

CAMPUS NEWS

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NEW DEGREES

The next issue of CAMPUS NEWS will include coverage of the Graduation Days on May 10th and 11th, at which some 330 persons received degrees.

These included David Johnstone, who qualified to take out his Arts and Commerce (Accountancy) degrees at the same ceremony, but has deferred taking out his B.Com., as he is proceeding to Honours in Commerce this year.

David attended Wollongong High School, leaving in 1974 with an Electricity Commission Scholarship, and enrolled in Electrical Engineering at the University. However, after a year he decided to revert to his original intention of studying Commerce, so sacrificed his Scholarship and switched courses. A careful selection of subjects, and some credits for his Engineering subjects, enabled him to complete the studies for the twin degrees in 3 further years.

As well as studying for his B.Com. (Hons.) this year, David, aged 21, is tutoring in Commerce.

For the Askew family of Mt. Keira, Graduation Day 1979 will always be remembered as a very special "Family Day." Mark, eldest child of Leo and Pat Askew, took out his B.Ed., having already acquired his B.A. and Dip.Ed. at Wollongong, and now being engaged in studying for his M.A.; Michael took out his B.A. (Hons.) and is currently studying for his Dip.Ed.; Bernadette took out her B.A. and is doing Dip.Ed. this year.

Youngest child, Christopher, is a second year, part-time, student for the degree of B.Com. Father of the family, Leo, a Senior Technical Officer with Telecom, feeling a need to keep up with his academically gifted brood, has enrolled in first year Arts.

Mrs. Askew (Pat) is, at least for the time being, resting on her laurels as Infant Mistress of Corrimal Public School.

A "family day" also for Andrew and Dee Hilton of East Corrimal, each of whom received a B.A. degree. Andrew is studying this year for an Honours degree. Dee will follow suit next year but has taken this year off to care for baby Jamie. Her two children by a former marriage, Darren, aged 14 and Michelle, aged twelve, were both present at the ceremony.



Above: David Johnstone.

Below: Andrew and Dee Hilton with baby Jamie.



EXTRACTS FROM STUDY LEAVE REPORT

BY JOHN MONTAGNER

1. PREAMBLE:

The period of my study leave was spent almost entirely at the Control Systems Centre within the University of Manchester Institute of Science and Technology (U.M.I.S.T.). The Control Systems Centre (C.S.C.) was created in 1966 to continue and develop the growing interest in Control as an inter-disciplinary subject and is primarily concerned with advanced postgraduate education and research. The aim of the centre is to develop and extend control theory so that it can be applied to a wide range of practical problems. The last facet was of particular interest to me as I hope to direct my research activities along similar lines.

The Centre's computing laboratory, now part of the national grid, was provided by the Science Research Council in 1967, when U.M.I.S.T. was designated as one of the three major centres for control studies under the Chairmanship of Professor H.H. Rosenbrock. (The other two being Imperial College and Cambridge.) My acceptance there for study leave on a research basis was, I feel certain, influenced by a strong recommendation from Professor S.A. Marshall, who was highly thought of at U.M.I.S.T.

The Centre's facilities, laboratories, library and computing hardware, all in very close proximity (offices, labs., computer, library etc, occupied 2 floors of the Chemical Engineering building), together with the staffs' high research motivation were ideally conducive for work. This period enabled me to bring myself up to date with recent advances in modern control theory, particularly multivariable control system analysis/design, the use of self-tuning regulators as controllers, recent advances in system identification etc. Details follow in a later section.

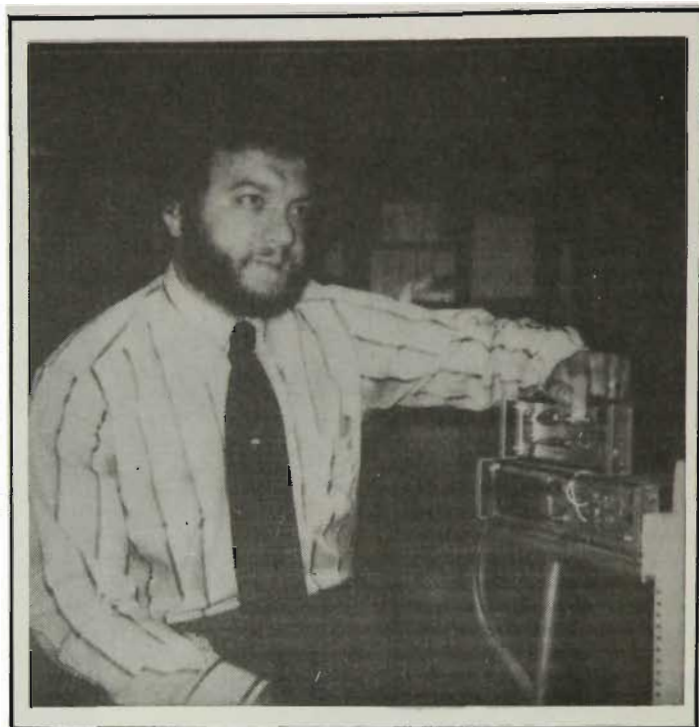
Secondly, U.M.I.S.T. afforded me an unique opportunity to investigate our department's need for a minicomputer based data acquisition/graphics facility. The Mechanical Engineering department has recently placed an order for such a facility. Manchester was well placed as a staging point for a number of visits to Universities and research centres, and was well served by computer hardware vendors. Taking advantage of Professor S.A. Marshall's familiarity with "the lay of the land" prior arrangements were made for me to visit the institutions detailed later.

SOME IMPRESSIONS OF THE CONTROL SYSTEMS CENTRE
Nine staff members were supported by approximately twenty non-academic staff. This included a librarian, an invaluable help in tracking down references, at least three programmers to help "tidy up" student programmes making sure they conformed to a prescribed standard and interfaced to the whole suite of programmes.

