World-class research into superconductivity to be commercialised

A consortium led by the leading industrial company Metal Manufactures (MM) Limited has announced the launch of a $6m research and development project aimed at transferring laboratory-scale research on superconductivity tape at the University of Wollongong to a commercial-scale pilot plant.

The project team includes world-class researchers in the field of high-temperature superconductivity. Principally this is Professor Shi Xue Dou and his group in the Department of Materials Engineering at the University of Wollongong; and researchers from CSIRO Applied Physics.

While MM will provide the largest slice of funding for the three-year project and other major projects, funding is also being provided by the Energy Research and Development Corporation (ERDC), which manages the Federal Government's direct investment in energy innovation, and the Department of Industry, Science and Technology, together with a smaller contribution from the Australian Electricity Supply Research Board.

MM Cables Technology Development Manager, Mr Guy Secrett, said this project will enable Australia to remain in the forefront of developments in this important new technology.

'By 2020 the market for equipment using superconductivity technology is forecast to be $150 billion per annum worldwide and we could be a significant supplier into that market,' he said.

The project being undertaken by the consortium will develop commercial-scale manufacture of superconductivity tape.

This material, unlike conventional conductors, offers no resistance to the flow of electricity and therefore eliminates the generation of waste heat in electric cables, machines and equipment.

High-temperature conductivity is potentially the greatest new technology in the field of power and communications since the development of optical fibre.

This innovation will impact on many aspects of our lives including electricity supply, medicine, industry and transportation. Australia is at the forefront of this technology.
Study day provides enrichment for HSC English students

More than 400 HSC English students from all over the state, many accompanied by their teachers, attended the English Department's annual HSC Study Day in the McKinnon Building on Saturday 16 September.

With just two weeks until the end of Year 12 classes, and with HSC exams starting in four weeks, the lecture theatres were packed with students eager to fill gaps in their knowledge and gain some insights into their prescribed texts.

On the basis of a survey sent to all secondary schools in the region, the Academic Coordinator of the study day, Dr Anne Lear, selected strands appropriate to the various English courses and areas of study.

The program of 21 lectures, structured over four strands, was presented by 12 members of the English Department and the Centre for Research in Textual and Cultural Studies.

Lectures ranged widely over the 2U and 3U English courses; from the widely-studied texts like Shakespeare's *King Lear* to contemporary Australian plays such as Katherine Thomson's *Diving for Pearls* which is set in the Wollongong area.

Lecturers described the students' and teachers' response as very enthusiastic.

The English Department and its Research Centre have held annual HSC Study Days for the last four years, and the attendance is increasing every year.

Wollongong's bid for Creative Nation funding successful

From page one

The other members of the Consortium are: The National Institute of Dramatic Art (NIDA); Sydney Opera House Trust; Australian Opera and Australian Ballet.

This consortium will produce a CD entitled *Backstage Pass*.

It is an exciting performance arts concept with on-stage and behind-the-scenes focus.

It offers a journey through the world of performance arts by exploring aspects of production and experiences of live performances in their many forms around Australia.

The Multimedia Learning Laboratory at the University of Wollongong has previously received international recognition and awards for its productions, especially *Investigating Lake Iluka*, an environmental studies CD program.
NSW Environment Minister Pam Allan visited the Illawarra Technology Corporation’s (ITC) Coniston laboratory on 8 September and saw tests being carried out for Waste Services NSW.

These tests are aimed at showing the suitability of Professor Howard Worner’s Environnement process as the answer to the NSW Government’s promise to close the Castlereagh waste disposal facility.

The tests, part of a series for Waste Services, are showing very positive results and Ms Allan was particularly interested in the possibility of the process also being considered for other problems such as the Waterloo incinerator.

In that regard, ITC is responding to a call for public submissions by Chairperson Mr Robert Wilson for the Eastern Suburbs Waste Management Inquiry.

It is believed the Environnement process is well suited as a solution to the problems.

**Professor Arthur J Birch – 1995 Bert Halpern Lecturer**

The Bert Halpern Lecturer for 1995 is Emeritus Professor Arthur J Birch.

