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UNIVERSITY OF WOLLONGONG

Wednesday, 18 January

CAMPUS NEWS

University farewells the Vice Chancellor

Professor Ken McKinnon with his portrait by Guy Warren.

A special function was held on 9 December to farewell the Vice-Chancellor, Professor Ken McKinnon, who is leaving the University after 14 years.

Appropriately, it was held in Building 67, the University's 'Rolls-Royce' building.

During the ceremony it was announced that Building 67 was to be known as the McKinnon Building.

A portrait of the Vice-Chancellor painted by well-known Australian artist and Director of the University's Permanent Art Collection, Guy Warren, was unveiled.

This portrait will join those of previous chief executives in the Council Room. Works by Arthur Boyd were presented to Professor McKinnon and his partner Sue Walker as a farewell gift.

It was also announced that Professor McKinnon had been granted the title of Emeritus Professor at the Council meeting that afternoon.

Several speakers paid tribute to Professor McKinnon's many achievements.

Professor Ron King spoke on behalf of the staff and students of the University.

'Professor McKinnon was constantly planning, reviewing, finalising and feeling another building coming on,' Professor King said.

'He was a very public Vice-Chancellor and the embodiment of what you see around this University.

'To the outside world he is a model and to the inside he is a working model.'

Executive Director of the Australian Vice-Chancellor's Committee, Frank Hambly, said that no other Vice-Chancellor had made such a contribution to the whole university system.

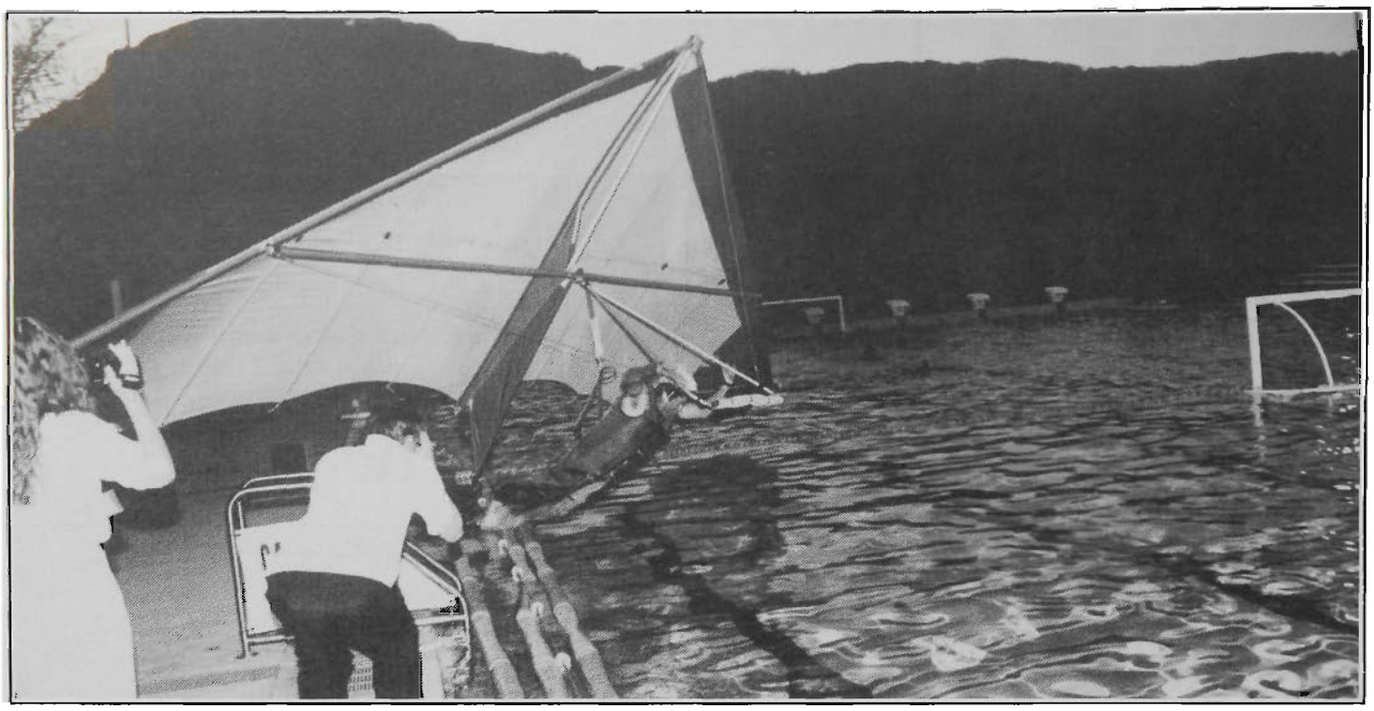
He praised Professor McKinnon for having developed AARNET and also for facilitating the UMAP scheme during his term with the AVCC.