The seventeen, or so, Ph.D. students were relatively closely supervised with regular weekly interviews of at least an hour. Progress made and targets for the coming week were discussed. Obviously, this high staff involvement in research was compensated by a very low, by Wollongong's standard, teaching commitment. Depending on subjects being offered, some staff had as little as 20 or 30 hours of formal lectures per YEAR and because of the term structure some staff would be required to complete their lecturing commitment in, say, one ten week term. The emphasis on research is evidenced by the department's publication rate, which I was led to believe was an average of six papers per staff member per year for 1976-1977.

Staff movements seemed in a state of flux considering the economic climate. During my stay several staff members left for industrial positions with large corporations. An interesting concept was that of industrial secondment. One staff member was seconded to I.C.I. with the company contributing to both the staff members salary and to the departmental funds. As already mentioned, the low formal contact hours enabled the staff member to satisfy his departmental obligations in two days per week, the balance being spent at I.C.I. I understand this arrangement was for two to three years.

The Centre's emphasis on practical applications of control attracted a high proportion of applied research projects, either contracted or sponsored by local and foreign industries.



Above: Dr. John Montagner (Mechanical Engineering).

3. MY INVOLVEMENT IN THE DEPARTMENT'S ACTIVITIES: Research:

It was fortuitous that my arrival at the centre coincided with the tail end of the teaching year as I was able to follow through with two research projects identified in a just completed Master's thesis. For this opportunity I am most grateful to Dr. P.E. Wellstead, the team leader, for his encouragement and support. Through him, the department's computing, library and office facilities were made available.

The first project involved the use of self-tuning regulators for the on-line prediction of blast furnace output. This use of self-adaptive models was new to me and required considerable homework. However, it was most gratifying that this effort has resulted in a number of publications and a proposal to the British Steel Corporation.

Briefly, a fast, compact on-line tool for predicting the properties of the next cast of a blast furnace was proposed. The aim was to produce a blast furnace operator's aid which will give him predictions of the % Si, %Fe, %C etc., which can be expected at the next few casts.

The method proposed was an inherently self-adjusting model based on Dr. Wellstead's work requiring no setting up and able to run in a small mini-computer. The model was tested against the Barry Wood model and produced predictions which closely tracked it. Since the Barry Wood model has performed well in practice, it was felt that this new self-adaptive model should perform correspondingly well.

The second related project made use of the Control Systems Centre's Computer Aided Control System Design Suite (C.A.C.S.D.S.). This very powerful analysis/design package has been actively developed for approximately eight years and represents a major piece of control systems software. After discussions with Professor H.H. Rosenbrock I was able to negotiate on behalf of our department the purchase of this software package at approximately 10% of its commercial selling price of \$10,000.

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The Master's thesis referred to above generated a large volume of input-output data for the blast furnace model including correlation and spectral estimates between all the model outputs and inputs. Using the C.A.C.S.D.S. a multi-input-output controller was proposed. Unfortunately time didn't permit a conclusive answer by my departure time. However, another postgraduate student is pursuing this aspect at U.M.I.S.T. and I have made a little headway here at Wollongong.

Laboratories:

Because of the similarities between U.M.I.S.T.'s control laboratory equipment and our own (including the same type of analogue computers), I was able to profit a good deal from my time spent in their laboratory. Again, I am most grateful to Dr. Wellstead, who also happened to be responsible for the Control Laboratory, and made freely available notes, laboratory sheets etc. Experience with their micro-processor based controller was put to good use this year resulting in a useful student project by Mr. L. Neist.

Seminars/Courses:

Whilst at U.M.I.S.T. I took the opportunity of attending a number of seminars and I sat in on some advanced courses on system identification and modelling. The seminars are a regular feature at U.M.I.S.T. and are given by guest speakers from industry, other U.K. Universities and visitors from abroad.

4. VISITS TO UNIVERSITIES AND RESEARCH INSTITUTES:

As mentioned previously, arrangements had been made for me to visit a number of Universities and Research Institutions, in order to discuss aspects of teaching and research in the system identification and control field including experimental laboratory equipment, computing hardware/software etc.

A brief summary of these visits is given below:

(a) University of Cambridge

On 7th November I visited Professor A.G.J. MacFarlane's department of Control and Management Systems at Cambridge. Strangely there were only three academic staff members in Control and ten in Management with approximately eighty students taking "paper 11" the Control speciality. Professor MacFarlane and Drs. John Edmunds and Basil Kouvaritakis, who showed me around their laboratories, all came originally from U.M.I.S.T.

Students seemed well catered for with access to many example problems. Of interest to me was the use of "crib sheets", i.e. detailed solutions as well as the usual answer sheets. They were good enough to let me have a full set of these problems, crib sheets etc. for which I am most grateful and which should be useful in our course here at Wollongong.

Minor evidences of financial cutbacks were not reflected in the Control/Computing laboratory with at least twenty mini-computers in use. Research activity appeared biased towards computers, including the writing of operating systems, a multi-variable control system and analysis/design package, based largely on the U.M.I.S.T. model with extensions of Professor MacFarlane's characteristic loci theory and some large scale digital simulation. Additionally, the laboratory was well served with many remote terminals to Oxford, U.M.I.S.T. etc.

(b) Warren Spring Laboratory

On 25th November I visited Dr. P.H. Hammond's Control Engineering Division at Warren Spring. This laboratory is one of the Research Establishments of the Department of Industry with a research programme including aspects of both industrial and environmental technology with its services being available on a contract basis, to industry, consultants, other government departments and local authorities.

After a general introduction by Dr. Hammond, I visited the Computing and Materials Handling laboratories accompanied by Dr. P.A.N. Briggs, senior research scientist within the control group.

The early emphasis at Warren Spring on using microprocessors in control as sequence controllers is now giving way to distributed control with a number of projects in hand.

The laboratory is said to be suffering from government cutbacks in funding, for buildings and staff, with the result that it is forced to concentrate on customer contracts to the exclusion of the "10% pure research" notion originally planned.

The materials handling group are developing a large belt weighing system which it is hoped will become "a standard or testbed weigher". An allied group, Materials Recovery, have developed a prototype for an inexpensive plastic-in-waste identifier based on infra-red absorption.

