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UNIVERSITY OF WOLLONGONG

Wednesday, 30 November

CAMPUS NEWS

High award for leader of Centre of Superconducting Materials

Director of the Centre of Superconducting and Electronic Materials, Professor Shi Xue Dou, has been elected as a Fellow of the Australian Academy of Technological Sciences and Engineering.

Membership of the academy represents the highest rung of Australian academia in engineering and technology.

The academy's objectives include the development and practice of existing and new technologies, in particular for the effective management of natural resources and for improved competitiveness of industry, and the encouragement of excellence in the technological sciences and engineering.

Associate Professor Liu and Professor Dou study superconductor microstructure with microscopy

Dean of Engineering, Professor T.G. Rozgonyi said, 'This is proper recognition of Professor Dou's high level of scientific and scholarly achievement.

'I am very pleased to have him on the staff of the Faculty of Engineering. His work has already brought recognition for the Faculty and the University.'

Professor Dou is very pleased to have been appointed to the academy.

'It is a tremendous honour to be recommended,' he said. 'It was particularly exciting for me, as there are very few academics of non-English-speaking background at this level.'

Professor Dou's election to the academy is well deserved.

The Centre of Superconducting and Electronic Materials is one of the most significant research teams in Australia, made up of some 26 academics, research fellows and postgraduate students.

The team has a huge budget, with research grants of more than $6m gained so far (from 1987-1994). Grants awarded this year total some $2m to date.

They have received several large amounts from the Australian Research Grants Council, including three ARC Senior Fellowships and one ARC Research Fellowship.

The centre is producing world-leading research in the area of high-temperature superconductors and battery materials.

The research objectives of the team at the Centre for Superconducting and Electronic Materials were to investigate materials capable of acting as superconductors with transition temperatures around the boiling point of liquid nitrogen, and to develop methods whereby they may be fabricated into a suitable form for commercial application.

(Some materials completely change their electrical and magnetic properties when supercooled, for instance losing all their electrical resistance – this state is called superconductivity. The properties are well known, but teams worldwide are trying to explore materials that become superconductive at relatively 'warm' temperatures. For superconductors, -1960°C, the boiling point of liquid nitrogen, is 'warm'.)

His team has produced superconducting wires up to 50 metres long with critical current density of 8500 amperes per square centimetre at the temperature of liquid nitrogen.

Multifilament coils up to 300 turns have been fabricated for construction of prototype devices such as magnets and fault current limiters.

Excellent fundamental studies have led to an understanding of the weak link and flux priming behaviour of the high-temperature superconductors.

Continued page two

Students succeed in business skills

The Young Achievement Australia (YAA) - Business Skills Program was again successful on this campus in 1994.

Two companies were formed: Bigshots, who produced Hotsox, and Baszar, who produced a discount card.

Both companies achieved Blue Chip status for good performance.

Bigshots won the Illawarra Tertiary Trade Fair Award and Baszar won a special certificate from the Keep Australia Beautiful Council (NSW) - 'Vision for Australia' Awards.

A member of the Baszar group, Lupcho Mitrevski, was NSW runner-up for the Tertiary National Business Person of the Year Award.

This was particularly rewarding and good for the University of Wollongong as the standard of the entrants was high.

The Business Skills Program is open to students in all disciplines.

The program helps to develop work-related competencies in university undergraduates.

Students learn first-hand about the commercial world, gain practical experience to help them make career decisions and are exposed to positive business role models.

Student groups of up to 25 applicants are assigned to an organisation to learn how to set up and operate their own small student companies.

During the 24-week program, the students sell shares to raise capital, develop an organisational structure and elect a management team before researching, manufacturing and marketing a product of their choice.

Accounts are kept, salaries, wages and taxes paid before the companies are liquidated and profits returned to shareholders. The year culminates in state and national awards presentations, including the prestigious Young Achievement Australia Student Business Awards.

The program will begin again in April.

