UNIVERSITY OF WOLLONGONG
CAMPUS NEWS

Number 32 Wednesday, 2 December 1992

Wollongong wins optical fibre network trial

The announcement of Telecom's fibre optics trial for Wollongong (from left: BACK: Vice Chancellor, Professor Ken McKinnon, Telecom's Regional Manager NSW South West, Mr Eddy Chui, The Hon. Stephen Martin MP. FRONT: Telecom's Chief Executive Officer Mr Frank Blount, Federal Minister for Transport and Communications, The Hon. Senator Bob Collins and the Lord Mayor of Wollongong, Ald. David Campbell.

At a function in the Hope Theatre attended by more than 300 representatives from the local community, telecommunications executives from Sydney and interstate and the media, Telecom Australia unveiled plans to connect more than 200 mainly residential customers in Wollongong to a trial optical fibre network.

The trial will include a fibre link into the University of Wollongong and its well-established telecommunications research centre.

Speaking at the announcement of the trial, Telecom Chief Executive Officer, Frank Blount, said work would begin in the new year after locations had been chosen and customers approached.

At the function Vice-Chancellor of the University, Professor Ken McKinnon, said that the selection of Wollongong as the site for Telecom's fibre optic trial was endorsement of the region's success in attracting telecommunications research and development against often fierce competition.

'The last few years have seen the

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Brief News

As users of the University campus will have noticed there is a great deal of construction work taking place.

Construction sites present many potential dangers. They have been fenced to protect staff, students and visitors.

These sites must not be entered except with the express permission of the builder and all warning signs should be heeded.

Buildings and Grounds apologises for any inconvenience caused, however to supply additional facilities, this work must proceed.

Professor Gordon Wallace of the Department of Chemistry has been awarded the 1992 Australian Polymer Science and Technology Award.

This prestigious prize, inaugurated this year by the Royal Australian Chemical Institute, is to be awarded annually to the Australian under 40 years of age who has made the most significant contribution to polymer science and technology.

The University of Wollongong is proud of this further recognition of Professor Gordon Wallace's pioneering research into the development and applications of 'intelligent' conducting polymers.

Professor Wallace will receive his Award at the Ninth National Conference of the Royal Australian Chemical Institute at Monash University this month, when he will present a keynote lecture entitled 'Breathing Life Back Into Polymers'.

The Children's Christmas Party will be held on Saturday, 5 December at 11am on the field west of the Recreation and Sports Centre.

A picnic carnival atmosphere will be created by the usual sausage sizzle, plus free drinks, ice blocks, chips and sweets.

There will be plenty of entertainment – hay rides, fire engine rides, merry-go-round, magic castle, fairy floss and some surprises.

Santa will visit at about 2pm. Tickets are $8 per child.

Nomination forms are available from Lionel Ransley at the Printery or Roger Davey, Financial Services. Helpers are also needed.

The 1993 Undergraduate Calendar and 1993 Postgraduate Calendar are available on the Administration Server under Public Information.

Hard copies are expected to be available in coming weeks.

Wollongong wins optical fibre trial

From page one

emergence of the University of Wollongong as a location for world class research and development in telecommunications,' Professor McKinnon said.

'A host of the world's leading information technology companies have funded projects through the University's Centre for Information Technology Research. They include Telecom, Canon, Alcatel, Ericsson, AWA, Nokia and SITA.

'In addition, both Telecom and Nortel have set up substantial research and development laboratories at the Illawarra Technology Centre on campus.'

Professor McKinnon said Telecom's optical fibre trial will draw the entire City of Wollongong into these exciting developments, leading to a much higher profile for the city internationally and in Australia.

Mr Blount said Telecom had two primary goals.

'One is to determine the most cost efficient method of supplying a standard telephone service to residents over optical fibre links,' he said.

'The other is to use the trial to gain greater understanding of the needs and expectations of customers using optical fibre services.'

He said Telecom staff would also be working with likely service providers to assist them with possible applications for the trial.

The trial is part of Telecom's Laserlink program, which aims to extend optical fibre links closer to residential and small business premises.

Mr Blount stressed that the optical fibre platform had a more fundamental role than simply that of a test bed for advanced services.