Lord Mayor David Campbell spoke on behalf of the Wollongong community.

Chancellor of the University, Dr. RM Hope, acclaimed Professor McKinnon as a leader among leaders.

Numerous politicians, Vice-Chancellors from other universities and business and industry leaders, as well as staff of the University and members of the local community, were present at the function.

Notable dignitaries included Gough Whitlam, Stephen Martin MP, Senator Michael Baume, Terry Burke (Deputy Director General NSW Department of School Education), former Pro Vice-Chancellor Lauchlan Chipman, John Clark (General Manager Human Resources, BHP Melbourne and formerly a General Manager at BHP Wollongong), Harold Hanson, Paul Jeans (General Manager BHP Slab and Plate Products Wollongong), Walter Jervis, Sir Richard Kirby, Colin Markham MP, Novotel Northbeach Manager Vicki Templeton and former Deputy Chancellor David Parry.



Holiday happenings! *The local Hang-gliding Club held training sessions in the University Pool.*

Commerce lecturer's new textbook on business data communications

Lecturer in the Faculty of Commerce's Department of Business Systems, Keith Curle, is the author of *'Business Data Communications in Australia'*, to be released by Australian publisher Jacaranda Wiley in mid-1995.

This title has been written specifically as a textbook for the tertiary education market, for use in business communications courses in both TAFE and University campuses.

Mr Curle devised the book because of a growing need for relevant local material on business data communications and their application under current Australian conditions.

'Most of the textbooks available were published in the United States and had little or no connection with the situation in Australia,' he said.

'I've based the book on the present scenario of a monopoly system based on a Telecom-type service.

'In the US there is intense private competition between companies such as AT&T and Bell Atlantic.

'Another difference here is in the higher cost and the servicing of remote areas, because Australia has a much less even distribution of population than America.'

Various chapters will focus on 'paperless trading' or EDI (electronic data interchange), electronic commerce, data security, distributor and client server networks, the implementation of satellite, pay-TV, and video-on-demand services.

'I've tried to be all encompassing,' he said.

Other features of the book will include analysis of the information superhighway and the Australian approach to designing both wide area and local networks.

Mr Curle developed the book from his comprehensive sets of lecture notes, following favourable reactions and appraisal from colleagues in the field.

Further encouragement from a representative of Jacaranda Wiley eventually led to a contract to produce this publication.

'Business Data Communications in Australia' will provide an important source of local material and case studies about an increasingly important area of commerce already undergoing constant change technologically and legally.

Employer sponsored family day care places

The University Union has established five employer-sponsored places for staff of the University of Wollongong in the Northern Illawarra Family Day Care Scheme.

Places are available from February. If you are working at the University, and not on the Family Day Care waiting list, but interested in applying for a place in the Northern Illawarra Scheme, phone Carmen on 21 3072 (Monday, Thursday and Friday from 8.30am-2.30 pm only).

Staff currently on the waiting list receive priority.

Northern Illawarra Family Day Care have carers from Mt Keira Road to Helensburgh.

The employer-sponsored places may increase to nine places by July 1995.

A 'place' means one child based on five days care per week. This place can be shared by two children on a part-time basis.

Taking a place in the scheme does not remove your place on the Kids' Uni waiting lists, if you wish to keep the place open.

Illawarra child blood lead levels better than expected

The preliminary report of the Illawarra Child Blood Lead Study 1994 was released on 20 December.

The report shows that about 11 percent of children living in the Port Kembla and Kemblawarra areas have blood lead levels above the national goal of 10ug/dL.

About 5 percent of children living in these areas have levels above 15ug/dL.