WANTED

Experienced business people to take part as advisers and students to form companies in 1995.
Contact Patricia Webster: Careers & Appointments Service on (042) 213 324 or Lyn Eckersley: Regional Coordinator for YAA on (044) 471 696.

Speakers wanted to address community groups

The Friends of the University of Wollongong Association is collating a speakers list of those members of the University prepared to speak occasionally to groups in the community.

Requests for speakers to address organisations at functions come from a range of sources including service clubs, senior citizens, business and professional organisations, schools and other educational institutions.

Topics for which speakers are sought are often quite open, but would generally deal with some facet of the University's developments, achievements and links with the community.

Indeed, a useful guide would be anything which contributes in a general or more specific way to the Friends' mission, which is:

'To create and enhance, through the Friends' unique access to both the University of Wollongong and the local community, understanding, pride, enthusiasm and support for the role and achievements of the University'.

If you are prepared to serve as a goodwill ambassador for the University in this way you may only be called upon very occasionally.

Nonetheless, your inclusion on the speakers list would represent a valuable contribution to the community service which the University rates highly. Inquiries: Executive Officer of the Friends, David Muscio, ext. 3073.

Top award for Centre of Superconducting Materials leader

From page two

They have made enormous progress since the centre was set up at the University of NSW in 1987.

At that time, Australia had done very little research in this area and lagged well behind other countries.

Starting from scratch, Professor Dou built up a significant research team and managed to obtain support at a time when competition for research funds from limited sources was intense.

His research team is the most significant one in Australia working on superconductivity, and is internationally recognised.

The centre relocated to the University of Wollongong this year. Professor Dou explained the reasons for the move.

'Wollongong University was very attractive, offering a good research environment,' he said. 'They were also very supportive of our work.'

Professor Dou has established an international, multidisciplinary collaborative network consisting of more than 25 teams around the world.

As well, the centre has very strong industry links, in particular with Metal Manufactures, a subsidiary of British Insulated Calenders Cables.

MM is building a pilot plant in NSW for scaling up the manufacturing process of wire and tape production, and have contributed some $1.2m to Professor Dou's work on commercial applications of superconductivity.

They are also working in close collaboration with organisations like CSIRO and ANSTO.

Professor Dou has also conducted important research in electrolyte and eletrode materials for fabricating sensors, solid oxide fuel cells and rechargeable batteries.

These may offer many advantages as alternative energy sources.

He has published more than 250 papers and given 30 invited talks around the world.

Professor Dou said that one of the important reasons for his success was that he had an industrious, hard-working and dedicated research team.

In particular, Associate Professor H.K. Liu, a principal investigator of the team, has made a substantial contribution to achievements of Professor Dou's reasearch program.

She won an ARC Senior Research Fellowship in 1993 and two ARC grants in 1994, totalling $700,000 within two years, a remarkable success.

Wollongong students to 'plant trees, not crosses' on Gallipoli Peninsula

Diggers in the Dardanelles 1990s style: Eco-travellers Gary Leonard, Belinda Waide and Neil Trivett get ready to join the Gallipoli Reafforestation Project in Turkey.

Three students from the University of Wollongong are among 10 Australian students selected to join a reafforestation program on the Gallipoli Peninsula in Turkey in early December.

Gary Leonard, a Master of Science (Honours) student in Biological Sciences, Belinda Waide, third-year Creative Arts student in Visual Arts, Textiles and Theatre Design, and Neil Trivett, a Master of Arts (Journalism) student, will join the Gallipoli Reafforestation Project.

Turkey has instigated this international environmental project because of the devastation of more than 4000 hectares of prime forest by fire last July.

More than 500 students from Istanbul University and Istanbul Technical University (ITU) have been invited.

Because of the historic significance of the peninsula as a World War I battleground in 1915-16, Istanbul Technical University decided to invite 10 students from each of the combatant nations – France, Germany, Great Britain, Australia and New Zealand – to participate in the project.