'I acknowledge that there will be a lot of interest in the 'bells and whistles' which may be tested on the fibre platform, but the core objectives remain our need to find the best and cheapest way to push fibre closer to residential customers and to work at strengthening our understanding of customer needs,' he said.

'This trial is designed to answer a host of basic questions covering everything from engineering and customer service issues to legal and regulatory matters.

'It will no doubt give rise to many other questions which are not yet even apparent.

'But that will be one of its strengths. We will come out of this trial better able to offer the range of Telecom services and our network advances to all our Australian Customers.'

Telecom is testing a range of delivery methods for advanced services, particularly pay TV, in order to be able to offer different capabilities to different customer segments, according to their needs.

Wollongong customers connected to the trial network will initially have access to a telephone service and a mix of basic and broadband ISDN services plus 20 channels of video.

Mr Blount said Telecom would shortly undertake a customer selection process with the assistance of Telecom Human Communications Research Section and the Wollongong community.

The trial network is expected to be ready to launch in July 1993.

The Lord Mayor, Ald. David Campbell, and Member for Macarthur, the Hon. Stephen Martin, greeted the announcement with enthusiasm and saw such developments in telecommunications in Wollongong as a new dimension for the City.

More success for University in telecommunications – Page five

The students at the presentation of the Illawarra Junior Mathematics competition awards

48 outstanding Maths students

The annual presentation of awards for the Illawarra Junior Mathematics Competition was held on Wednesday 18 November.

Certificates and prizes were presented to 48 outstanding Year Six mathematics students from South Coast Region Schools.

These students represent the top four per cent of 1200 students from 120 schools who entered the competition held on 21 October.

Students from as far away as Cooma and Goulburn were invited to attend to accept their certificates.

The main aim of the competition is to identify children talented in mathematics and to encourage them to persue their studies in this subject.

The results also provide schools with a measurement as to how well their students perform compared to other students in this area.

At least two significant observations can be made from the records of the competition which have been kept by the co-ordinator of the competition for its 12 years, Ray Crawford from the Faculty of Mathematics.

Firstly the problem-solving ability of Year Six students is improving.

Secondly, if girls are responding to the conscious efforts being made by teachers to improve their attitudes and abilities in mathematics, boys are receiving even more benefit from this. In other words, the overall average mark has increased significantly but so has the gap between the average mark for the boys and the average mark for the girls.

Peter Jack, chief executive of the IMB, presented the top student, James Yeates from Tudor House, Moss Vale, with his trophy, certificate and $100 account with the IMB.

TRAVELMATCH CAR POOL

Travelmatch Car Pool is an organisation that provides a matching service for individuals travelling to the same destination by car for a fee of $25, payable when matched.
By sharing one vehicle, you can benefit financially and at the same time help the environment.

What is Car Pooling?
- Car pooling is an economical and environmental way of travelling.

Your benefits from Car Pooling:
- By sharing your care you can cut your petrol bill by half or more.
- Reduces expenses on car maintenance and running costs.
- Use your travel time saved to study.
- Improve parking and traffic around the University.

Other Benefits from Car Pooling
- Cars are a major contributor to air pollution. A reduction in car usage will significantly reduce air pollution.
- Conservation of our scarce crude oil reserves.
- Reduction in traffic congestion.
- Improvement in road safety

What to Do
- If you are interested in the service this organisation provides contact Ross Meaker - Office Services, ext. 3193.

Migration sponsorship report released by Centre for Multicultural Studies

The Centre for Multicultural Studies (CMS) at the University of Wollongong has release a report on the issues surrounding serial sponsorship of overseas spouses and fiances by Australians.

The report, Serial Sponsorship, Immigration Policy and Human Rights, was released by the Minister for Immigration, Local Government and Ethnic Affairs, Mr Gerry Hand.

The research was carried out by Dr Robyn Iredale (CMS), Ms Jane Innes (Faculty of Law) and Professor Stephen Castles (CMS) on the Department for Immigration, Local Government and Ethnic Affairs.

Serial sponsorship is the sponsoring of more than one person by an Australian resident, on the basis of the person being a fiance or spouse, and where there is evidence of subsequent abuse or exploitation.

