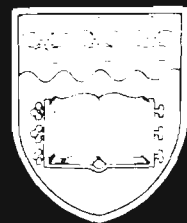


THE UNIVERSITY OF WOLLONGONG CAMPUS NEWS



December 4, 1990

Barry Jones joins Wollongong Uni

THE HONORABLE Barry Jones, MP, has accepted a special appointment at the University of Wollongong as a Professorial Fellow in the Department of Science and Technology Studies.

On announcing the appointment, the Vice-Chancellor Professor Ken McKinnon said: 'I am delighted that the University has been able to negotiate an arrangement which allows us to use, on an intermittent basis, the scholarship and special skills of Barry Jones.'

This University especially emphasises, in its courses and research activities, the comprehension, critical evaluation and application of science and new technologies to society.

'Barry Jones' extensive expertise will enrich the work being done at this University to develop a better understanding of the good management of science and technology.'

'His energy and communication skills are bound to enthuse our students. We are looking forward to a stimulating relationship.'

Mr Jones' involvement with the University will complement his parliamentary duties.

He will give lectures to undergraduate students and supervise some postgraduate students.

As well, he will give two public lectures or workshops a year and play a role as a member of the Science and Technology Analysis Research Program.

Mr Jones, a former Minister for Science in the Hawke Government, said he thought his experience would make a valuable contribution to the university.

'The fellowship gives me an opportunity to use some of the energy that I would have expended as Science Minister,' Mr Jones said.

'I couldn't help being conscious of how often I'd received invitations to Wollongong to open seminars where they were talking about some new area of industrial development.'

'Although a relatively small university, there is an enormous amount of activity here and the area of interest coincides to an uncanny degree with my own interests.'



Barry Jones, the University of Wollongong's Professorial Fellow, is interviewed at the announcement of his new position

ITC awards exchange scholarships

THE ILLAWARRA Technology Corporation has awarded the first of 10 scholarships for students who are participating in the student exchange programs conducted by the University of Wollongong.

The scholarships, which are to the value of \$1000 each, will be awarded annually to full-time undergraduate or postgraduate students on the basis of academic merit.

Members of staff of the ITC or the University are not eligible for the scholarships.

The first scholarships have been awarded to Roger Bolton (Bachelor of Mathematics), Ruth Freed (Bachelor of Applied Science), John Mackey (Bachelor of Commerce), Greg Newman (Bachelor of Environmental Science) and Sonja Taurins (Bachelor of Applied Science).

These students are part of a group of 23 students who begin their studies at various universities in the United States in January. Managing Director of the Illawarra Technology Corporation, Mr Jim Langridge, presented the cheques to the scholarship holders at a presentation on November 23.

Mr Langridge said the ITC was proud to be associated with the exchange program

Continued page 2

AEAC airline preset system wins prestigious award

THE AUSTRALIAN Institute of Materials Management has announced that its oldest award, the John Thompson Trophy, has been won in 1990 by Qantas Flight Catering for the Automated Airline Tray Presetting System.

The system was designed and manufactured by the Automation and Engineering Applications Centre Limited, a wholly-owned subsidiary of the Illawarra Technology Corporation Limited.

The trophy is awarded annually for the greatest innovation and foresight in materials handling, and in previous years has been awarded to companies such as IBM, BHP, Kelloggs and Ford.

The National Chairman of the Institute, Mr Boon Tan, said in presenting the trophy: 'Normally there is long, detailed debate by the selection committee to evaluate the merits of the nominations, and decide who should be awarded the trophy.'

'However, this year, after viewing the video presentation, the committee's decision was immediate and unanimous.'



General Manager, Qantas Flight Catering Ltd, Mr Peter Elwin, with NSW President, AIMM, Mr David Garhgam; National Chairman, AIMM, Mr Boon Tan; and Managing Director, AEAC Ltd, Mr Ross Doonan

In accepting the award General Manager of Qantas Flight Catering Limited, Mr Peter Elwin, paid tribute to the vision, creativity and technical expertise of the AEAC engineers in solving the numerous challenges presented.

'Australia is now leading the world in the application of advanced technology to airline catering operation, and in conjunction with AEAC this technology is set to be sold to airline catering companies through the world,' Mr Elwin said.

Managing Director of AEAC, Mr Ross

Doonan, said: 'We are delighted to have the opportunity to work with a company with such foresight as Qantas. They are great supporters of Australian innovation and technology.'

'Negotiations are well advanced with a number of major overseas airline catering companies for the purchase of automated preset systems, which will be a significant economic boost to the Illawarra.'

'We are very proud of the AEAC engineers who worked relentlessly for four years to create this world first technology.'



ITC Managing Director Jim Langridge with scholarship winners (from left): Greg Newman, Ruth Freed, Sonja Taurins and John Mackey

ITC awards exchange scholarships

From page one

and to be able to assist students who may not otherwise have such a unique opportunity to live and study in another country.

The students will return to their studies at the University of Wollongong and will contribute significantly to the goal of internationalising the University.

The University aims to increase the numbers of students who complete part of their degree overseas and these scholarships are seen as an integral part of the strategy to increase the numbers.

The University has formal links with 12 institutions in the US and is finalising similar agreements with universities in the UK and Europe.

More details about the Student Exchange Program can be obtained from the International Office.