The lecture, which honours the memory of Bert Halpern, the Professor of Chemistry at the University of Wollongong from 1970-1980, will be held on Thursday 12 October from 5.30pm in Function Centre Room 3, Union Building.

Professor Birch was born in Australia and graduated D.Phil (Oxon.) in 1940.

He was a Research Fellow in Oxford and in Cambridge, and later became Professor of Organic Chemistry in Sydney (1952-55) and in Manchester (1955-67).

He and Professor David Craig founded the Research School of Chemistry, 1965-70, at the ANU along entirely novel lines.

He has many distinctions, including the first Australian to receive the Davy Medal of the Royal Society and to be elected to the USSR Academy of Science.

While abroad, he was a major consultant of the food and pharmaceutical industries in the UK, Switzerland, Holland, Mexico and the USA.

He has been widely involved in national and international science policy, including notably the Peoples Republic of China in the 1980s for UNDP.

As Chair of the CSIRO Inquiry of 1976-77, he reclassified research for the first time into ‘fundamental uncommitted’, ‘fundamental strategic’ and ‘tactical problem-solving’, to replace the invalid terms ‘pure’ and ‘applied’.

He examines some of his reasons for the re-classification in this lecture.

Professor Birch is an outstanding scientist who has made major contributions to the development of organic chemistry.

His lecture topic is: The Birch Reduction becomes a Birth Reduction: The role of strategic research in Chemistry.

Enquiries: Jenny Sheridan, phone 213 509.
FREE INTERNET DEMONSTRATION OPEN TO THE PUBLIC

Confused by all the talk about the Internet?
Mystified by discussion about the Web?
Lost without a car on the information superhighway?

Tuesday 3 October 1995 6 - 7.30 pm.
Lecture Theatre 1, Communications Centre, Building 20
Presented by Interactive Multimedia Production,
Educational Media Services

The University of Wollongong was one of the first universities on the Internet. The Internet has expanded and includes industry, government departments and schools.

The University feels it has a responsibility to the people of the Illawarra region to show them what it is all about. A few examples of its use in this region other than the University's are Illawarra Regional Information Service (IRIS) Pages, Professional Real Estate Pages, Wollongong City Council and private companies.

• Visit Bill Clinton's White House
• Read Vatican Historic Papers
• View information on: Prime Minister of Australia, business, computers, education, entertainment, newspapers and magazines, politics and sport

Here is your opportunity to have all your questions answered and to discover how the Internet may be useful to you.

Bookings: Lee-anne Owen, phone (042) 214 895, fax (042) 258 312.

When Year 12 St Mary’s College student Veena Rao visited the University on Open Day this year she didn’t realise that a few weeks later she would be presented with a new laptop computer and software.

As the lucky winner of the Open Day survey competition, Veena’s entry was drawn from a bag of more than 700 entries.

The prize was sponsored by Information Technology Services at the University.

Veena was presented with her prize by the 1995 Open Day Chairman, Associate Professor John Patterson, who said he was pleased that the prize was going to someone who had made a commitment to study at the University of Wollongong next year.

Veena has her first preferences for university as Arts/Law or Science/Law at Wollongong with particular interests in both English and Psychology.

At school she is involved in debating and public speaking, only recently having competed in the state debating finals.

Veena was accompanied at the presentation by her father, Dr Rao and the Principal of St Mary’s College, Sister Rita.
When we get old, should we take up bowls and gardening as our most strenuous activities?

Not according to Darryl McAndrew, Master of Science (honours) student in the Physical Activity and Ageing group who is undertaking research into the Neuromotor Control of Lifting in the Elderly.

His research focuses on lifting – in particular the commonly used stoop-lift – as a potentially dangerous activity which induces undue stresses on the ligaments and bones of the lower back and hip joint.

He is looking at the different groups of muscles that are activated in this process.

Using the young as a control group and then the active elderly versus the sedentary elderly, Darryl has found so far that the active elderly are fairly close to the young in their results.

Active elderly are classified as people who do activities such as running on a regular basis, for example those in the Port Kembla Runners Club, and sedentary elderly includes those people who play bowls.

The sedentary group have shown very different results in that they are using all of their muscles rather than different groups taking over at a certain point in the lifting process.