The report examines the situation of overseas-born women sponsored as migrants as wives or fiances by Australian-resident men.

Overall, most relationships between Australian men and sponsored partners from overseas are successful.

But there has been increasing concern because serial sponsorship generally involves abusive relationships – violence, sexual abuse and other forms of exploitation.

The Centre was commissioned by the department to develop practical options for overcoming such problems.

The study found that repeat sponsorship, where one person sponsored more than one spouse or fiance, was quite common.

Repeat sponsorship occurred mainly as a result of men looking for another partner when the first sponsored relationship broke down.

The study focused on those men who were potentially abusive of their sponsored partners – the serial sponsors.

The study found that 80 our of 110 repeat sponsors who were identified during the research had subjected their wives or fiances to some form of domestic violence.

The violence ranged from physical abuse through to psychological abuse, withholding money, withdrawing support, isolating them from other people and treating them as servants.

The study considered solutions to these problems, taking into account Australia's human rights obligations and its legislative framework.

It concluded that the department had a responsibility to monitor and reduce the incidence of violence and exploitation by sponsors.

The nine recommendations in the report will be considered by the department.

They range from better identification of serial sponsors of concern to increased counselling of overseas applications.

The major recommendation is that potential spouse or fiance sponsors who have a record of domestic violence or physical assault will be required to reveal this information to the department.

For further information contact Dr Robyn Iredale, tel. (042) 213 448.

Arrangements for Christmas break

The following arrangements will apply to the 1992/1993 Christmas-New Year period:

Thursday 24 December	working day
Friday 25 December	Christmas Day (Public holiday)
Saturday 26 December	Boxing day (Public holiday)
Sunday 27 December	Sunday
Monday 28 December	concessional day
Tuesday 29 December	concessional day
Wednesday 30 December	concessional day
Thursday 31 December	concessional day
Friday 1 January	New Year's Day (public holiday)
Saturday 2 January	Saturday
Sunday 3 January	Sunday
Monday 4 January	working day

The University concessional days are granted in acccordence with agreements between the University and the General Staff unions, which provide that:

1 The days falling between Christmas and New Year's Day which are not gazetted as Public Holidays in the state of NSW are granted as University Concessional Holidays, and

2 Such concessional days are granted on the understanding that they are in lieu of previously existing University holidays, bank holidays, Picnic day (where appropriate) and the concessional half-days before Easter and Christmas Day.

Staff who are required to work on these days granted as University Concessional days will be granted the same period off duty at a mutally convenient time within the ensuing two months. Staff required to work on those days gazetted as public holidays (25 December 1992, 26 December 1992, 1 January 1993) will be paid at penalty rates.

Staff members working under Award 19-day, four-week arrangements whose rostered day off would normally have fallen within the close down period should arrange with their supervisor to take their day off either before or after the break.

Centre for Staff Development seminar

Thursday 10 December – Union Function Room 40 -4, 12:30-1:30. Merrelyn Emery, Australian National University: The Use of Television in Education. (No booking required)

The Centre for Staff Development is developing a plan for the training and development of teaching staff who will be involved in delivering postgraduate courses through television.

They would like to form an interest group of staff here who have experience in forms of distance/external education, and/or have an interest in keeping informed of progress in this area.

If you would like to register your interest, please contact Liz Ellis by E-mail or ext. 4101.

Nokia announces $1.7 million Wollongong research program

More than $1.7 million will be spent in Australia over the next three years by worldwide telecommunications company Nokia Telecomunications in a wide-ranging research and development programme announced recently.

Nokia'a Deputy Managing Director, Mr Pertti Melamies, said the programme would be carried out by the Centre for Information Technology Research (CITR) at the University of Wollongong.

Director of CITR, Dr Ian Reinecke, said that the project would result in valuable technology transfer that will enhance Australia's expertise in this field of telecommunications.

Seven people will be employed on the project which will also provide valuable training for the staff.

The programme's goal is to develop tools to incorporate the effects of multipath propagation into network planning systems for cellular and microcellular communication systems.

The project will result in valuable technology transfer that will enhance Australia's expertise in this field of telecommunications

Multipath propagation is a phenomenon where a receiver, such as a cellular telephone receives a signal from a transmitter via more than one path.