What's happening in the various divisions of ITC

The first ITC News, published in Campus News in September 1990, provided an overview of the Illawarra Technology Corporation (ITC). This issue outlines some of the activities being undertaken by a number of the Divisions within ITC.

INFORMATION TECHNOLOGY DIVISION

The Centre for Information Technology Research (CITR)

CITR has been established to conduct research into the design and use of information technology. It takes an interdisciplinary approach and combines expertise in hardware design, software development, systems implementation, evaluation and impact assessment. CITR undertakes contract research and consulting for industry and government and conducts management, professional and technical training courses. The Centre seeks to cooperate and exchange information with other organisations working in related fields within Australia and internationally.

Key areas of research include:

- the design of technical aspects of new telecommunications systems, particularly development of new transmission and switching techniques;
- changes confronting telecommunications equipment suppliers, carriers and users in a deregulatory environment;
- issues associated with the introduction and use of information technology in large organisations, including software development and human impact;
- the role of information and communication technologies in service infrastructure and regional development;
- creation of professional, management and technical training programs for clients in the information and communications business.

Research CITR has been instrumental in negotiating a decision by Northern Telecom to locate a R&D facility at the University. This facility, the Nortel Technology Centre, is Northern Telecom's R&D centre for the Asia and Pacific region. Negotiations with Telecom Australia have led to the location of a major telecommunications software development facility on the University campus; the Telecom Software Solutions Centre conducts leading edge research into Telecom's development of intelligent networks. Additionally, CITR has been selected by Telecom Research Labs as a Centre for Expertise in Fast Packet Switching. This involves a collaborative relationship with members of the Advanced Telecommunications Research Group, including those located at the University of Technology Sydney. Also being undertaken is a three-year research contract with Canon Inc (\$3.5 million), for a project in the area of integrated digital networks, as well as

research on behalf of OTC Limited. Further contracts are anticipated within the next few months.

Training A series of professional development and advanced management training programs has been developed exclusively for Telecom Australia, and the federal Department of Industry Technology and Commerce has commissioned CITR to establish a database of Australians working in information technology research overseas, with the objective of informing them about research opportunities in Australia.

POLICY AND MANAGEMENT DIVISION

The Centre for Technology and Social Change (TASC), Centre for Transport Policy Analysis (CTPA) and Centre for Work and Labour Market Studies (CWALMS)

Bank Enquiry As a result of the current controversy concerning the policies of financial institutions, local MP, Stephen Martin, is to chair a House of Representatives enquiry into the Australian banking industry. The inquiry will examine issues such as the banking systems role in the Australian economy, the profitability of the banking sector, competition in the banking sector and its effects on different community sectors. TASC has been awarded a contract to assist in preparing the Australian Bank Employees' Union submission. This contract will build on a series of studies conducted by TASC into the Australian banking and finance sector over the last three years.

Graphics Freight Movement In 1989 CTPA, with the support of six sponsoring agencies, launched a major three year project which would provide a data base on Australia's domestic freight flows. Data collected covered 60 commodities in 9 major commodity groups moving between 91 originating and destination regions within Australia. By 1991 the freight project will not only establish the most comprehensive, interactive data base yet available for Australian freight movements, it will also transform this data base into an information system graphics format. This means that not only will freight data be available in numeric format, but it will also be able to be seen in its locational and relational patterns. This graphics format will enable the user to see how much of what commodity is moving between one region and another, the transport mode and also what path it will take.

Workforce Needs of Immigrant Women CWALMS is conducting a survey, on behalf of the Bureau of Immigration Research, to investigate the workforce needs of immigrant women from Asia, Latin America, the Middle East as well as English speaking countries. The study aims to identify problems and barriers encountered by female immigrants who

have (successfully and unsuccessfully) attempted to participate in the labour market, as well as possible solutions. Preliminary findings suggest that English language problems, inadequate access to services and training and settlement problems are among the major areas of concern.

Evaluation of Cooperative Research Centres TASC has been commissioned to play a significant role in the evaluation of the prestigious Cooperative Research Centre Program. This program, announced by the Prime Minister during the election run-up, provides \$100 million in government funds for the establishment of up to 50 cooperative research centres. Selection is to be carried out by a committee chaired by the Prime Minister's Chief Scientist. TASC is involved in both assisting the proposers of centres and the selection committee to develop appropriate sets of performance indicators against which each of the centres can be evaluated, and in assessing the performance of the cooperative research centres against these indicators. This commission marks the first time professional research evaluation skills have been brought to bear on national research fund allocation.

Sugar Research The widely regarded skills of TASC in improving the performance and management of research are being employed by the Board of the Sugar Research Institute (SRI). The job is first, to determine the value to the sugar mill owners of research conducted in the SRI and, second, to develop methods for the more effective planning and management of their research program in a climate of considerable pressure on sale of commodities like sugar in order to return maximum value to the sugar industry and the Australian economy. TASC staff will spend some time at the SRI in Mackay, and visit many of the sugar mills which are scattered along the eastern coast from Brisbane to Cairns.

ELCOM Research Reorganised Over the last six months TASC staff worked closely with staff from the Electricity Commission of NSW (ELCOM) and their customers to determine the appropriate shape and objectives of research in the Commission over the next ten years, and the most appropriate management structures to support these research objectives. In response to the recommendations in the report provided by TASC, ELCOM is currently undergoing an extensive reorganisation of planning and management of research and development.