On 1 December a convoy of 16 buses, three lorries and 10 cars will transport all the participants 350km from ITU to the reafforestation site where they will spend the next fortnight.

The camp site is being set up with tents supplied by the Turkish First Army Headquarters.

After the project is launched on 2 December, students will be involved in a daily schedule of work to regenerate the devastated areas of forest, with free time and entertainment each evening.

All expenses, accommodation and transport for the project, as well as return airfares from Singapore to Istanbul, are being met by ITU and Turkish airline THY.

The Australian contingent returns to Singapore on 18 December.

The three Wollongong students joining the Gallipoli Project are all excited about their adventure which awaits them.

Mr Leonard has had extensive experience with land regeneration and is researching the 'edge effects' of vegetation clearance.

He is also keen to survey the battlefield where his grandfather fought in 1915. He said that his grandfather 'didn't enjoy it at all' and hopes that his own journey to Gallipoli is more enjoyable.

Ms Waide has also had contact with Turkey, having participated in a Creative Arts textiles exhibition which was presented at the Marmara University and the State Gallery in Istanbul in March.

Her great-grandfather also joined the Australian Armed Services in the Dardanelles campaign of 1915.

She intends to 'document this experience through my artwork'.

Mr Trivett regards the trip to Turkey as an opportunity to 'document an exercise in environmental global cooperation'.

He has a strong interest in the environment and has been involved in Landcare projects in western NSW.

The University of Wollongong and Istanbul Technical University signed a formal agreement of education cooperation in October 1994. The Gallipoli Reafforestation Project is the first of many joint ventures between the two institutions.

New PAGE courses for 1995

The Professional and Graduate Education Consortium, which offers courses through SBS Television, has added four new study areas to its offerings for 1995.

They are: Occupational Health Nursing from the University of Western Sydney, and Mental Health, Public Health Research Methods, and Textual Studies, Media and Linguistics from the University of Wollongong.

This is the first course offered by the University of Western Sydney.

Five of the 13 member universities between them now offer 14 study areas, while other members have courses in the planning stages.

The Graduate Certificate in Occupational Health Nursing from the University of Western Sydney aims to provide an introduction to occupational health nursing for registered nurses who are currently employed in, or wish to enter, the field.

The University of Wollongong has indicated that there is considerable interest in the Mental Health program which is offered at Graduate Diploma and Masters levels.

These courses are in response to national priorities to equip the mental and general health work forces for comprehensive, community-based treatment and rehabilitation of people suffering from mental illness.

Public Health Research Methods, at Graduate Certificate level, provides health professionals with the opportunity to develop competence in public health research and evaluation methods.

Textual Studies, Media and Linguistics reflects the change in English studies from an emphasis on close readings of certain written texts in a British tradition to an appreciation of the studies in textual analysis and linguistics and the impact of society on the content and format of text. Film and television are now recognised 'texts' for study. This course will be of particular interest to English teachers wishing to upgrade their qualifications.

Applications to begin courses in Autumn Session 1995 close on 10 February.

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PAGE
Professional & Graduate Education

Presenter Felicity Vella is joined by (from left) Melissa Howarth, Steve Flear, Ted Booth, Donna Small, Glenn Caisley, Mark Peacock, Megan Thatcher and Vanessa Jeffcoat

Gaining real life experience through projects in industry

A decision by the Illawarra Group Training Advisory Committee to investigate the apprenticeship needs of metal trades industries in the Illawarra resulted in some real life work experience for a group of University of Wollongong students.

Through contacts with the University, an agreement was reached between the Faculty of Education and Illawarra Group Training that the research could be undertaken by the students as a collaborative field project.

Four fourth year Bachelor of Education (Primary) students and two Bachelor of Arts students studying Curriculum and Program Evaluation in spring session completed the group inquiry projects for BHP Slab and Plate and Illawarra Skills Development.

Supervised by Dr Ted Booth from the Faculty of Education, the assessment for both projects was based on input from clients, the supervising lecturer and the inquiry team.