One path is usually the direct 'line of sight' between the receiver and transmitter, while other paths are usualy formed by reflection of the transmitter signal from terrain irregularities such as mountains or high-rise buildings.

Most people are familiar with the 'ghosting' of a television picture which is a result of the same phenomenon.

Mr Melamies said the network planning process of Nokia's research and development programme would involve selecting the locations and configurations of the base stations (transmitters) to achieve the major aims of developing adequate signal strengths over the desired coverage areas and adequate capacity to service the expected number of customers.

Dr Ian Reinecke

'Network planning tools assist in the planning process by calculating the coverage and mutual interference profiles of base station sites,' he said.

'Current coverage tools determine the average field strength at the receiver due to the direct path only.

'In GSM systems there may be areas of coverage which have adequate field strength from the direct ray but receive sufficient multipath, or indirect, radiation to cause a degraded performance.'

The Nokia project will result in algorithms that will predict both the direct and multipath field strength at a receiver site.

The data will be overlayed on a digital terrain map that will have information of terrain irregularities and certain parameters such as the amount of signal that will be reflected from each irregularity.

Areas that may have degraded performance can then be highlighted and measures taken to avoid the problem from the outset.

'Nokia recognises the importance of the sharing of skills and resources and the transferring of technology and information for the project to be successful,' Mr. Melamies said.

'It is a level of co-operation which is welcomed by all parties.'

By the end of the programme's first year it is expected the CITR team will have established a preliminary multipath model using measurement comparisons, as well as completed a high resolution sounder, measured building reflections, determined mathematical detail of a model for arbitrarily shaped buildings and consolidated a project plan for 1994.

During the second year the researchers will deliver a delay dispersion prediction module, identify and initiate areas of models needing improvement and will take building measurements using an 1800 MHz sounder which they will have developed for delivery to Nokia.

Nokia said the development schedule for year three was to be confirmed, with possibilities including further investigation of multipath parameters and antenna requirments, model refinements, and experimentation of the efectiveness of practical multipath countermeasures for microcellular systems.

Mr Melamies said the project team consisted of highly skilled personnel who would lead the way in developing the new technology.

'Additional training will be provided by Nokia which will enhance the team's knowledge and skills,' he said.

Nokia is a European technology company with net sales in excess of US$4 billion.

More than 90 per cent of net sales are generated in the electronics and electrotechnical industries.

Nokia operates five business groups –conusmer electronics, mobile phones, telecommunications, cables and machinery and basic industry.

These groups employ around 27,000 people in more than 30 countries. Nokia Telecommunications Australia has offices in Melbourne and Sydney and employs more than 60 personnel.

New AVCC board of directors

The new Board of Directors for the Australian Vice-Chancellors' Committee (AVCC) has been confirmed.

The AVCC President for 1993-94 will be Professor Robert Smith, Vice-Chancellor of The University of New England.

The Deputy President will be Professor Don McNicol, Vice-Chancellor of the University of Sydney.

Professor Ken McKinnon, current AVCC President, will retain a position on the board as Immediate Past President.

Professor Cliff Blake, Vice-Chancellor, Charles Sturt University, takes up a position on the Board as President of the Australian Higher Education Industrial Association (AHEIA).

As part of the regular procedure, three positions were subject to election. Professor Roy Webb, Vice-Chancellor, Griffith University was re-elected and Professor Fay Gale, University of Western Australia, and Professor Don Aitkin, University of Canberra were elected.

Professor David Penington, The University of Melbourne, and Professor Mal Logan, Monash University, will continue as Board members.

The new Board of Directors comes into office on 1 January 1993 and will hold its first meeting in Canberra on 16 February.

UNIVERSITY OF WOLLONGONG

Postgraduate Re-entry Scholarships for Women

Applications are invited for two scholarships for women graduates who have had their careers interrupted for a minimum of two years due to family commitments. Applicants will be expected to have had at least three years professional experience after graduation.

The scholarships will enable the holders to update their professional knowledge and research skills, and preference will be given to women with a background in science and technology. The successful applicants will enrol in one of the University's postgraduate research degree programs. The value of the scholarships is $14,260* p.a. and will be available from March 1993.