The Illawarra Child Blood Lead Study was financed by the NSW Health Department and conducted by the Illawarra Environmental Health Unit (University of Wollongong) and the Illawarra Public Health Unit (Illawarra Area Health Service) between July and November 1994.

Concern about possible adverse effects on the health of residents in the Illawarra area has been caused by the proximity of industrial and residential sites in Port Kembla and Cringila, and the emissions generated by local industry.

These include sulphur dioxide, total suspended particulates and heavy metals such as lead, the primary cause of concern in this study.

Children's intellectual development and behaviour may be affected by blood lead levels previously thought of as safe.

Therefore, in 1993 the National Health and Medical Research Council (NHMRC) revised its blood lead 'level of concern' down from 25ug/dL to an acceptable level of below 10ug/dL.

During the study all households in the suburbs of Port Kembla, Cringila, Kemblawarra and Warrawong were door-knocked.

Parents or guardians of children aged 1-6 years were asked if they would like their children to participate in the study.

This involved the parents filling out a questionnaire about possible sources of lead and the children having a blood lead test. Four hundred and seventy eight children participated in the study.

According to Dr Irene Kreis, from the Illawarra Environmental Health Unit, the results are better than were expected.

'Previous studies in the area have found much higher blood lead levels among children in the area,' Dr Kreis said.

'The results may reflect a real improvement in lead emissions from industry and cars.'

'It is also likely that some previous studies have overestimated the community's blood lead levels, due to relatively poor rates of participation in the studies and different blood sampling methods.'

Dr Victoria Westley-Wise, from the Illawarra Public Health Unit said: 'To put the results for the Port Kembla area in some perspective, we need to look at the results of studies done in others parts of NSW and Australia.

'This year in North Lake Macquarie, which is near a lead smelter, 59 percent of children aged 1-4 years who were tested had blood lead levels above 10ug/dL.

'In 1991 in Eastern Sydney, about 13 percent of children aged 1-4 years were found to have blood lead levels above 10ug/dL, which was similar to the result for children in Port Kembla and Kemblawarra.'

Dr Westley-Wise added that the results are 'relatively good news for people living in the Port Kembla area... However, we can't be complacent. That 11 percent of young people living in the area have high blood lead levels is 11 percent too many.'

In communities where more than 5 percent of children aged 1-4 years have blood lead levels above 15ug/dL, the NHMRC recommends that lead sources in the affected community be properly investigated, environmental management plans and community education programs should be developed, and community blood levels should continue to be monitored.

Further evaluation of the data gathered for the Illawarra Child Blood Lead Study 1994 will be undertaken this year.

Happy event for new generation of midwives

A new generation of midwives had a happy event on 16 December.

The plans of seven Master of Science (Midwifery) students came to fruition when they completed their course.

These students are now eligible to apply to the NSW Nurses Registration Board for authorisation to practise midwifery.

Between 1991 and 1993 nurses wanting to become certified midwives had to leave the Illawarra as midwifery education was not available locally.

The Master of Science (Midwifery) is the only midwifery course in NSW in which students undertake their clinical experience on a supernumerary basis instead of as employees of a particular hospital.

While most of the students undertook their main clinical experience at Illawarra Regional Hospital (Wollongong) some students also went to Bowral and District Hospital and Shoalhaven District Memorial Hospital.

Sheree Eaton, Vanessa Heaton, Donna McDermid, Julie Hattenfels, Manette Kearin, Sue McMillan and Leisa Powell celebrated their accomplishments with their lecturers Mercy Baafi, Georgie Stamp, Margaret Wallace, John Sibbald, Brin Genyer and Rhonda Griffiths.

A further cause for celebration is the accreditation of the Master of Science (Midwifery) course for a further three years by the NSW Nurses Registration Board.

This reaccreditation resulted after deliberations by a committee who considered an evaluation report on the Master of Science (Midwifery) written by staff of the Department of Nursing.

So students of the Master of Science (Midwifery) can look forward to many more happy events!

New books documenting pieces of history

Two new publications, *Industrial Relations in Australia and Japan* and *Communism in Australia: A Resource Bibliography*, were launched by Stephen Martin MP and the outgoing Vice-Chancellor, Professor Ken McKinnon at a recent function hosted by the Faculty of Arts and the Labour History Research Centre.