RESOURCES DIVISION

Microwave Applications Research Centre (MARC)

MARC is considered in some circles as something of a "Johnny come lately" when it comes to sewage sludge processing. Under the tireless inspiration of Professor Howard Worner, however, the MARC team have certainly made their presence felt with other sludge processing groups.

The ENVIRONMENT Project has propelled MARC and ITC into the spotlight for sewage sludge processing. The project involves combining steel plant fine dusts with sewage effluent to generate a sludge which can be readily separated from the water component of the effluent. The sludge is then dried and smelted to produce a valuable iron, a saleable slag, and some off-gases which can be processed to recover metal oxides, and re-useable heat.

The concept for the project was initiated by the MARC team late in 1989, towards the end of a sewage sludge sterilisation program. In February 1990 MARC received initial funding of around \$450,000 to develop the technology of the concept through until June 1991, when it was expected to commence developing pilot plant scale operations.

Initial backers of the project, in joint venture with ITC,

were the Water Board, ELCOM and BHP. The development work has progressed at an accelerated rate to the extent that by November 1990 the team had demonstrated the sludge settling process in trials at Malabar Sewage Treatment Plant. Now the Water Board have committed an additional \$175,000 to develop pilot plant operations in the first half of 1991 - at least 8 months ahead of what was anticipated when the project began only 9 months ago.

A presentation of the technology was made at the Electricity Technology Centre in Silverwater, early in November, and attracted considerable attention to the project and this emerging technology for managing and processing sewage effluent. There appears to be considerable opportunity to utilise the Now the Water Board have committed an additional \$175,000 to develop pilot plant operations in the first half of 1991 - at least 8 months ahead of what was anticipated when the project began only 9 months ago.

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A presentation of the technology was made at as well as from other Divisions within ITC.

TRAINING AND PROFESSIONAL DEVELOPMENT SERVICES DIVISION

Informatics Institute, Wollongong English Language Centre (WELC), Foundation Studies, Training and Conference Services, Frameworks Project

The Informatics Institute in both Sydney and Wollongong continues to offer public short courses. Contracted training is also provided for the Roads and Traffic Authority and BHP at both facilities, and a 9 day intensive IBM Information Technology Course for office workers, supported by the NSW Education and Training Foundation (ETF), has been offered at both sites with all positions filled. The Graduation Ceremony for the Business Computing Certificate (Finance) course will be held in Sydney on 7 December, with Keith Loughland, Services Executive, Information Services Department of the Commonwealth Bank of Australia delivering the occasional address.

Following the October intake, over 320 students are enrolled in WELC, and it is anticipated that at least 70 students will commence Foundations Studies in February 1991.

Training and Conferences Services is coordinating a seminar at the Fairmont Resort, Leura, 26-28 November 1990, and is also coordinating the Language in Education Workshop, to be held on campus from 3 to 7 December 1990. More than 100 participants, from all over Australia, are expected to attend the Workshop.

The Aboriginal Business, Technology and Education Consulting Centre (ABTEC) was established in October this year, and a number of proposals for funding have been submitted to government organisations. ABTEC is also involved in the marketing of a financial control package for community groups and management training courses.

Funding seeds help Manufacturing strand flourish

THE Manufacturing strand in the Department of Mechanical Engineering has been expanding at an accelerated rate over the last few years.

Funded research and development work in Advanced Manufacturing Technology has substantially increased with the introduction of two new members of staff, Dr Elias Siores and Dr Yixin Yao.

Dr Siores took up his appointment at the University of Wollongong's Mechanical Engineering Department in 1989 as a Lecturer in Manufacturing Engineering and is currently pursuing part-time studies towards a Masters Degree in Business and Administration (MBA).

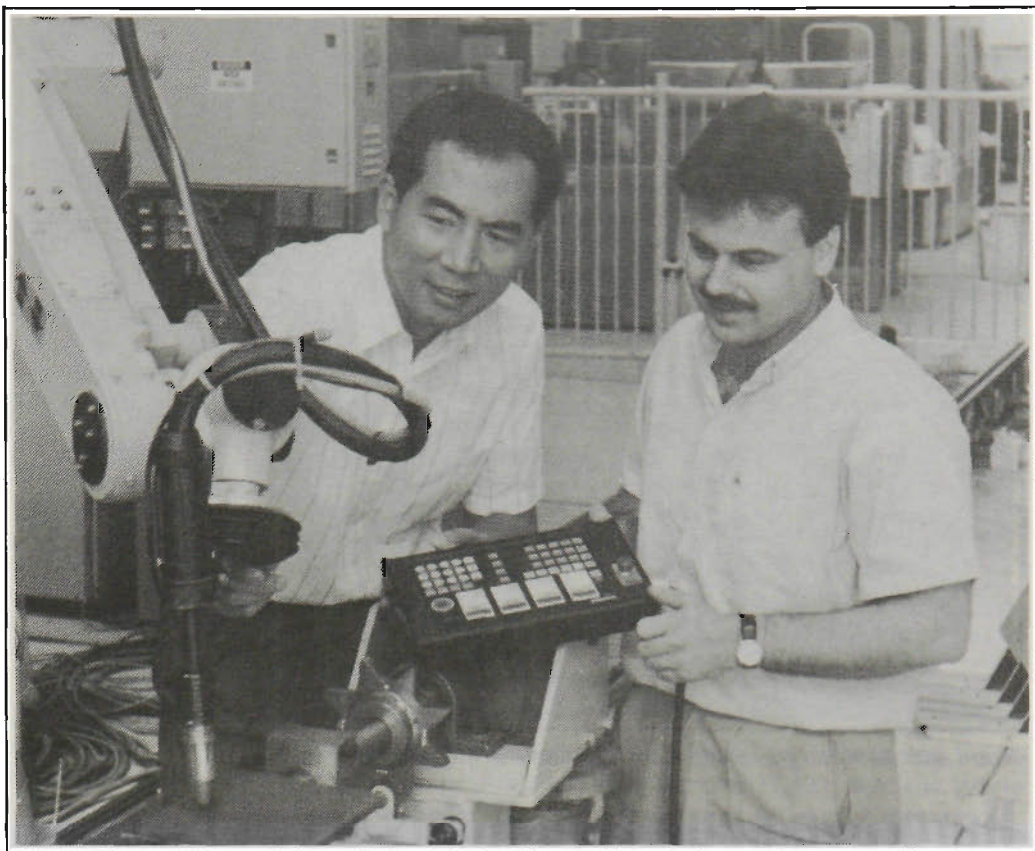
His specific research interests include: Advanced Welding Process Development and Flexible Assembly Operations, Welding Management Systems using Artificial Intelligence and Neural Networks, Automated Non-Destructive Testing (NDT) and Quality Evaluation Systems, and Product Development.