Research for customers was relatively expensive compared to universities as they were obliged to charge "full economic units" including all the usual overheads etc. However, the results are confidential to the customer, an important aspect in a competitive market. This confidentiality has occasionally resulted in the laboratory contracting for rival companies on similar projects without letting on to either.

(c) University of Salford

On 2nd December I visited Professor H.M. Power's department of Electrical Engineering, (He is now Professor of Electrical Engineering, University College, Dublin) and Professor B. Porter's department of Aeronautical and Mechanical Engineering.

Within the Electrical Engineering department, I was interested in the increasing use of microprocessors at both the teaching and research level, the substantial simulation language developed there (I.S.I.S.) and their data acquisition and control system based on a P.D.P. 11 mini-computer.

It came as a surprise to me to find such a large control group within the Aeronautical and Mechanical Engineering department with a separate Professor of Engineering Dynamics and Control. Total academic staff, including Fellows, exceeded eighty! After a general rundown of the place by Professor Porter, Dr. A. Bradshaw showed me around the Control laboratories which appeared well appointed. The main emphasis was to approach control via an understanding of mechanical dynamics. Hence there were a large number of vibration exciters and associated control equipment. A good deal of the control research related to production-inventory systems and interestingly was funded by the U.S. Airforce. Student numbers for 1976-77 were 424 undergraduates and 87 post-graduates.

(d) University of Sheffield

On 5th December I visited Professor H. Nicholson's department of Control Engineering and Professor J.K. Royle's department of Mechanical Engineering at Sheffield.

I was particularly warmly welcomed in Professor Marshall's old Control department and Drs. Sterling and Billings and Mr. Edwards gave me a brief run down on activities there. Research interests varied from studies of counterflow processes, power systems, system identification and control of longwall miners. The department had just recently taken delivery of an Interdata 8/32 computer and I was anxious to gain as much information of problems, difficulties, etc., as possible, because of our own department's intention to order a mini-computer. Generally, the courses and laboratories were not unlike ours at Wollongong.

I spent most of the afternoon with Professor Royle and Dr. Patterson. Professor Royle's work on electroviscous effects was spectacular to say the least and certainly its applications very exciting. After many years work he is now fatigue testing his specially developed fluids whose viscosity he is able to easily vary over a very wide range using extremely small controlled magnetic/electrostatic fields. Experimental working models demonstrated the application to suspension systems and clutch-gear box systems. Naturally, the military have shown considerable interest in the development.

Professor Royle was quick to point out that Sheffield was one of the first U.K. Universities to run short courses, now providing approximately 16 per year. At a time of declining student numbers these courses are proving quite profitable for the University.

Dr. Patterson demonstrated several pieces of packaged vibration/dynamics equipment available from U.K. vendors. His criticisms were of benefit to us as we are building up our stock of experimental equipment at Wollongong.

(e) University of Birmingham

On 6th December I visited Professor H.A. Prime's department of Electronic and Electrical Engineering. With approximately 8500 full time students, Birmingham is one of the largest universities in the U.K. outside of London.

Research activities varied from underwater acoustics and instrumentation, electromagnetics, computer control, to radio-communications and radar.

Professor Prime argued strongly for university investment in "large" experimental rigs. He has a 10 x 5 x 8 metre water tank,

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a large roof mounted radar aerial etc. He suggested that a properly chosen large rig provides such fruitful research potential that it is "cheaper" in the long run. For example, he is taking on approximately 5 Ph.D. students per year on both the tank and the aerial systems and expects to continue at that rate for perhaps 10 to 15 years!

The colour weather maps produced by the radar/aerial system of the south of England from east coast to west coast were most impressive. They are able to track clouds and monitor precipitation rates, both on a vertical and a horizontal plane as the cloud/rain moves from London to Manchester. This has significant impact on flood control, and water catchment optimisation.

(f) **University of Warwick**

On 14th December I visited Professor J.L. Douce's department of Electrical Science. The Inter-University Institute comprises the Schools of Engineering Science at the Universities of Bangor, Sussex and Warwick. It is a postgraduate organisation whose purpose is the development of research and teaching in the areas of control and instrumentation. The Warwick campus is relatively new having its first intake of students in 1964/65.

Research emphasis appeared to be on transportation systems with several projects on magnetic levitation including working scale models and engine modelling including variable cylinder operation. On the last project Dr. M.T.G. Hughes, research director, demonstrated some proto-types and results of simulation studies of hybrid automobile propulsion systems. Preliminary investigations of a technique for varying the displacement of a piston engine have revealed a substantial potential for improving fuel economy at part load. The group was hopeful of a substantial grant to continue this work.

An unusual aspect of the department's activities concerned the Warwick Research Unit for the blind. The department coupled an under utilised numerically controlled engraving machine with their computer to produce a high speed braille writing system. Just one of its functions is to produce about 4000 bank statements/year for the blind cutting months off what was previously a laborious task.

(g) **University of Bradford**

On 15th December I visited Professor M.G. Mylroi's department of Control Engineering at Bradford.

The emphasis on correlation techniques for materials handling flow measurement was of particular interest to me. My own recently submitted Ph.D. thesis relied significantly on these techniques to monitor granular material flow in chutes and hoppers and I was keen to compare notes.

Dr. M. Beck, the team leader, demonstrated examples of transducers developed in their laboratories. They report no problems in applying their techniques to any "dirty fluid", i.e. non-homogeneous fluid with their flow monitors being cost effective for pipe sizes greater than about 10 cm. However, they are presently trying to monitor the flow of "clean fluids" (homogeneous fluids) with some problems.

Of the many fascinating applications related, the monitoring of volcano gas emissions was interesting. Using a pair of telescopes with infra-red detectors in the eyepiece aimed at two cross-sections of the gas emissions they were able to readily monitor the emitted gas flow.

CONCLUSION

Study leave provided me with a quantum jump in my appreciation of control systems theory and practice. The freedom from the day to day office routine afforded an opportunity to reflect on my teaching activities and more importantly perhaps, the direction of my future research efforts.