On 2 November, the students reported to clients in the Open Learning Centre at BHP Slab and Plate on their evaluation of the centre's new forklift training program.

To gather data for the study the students had to interview workers and their supervisors throughout the operational sections of the steel plant.

On 11 November at Illawarra Group Training, the group reported the findings of their metal trades apprenticeship needs assessment study to key representatives of the industry.

Data was gathered from 28 participating companies through phone contact and a follow-up mail-back survey.

The purpose of the research project was to determine the apprenticeship needs of metal trade industries in the Illawarra so that these needs may be better met.

The project aimed to identify the perceived role and function of the Illawarra Group Training Company, potential apprenticeship requirements of each company, what apprentices each company will employ within the next two years and how they will recruit them, and whether or not companies in the Metal Trades Industry Association are aware of the Australian Vocational Certificate Training System.

The students designed a survey to obtain information on apprenticeship needs of metal trade industries in the Illawarra region.

Results from the study showed that there is a shortage of metal fabrication boilermaking, fitting machining and electrical trades people.

Of the 28 metal trades companies surveyed, 61 percent intend to employ apprentices in 1995/96 mostly in these areas.

With an economic upturn coming, it is important to ensure the apprenticeship needs of metal trade companies in the Illawarra are met so any major projects are not delayed unnecessarily.

The project was undertaken with the assistance of the Industry Network Coordinator from Illawarra Skills Development, Mark Peacock, and the Regional Manager of Illawarra Group Training , Steve Flear.

Further assistance was received from the Hunter Valley Training Company, the Metal Trades Industry Association and all the companies who responded to the survey.

University and Union appoint new conference manager

Mr James Cook, previously the Conference Sales Manager for Tourism Wollongong, has been appointed to the new position of Conference Manager, University of Wollongong.

The establishment of this position, initially on a trial basis, is a joint initiative of the Union and the University administration.

Mr Cook's brief is to work with University staff to identify opportunities and develop strategies to attract and support conferences at the University.

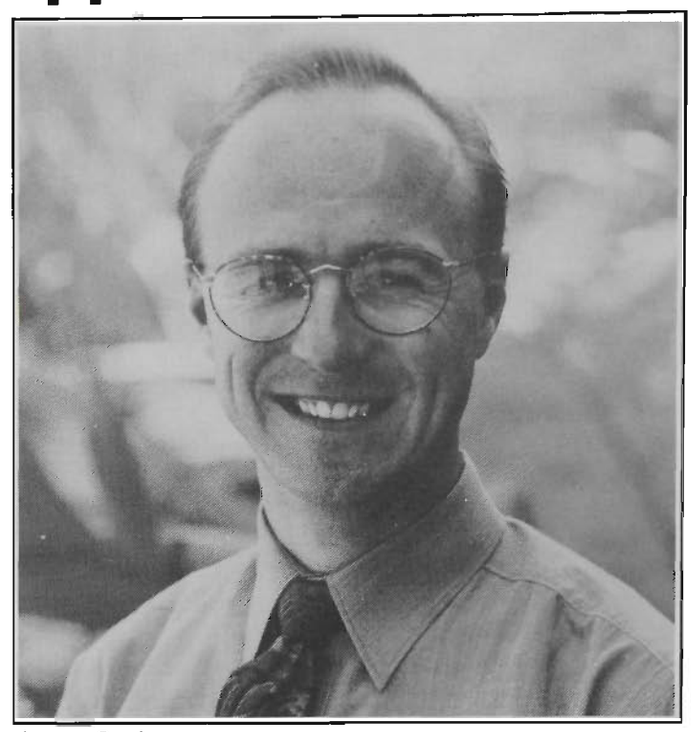
Mr Cook has had 10 years of experience within the tourism, hospitality and service industries and has a comprehensive background in the organisation of conference activities.