He has undertaken pioneering research and development work in Joining of Advanced Materials using Microwave Energy with the assistance of Associate Professor F. Paoloni (Electrical and Computer Engineering).

He has also initiated a project on Routine Orthopaedic Surgery using Intelligent Robots and Ultrasonic Sensors, which has attracted a team of scientists including Professor A. Parker (Human Movement Science), Professor W.J. Gillespie (Orthopaedic Surgery, The University of Newcastle) and Dr G.J. Montagner (Mechanical Engineering).

The equipment and software to the value of \$100,000 have been allocated for this project.

During his short academic career at the University of Wollongong Dr Siores has been credited with 20 publications and has attracted \$485,000 worth of projects mainly funded by DITAC, MM Metals, Sydney



Dr Yixin Yao (left) and Dr Elias Siores with a flexible manufacturing system

Adventist Hospital and UofW/CSIRO.

Dr Yixin Yao joined the Department as a Lecturer also in 1989 and he has a PhD degree in Mechanical Engineering from University of Wisconsin-Madison.

His research areas include System Dynamics, Modelling, Identification, and Control as applied to Robotics and Manufacturing Systems.

One of the projects in the robotics area he is undertaking jointly with the Division of Manufacturing Technology, CSIRO Sydney Laboratory is concerned with theoretical and experimental study of effects of impact during robotic mating of non-cylindrical or multi-legged objects such as IC chips.

The aim of the project is to provide an optimum balance between robotic assem-

bly quality and productivity. This year, the project attracted \$20,000 from the CSIRO/University Collaborative Scheme.

Another area Dr Yao is actively involved with is integrating advanced sensory, digital signal processing and artificial intelligence techniques to real-time machine and process condition monitoring, diagnostics and adaptive control for automated manufacturing environment.

Automation provides opportunities for increased quality consistency and productivity, and reduced labour costs, while incorporating effective condition monitoring, diagnostics and adaptive control capabilities into automation will ensure its greater success.

Department of Mathematics awarded transport project

THE DEPARTMENT of Mathematics has been awarded a National Energy Research, Development and Demonstration Corporation grant of \$104,700 to undertake a two-year Land Freight Transport Energy Evaluation project.

Dr Philip Laird will supervise the project. A Grade II / Senior Research Assistant will be appointed.

The corporation asked that priority be given to the important Sydney-Melbourne transport corridor.

The project will follow on from work done by Dr Laird resulting in a working paper *Melbourne-Sydney Land Freight Transport* published by the Centre for Resource and Environment Studies of the Australian National University, and a paper in a book *Greenhouse and Energy 1990* about to be published by CSIRO.

This work notes that about seven million tonnes of freight is moved each year between Sydney (including Wollongong and Newcastle) and Melbourne.

Of this total, about five million tonnes are moved over the Hume Highway, which has been significantly improved over the years.

Only two million tonnes are moved by rail over older alignments with many steep grades, sharp curves and tight clearances.

Preliminary estimates show that if the Sydney-Melbourne railway was to be upgraded to Fast Freight Train standards, and rail was to win five million (out of seven million) tonnes of freight a year, there would be a fuel saving in the order of 50 million litres of diesel a year.

There would also be other benefits including improved road safety and less pollution and Greenhouse gas emissions.

News in brief

WORLD-renowned scholar Professor Michael Apple addressed a seminar on November 26 about women teachers and the issues surrounding the classroom which is increasingly becoming feminised in the 20th century.

Professor Apple, from Education Policy Studies, University of Wisconsin, Madison, argues that because most elementary school teachers are women, while almost all principals are men, also sheds light on the hidden gender assumptions of recent policy shifts toward more administrative control in schools.

He argues too that women are the 'proletariat' of teaching as they continue to occupy the lowest status jobs in the classroom.

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

On those two days the office will close at noon.

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

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

'Cleaning staff are required to take their recreation leave during non-session time,' he said.

'This necessitates up to 50 per cent of the staff being away for at least part of this period.'

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

THE Wollongong Workshop Theatre will present a pantomime *The Lost Crown* at its theatre at 17 Gipps Road, Gwynneville, on December 5, 7, 8, 9, 12, 14 and 15.

