

# CAMPUS NEWS

## Wollongong has 'smartest mouse in Australia'



*Philip Ciuffo, Professional Officer, Department of Electrical and Computer Engineering, gives Wollongong's Micromouse, Yowie, some words of encouragement during a training run before the competition.*

The University hosted the national Micromouse competition on Saturday 4 December and won the 'Smartest Mouse in Australia' title.

Wollongong was second overall to the University of Queensland, who won the 'Best Mouse in Australia' and 'Fastest Mouse in Australia' titles.

A Micromouse is a small micro-processor-controlled robot vehicle that is able to navigate its way through an unknown maze.

It is a typical product of 'mechatronics', embodying the integration of computer and electronic technology and mechanics.

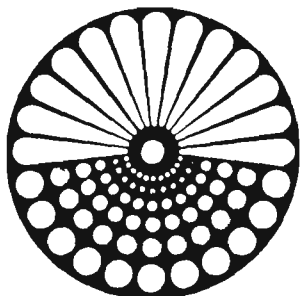
The main challenge for the contestant is to impart to the micromouse an adaptive intelligence to explore different maze configurations and work out the optimum route for the shortest travel time from start to finish.

Once the best route is found, the micromouse will attempt to traverse

the maze at high speed. The speed run for a micromouse is the equivalent of driving a car at 200km/h through a square-tunnel with half a metre of clearance on either side.

Micromouse is a project of the Department of Electrical and Computer Engineering. Competitors came from Victorian, Queensland and NSW universities. The Australian champion will possibly go on to the Robotic Olympics next year.

## 1993 World Indigenous Peoples' Conference underway



Nearly five thousand people from 28 countries are on campus this week for the 1993 World Indigenous Peoples' Conference: Education.

This is the third in a series of triennial conferences. Previous gatherings were held in Canada and New Zealand.

Australia's Aboriginal and Torres Strait Islander people

are hosting the conference which makes a fitting end to the United Nations' International Year for the World's Indigenous Peoples.

The theme of the conference is Listen, Learn, Understand, Teach: the Answers are Within Us.

This refers to a common belief among indigenous people that education is a lifelong, wholistic experience.

The conference is drafting an International Charter of Indigenous Peoples' Education Rights. A closing ceremony will be held at 6pm at the Wollongong Steelers' Stadium.

# 'Sustainable development hijacked by economists'

Mr Justice Stewart, retiring Chair of the Resources Assessment Commission launched a book on sustainable development by Dr Sharon Beder, Department of Science and Technology Studies.

The launch of *The Nature of Sustainable Development* was held at the Australian Museum on 30 November after an 'in-house' launch at the University by Professor Jim Falk the week before.

In recent years, the term 'ecologically-sustainable development' has acquired motherhood status.

Everyone — governments, the business lobby, environmental groups — favours it.

But Dr Beder, author of the first Australian book on the subject, argues that consensus has been achieved 'by avoiding real change and by keeping discussion behind the closed doors of the ESD process'.

Dr Beder claims the debate over sustainable development has been hijacked by economists and business groups.

She claims the major Australian environmental groups have been swept along too easily on the tide of environmental rhetoric from governments in recent years.

'Environmental groups have been given a seat at the bureaucratic tables



Dr Sharon Beder

and have believed that they were making a difference, but the price of their new-found acceptance has been the loss of the more radical agendas that environmentalists used to stand for,' she said.

'Sustainable development aims to make the minimum modifications necessary to enable our usual business activities to continue into the future.

'Sustainable development is not about giving priority to environmental concerns; it is about incorporating environ-

mental assets into the economic system to ensure the sustainability of the economic system.

'Sustainable development in Australia is dominated by economic rationalism and promotes the free market as the best way of allocating environmental resources.'

Dr Beder is sceptical that sustainable development in this form can protect the environment.

Her book presents a clear, comprehensive analysis of the main issues and problems embedded in the notion of ecologically-sustainable development.

It examines carefully the way ecologically-sustainable development is used, the concepts it straddles and the ideologies it incorporates.

Key issues dealt with in depth include the costing of environmental values, local and global equity implications, the uses and limitations of technological solutions and the roles of businesses, governments and consumers.

Dr Beder is the author of two other books, including *Toxic Fish and Sewer Surfing*.

Trained initially as a civil engineer, and a member of the Institution of Engineers, Australia, she lectures in Science and Technology Studies.

## Ecotalk is making headlines

Jack Baker, a Masters student in the Australian Flora and Fauna research program, Department of Biological Sciences, has been coordinating a series of articles from staff and students on the work of the program.

These articles have been published over several weeks in the *Wollongong Advertiser* under the banner of 'Ecotalk'.

The aim was to present readers with informative articles about the flora and fauna of their local environment and to give researchers at the University the opportunity to publicise their work.

For instance, when is a cat not a cat? When it has a pouch! Then it is not a cat, it's a quoll.

Quolls are cat-like animals which are native to Australia. Like many Australian mammals, quolls are marsupials, so they have a pouch to protect their young while they are very small.

Spotted-tailed quolls are an uncommon resident of the Illawarra bushland, known to some of the old-timers as the 'chook-thief', 'native cat' or 'tiger quoll'.