Many staff have had dealings with Mr Cook, as he has often assisted the University with off-campus accommodation bookings and conference facilities at numerous events such as the World Indigenous Peoples Conference, the Festival of Creative Arts and the Australian Universities Games.

This new position will support the use of the University of Wollongong's existing conference and meeting room facilities.

The recent decision of the University Council to proceed with the early construction of an on-campus student accommodation/conference facility has crystallised the need to ensure effective coordination and support of campus-based conferences.

The new facility, to be located next to Robson's Road West of the south-western carpark will include some 200 accommodation rooms, conference and meeting facilities as well as in-house dining areas.



James Cook

It is scheduled for completion in mid to late 1996. The centre will provide student accommodation during session.

The University recognises the role that prestigious conferences can play it its development as a world-class institution and is keen to encourage staff to bring conferences to the University.

Mr Cook is available for meetings and discussions relating to your conference activities and is located within the University of Wollongong Union Offices.

Enquiries: ext. 3781 or 3782 or phone 297 833.

The topmost photo on page two of Campus News 31 was incorrectly captioned. Greg Naimo, Director, Information Technology Services (ITS), was the person on the left of the photo, not Gary Kelly, Manager ITS/User Services.

Wollongong graduates are No. 1 with the State Bank

The State Bank of New South Wales has employed six graduates from the University of Wollongong out of the 12 positions offered in its latest recruitment intake.

These graduates were among 24 candidates selected for interview from the 230 applicants who sought employment with the State Bank.

The Wollongong graduates selected are: Mr Nicholas Teloniatis (BInfoTech - Bus Systems), Mr Douglas Anderson (BCom), Mr Mark Arnold (BCompSc - Hons), Ms Lorette Bowyer, Ms Jodie Darge and Ms Monica Buttigeg (all BInfoTech - Bus Systems).

Manager, Human Resources (Information Technology), State Bank, Mr David Whykes, advised Head, Department of Information and Communication Technology, Professor Joan Cooper, of this outstanding success for Wollongong graduates.

Professor McKinnon with Lucy Stocker and Weerona College Head, Philip Dutton. In the background are the other award winners Emmitt Mayson, Laura Cooke and Sarah Southwell.

Thanksgiving at Weerona

The US Study Abroad residents of Weerona College have again assisted in the preparation of the traditional American menu for the Annual Thanksgiving Dinner at Weerona College on 10 November.

The meal was turkey with cranberry sauce, stove top stuffing, ham, eggnog, hot apple cider, apple pie and cream

At the dinner, the Vice-Chancellor Professor Ken McKinnon presented awards to the college's outstanding residents in fellowship and community services.

An overall international relations award for the resident most active in building multi-cultural community spirit in the college was also presented.

Third year Civil and Mining Engineering student, Lucy Stocker, won this award. Ms Stocker presided over the Weerona Resident's Association in 1994.

Awards for fellowship went to Emmitt Mayson (First year Computer Science) and Laura Cooke (US Study Abroad), while Sarah Southwell (Third year Commerce) and Patrick Jackson (2nd year Computer Engineering) won community service awards.

As part of the farewell to graduates of the college, each graduate was presented with a specially engraved pen by Weerona Management Committee Chair, Shirley Nixon.

The residents presented Professor McKinnon and his wife, Sue Walker, with matching Weerona rugby tops.

In addressing the dinner, Professor McKinnon gave some healthy social advice about keeping college friends for life while continuing to broaden one's horizons and social circles.

Campus News **is published weekly on Wednesdays. Send material, preferably by Microsoft Mail or on disk, to E-Mail account 'Campus News' by noon on Monday of the week before that of publication.**
For any other enquiries contact the Editor, Gillian Curtis (042) 21 3926.
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What's On

Long Gallery

Until 7 December: BCA Graduating Exhibition. For further information contact Elizabeth Jeneid, phone (042) 21-3048.

Next week's issue of Campus News will be the last for 1995.
The next edition will be published in January after the holiday break.

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