The week night performances begin at 7pm and the weekend performances are matinees at 1.30pm.

The Lost Crown is an entertaining show that children should love. It has an "underwater" theme with octopuses, fish, etc., but also has most of the traditional features associated with pantomimes.

Booking can be made by phoning (042) 851811. Tickets can also be purchased at Pete's Jeanery on the Mall, Wollongong.



Rube and Jack Hargrave with Robyn Williams at the switch-on

Hargrave sculpture lights up at last

ARTIST Bert Flugelman always maintained his tribute to flight, the Lawrence Hargrave sculpture, was designed to be seen under floodlights.

Last week that became a reality when a special ceremony saw the sculpture lit, but not without a hiccup.

When the lights were due to go on nothing happened.

But after a phone call and an Illawarra Electricity executive's shimmy up a power pole, all was set for ABC radio personality Robyn Williams to perform the formalities that finally had Bert's masterpiece ablaze with light.

In a moving tribute, Mrs Rube Hargrave, paid tribute to her uncle and spoke of his courage and foresight.

She also told of how Lawrence Hargrave, like many men of vision, had to fight bureaucracy and pettiness to have his work accepted.

Among the official guests at the turning-on ceremony were Wollongong Lord Mayor Frank Arkell, Deputy Mayor Pat Franks, Peter Newell, Bev Ring, Barbara Tuckerman, Dr Winifred Mitchell, Rod Oxley, David Campbell and Allen Clark.

German student gains valuable Australian work experience

AN ECONOMICS student from the University of Darmstadt, Germany, Mr Jürgen Keller, is working in the Financial Office of the University as part of an overseas work experience program.

Mr Keller arrived in Australia in mid-October and was given the opportunity to work at the Financial Office of the University for nine weeks.

He said the Department of Economics at Darmstadt actively encourages its students to find employment overseas to further their practical experience.

'When you are studying you are only thinking about the theory, but now I can

see what is happening in a practical sense,' he said.

At the Finance Office, Mr Keller has been involved in several projects including the preparation of the budget for the University's halls of residence and the budget for the Conservatorium of Music.

Mr Keller will complete his economic studies in Germany next year and is considering an economic Phd program for 1992.

Mr Keller was impressed by the beauty of the University and said that before he leaves Australia in March he hopes to see a little more of the countryside.

Mathematics Department announces schools awards

THE Faculty of Informatics conducts an enrichment program in maths, computing and electrical engineering for high school students who have demonstrated a talent in mathematics.

The program includes schools from Bulli to Kiama and across to Moss Vale and involves students in years 8-11.

This year, for the first time, the National Australia Bank has made cash prizes available for a competition which is part of the enrichment program.

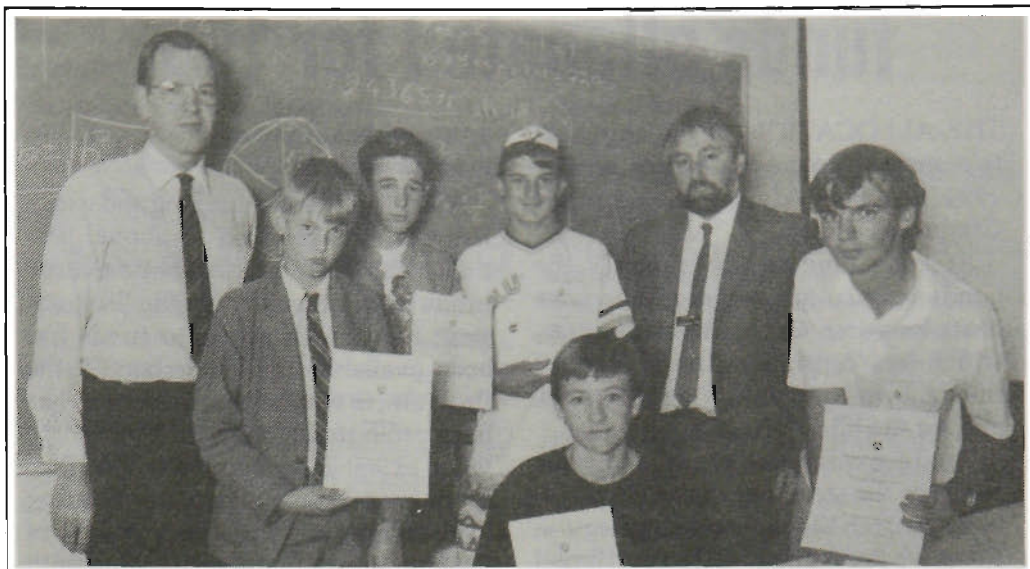
These awards were presented to the students last month.

Winners were:

Year 8: First: Paul Shepherd (Smith's Hill); Second Equal: Ben Egan (Warilla High), Ben George (St Joseph's); Third Equal: Michael Hatfield (St Joseph's), Naomi Jones (Smith's Hill).

Year 9: First Equal: Len Goold (Edmund Rice), Stuart Gray (Illawarra Grammar); Second: Gerlinde Gniewosz (Oxley College); Third: Michael Lukin (Edmund Rice).