*Advertiser* readers are now on the look out for quolls in the Illawarra, thanks to an article by Research student Debbie Andrews.

And what about sex and the single banksia? Readers have been learning more than just the birds and the bees from the *Ecotalk*.

Articles in the *Ecotalk* series answered such questions as: The last croak? What is remarkable about geebung's



Where are the 'in' dining out spots for pygmy possums in the Illawarra? What is an antechinus? Where to find Wollongong's native eucalypts. Why do crickets sing? What is a herbarium?

The Australian Flora and Fauna Research Program brings together scientists from Biological Sciences, Environmental Science and Geography.

Much of the research conducted by these scientists is concerned with plants and animals in the Illawarra region.

These are depicted in the emblem for the program by gum nuts and leaf and a wallaby.

The emblem also has a star-fish to indicate research into many forms of aquatic life.

The arrows around the border of the emblem are very significant.

They symbolise an interconnected, living system where resources are being recycled: the perpetuation of life.

# Expanding international opportunities for science students and staff



*Seated (from left): Professor Jesse Dent, Dr Marilyn Sutton-Haywood, meeting with Professor Leon Kane-Maguire and Professor Murray Wilson during their visit to the Faculty of Science*

Johnson C. Smith University, a private, co-educational liberal arts college with 1200 students located in Charlotte, North Carolina has been awarded a grant, in conjunction with the University of Wollongong, by the US National Institutes for Health for a project, the Minority International Research Training Program.

This new initiative will fund a selected number of US institutions for the purpose of:

- encouraging students to pursue advanced degrees and professional careers in the biomedical and behavioural sciences;
- promoting qualities of leadership by expanding cultural perspectives and preparing the next generation of scientific leaders to work effectively in a global environment; and
- establishing linkages between US scientists and academic staff at research centres overseas.

A group of four students and one faculty member will spend one session as Study Abroad students at the University of Wollongong in 1994, and in 1995-1996 there will be six students and two faculty members.

The first staff member to accompany the students will be attached to the Department of Chemistry.

Professor Jesse Dent, Director of International Studies, and Dr Marilyn Sutton-Haywood, Program Director and Head of the Department of Biology at Johnson C. Smith University, visited the University of Wollongong in early November in order to finalise details for the Study Abroad program.

The students coming to Wollongong will be drawn from a pool of students studying for an undergraduate degree in the biomedical or behavioural sciences.

In addition to science courses and a research experience, the students will need to undertake a course in Australian history or culture.

Both Johnson C. Smith University and the University of Wollongong recognise the importance of international partnerships of this kind in the move towards internationalising the univer-

sity and the curricula.

It is a significant new link for the Faculty of Science and will assist in promoting Wollongong's science programs to a much wider audience in the US as well as providing outstanding opportunities for collaborative research.

Professor Leon Kane-Maguire, Department of Chemistry, travelled to Charlotte in early September to be present during the evaluation visit by the committee from the US National Institutes of Health.

The Faculty of Health and Behavioural Sciences will also be hosting future visiting faculty members in psychology and biomedical science.

Other forms of co-operation, including staff exchange and Faculty Development Seminar Programs are expected to develop as a result of the proposal.

## **Community appointment**

Managing Director, Illawarra Technology Corporation, Mr Jim Langridge, has been appointed by the Premier to the new Illawarra Development Board which will advise the State Government on development initiatives in the Illawarra.

## **From desert to coast**

In conjunction with the World Indigenous People's Conference being held at the University, an exhibition of work by aboriginal artists is showing at the Long Gallery at the School of Creative Arts until 17 December.

## What's On

### General

21 December: **Human Experimentation Ethics Committee** meeting.

### Seminars

31 January – 11 February: **Interactive Multimedia Workshop.**

Monday-Friday 9am-6pm in Faculty of Education Multimedia Laboratory, Floor 1. Cost \$2500.

The workshop is intended for Macintosh literate communicators who want to learn to design and create interactive multimedia projects for education and training. Participants will build on interactive design examples using a variety of media. Drawing on the individual skills of the participants, they will storyboard, script, shoot, video edit and program the project using Hypercard, MacroMind Director and other interactive software. Working under the guidance of experienced interactive multimedia producers, a hands-on team approach will be used to experience a project from concept to completed CD-ROM.

Enquiries: Margaret Cameron, tel (042) 21 3971 or fax (042) 21 3892.



### Intelligent Polymers Asia-Pacific workshop

*The Chief Scientist to the Prime Minister, Professor Michael Pitman, gave the opening address at the second Asia Pacific Workshop recently. The three-day workshop was hosted by the Intelligent Polymers Research Laboratory in the Chemistry Department.*

### Correction

*Campus News apologises for an incorrect caption in the edition of 1 December. It should have read:*

*Chairman of the Board of the Illawarra Mutual Building Society, Mr David Waters, with the winners of the Illawarra Junior Mathematics competition. The IMB sponsored the competition.*



**Campus News is published weekly on Wednesdays. Send material, preferably by Microsoft Mail or on disk, to Gillian Curtis (042) 21 3110 by noon on Monday of the week before that of publication**

### Stop Press