I was able to collect and collate much valuable current information on computing and control equipment. I met many of the people whose research papers I had referenced in my own work and hence gained a better insight into their work and indirectly established a number of contacts for the department. Personally, I found my first study leave an enriching experience.

PUBLIC QUESTIONS FORUM



Above: Author Humphrey McQueen addresses a Public Questions Forum on "Manipulation And The Media."

Below: After the Forum Mr. McQueen chats with Dr. Winifred Mitchell (History).



INSTITUTE APPOINTS DEPUTY DIRECTOR

Mr. Mike Koder has taken up duty as the Deputy Director of Wollongong Institute of Education.

Mr. Koder was educated at Sydney Technical High School and took his first degree in science with a major in mathematics and honours in psychology from the University of New South Wales in 1966.

In 1972 he graduated as a Master of Science from the University of Newcastle.

Mr. Koder taught in a number of Sydney High Schools before his first tertiary appointment to Balmain Teachers' College as a lecturer in mathematics.

This post was followed by a lectureship in education and psychology in 1968 at Newcastle Teachers' College and a senior lectureship at Milperra C.A.E. in 1975.

In 1976 Mr. Koder was appointed principal lecturer in Educational Studies at Milperra and in the following year was promoted to the post of assistant to the Principal.

E.S.U. SCHOLARSHIP

The Victorian Branch of the English-Speaking Union offers, in 1979 its twenty fourth annual Travelling Scholarship.

The Scholarship will take the form of a Grant to the value of at least \$1,000. Also, in the past, extensive hospitality in the United Kingdom and the United States of America has been arranged for winners of this scholarship. It is hoped to arrange similar hospitality for the successful candidate, in addition to the monetary grant. The Scholarship is open to all young men and women whose ages fall within the prescribed limits and who have made arrangements to travel to the United Kingdom or the United States of America not earlier than 1st September 1979, not later than 31st August, 1980.

Applications will be received from men and women who are AUSTRALIAN CITIZENS, and who are not less than twenty-one years of age and not more than thirty-five years of age on 30th June, 1979. (Date of birth on or between 1st July, 1944 and 30th June, 1958 inclusive).

A Selection Committee will be appointed by the Victorian Branch of The English-Speaking Union, and it is expected that interviews for final selection will take place during late July or early August 1979.

Short listed candidates must be available to be interviewed by a selection committee appointed by the Victorian Branch, and such candidates will be expected to pay their own travelling and incidental expenses incurred in the interview.

It is a necessary condition of application that applicants are in a position to pay all travelling and other expenses in connection with their visit to either U.K. or U.S.A.

The following points will be considered in awarding this scholarship:

Community Activities.

Potential good ambassadorship.

Qualifications or experience pertaining to applicant's occupation.

The successful candidate may be given the opportunity to address English-Speaking Union Branches overseas or on return to Australia.

THERE'S COAL AND THERE'S COAL

Coal is not just coal. It has as many varieties as there are fingerprints. The preparation of coal for use as coke in blast furnaces is going to become more and more important as this finite resource becomes scarcer.

The National Energy Research Development and Demonstration Council thinks the problem important enough to have awarded a grant of \$123,200 to the Department of Geology, known affectionately at Wollongong University as the Rocky Horror Show. The grant will go towards buying and running an Image Analyser, a space age device which builds images of microscopic structures and analyses points at the rate of millions per minute. The process can be done manually but only at the rate of about 500 per hour.

Why is this research so important for Australia? Professor Alan Cook of the University's Geology Department explained it this way.

Australia has a large quantity of coal. A small quantity of this is recoverable. A smaller part of this recoverable coal is situated in places where it is currently economic to mine. Of this a smaller quantity still is of a quality (type, rank and ash yield) which makes it suitable for steel making.

Coal production in the Wollongong area, said Professor Cook, is currently on the crest of the wave as its coal measures are close by and of the right type and rank. In the Hunter Valley fields the high quality coals are deeper, and will become available as time goes on and the lower rank coal overlying it is mined and used. The Southern measures however are currently yielding the best coking coal in N.S.W., but for how much longer? Higher quality coal is already available from parts of the Bowen Basin Coalfield in Queensland.

Try looking down a microscope at a piece of coal and thinking about it. The patterns are staggering. Surprisingly there is fascination and excitement in looking at coal under the lenses of a microscope and changing lighting conditions to resolve the structures.

The wildest affectations of present day artists would be hard put to match the colour, patterns and intricacies of what on the face of it is a lump of black coal or a piece of coke.

The aim of the project is to study coal types and what happens to them in the coke ovens. We need to know this in order to be able to know how to prepare lesser grades of coal, which we will increasingly have to use, to make steel. We also need to know it in order to help sell our coal overseas, where furnaces, coal preparation and attitudes are geared primarily to the European and North American coals. These coals are (you guessed it) as different from ours as chalk from cheese.



Above: Professor Alan Cook.

There are three principal components in coal: Exinite, which yields large amounts of tars and gasses when heated; Inertinite, the inert non-fusible substance; and Vitrinite, the plastic-like binding substance which forms the framework of a coke. Most Australian coals are dominantly vitrinite and inertinite with very little exinite, whereas some of the Northern Hemisphere coals have much higher proportions of exinite. The result? You put Australian coal through tests designed to evaluate the Northern varieties and you get disappointments even though it is clear from Australian experience that in practice the coals will form a satisfactory coke. Our coal can perform as well and in some respects better than most of the Northern types.

Even putting our own coal in our own furnaces is tricky because the quality varies tremendously between mines and even within the same mine. Inconsistencies in quality at one end of the system will result in inconsistencies of steel coming out at the other end and in higher costs to everybody. Part of the solution to these problems is to know about coal and coke, to understand their structure and chemistry and how what we have left of it can be prepared and blended into something better.

Exactly how can this be done? A good question, said Professor Cook. Come back in a few years and we hope to be able to tell you something cheerful.

ACCOUNTANCY-A FOUNDATION FOR DEVELOPMENT

Department of Accountancy.