Years 10 and 11: First Equal: Michael Stephenson (Figtree High), Gareth Brisbane (Illawarra Grammar); Second Equal:



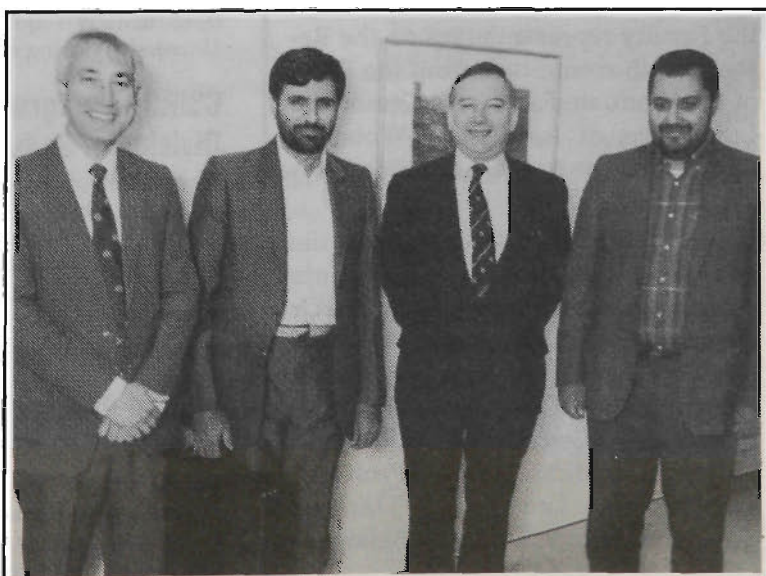
Head of the Mathematics Department, Associate Professor Martin Bunder, with Paul Lemme from the National Australia Bank and award winners (from left): Gareth Brisbane, Len Goold, Paul Shepherd, Stuart Gray and Michael Stephenson

Stuart Olsen (Figtree High), Tom Williams (Illawarra Grammar); Third Equal: (Year 10) Tien Luu (St Mary's), Emma Shelley (Kiama High), Jonathan Trott (Wollongong High); (Year 11) Jarrod Davis (Bulli High), Robert Kielbicki (Kanahooka High), Stewart White (Illawarra Grammar).



Dr Winifred Mitchell (centre) presented a cheque to Carol Speechley at the Aboriginal Education Unit as a farewell gesture before leaving the district. The funds will be used to print a book on Illawarra Aborigines compiled by Michael Organ who is looking on

A delegation from the Ministry of Culture and Higher Education in Iran visited the University to discuss opportunities for postgraduate students. Photo shows (from left) Mr David Paxton from IDP, Mr Ghazal Eyagh, Professor Lauchlan Chipman and Dr Hamid Kohram



Multicultural Centre lands Government project

THE CENTRE for Multicultural Studies has won a contract to produce a research paper series of 10-20 reports for the Office of Multicultural Affairs in the Department of Prime Minister and Cabinet.

The first work was released recently, in time for the Immigration Outlook Conference. Entitled *Metropolitan Ghettos and Ethnic Concentrations*, this two-volume work covers the concept of the ghetto in the international and Australian context, the Australian experience of settlement, 'Asian' concentrations, measures of concentration, survey of selected commercial centres in Sydney, Melbourne, Brisbane and Wollongong and an analysis of ethnic newspapers.

For further information contact Professor Stephen Castles, Centre for Multicultural Studies, tel. (042) 270780.

Company directors' course

THE Australian Institute of Company Directors is running its highly acclaimed Company Directors' Course at Wollongong University through the Illawarra Technology Corporation.

The first course will begin at 6.30pm on Wednesday March 13 and will be followed by a further nine sessions.

The Course Co-ordinator is Mr Ed Ksiazek, Project Manager, Training and Professional Development Services Division at the ITC.

Further details, contact Mr Ksiazek, tel. (042) 268884.

Internal Research Grant funds allocated for 1991

THE ALLOCATION of the University's internal Research Grant funds for 1991 has been determined by the Graduate Faculty.

At its meeting on November 22, the Graduate Faculty considered the advice of its Research Grant Sub-committee, which had considered in detail all of the renewal and initial applications, and set the allocations for next year.

Funding was approved at each of the levels of the structure in the University's Research Management Strategy — Research Programs, Projects and Small Projects.

In determining the allocations for 1991, the Faculty had to work within the constraint that there was about \$100,000 less available for distribution by the Faculty for research grants in 1991.

The actual distribution for 1991 will be \$1,007,000, split between Programs \$916,000, Projects \$90,000 and Small Projects \$1,000.

In recommending the allocations to the Faculty, the Sub-committee kept to the guidelines established for Programs and Projects in the Research Management Strategy.

In relation to each Program, this meant that the Coordinators had to demonstrate in their reports for 1990 that, after two years of funding, real advances had been achieved in a number of areas including: refereed publications; applications for, and attraction of, outside funding; and evidence of interaction and cooperative developments between members of the Program. In relation to three Programs, no funds were allocated for 1991 as reports had not been received on their activities in 1990.

The Strategy specifies that Programs would be initially funded for three years and that by that stage it would be anticipated that each Program would be generating sufficient funding to be self-supporting and would have consolidated its reputation for research excellence.

As part of the third year review of Programs during 1991, the Dean of the Graduate Faculty and the Deputy Vice-Chancellor will be meeting with staff involved in each Program to assess what

progress has been made by the Program in achieving these aims.