Beverley Symons, Andrew Wells and Professor of History at the University of Melbourne, Stuart McIntyre, compiled *Communism in Australia: A Resource Bibliography*.

Mr Wells said that the project began when he sent Ms Symons to the library to find something and she returned three years later.

Ms Symons, a Master of Arts student and research assistant in the History Department, said she was really glad for the opportunity to work at something she enjoyed.

'It is important as historians to record such an important development in the labour and trade union movement and develop bibliographic records where all the information on this area can be found in Australia,' she said.

Recently retired Dean of Arts, Professor Jim Hagan, Andrew Wells, and Beverley Symons at the launch of their new books

'It makes it easier for future researchers to document part of Australia's labour movement.'

Mr Wells was involved in the production of both books and he said there were lots of adventures in this process and hopefully it was a prelude to a much longer project.

He thanked the Faculty of Arts and Departments of History and Politics for providing a congenial home for the projects and said they had received a great deal of support from the Dean, department and staff of the Labour History Research Centre.

Mr Wells edited the second book, *Industrial Relations in Australia and Japan* with Professor Jim Hagan.

Mr Wells said the project was Professor Hagan's idea and they had received funding from the Department of Industrial Relations.

At the same function Professor Hagan announced his retirement as Dean of the Faculty and thanked the people that had supported him over the years.

James Wieland appointed Dean of Faculty of Arts

Congratulations to Professor James Wieland, who began his appointment as the new Dean of the Faculty of Arts on 3 January.

This followed the retirement of Professor Jim Hagan, Dean for eight years and member of staff at the University since 1966.

Professor Wieland has been lecturing in the University's Department of English since 1978.

He was appointed Head of the Department in 1985, Associate Professor of English in 1988 and Professor of English early last year.

Professor Wieland's research and interest in Post-Colonial Literatures was a factor in the establishment of the New Literatures Research Centre within the Department of English in 1987.

He has just completed, together with Richard Lever, the joint editing of a bibliography of Australian literary criticism.

He is also working on a cultural history of Australian war writing from the First World War (1914-1918).

As newly-appointed Dean of the Faculty of Arts, Professor Wieland commented on likely changes and challenges facing Arts disciplines in the last years of the 20th century.

'It will be a time of some regrouping and reorganisation, as there will be no real budgetary expansion within the University in the next five years,' he said.

New Dean of the Faculty of Arts, Professor James Wieland

'The Faculty of Arts will have to handle its own resources very carefully and survey additional sources of funding in a way that it really hasn't done before.

'All faculties are facing the drive to achieve greater quality and yet there is less funding available to fulfil the requirements implicit in quality education.

'We are all working a lot harder than we did 10 years ago, and that continuing pressure has to be alleviated because, ultimately, it is detrimental to the system and to the goals of quality education.'

He said he wanted to encourage curriculum reviews of the various disciplines to ensure that Wollongong has , by the end of the century, a contemporary Faculty of Arts that leads students into major current issues.

'Also, I want to encourage excellent new young appointments with some consideration of what is a gender imbalance within the faculty,' he said.

Professor Wieland feels that the Faculty of Arts is 'still well into a process of significant change that started 10 or 15 years ago. It will be necessary for everyone to participate in analysing the best of those changes and to implement them'.

He added that the greatest challenge for an Arts faculty of strongly-based disciplines is 'maintaining the increasing interdisciplinarity and that will require delicate balancing, cooperation and imagination'.

(From left): Dr David Steel, Professor Tim Holt, Mark Tranmer, Dr Sue Lewis and Dr Ken Russell

Statistical interface with Southampton

Putting into effect its policy of establishing links with several overseas institutions, the Department of Applied Statistics recently hosted three statisticians from the University of Southampton in England.

Professor Tim Holt and Mr Mark Tranmer, from the Department of Social Statistics at Southampton, visited Dr David Steel.

Dr Steel is a collaborator in a joint research project with Professor Holt and Mr Tranmer, funded by the UK Economic and Social Research Council, which is concerned with the analysis of aggregation effects in social data.

Analysis of group level data is used widely in social and health research.

However, these analyses are subject to the ecological fallacy, which occurs when spatially aggregated data are analysed and the results are incorrectly assumed to apply to relationships at the individual level.