The results so far have shown that exercise throughout life is particularly beneficial in old age and they hope to use these findings to promote exercise and increased activity in the elderly.

Darryl's research work is utilising some of the funds attached to the Ageing Research Grant through Dr Mark Brown in the Department of Biomedical Science.

This year's Postgraduate Research Student Open Day, held on 31 August, included an interesting range of research displays and presentations by students on their particular research fields.

Visitors from across campus and through the wider community came to the Open Day to see the projects that current research students are working on.
SCARP sharp at picking winners

Following Peter Boyle’s success in the National Book Council Banjo Award for poetry comes the news that he has also won the NSW Premier’s Award for poetry.

His book, Coming Home from the World, was one of six books in the second series of the New Poets Publishing Program published by Five Islands Press in conjunction with SCARP.

John Millett, also published by Five Islands Press, was short listed for the Premier’s Prize.

Jennifer Compton has become the first poet to win the NSW Writer’s Fellowship. Her book, From the Other Woman, was also published under the New Poets Program. She was one of the poets in the first series.

Other poets from those first two series to be short listed or to win other awards include Beth Spencer, James Bradley and Andy Kissane.

The third series of the SCARP/Five Islands Press has just been published and is available through the Union Bookshop, Gleebooks, or directly from Five Islands Press, PO Box U34, Wollongong University 2500.

This year’s books are: Karen Attard: Whisper Dark; Peter Minter: Rhythm in a Dorsal Fin; M. T. C. Cronin: Zoetrope; Lisa Jacobson: Hair & Skin & Teeth; Sue L. Nicholls: Ultimately Female; and Mark Reid: Bitter Suite.

Enquiries: Ron Pretty 213 867.

Graduation - Introduction to Tertiary Teaching (ITT)

On Monday 4 September the Dean of Education, Associate Professor John Patterson, and the Head of the Centre for Staff Development, Associate Professor John Panter, awarded certificates to academic staff who had successfully completed the Introduction to Tertiary Teaching (ITT) course in Autumn session.

Associate Professor Patterson complimented staff on their success in the program. He encouraged them to continue their reflective practice for improved teaching, and invited them to pursue additional study towards postgraduate awards in the Faculty of Education.

In supporting the Dean’s remarks, Associate Professor Panter referred to two special effects of the ITT course – the positive interactions between staff from a wide range of departments and the emerging awareness of people and practices across the university.

He said that, as the University continues to grow, this knowledge of other staff from many backgrounds and disciplines becomes a very significant factor in the health of the institution.

Of the 15 successful candidates from 11 different departments, 10 attended the ceremony. They were Dr Hagare Dharmappa, Maureen Edwards, Tony Eyers, Simon Luckhurst, Gary Fulton, Brin Gmouth, Neil Harper, Dr Patrick Heaven, Frank Neri and Dr Ren Zhang.

They were accompanied by two other staff members who had acted as support persons for the Teaching Development component of the course.

They were Professor Don Lewis (with Frank Neri, Economics) and Associate Professor Barry Harper (with Neil Harper, Computer Science) who were complimented by the Dean for their cooperation in the program.

Graduating staff who were not able to attend the function were Margaret Jamieson, Paul Keller, Colleen Nordstrom, Dr Friso de Boer and Liz Stringer.

The ITT course is presented jointly by the Faculty of Education and the Centre for Staff Development each semester and certificates of completion are awarded to successful candidates. For further information contact Dr Max Gillett (ext. 4277) or Ms Maureen Bell (ext. 3946).
University hosts maritime workshop with Korea

Six senior Korean academics visited the University from 13-16 September to attend a workshop entitled 'Regional Maritime Cooperation - Shipping and Seaborne Trade'.

The workshop was sponsored by the Department of Foreign Affairs and Trade under the Australia-Asia Linkages Program.

The purpose of the workshop was to establish a link between the Centre for Maritime Policy at the University of Wollongong and the Institute of East-West Studies at Yonsei University, Seoul, Korea.

This institute is the leading international studies centre in the Republic of Korea.

The workshop explored the common interests in shipping and trade by Australia and the Republic of Korea.