As well as the self-funding and excellence criteria referred to above, particular reference will be made to how funds have been used by the Program staff; how much access to funds has been available to all members of the Program; to what extent teamwork has been promoted within the Program; to what extent all members of the Program have been actively contributing to the Program; and the numbers of postgraduate students associated with the Program.

Detailed progress reports for Programs will be required by the end of August 1991 so that determinations can be made in relation to the continuation of, and to the funding for, each of the Programs for 1992.

The Faculty noted, with approval, that the Sub-committee had adopted the procedure of requesting any member involved in or associated with a particular application to leave the meeting when that application was being considered and, further, did not permit the member to discuss the application on returning to the meeting.

Similarly, at the Faculty Executive Committee and Graduate Faculty meetings at which the Sub-committee's recommendations were considered, no member was permitted to comment on the outcome of his/her own application or on any application in which he/she was associated.

Further details about the grant allocations for 1991 may be obtained from the Faculty representatives on the Research Sub-committee; from the Dean of the Graduate Faculty, Professor Bill Lovegrove; or from Peter Wood or Denise Stevens in the Academic Services Branch.

The Faculty representatives on the sub-committee are: *Arts*: Associate Professor James Wieland; *Commerce*: Dr Dennis O'Brien; *Education*: Professor Ken Gannicott; *Engineering*: Associate Professor Yew Chaye Loo; *Health & Behavioural Sciences*: Professor Philip Barter; *Informatics*: Associate Professor Tony Ng; *Law*: Mr Damien Considine; *Science*: Dr Rob Whelan.

Research Funds

Finnish Government Scholarships 1991/92

Three types of scholarships are on offer from the Finnish Government; Finnish language and related studies (3-9 months), Postgraduate Scholarships of any field of study (9 months) and Postdoctoral Studies for any field of study (1-5 months). Scholarship holders should possess working knowledge of Finnish, Swedish, English or German. The University closing date is January 2.

Grape & Wine Research Council

Grants for 1991/92 are now available. Funds are extremely limited so small budget applications are encouraged in the following areas; Economic studies, Genetic improvement, Rootstocks, Cultural practices, Pests and Diseases and Grape Quality. The University closing date is February 15.

Great Barrier Reef Marine Park Authority

Augmentative Research Support in 1991 for postgraduate students and recent graduates is available. This is intended to assist projects making a contribution to the planning and managing of the Great Barrier Reef Marine Park. Grants are usually \$900. The University closing date is December 7.

Grimwade Prize in Industrial Chemistry

Applications for the Grimwade Prize are being called for. The main qualification for this is the applicant must have spent at least 3 terms of study in a laboratory of the University of Melbourne. The University closing date is February 15.

Australian Building Research Grants Scheme

The Dept of Industry, Technology & Commerce seeks proposals for technical and socio-economic research in the construction industry. There are several preferred priority areas and all applications usually require joint sponsorship. The University closing date is January 4.

CSIRO - Postgraduate Studentships - Division of Soils

Applications from students to undertake PhD study in areas of soil management, erosion control, soil nutrition etc are being asked for. These are tenable only at universities in Canberra, Adelaide and Townsville, where the CSIRO has Soil Labs. The University closing date is December 12.

Dept of Primary Industries & Energy (DPIE)

Post Graduate Research Awards. Applications are invited for research awards leading to MSc or PhD degrees in the area of Forestry. The University closing date is December 14.

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.

Australian Science & Technology Council (ASTEC)

Submissions on Research Directions for Australia's Future.

Respondents are asked to identify opportunities for research, as well as problems and to proffer solutions, from the viewpoint of their sector or field. The University closing date is February 8.

Australian National Parks & Wildlife Service

Environmental Research Information Network. Expressions of interest for funding of database development or augmentation of databases of major Australian land cover flora is being called for. The University closing date is December 7.

Eveline Rosina Henty Scholarship

These scholarships are open to persons of Australian Aboriginal descent to attend university.

The value of the scholarship varies and is designed to supplement Aboriginal study grant. The University closing date is January 4.

Dept of Transport and Communications

The Federal Office of Road Safety (FORS) is calling for applications for grants. Grants should be for small or relatively short term projects with a maximum of \$20,000 per grant. The University closing date is February 1.

The Rights Stuff Grants - Bicentennial Youth Foundation Inc.

This Foundation offers grants to groups of young Australians (up to 25 yrs) to run projects and campaigns which work towards solving the problems facing them in the exercise of their human rights. Grants are available up to \$5,000. Grants must be administered by an Incorporated organisation or equivalent (the University). The University closing date is February 15.

Australian Meat & Livestock Research & Development Corporation

The AMLRDC is calling for Expressions of Interest in Market Research. This is aimed at using market research techniques to promote the introduction of new/improved on-farm technologies in livestock production and meat processing. The University closing date is Dec 6.

1992 Churchill Fellowships

Applications are invited from Australians (over 18yrs) to be considered for a Churchill Fellowship during 1992 to undertake an overseas study project that will enhance their usefulness to the Australian community. The University closing date is February 15.