Accountancy has been taught at the University since 1964, when the University was still a College. At that time the Department relied on local Accountants and the Wollongong Technical College to provide teaching staff for a student enrolment of 17.

Today the Department has a staff of 15 and a student enrolment of over 300, and EFTS exceeds 200. Professor J.B. Ryan, the present Chairman, joined the Department in May 1973 bringing the academic staff to 5. Thus there has been rapid growth in a relatively short period.

The Department offers subjects leading to the award of the BA, BCom, BA(Hons), BCom(Hons) and MCom degrees and the Graduate Diploma in Accountancy. The degrees or diploma may be taken on a full-time or part-time basis. A strong continuing demand for well qualified accountants has meant that the BCom in Accountancy is very popular.

Throughout the subjects for these courses emphasis is upon mastery of ideas and stimulation of critical ability to provide a foundation for personal and professional development. An appropriate preparation for entry into the accountancy profession is provided, and the Department's graduates are highly regarded by professional firms. The scope and orientation is, however, much broader than for this professional purpose alone, serving also as a particularly suitable education for careers in business and government.

Present academic staff members are: Messrs. A.J. Anderson, B.H. Andrew, A. Coote, I.L. Dunn, C.T. Heazlewood, D.J. Johnstone, P. Lucchitti, Mrs. P. MacKay, Miss C. McWaide, Professor J.B. Ryan, Messrs. G.E. Tibbits and R.K. Wilson.

General staff members are: Mr. P. Beniuk, employed on the Australian Company Financial Reporting research project; Miss A. Bicego, Secretary to the Department; and Mr. L. Mitchell, Technical Officer.

The Department draws heavily on a dedicated band of part-time members of the teaching staff. Professor Ryan considers that although the employment of these people increases the administrative burden of the Department, they bring to the University a valuable dimension which complements the teaching of the regular staff and he has a high regard for their contribution to the overall work of the Department.

The varied nature of the work undertaken in the Department is reflected in the special study interests of members of staff.

John Anderson is mainly interested in management accounting which he teaches to first and second year students. The optional subject, Business Organisation and Policy, in which he considers organisation theory and behavioural considerations, has been enjoyed by many students. He is currently a member of the Academic Senate, serving also on its Agenda and Resources Committees.

Brian Andrew is the Department's taxation and auditing specialist. Although these are very demanding, he is nevertheless interested in financial accounting theory and business finance. He is at present working on two papers concerned with taxation policy, one of which is for presentation at the Accounting Association of Australia and New Zealand Conference in Melbourne this August.

Allan Coote has a special interest in computer based accounting systems and in auditing such systems. This, he says, is obviously a dynamically developing field and he hopes to see a subject available as an option at this University. One such subject is currently under consideration for introduction in 1980. Allan is particularly interested in teaching and teaching methods and has read widely on this subject. Of all aspects of his job, it is the actual teaching from which he derives most personal satisfaction.

Ian Dunn has a special interest in administrative law. He is currently working on a study of the disciplinary and other powers of universities and their effect on staff and students. He will be on study leave for the second session of 1979 and intends to further his investigations into this field at the Institute of Advanced Legal Studies in London.

Terry Heazlewood is currently overseas on study leave at the University of Florida carrying out research in his speciality, accounting for the extractive industries. He was recently awarded a substantial research grant from Utah Mining Australia for this research.

Pauline MacKay, who joined the Department in June 1978, has a special interest in industrial law. The Department now proposes to offer further specialisation in this area by the introduction in 1980 of Industrial Property Law and Labour Relations Law.

Carol McWaide, who also joined the Department recently, is teaching Business Law II which comprises company and partnership law.

Garry Tibbits is conducting research for his PhD degree with the University of New England in the area of small business management. He serves as Secretary of the local branch of the Australian Society of Accountants.

Kent Wilson is mainly interested in the area of management decision analysis, and the informational aspects of such decisions. These issues are covered in undergraduate courses in business finance and management accounting, and also in the graduate-level courses he has developed. He is presently working on a paper on the use of the industrial learning curve as a predictive tool for decision purposes. Kent has been a "moving force" behind the successful Valedictory Dinners held each year to farewell the graduating class. Many of the earlier graduates are now using the dinner as an annual reunion.



Above: Professor J.B. Ryan.

The major research project being undertaken within the Department is Australian Company Financial Reporting. This is being conducted by Professor Ryan, Mr. Heazlewood and Mr. Andrew. The main purpose of this study is to disclose the extent to which the accounting practices employed by companies in their financial statements are in accordance with the accounting standards issued by the Australian Society of Accountants and The Institute of Chartered Accountants in Australia. Additionally, accounting practices are being compared with the more important accounting and auditing provisions of company law, and the listing requirements of the Australian Associated Stock Exchanges and International Accounting Standards.

Their first publication, **Australian Company Financial Reporting: 1975**, was published by the Australian Accounting Research Foundation as Accounting Research Study No. 7, in 1977. The authors are now well into the first three year comparative analysis based on the annual accounts of 250 companies for the years ended 30th June 1977, 1978 and 1979. The 250 accounts have been analysed for the 1976/77 financial year and 210 for the 1977/78 year. Cards

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have been punched for processing the results of the analysis on the computer for the 1976/77 accounts. Mr. Steven Harrison, Social Sciences programmer, has begun work on the programme for the output tables required. Publication of results of the analysis is planned for April 1980. In this work they are very ably assisted by Mr. Peter Beniuk.

The following grants were received towards the project in 1978:

Australian Accounting Research Foundation	\$3,000
Reserve Bank	\$7,500
University of Wollongong	\$5,612

In association with Mr. M.A. Perkinson, University of Auckland, the team is also conducting a similar survey of 100 New Zealand companies, based on financial years ended 31st March 1977, 1978 and 1979. Analysis of the Accounts for the first year has been completed. The New Zealand Society of Accountants has made a grant of \$1,000 towards this study.

Publications

During 1978 refereed publications by members of the Department included: B.H. Andrew, "The Reform of Private Company Taxation", *Australian Tax Review*, Vol. 7, No. 4, December 1978, 169-78.