The project is developing the statistical theory and practical methods for adjusting the outcomes of the analyses based on spatially aggregated data to yield estimates of the underlying individual-level relationships.

This will provide methods for researchers to avoid the ecological fallacy in their analysis of census and other small area data.

Professor Holt is also Deputy Vice-Chancellor of the University of Southampton.

A Reader in the Mathematics Department at Southampton, Dr Sue Lewis, continued collaborative work with Dr Ken Russell.

They are interested in the planning of carry-over experiments, in which each subject receives a sequence of treatments, and at any time is assumed to experience the effects of both the current treatment and the treatment administered immediately beforehand.

Such experiments are used widely in such areas as psychology, pharmaceutical medicine, and telecommunications.

All three enjoyed their visit to the Department of Applied Statistics.

The warmer Wollongong weather, and England's improved performance in the Third Test, played only a small part in this.

The Department will continue its links with the University of Southampton through these projects, which will include some return visits.

NEW BUS SERVICE Sutherland – Wollongong

A new bus service for commuters travelling between Wollongong and Sutherland will start on February 22.

Designed to assist University of Wollongong students living in Southern Sydney and Illawarra commuters, buses from Sutherland will arrive at the University in time for early morning lectures each day.

The pick-up points in Sydney will be Sutherland and Waterfall Railway Stations. This direct service should take approx. 50 minutes one way.

Times and pick-up points will be finalised in late January. For further information please contact Dion's Bus Service. Tel 042 - 28 9860.

Wollongong offers help to HSC students

The University extended an invitation to all HSC students to visit the campus from 5-17 January for a personalised tour to help them make the final decision about where they want to study this year.

The University sent letters to NSW HSC students inviting them to book in for a tour or to attend an information session on 12 February.

As well, these opportunities were promoted through TV and newspaper advertising campaigns.

The exercise was well worthwhile with students from Sydney, Illawarra, Southern Highlands and as far away as Adelaide attending and making favourable comments about the experience.

The University always finds that a visit to Wollongong and the campus is a positive experience, as the beauty of the area is not well appreciated outside the Illawarra.

Prospective students also warm to the friendly, non-intimidating atmosphere of the University.

Students already attending the University acted as tour guides.

Caring really does make a difference

The University has received a letter from a school principal from outside the region which highlights the importance of how we treat our prospective students and visitors and the service we provide to them.

The letter enclosed an evaluation by a student and the student's parent of the University of Wollongong Open Day last year and an open day they attended at another university.

Their comments are shown below.

Overall impressions

Wollongong – made to feel they would be considerably enriched if you would attend their university – all questions answered with good grace, even towards the end of the day.

Other – generally felt they couldn't care less if you came or not. We were left with the impression: 'What do we have to prove!' – and that was at 10am.

Wollongong

- On arrival – bag provided including map with day's activities, note pad, pen.
- Everyone was in place at information booths by 10am – with plenty of literature
- Plenty of room for each booth in the hall.
- Staff everywhere made all of us feel welcome – could not do enough for us.
- Faculty buildings open all day with activities during the day in Science (our interest).
- Activities for young children.
- Many food outlets – even sausage sizzle.
- Grounds were generally very well cared for and clean.
- Visits to residences by internal bus – admittedly they were further from campus.

The other university

- On arrival – not even a sign to the suggested starting place. (We were glad we had brought a map with us).
- Many booths not manned by 10.20am.
- Booths very crowded together.
- Very bad body language, e.g. lounging back in chairs while talking to people.
- Faculty buildings locked – only open on tours.
- No activities for young children.
- Only one cafe open when we were there (cake was stale).
- Grounds looked very unkempt.
- Seemed you had to go on walking tour of residences – seems rather hard if you are unwell or had young children with you.

Herbarium Manager Dr Kris French and Head of Biological Sciences, Professor Rob Whelan examining part of the extensive collection in the new herbarium

'An inspiration and a piece of history...'

A new regional herbarium was opened recently at the University of Wollongong in memory of Southern Highlands botanist and historian Miss Janet Cosh.

Janet Cosh was a resident of Moss Vale who, in the early 1970s with her friend Rachel Roxburgh, developed an interest in plants and their ecology.