Rural Health Support Education and Training Program

The Dept of Community Services and Health is calling for applications in two categories. 1. Submissions from interested groups to assist the Commonwealth in developing a balanced program for rural health care workers. 2. Development Grants, only short term grants relating to the development of programs to address support, education and training needs of rural health care workers. The University closing date is January 4.

| Previously Advertised | Closing Date |
|---|--------------|
| The British Council Travel Grants | Any Time |
| Australian Arts Council | Any Time |
| National Academy of Education | December 7 |
| Menzies Scholarship to Harvard | December 14 |
| NHMRC Burnet Fellowship & Eccles Awards | December 14 |
| CSIRO P/Grad Project Awards | December 14 |
| Australian Federation of University Women | January 18 |

Successful research applications

The following research applications have been successful:

National Health & Medical Research Council - Project Grants

Prof Helen Garnett
Dept of Biology
\$67,447 (3 yrs)

Prof Phillip Barter
Graduate School of Health & Medical Sciences
\$106,494 (3 yrs)

National Energy Research Development Program
Mr Phillip Laird
Dept of Mathematics
\$104,700

All coal oriented applications are still pending.

National Heart Foundation - Projects

Prof Helen Garnett
Dept of Biology
\$37,829

Prof Dennis Calvert
Dept of Public Health & Nutrition
\$40,000

Scholarships

Ms Christine Contacos
Dept of Public Health & Nutrition

Rural Industries Research & Development Corporation

Dr Ross Robinson
Centre for Transport Policy Analysis
\$64,350

NSW Dept of Minerals & Energy
Dr Don Platt
Dept of Electrical & Computer Engineering
\$150,640

Australian Research Council - New Grants
Dr Ross Lilley
Dept of Biology
\$30,000

Prof Leon Kane-Maguire
Dept of Chemistry
\$35,000

Dr David Griffith
Dept of Chemistry
\$75,000

Prof Bill Lovegrove
Dr Steven Avons
Dr Linda Cupples
Dept of Psychology
\$25,000

Prof Lewis Schmidt
Dept of Civil & Mining Engineering
\$25,000

Prof Lewis Schmidt
Dept of Civil & Mining Engineering
\$30,000

Dr Y Yao
Dept of Mechanical Engineering
\$30,000

Renewed Grants
Prof Leon Kane-Maguire
Dr Steven Pyne
Dr John Carver
Dept of Chemistry
\$43,000

A/Pr Gerald Nanson
Dr Colin Woodroffe
A/Pr Brian Jones
Dr Ted Bryant
Mr D Price
Dept of Geography
\$30,000
(+ \$40,000 Equipment Grant)

Dr Colin Woodroffe
Prof R McLean (ADFA)
Dept of Geography
\$25,000

Prof Stephen Hill
Dept of Sociology
\$29,700

Prof Brian Moloney
Dept of Modern Languages
\$25,000

A/Pr Martin Bunder
Dept of Mathematics
\$15,800

Dr Kenneth Duff
Prof Peter Fisher
Dr Carey Freeth
Dr Roger Lewis
Dr David Martin
Dr Phillip Simmonds
Dept of Physics
\$86,517

Dr Donald Lewis
Dr Chris Nyland
Dept of Economics
\$32,000

A/Pr Druce Dunne
A/Pr Noel Kennon

Dept of Materials Engineering
\$29,000

Dr Richard Kohoutek
Dept of Civil and Mining Engineering
\$36,300

Dr Yew-Chaye Loo
Dept of Civil and Mining Engineering
\$35,700

Dr Tara Chandra
Dept of Materials Engineering
\$26,000

Dr Gordon Wallace
Dr A Hodgson
Dept of Chemistry
\$35,000

Dr Bill Lovegrove
Dept of Psychology
\$32,600

Fellowships:

Dr Joanne Croke,
Postdoctoral Fellow
Dept of Geology

Advertisements

HELP AVAILABLE

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

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

WANTED TO RENT

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

ACCOMMODATION WANTED

Furnished one or two bedroom house/flat February 1 to 30 June 30, 1991.

Water views a bonus. Academic Visitor from Melbourne. Note: Possibility of swap for a house in Brighton, Melbourne. Phone Leslie (03) 592 0976 (Home) or (03) 810 3322 (Work).

TO LET

Furnished 3br house in Figtree Heights available from January-March 1991. Contact ext. 3611 or tel. (042) 28 6225.

TO LET

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

TO LET

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

TO LET

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

TO LET

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

TO LET

New, unfurnished, 2br unit. Hindmarsh

Gardens, next to International House, \$150 per week. Ext. 3113 or 3830.

TO LET

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

TO LET

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

TO LET

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

WANTED TO LET

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

CLASSES

Make beautiful fashion earrings. It's easier than you think. One three-hour class only. Contact Margaret, tel. (042) 28 9767.

FOR SALE

Wave ski. Shane 2.1 metres. As new condition with paddle and cover. \$250 ono. Tel. 28 3807.

FOR SALE

Mazda 323 Hatch 1978 rego 3/91, 84,000km, mechanically excellent. Contact Ann 26 8800 (work) or 26 3293 (home).

FOR SALE

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

FOR SALE

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

FOR SALE

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

FOR SALE

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

FOR SALE

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

FOR SALE

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

Seminars

Centre for Advanced Manufacturing and Industrial Automation

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

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

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

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

Stop Press

Photos needed

JOSIE Castle from the History and Politics Department is writing the university's history to celebrate, in 1991, 40 years of tertiary education in the Illawarra.

The history covers the period from the establishment in 1951, but photographic records of the years 1951-1973 are scarce, she said.

'I appeal to anyone who has photographs or other mementos for this (or other periods) to contact me,' she said.

'Photos of staff and students in the 1950s and 1960s would be especially welcome.'

If you can help contact Josie Castles, ext. 3667