J.B. Ryan, "The Funds Statement: A Positive View", *The Accountants' Journal*, Vol. 57, No. 8, September 1978, 290-303.

G.E. Tibbits, "Do Existing Procedures Help or Hinder Long-Term Decision-Making?" *The Accountants' Journal*, Vol. 56, No. 6, 215-7.

G.E. Tibbits, "A re-evaluation of External Reporting Requirements", *The Chartered Secretary*, Vol. 30, No. 3, 1978, 117-120.

During 1978 both Professor Ryan and Mr. B.H. Andrew spent several crowded months on study leave in the U.K. and the U.S.A. From January to July Professor Ryan was Visiting Professor at the University of Exeter, and from September to October, Visiting Professor at Duke University, North Carolina. He delivered papers on several topics at many of the U.K. universities visited.

Accounting Laboratory.

The Accounting Laboratory, under the supervision of Mr. Len Mitchell, is a valuable teaching aid. The Laboratory was established with his appointment as Technical Officer in May 1978. It is continuing to develop as a back-up system to lectures and tutorials, and a technical work area utilising specialist accounting and legal publications. Through the use of carefully selected audio-visual material it complements formal teaching and allows students, working at their own pace, to concentrate on specific topics, Len being available to answer questions and give advice or information. Its popularity with students is demonstrated by their use of it - in the month ended 12 April students used it on 621 separate occasions.

It is a matter of concern to Professor Ryan that the heavy work load of academic staff in the Department, mainly in regard to teaching and the related administration, mitigate against even more research and publication being undertaken. He personally regards it as of the utmost importance that, despite administrative involvement, his teaching and research must be given priority in regard to the deployment of time and energies. "Faced with contraction in the tertiary education sector", he says, "our saving grace at Wollongong may be in excellence of teaching and research. And such a reputation must be earned now".

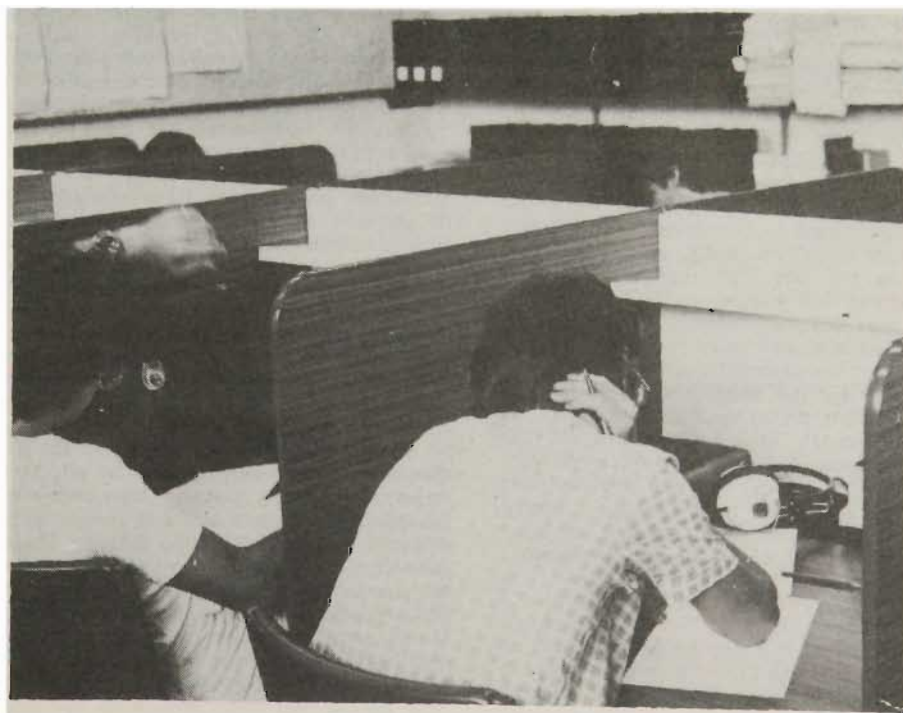
It is important to the Department that a strong honours and postgraduate "school" be developed within the Department. Once the Australia-wide demand for accountants is met - and it must be within a few years bearing in mind the output of universities and colleges of advanced education - the role of the university should be orientated much more towards research and postgraduate involvement.

In spite of the difficulties posed by rapid growth and staff shortages, a solid foundation has been laid for future development. However it is crucial that the Depart-

ment's student enrolment does not continue at unduly high levels in relation to staff numbers. We are confident that the University will continue to give us the resources needed for us to do the job properly. In the past we have received support for development of the Accounting Laboratory, substantial funding for our major research project including use of the Social Science Programmer's time, and increased flexibility for the use of funds from any vacant positions. The future is full of interest and offers exciting opportunities to both academic and professional accountants. The wholesale review and questioning of accounting standards and ethical questions, including peer review, discipline and continuing education is subjecting the accountancy profession to "accountability" of a kind never before experienced. The rash of legislation in consumer, security and taxation law continues unabated. While these are not necessarily easy to live with, they do provide a challenge - as well as a lot of fun.



Below: The Accounting Laboratory is a valuable teaching aid in constant use by students.



BOOK REVIEW

Dr. Ian McLaine, of the University's History Department, is receiving congratulations on his newly published book **MINISTRY OF MORALE: Home-Front Morale and the Ministry of Information in World War II.** (Allen and Unwin.). We publish below a review of this work from *The Observer*, written by leading British historian, A.J.P. Taylor.

The Ministry of Information was not accorded a volume in the official civil history of the Second World War. It died unhonoured and unsung. Presumably it was felt to be beneath the dignity of an official history. This is not surprising. The comedy extracted from the MOI files by Ian McLaine surpasses even the fantasies provided by Evelyn Waugh in 'Put Out More Flags.' Indeed this is the funniest book I have read for a long time.