Already aged in her 70s, she travelled all over the Southern Highlands collecting, drawing and taking notes on the plants that grew there.

She made many contributions to knowledge of the Illawarra's botany and helped many botanists in searching for particular species and finding new populations of rare plants.

By the time of her death in 1989, she amassed a large library of botanical books, more than 1000 preserved plant specimens and hundreds of illustrations.

Officially opened by Dr Barbara Briggs from the National Herbarium of NSW, the Janet Cosh Herbarium was established through a bequest from Miss Cosh including her plant collection, library, notebooks, photographs, maps, illustrations and a grant.

Dr Briggs said: 'The great strength of the herbarium is its low technology. Each specimen can be used in research and they are the real thing rather than just a list.'

The herbarium has facilities for teaching, research, identification of specimens, and consultancies including flora surveys and plans of management.

The University has used Ms Cosh's collection of materials as the core of a developing regional herbarium.

It also holds collections by Kevin Mills and Denise Black, and a valuable counterpart is that of the Wollongong Botanic Gardens weed collection.

At the official opening, Head of Biological Sciences, Professor Rob Whelan, said the herbarium 'is an important teaching tool and is more than just a collection of dried plants but an inspiration and a piece of history'.

He said that involvement in research and plant sciences is strong within the university especially with the Environment Research Institute and there is a real need for such a comprehensive collection of local plants .

'The bequest of the collection was enough to excite the department and instigate the resource set-up, but it also included money to enhance teaching and research in botany,' he said.

As a result, lecturer Dr Kris French has been appointed as the Herbarium Manager and Ms Belinda Pellow as Herbarium Officer.

They have curated and catalogued more than 3000 specimens and found the process was made even more interesting when they found that Ms Cosh had mounted many of her plant specimens on the back of her father's watercolours.

Through this valuable resource, information such as recorded localities for a given species, or all species growing in a nominated area can be easily accessed and the Geographic Information System enables data to be mapped.

The Department of Biological Sciences has integrated information about the collection into their teaching program.

At the opening, on behalf of the City of Wollongong, Lord Mayor David Campbell said that 'each region needs people who are concerned with conservation and the Illawarra is an area with a tremendous richness of species.

'The herbarium acts in the true spirit of Janet Cosh in serving the University and the community.

'It contributes to the knowledge of botany in the region, the training of scientists and enrichment of people in the university and the community.'

University physics laser facility opened in Sydney

In early December last year, the ARC Chair, Professor Max Brennan, opened the University of Wollongong Far Infra-red Laser Facility.

The facility will be used to study optical effects in solids in very large magnetic fields.

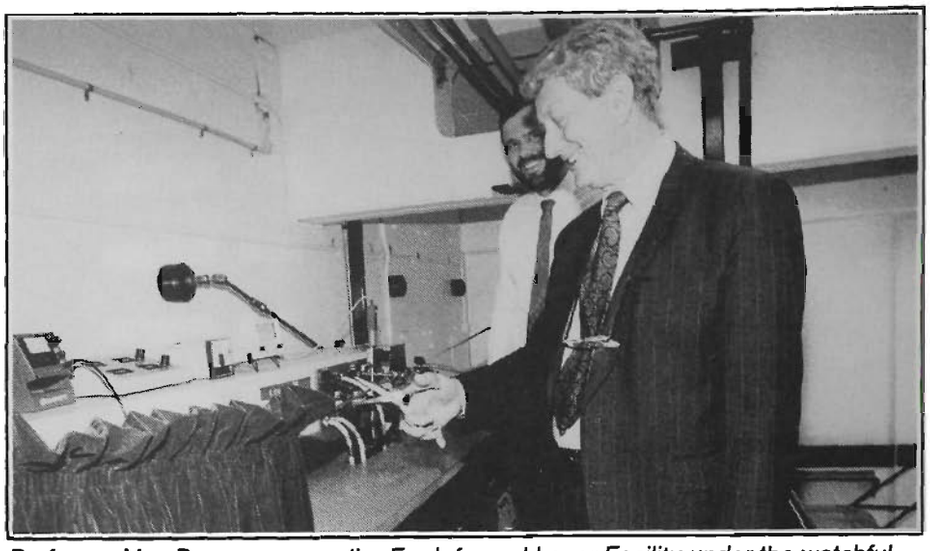
The laser is located at the National Pulsed Magnet Laboratory, University of NSW, and this site offers the highest magnetic fields in Australia.