Interested women graduates should submit an application which will include the names of two referees and details of their academic record and professional experience. In addition, candidates are to provide a one-page statement setting out their career plans, their proposed area of study, and their perceived needs for updating. The University will pay particular regard to this statement in the selection process. Closing date for applications is 14 December 1992.

Further details and an application form can be obtained from the Equal Opportunity Co-ordinator on (042) 213-917.

Applications should be submitted to:
The Research Office,
Administration Building,
University of Wollongong, Northfields Avenue, Wollongong 2522.
*1992 rate subject to annual review.

Universities back credit transfer trial

Many of Australia's universities have endorsed participation in a trial progam of credit transfer and recognition of prior learning.

The Australian Vice-Chancellors' Committee, meeting in Wollongong recently, was told that 33 universities had responded to the credit-transfer principles drawn up by an AVCC working party, with 29 agreeing in principle.

Press notices publicising pilot studies appeared last month and brochures, indicating participating institutions, will be available.

Working party chair, Professor Gus Guthrie, said the endorsement would mean that, subject to funding from the Department of Employment, Education and Training, further pilot programs will be developed in 1993 for 1994 entry students.

'In 1993 there will be trials in business studies, computing studies and engineering,' he said.

'Most Australian universities have indicated that they are willing to consider a candidate's prior learning in these areas.

'This is a heartening result, one which reflects the willingness of institutions to become involved in a national system of credit transfer which has national consistency.'

He emphasised that the national trial would not compromise, supersede or weaken already existing local networks of credit transfer, within States.

The national project is intended to asist students choosing (or obliged) to move outside local institutional networks, especially across State or Territory borders.

An agreed system of credit transfer will provide greater opportunities for some students. It will reduce education costs to the Government (and ultimately the community) as students will be able to build on their prior study achievements.

'Credit transfer will recognise, and improve the status of, courses provided by non-university institutions - such as the TAFE sector,' Professor Guthrie said.

He said the original project had been funded jointly by the AVCC and the Department of Employment, Education and Training (DEET).

'The AVCC has agreed in principle to commit $100,000 in 1993 for the development of the project and is applying to DEET for a further $200,000 in 1993, as its share in further credit transfer work,' he said.

Centre for Research Policy opens its doors

Director of the Centre for Research Policy Professor Stephen Hill at the centre's opening

On Wednesday 18 November, the Vice-Chancellor, Professor Ken McKinnon, opened the Centre for Research Policy.

During 1992 the centre has renovated its premises to provide space specifically designed for an integrated research team.

With the completion of these renovations, and the full development of the centre, it was time to 'open' the centre.

The centre is a special research centre or 'centre of excellence' of the Australian Research Council.

It was founded in 1991 by present Director, Professor Stephen Hill.

The centre's primary objective is to deepen Australia's ability to use its knowledge resources for national innovation and development.

The centre now conducts an active research, consultancy and education program nationally and internationally, and is influential in the formulation of national and international policy on science and technology.

The centre also acts as International Centre for a United Nations backed network, STEPAN, the Science and Technology Policy Asian Network, an organisation of 17 Asian countries.

It also acts as centre for the Industrial Technology program of APEC, the Asia Pacific Economic Cooperation forum, the high level political-economic organisation that includes most Asian countries, Canada and the United States among its 15 members.

UNIVERSITY OF WOLLONGONG

DEPARTMENT OF BUSINESS SYSTEMS

SPECIAL SEMINAR

Mr M Cassidy, MBE
Economic Analysis Branch
Department of Employment, Education and Training

Monday, 14 December 1992, 10am,
University Union

Education and Training Needs of Computing Professionals in Australia

ABSTRACT

Information technology is one of the world's fastest-growing industries. So it is imperative that Australia meets the challenge of the industry's education and training needs.

Australia has just taken a bold step in this field. The Federal Department of Employment, Education and Training has just released a report that forecasts the education and training needs of the nation's computing workforce.

The report, 'Computing Education and Training Needs', is the best guide yet to Australia's workplace demands up to the year 2000.

The report covers 15 broad groups of computing professionals and para-professionals. It was prepared by the Andersen Consulting Group of Arthur Andersen & Co under the guidance of industry, education and government representatives.