The key to the story was provided by a member of MOI when he wrote, 'The whiter the collar, the less the assurance.' The mandarins of MOI, surveying the world from the heights of the Senate House in Bloomsbury, knew nothing of this. A colleague wrote of Harold Nicolson, one of the highest mandarins: 'He was quite ignorant of the habits and attitudes even of the middle classes. As for the working classes he seemed to regard them as barbarians to be feared, admired and placated.' Their alarms were derived from what 'they had heard in the club the previous evening or on the train in the morning.'

Starting from this outlook, the directors of MOI expected panic even during the Phoney War and even more during the Blitz. They exhorted others to show the courage that they did not possess themselves. Their ideas of successful propaganda were curious. One of them suggested as iconography 'A long bowman from the Hundred Years' War, standing with his feet outspread (to represent steadiness) and drawing his bow (to represent vigour).' He added this explanation: 'The archers, who provided the mainstay of the English Army, were drawn from the lower classes.'

In fact the despised working classes were unshaken by the Blitz, though they took such sensible precautions as they could. As McLaine writes, 'They were not to know that those servants of the Government employed, among other things, to extol their heroism were at the same time breathing hearty sighs of relief that their task had not been to stem a tide of panic and defeatism.'

The pundits of MOI took Goebbels as their model. They recorded sadly that the public harboured 'little sense of real personal animus against the average German man or woman' and urged that this must be replaced by 'personal anger ... against the German people and Germany.' Harold Nicolson remarked, 'It is so strange that in this moment of anxiety there is no hatred of Hitler or the Germans.'



Above: Dr. Ian McLaine.

Hence there followed the Anger Campaign which ran stories of German atrocities which, though true, were not believed. When this campaign miscarried, the MOI resorted to the opposite tack of promising a better world after the war with copious doses of a more egalitarian social system. After penning one such string of promises Nicolson descended to the Senate House refectory of which he recorded, 'It is absolutely foul ... We have got to queue up with trays with the messenger boys.'

The Religious Department provided its quota of Christianity, together with an appeal that 'we should refrain from condemning the Petain *internal* programme in France.' Not surprisingly the public were reported 'to suspect that certain of their leaders would betray them as Petain and Laval had betrayed the French people.'

British bombing of Germany supplied its element of embarrassment. Sir Arthur Harris, chief of Bomber Command, made no secret of the fact that his aim was to destroy German morale by indiscriminate bombing of German cities. The Air Ministry did not like this, MOI still less so and maintained a rigid denial of what Bomber Command was doing. To the surprise of MOI the mass of people were indignant that German cities were not being bombed more heavily.

Soviet Russia's appearance as an ally furnished the richest comedy of all. MOI faced the insoluble question: how were they to welcome the new ally and rejoice at its victories without suggesting that the Soviet economic system worked with great success? No answer was ever found. When Communists organised pro-Soviet meetings, the local Mayor was instructed to take over the meeting himself. Alexander Werth, supposedly a left-winger, recommended from Moscow 'that people like Pollitt should be shut up - preferably by Moscow, which might perhaps also be asked to instruct the British CP to go all Union Jacky.' The Communist shop-

stewards needed no such instruction: for the duration of the war they were the most effective strike-breakers in British history.

Lord Clark, himself a member of MOI, wrote of it recently, 'It was a perfectly useless body, and the war would have been in no way affected if it had been dissolved and only the censorship retained.' This applies only to its unnecessary attempts to boost morale. The British people did not fight for some high ideal or a better social system. Simply, as people often said, 'We're not having those Nazis here.' They were determined on victory. In the summer of 1940 people often stopped me in the street and said, 'Poor old Hitler, he's done for now he has taken us on,' and so it proved.

In other ways MOI performed useful services. Its regional offices explained the mountain of regulations to the public. After an air raid people did not want to be exhorted to steadfastness. They wanted to know where to find accommodation and new ration books, and this is what the MOI regional office told them. Once Brendan Bracken took over, MOI became an effective body, pressing the service departments and the Cabinet for the earlier release of news and exercising 'a very high degree of common sense.'

I add a word of warning to future researchers. McLaine relies heavily on the reports of Home Intelligence. These were supplied by amateurs such as myself who allegedly recorded their impressions from meetings or private conversations. I took little notice of these impressions and merely put down what I myself thought at the time or wanted to advocate. I suspect that most contributors to Home Intelligence did much the same. Home Intelligence was in fact propaganda in reverse. We were trying to instil some common sense into the mandarins of the Senate House. We did not have much success.

GRADUATING TO UNEMPLOYMENT

Today it is likely that over 5,000 of last year's graduates are out of work. This was claimed by Andrew Rule and Ivor Ries in a recent article in the Melbourne Age.

The figure was arrived at from Commonwealth Employment Service estimates. It contrasts alarmingly with the situation in 1973 when there was no graduate employment problem.

Part of the problem, the writers suggest, is due to cuts in Government spending - but part is due also to the fact that last year's graduates represent the peak of the 50's and 60's "baby boom".

"Between 1974 and 1978 the number of Australian graduates soared from more than 47,500 to an estimated 65,000. However the economy has not expanded to accommodate them. Jobs have not grown to meet the education system's output. The biggest increase in graduate job seekers is in graduates from colleges of advanced education. Last year those colleges pumped almost 31,000 graduates onto the job market - about the same number as those from our universities."

The writers state that many graduates they interviewed said their careers advisers had told them to take any job they could get. Most however are holding out for positions in their special areas. One young Melbourne graduate is quoted as saying: "I would like to get a job in the field I was trained in; otherwise I wasted 4 years I spent at university ... and the taxpayers' money."

According to the writers, the area most affected by graduate unemployment is teaching. "Some teaching graduates have been told by the Education Department that they have no chance of a job this year or next year."

But other specialist areas are also steeped in gloom. Mr. Lionel Parrott, acting careers and appointments officer at Monash University, says "Biological sciences are an unemployment disaster area."

"Biochemists, microbiologists, immunologists and other specialists are facing an uphill battle for work", he says.

The article also states that graduates will have trouble finding work in botany, zoology and agricultural science.