Professor Brennan commented on the success of the ARC 'infrastructure' program exemplified by this new facility and he identified two chief ingredients to the success of the ARC program.

Firstly, universities had to cooperate in the venture - and in this project, University of Wollongong Physics Department staff Dr Roger Lewis, Dr Phil Simmonds and Dr Chao Zhang collaborated with Professor R. Clark, Dr R. Newbury and Dr A. Davies from UNSW.

Secondly, the universities need to make a financial commitment to the project.

From the University of Wollongong, the Graduate Faculty, Faculty of Science and Physics Department have all contributed to the development of this new facility.



Professor Max Brennan opens the Far Infra-red Laser Facility under the watchful eye of Dr Roger Lewis

Earlier, Dr Lewis had welcomed guests to 'The University of Wollongong – Kensington Campus' and briefly described the operation and uses of the laser.

Head of Physics Department, Associate Professor Bill Zealey, also represented the Graduate and Science Faculties at the opening.

The proceedings concluded with a toast to 'far infra-red magnetospectroscopy'.

Coconut oil goes well in Energy Challenge

Coconut oil could have a bright future as a bio-diesel fuel following its success in the 1994 Energy Challenge.

Diesel fuel made from coconut oil was used to power a Toyota Hiace van into third place.

The excellent result achieved by the University of Wollongong Department of Mechanical Engineering entry surprised many in the highly regarded 'Brain Sport' event, especially considering this was their first attempt.

Vehicles which operated on renewable fuels such as coconut oil, solar power, canola oil and ethanol gained the highest placing in the 1994 Energy Challenge held between Sydney, Wollongong and Canberra on 26 and 27 November last year.

The Energy Challenge is a race which measures a vehicle's Greenhouse Gas Index (GGI), the only successful method of comparing many alternative fuels being investigated.

Standard, prototype and modified vehicles competed using standard, blended and new fuels.

Entries were divided into two main classes for commercial and passenger vehicles, with further class subdivisions according to the type of fuel used to power the vehicle.

Performance is based on the overall greenhouse gas impact of the vehicle, and takes into account the energy associated in manufacturing the vehicle, producing the fuel, the payload transported and the actual amount of fuel used.

This fairly complex analysis allows comparison of standard vehicle types with various alternate fuelled, solar, human powered and hybrid vehicles. The results have just been sent out (in terms of a 'corrected GGI figure').

The Energy Challenge encompasses three events in one – a city cycle of 100km for commuter vehicles, a country cycle for buses and trucks over 600km and a tougher country cycle for cars and light commercial vehicles over 619km.

The overall winner of the event was a commercial freight prime mover entered by Boral Transport and Apace Research, powered by a patented Australian invention, Diesohol (diesel oil and ethanol). This team won for the third year running.

Second place was awarded to Bowen Petroleum Services for their Scania Prime Mover, which also operated on Diesohol.

Third place went to Wollongong University's entry, a Toyota Hiace entered as a commercial vehicle and fuelled by 100 percent coconut oil with a GGI of 5.4.

The first two vehicles had GGI values of 4.5 and 5.1 respectively. Fourth was a tandem bicycle with a GGI of 14.3. The next standard type vehicle after the Wollongong entry was an LPG fuelled light commercial truck, with a GGI of 16.7.

Coconut oil was the unexpected star of the 1994 event.

Part of an entire system of diesel oil replacement, the system has been designed for Pacific Island countries, or anywhere coconuts grow well.

With 150 to 200 trees per hectare and 10 litres per tree per year, the development of this technology is crucial.

Manufacturing the oil consists of gathering coconuts, breaking them open, scouring them, drying the flesh and then squeezing it.

The resulting oil is filtered through sand to create coconut oil.

Using a diesel engine's cooling system to heat coconut oil up thins it sufficiently to be used in an engine at a fraction of the environmental and import cost of non-renewable diesel fuel.

The Energy Challenge is sponsored by the NRMA, the NSW Office of Energy and the Federal Department of the Environment, Sports and Territories as a positive initiative which encourages practical research.

This event has already prompted the development of three major bio-fuels.

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