The report is based on a survey of current workplace activities. It forecasts changes in information technology activity and, from the survey, subsequent changes in work functions.

All interested parties are welcome to attend.

THINK SECURITY. THINK SAFETY. FOR ASSISTANCE PHONE 213936

HOPE THEATRE

Bookings Ph 214214
Western Entrance Northfields Ave

5 Dec: **BHP Youth Orchestra concert** 8pm. This will feature two postgraduate students in Creative Arts performing as soloists with the orchestra: Lyndall Dawson (piano) will play the difficult Burleske for Piano and Orchestra by Richard Strauss, while Amelia Koh (soprano) will sing music by Vivaldi and Mozart. In its own right, the orchestra will play the wonderful Schubert Unfinished Symphony, and music by Grieg and Delius. This notable occasion will also see the new Kawai grand piano begin its concert career in the theatre.

8-11 Feb: **International Conference on Environmental Management - geo-water and engineering aspects.** This conference will be very useful to young professionals and experienced decision-makers in the civil, mining and environmental engineering industry. For further information contact Dr Siva Sivakumar, tel. (042) 21 3055.

LONG GALLERY

Enquiries 213996 Building 25
Opening hours Mon-Fri 9am-4pm. Sun 1.30-4pm. Visit the Gallery Shop

Until 13 Dec: **SCA Graduating Students Exhibition:** This year's graduating visual arts students found a focus at the temporary doner-kebab van located within the School of Creative Arts. Not only food and refreshments but the beginning of a movement in the tradition art movements begun in the cafes of Europe earlier this century. The area became a meeting place for the students as they munched on piles of donuts and kebabs, drank coffee, discussed art and life and their final graduating exhibition. As well as the **Abrakebabra** exhibition in the Long Gallery there will be an extensive exhibition of drawings by first year, second year and graduating students in the printmaking studio (not open on Sunday).

GENERAL

4 Dec: The agenda deadline for the last 1992 **Human Experimentation Ethics Committee meeting**. It will no longer be possible to table late items. Late applications will be held over until the next meeting. Contact Kim Roser, ext. 3079.

Call for presentations: Education for a Global Society. International conference 4-9 July 1993. The University of Western Australia. This conference will focus on the development of teacher training programs which provide teachers with a global perespective, a universal value orientation and competence in evaluating curriculum materials. any one who would like to participate write to Dr Majorie Tidman, PO Box 1044, Carnarvon WA 6701.

9 Dec: The University Careers and Appointments Service and Vivien Twyford Communication Pty Limited present two **skills development courses** on Writing and Presenting an Effective CV or Selling Your Skills on Paper and Interview Skills or Selling Your Skills in Person. These courses will emphasise the skills needed for graduate employment strategies. The writing course runs from 10am until 12 noon while the interview course is from 1-3pm. Both will be held in the Kemira Rooms. Each seminar costs $15. Contact Patricia Webster, tel. 21 3324/5.

STAFF

11 Dec: Deadline for nominations for **Vice-Chancellor's Award** for excellence in teaching. Forms from Personnel Services. Nominations should be submitted to Faculty Deans.

What's On

Stop Press

Campus News to continue through Summer Session

Weekly issues of Campus News will be published during December and January.

Please continue to send newsworthy items to Gillian Curtis preferably by E-mail.

NOTE: Campus News is ditributed widely throughout the community as well as the University.

***Campus News* is published weekly on Tuesdays during Autumn and Spring sessions. Send material, preferrably by Microsoft Mail or on disk, to Gillian Curtis (042) 21 3110 by noon on Monday of the week before that of publication**

Fellowship award winner Polly Dawson with Phillip O'Regan

Thanksgiving at Weerona

Thanksgiving Dinner came two weeks early at Weerona when its resident group of US exchange students assisted in the preparation of the traditional turkey, ham and pumpkin pie fare on Thursday evening 12 November.

The dinner also provided an opportunity for the College to present special awards to residents for fellowship and community service.

The top award for international relations went to third year Commerce student Anthony Goodridge.

Fellowship and community awards went to Polly Dawson, Stuart Morrison, Gutta Roa and Hannah Couch.