In discussing the importance of the workshop, the Director of the Centre for Maritime Policy, Commodore Sam Bateman, said: 'The security of the sea lines of communication is a major security concern of all Asia-Pacific countries.

'Economic growth has meant that these countries are very vulnerable, both economically and strategically to the disruption of their trade.

'As a consequence they are very worried about developments such as the dispute in the South China Sea over the Spratly Islands and the increased incidence of piracy in Asia-Pacific waters.'

Music Education lecturers assemble for conference

The 17th Annual Conference of the Association of Music Education Lecturers (AMEL) was held at the University from 24-27 September.

Convenor, Dr Nita Temmerman from the Faculty of Education, said delegates attended from all states.

The conference included a special music technology display and a forum on the conference theme of the Professional Development of Music Educators with representatives from the movie industry, music community, university sector and the Department of School Education.

The forum discussed continuing and emerging issues in education at all levels that demand serious consideration.

These included: the increasing use of information technology in education; increasing emphasis on quality assurance and the attention to learning outcomes; the continuing concerns about the entry criteria for preservice teacher education courses; and an increasing expectation that universities will work more closely with the profession and industry in designing courses.
General

The Campus Alumni Bookshop is open on the second and fourth weekends of each month. Campus East, Cowper Street, Fairy Meadow (opposite Science Centre). All proceeds directed towards campus projects. Donations of material are invited. Enquiries to Alumni Office, phone 213 249 or 291 951.

4-6 October: 1995 Australian Information Technology Spring School for Year 11 HSC students. Sponsored by Nortel, the State Bank and Campus Personal Computing.

11 October: The Australian Federation of University Women (AFUW) NSW Illawarra Branch members meet at 6.30pm for a light meal at Food For Thought, first floor, McKinnon Building, and then at the Postgraduate Resource Centre, 115 Northfields Avenue, at 7.30pm. Speaker is Dell Brand, currently studying for her Doctor of Philosophy in Education. Membership of AFUW is open to all women graduates of any university. Further information is available from Joan Jennings (042) 671 283, Enid Alcock (042) 288 128 and Carol Rayner (042) 855 300.

13 October 12.30-1.30pm: Bruce Gordon Theatre, Illawarra Performing Arts Centre. Conservatorium of Music presents the Business and Professional Women’s Club of Australia free concert works by Gershwin and Rachmaninov.

7-9 November: Business and Economic Development in Middle Eastern and Mediterranean Countries. This international conference is being run by the International Business Research Group. Venue: The University Centre, 210 Clarence St Sydney. Enquiries: Mokhtar Metwally, Dept of Economics, University of Wollongong. (042) 214 017 Fax (042) 213 725.

**Occupational Health and Safety review**

The University has commissioned an independent consulting firm, Sedgwick Limited, to conduct a review of Occupational Health and Safety and related risk management issues within the University. The six-week review will look at key areas such as management and policy; hazard control; occupational hygiene; participation, motivation and training; and post-injury management.

The aim of the review is to assess the safety and related environment within the University and recommend an appropriate and responsive staffing and resourcing arrangement. The terms of reference for the review include:

- Application of risk management principles.
- Establishment of supervisor responsibility for safety.
- Performance measurement including measurements of supervisor performance.
- Implications for non-staff including students, visitors and contractors.
- Performance in rehabilitation of injured workers.
- Training priorities and how these should be met.
- Coordination of occupational health and safety, security, emergency procedures and insurance matters.
- Integration of safety considerations into building and facilities planning.
- Resource requirements for staffing and other expenditure.
- Role and responsibilities of the OH&S staff.
- Interface with the OH&S Committee including support for the Committee.

The first meeting with the consultants will be conducted during October. Enquiries: Irene Burgess, ext. 3204.

**What’s On**

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**Long Gallery**

Exhibition program for 1995:

13 November – 10 December: BCA graduating exhibition

University Staff Club

Lunches: Tuesday 10 October, Wednesday 8 November, Thursday 7 December. Come sailing with us on the barquentine ‘Svanen’ Saturday 21 October. Contact Jim McKee, ext. 3376.

Stop Press

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