilled in



## Books and Reading

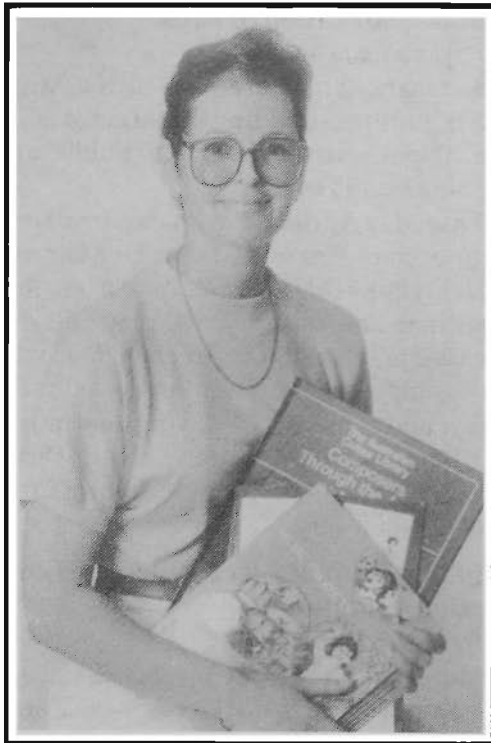
### Composers through the ages

MS NITA TEMMERMAN, newly appointed Lecturer in Music Education in The School of Policy and Technology Studies in Education, Faculty of Education, has just had published *Composers Through The Ages*. The book is part of Macmillan's Australian Colour Library series for young people.

Chronologically ordered, it focuses on the life and works of 15 major composers who have significantly influenced the course of music history. The composers featured are Handel, Bach, Haydn, Mozart, Beethoven, Schubert, Chopin, Wagner, Strauss (jnr), Tchaikovsky, Debussy, Stravinsky, Gershwin, Dylan and the Beatles. A brief outline of each of the musical eras, from the Renaissance to the 20th century pop era, is also provided as a glossary. The book is accompanied by a set of extensively illustrated wall charts that aim to introduce children (as well as the not so young) to the history of music and stimulate their interest in music.

*Composers Through The Ages* is Nita's third publication with Macmillan in recent years. The first *Creative Ideas for Teaching Music* (1987) sold out in its first year of publication and is into its second reprint. The book contains 48 self-explanatory activities for teachers and students working in the middle to upper primary classes related to rhythm, melody, form, style, expression, composers and instruments of the orchestra.

*Music Projects For The Classroom Teacher*, published in 1989, extends the ideas incorporated into *Creative Ideas*. It contains



Ms Nita Temmerman

16 projects for the non-specialist primary classroom teacher that assist in teaching the key music concepts that have been identified by current school music syllabi and music education programs.

A further three music titles by Nita Temmerman are expected to be published in 1990, two by Macmillan and one by Ashton Scholastic.

### Grant Watson

THE WRITINGS of Grant Watson (1885-1970) are important.

First, he wrote eight of his novels and numerous essays about Australia, although these have so far not been given the critical attention they deserve.

Second, Watson was a naturalist who brought to the living world not only great literary skill, but also a challenging ana-

lytical perspective which did not accept the inevitable irreconcilability between *homo sapiens* and the rest of the living world – that separation between the humanities and science made famous by C.P. Snow.

A conspectus of Watson's work, *Descent of Spirit*, is selected, edited and presented by critic and poet Dorothy Green, who describes Watson as 'one of the most perceptive and imaginative writers ever to visit Australia'.

Grant Watson's visit to this country in 1910-11 gave fresh energy to his engagement with the paradoxes of nature. Informed by an appreciation of the evolutionary theory of Jean-Baptiste Lamarck, Watson's writings offer the reader an understanding of life which complements the Darwinian hegemony dominating biology today.

This theme is taken up by biologist Dr Ted Steele (Department of Biology) in his foreword to *Descent of Spirit*, wherein Steele explains his concept of 'unfolding symbiotic evolution' which, he argues, is central to Grant Watson's thinking.

The book is illustrated throughout with etchings reproduced from the original editions of Watson's works.

*Descent of Spirit*, A Conspectus of E.L. Grant Watson, Edited by Dorothy Green-Scientific foreword by E.J. Steele, Primavera Press, \$19.95 RRP

### Researching the impact of weather change

WHILE most of us during the vacation were frustrated beyond measure by the near-endless rain, the Federal Government to its credit took a longer view. It decided to commission The University of Wollongong to research the impact of threatened climatic changes on the health of Australians. This will be an entirely new study, an independent assessment of scientific opinion on the possible effects of the thinning of the ozone layer. There is as yet no consensus among scientists of the likely impact in the event of the much-bruited change.

The grant, \$34,308, is awarded to Professor Dennis Calvert, A. Prof Christine Ewan and Dr Edward Bryant.

The team is to advise the government by June on the need for public-health policy changes to meet the threats. Concern about mosquito-borne diseases follows predictions that as a result of the greenhouse effect Australia's rainfall could increase by 50 per cent with a 2deg to 4deg increase in air temperature.

from facing page

keeping pace with technological innovation and processes of globalisation.

Enterprise skills would be their third passport to workforce performance, adding to academic credentials and vocational skills. The focus would shift from tangibles such as raw materials, machinery and numbers of workers to the intangibles of knowledge, attitude, potentiality, culture, concepts and design.

The challenge now was to develop an education process whereby students even in early high-school years could come in contact with some of the new technology-

related knowledge skills required for their future. TASC's national survey will establish the baseline on Australian students' present concept and knowledge and association with technology and change. TASC will welcome comments and contributions from all sections of the community.

Contact: Barbara Lepani, Director of the Human Resources and Technological Change Program, Centre for Technology and Social Change at Wollongong University's Illawarra Technology Centre, phone (042) 268866.

## Seminars

### Department of Accountancy

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

**Friday March 16:** Mr Robert Shannon, *Accounting standards overload problem: a suggested solution*

**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 Business Systems

**Thursday March 13,** Kemira Room, Union, at 12.30 pm: Mike Ward, Visiting Lecturer in Business Systems, Department of Computing, Trent Polytechnic, Nottingham, UK, *SQL and Business Systems*

### Department of Chemistry

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

**Thursday March 15,** room 38/GO1: Dr Richard Keen, Department of Chemistry, James Cook University, *Carbon dioxide reactivity - is there life after death for carbon?*

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

## Library Photocopying Services

NEW CARD vending equipment has been installed on photo-copiers and printers in the University Library.

From February 25, a Copy Card has been required to operate photocopiers and printers located in the Main Library and the Curriculum Resources Centre. Cards will be available from dispensing machines in the Main Library (photocopy room and computer laboratories) and in the Curriculum Resources Centre.

Resource Cards may be exchanged for Copy Cards free of charge in the Main Library photocopy room until March 25. Residual credits on the Resource Cards will be transferred to Copy Cards. Until March 25, a Resource Card photocopier will be located outside the photocopy room on the ground floor of the Main

### 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 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 March 19,** room 35G45, 12.30 to 1.30 pm: Mr David Pierce, *Non-contact optical distance gauge*

### School of Learning Studies

Seminars are held on Wednesdays at 12.30 pm in room 21.104

**March 21:** Michael Stone, *Deconstruction goes walkabout*

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

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

### Philosophy and Law seminar series

**Monday March 26,** room 19.1083 at 4.15 pm: Dr David Neal, Commissioner, Law Reform Commission of Victoria, *Antisocial personality disorder, mental illness and civil commitment*.

Enquiries to Suzanne Uniacke (042) 27 0604

Library. Holders of Resource Cards may use this machine to eliminate credits on their cards. Credits not utilised by March 25 will not be refunded.

Enquiries about photocopiers, printers or cards should be directed to the Copy Card representative in the photocopy room of the Main Library.

## Illawarra committee for overseas students

THE FIRST 1990 ICOS Committee event is a coach trip to Symbio Animal Park (Helensburgh) and Kelly's Falls on Sunday April 1. The cost: \$9.50 for non-sponsored students, \$5 for sponsored student and \$3 for children (4 to 12 years).

Details and tickets from the ICOS desk, Administration Building, Tuesday, Thursday and Friday, 9.30 am to 2 pm. Tel. 27 0158 or ext. 3158.

## Attention creative writers, political columnists, angst-ridden bards and garretted visual artists!

YOU ARE INVITED to come out of the woodwork and contribute your finest work to the new campus quarterly *Cynghanedd*.

It is intended to allow contributors the widest range of media possible to give vent to their creative urges. These will include:

Artwork - b/w prints, cartoons, sketches and photography;

Prose - short stories, abstracts, reviews and criticism, and essays on any subject, consistent with the editorial policy of the Cynghanedd Guild;

Poetry - on any subject, in any form;

Puzzles - crosswords, brain-teasers, and conundrums.

Material submitted for publication in *Cynghanedd* will be subject to the discretion of the editorial board of the Cynghanedd Guild and must be original. However, no submission will be altered, doctored, or otherwise 'edited' without consultation with the contributor. Material may be included or excluded on the grounds of originality, quality, and quantity according to the discretion of the editorial board of the Cynghanedd Guild. Submissions which, in the opinion of the editorial board, are sexist, racist, libellous or gratuitously offensive will be deemed unacceptable for publication.

Submissions should be typed and double-spaced on A4 paper, or on 3.5 inch disc. All submissions must include at least a name or nom-de-plume and must be either hand delivered to the Cynghanedd Guild pigeon-hole in the English Department, or addressed to the Cynghanedd Guild, c/o Wollongong University SRC, PO Box 1144, Wollongong, 2500.

The tentative deadline for the first edition, which will be published mid-April, is Friday March 30.

## Advertisements

### KIAMA RESIDENTS

If you drive to the University and would be prepared to accept a contributing passenger (mornings only) please contact Warwick Funnell on ext. 3739 in the Department of Accountancy.

### FOR RENT

Tired of commuting yet?

Room available for rent, preferably on a Monday to Friday basis, but negotiable. Attractive house, quiet cul-de-sac in *Farmborough Heights*, 15 minutes from Uni. Phone Mary Greenwell, ext. 3727, for details