By contrast, a graduate employment officer with the professional employment office of the CES is reported as saying that graduates are almost certain of a job in some fields of engineering and in accounting, commerce and computer science. Metallurgists and medical graduates are also "guaranteed work."

This more optimistic note is soured, however, by the prediction that by the end of 1979 5% of 1978 graduates will still be out of a job, and a further 4 to 5% will be underemployed - in jobs which do not make use of their education.

Women graduates, according to Andrew Rule, are finding even more difficulty than their male counterparts in obtaining suitable employment.

MURDOCH INQUIRY

The Vice-Chancellor of the University, Professor L.M. Birt, will head the W.A. Government's inquiry into the future development of Murdoch University.

The other members of the committee of inquiry will be Mr. I.H. Carne, a former general manager in W.A. of B.H.P., and Dr. W.D. Neal, chairman of the W.A. Post-Secondary Education Commission.

The State Cabinet decided last month to hold the inquiry after a report tabled in the Federal Parliament in March proposed the merger of Murdoch with the University of W.A.

The State has said repeatedly that it is committed to retaining Murdoch as a separate institution.

Its terms of reference for the inquiry make it clear that it is prepared to consider recommendations to transfer courses or schools of study from other education institutions to Murdoch.

It is expected that the committee will conduct a speedy inquiry and report to the State in a few months.

The inquiry is likely to gather information that could be used as ammunition if any argument arises with the Commonwealth over the future of Murdoch.

There has been no threat from the Commonwealth to stop funding Murdoch but it is considering the report that recommended the merger.

The State is constitutionally responsible for higher education, though tertiary education institutions are funded by the Commonwealth.

The Minister for Education in W.A., Mr. Peter Jones, has stated that the people selected for the committee had a wealth of experience and expertise in academic instruction and administration and in commerce.

Commercial organisations were the ultimate buyers of the services of tertiary education institutions.

"I have called the first meeting of the committee so that the inquiry can be started and followed through as quickly as possible," he said.

Professor Birt had been told that the Government wanted a quick inquiry, Mr. Jones said.

The sooner the Government was able to consider a course of action to secure the future of Murdoch, the sooner Murdoch could start sound planning for the future.

Asked about the cost of the committee, Mr. Jones said that there would be only small expenses.

It was useful to bring in from outside W.A. a person of vice-chancellor status to assess the position.

(A recent extract from The Western Australian newspaper).

PARENTS NIGHT

The University of Wollongong is to hold an Information Night for Parents of first-year students on Monday, May 28th. Announcing this the Schools Liaison Officer, Mr. Tom Moore, said that it was the first time that such a function had been held at the University.

"We realise that most of our students come from homes that have had no previous first-hand contact with a university," he said. "We believe it possible that many parents are unsure about what happens on campus, and what their young people actually do during the day. We know that tensions sometimes arise in homes when young people leave school and commence university study."

"Our aim is to introduce parents to the university campus and some of its staff, to give them our perception of difficulties experienced by new students, and to give them the opportunity to ask us questions. Parents would also have the opportunity to meet other parents."

"It seems that too often in the past parents have come on to campus only when their sons and daughters graduate. We want to see them here, and make them feel welcome, much earlier than that."

Mr. Moore stated that the evening will commence at 8.00 p.m. in the Union Common Room. Parents intending to take part are asked to notify their intention by ringing Mr. Moore at the University on 282963.

HUMAN DRAMA

Under the title Human Drama, Maurie Scott, of the Department of English, has compiled a collection of readings for first year students of the new course in drama studies being developed by the Department of English.

Maurie points out in the preface to this volume - printed in the University's printery - that the emphasis is on the treatment of human nature and conduct as the raw material and, indeed, the essence of drama.

The book includes articles on such subjects as Children and Other Young Animals at Play, by Dr. Beverley Walker, and on The Gestalt Approach to Dreams and Fantasies, by Dr. Don Diespecker, both of the University's Psychology Department.

The basic intention is to encourage students engaged in the drama studies course to explore the relationships between human behaviour and the many and various modes of dramatic activity.

The publication is available from the English Department. A second, companion volume, Institutional Drama, dealing with the more formal dramatic modes and manifestations (in ritual, theatre, film, radio and television) is in preparation.

VICE-CHANCELLORS ACT ON WILLIAMS REPORT

The Australian Vice-Chancellors' Committee (AVCC) is taking several steps to examine the implications for universities of the many recommendations in the report recently released by the Committee of Inquiry into Education and Training (the Williams Report).

The AVCC has already identified in the report many matters of great importance to universities and to the future of higher education in Australia, and has taken the following action:

1. A **Conference of University Governing Bodies** (Councils, Senates, etc.) is to be held in Canberra on 3-5 July 1979. This conference will be attended by representatives of all 19 Australian universities, together with other persons concerned with university affairs. They will consider the recommendations of the Williams Report and its particular references to universities.
2. An **AVCC Working Party** has been set up to deal with the selection of students, attrition rates and the low graduation rates of part-time and external students. The working party will consult with the Universities Council (of the Tertiary Education Commission) in formulating the scope and objectives of the investigation.
3. A **Second AVCC Working Party** has been appointed to advise on the formulation of training programs for academic staff in the theory and practice of teaching, curriculum development and examining.

BACKGROUND INFORMATION

The Williams Report has made a number of recommendations with implications for the universities and on the methods by which governments handle tertiary education matters. The Australian Vice-Chancellors' Committee strongly supports the following proposals:

- that co-ordination of the work of universities continue to be a Commonwealth responsibility and that universities should make submissions direct to the Tertiary Education Commission;
- that where they exist state government co-ordinating authorities should have much wider responsibility for the activities of colleges of advanced education and colleges for technical and further education;
- that there be restoration of full triennial funding of universities and colleges of advanced education by the Commonwealth Government;
- that there be additional government support for special research grants to build up post-graduate centres in universities;
- that there be increased funds for the Australian Research Grants Committee and the National Health and Medical Research Council;
- that the number of Commonwealth Post-graduate Awards be restored to the levels prevailing in 1975 and 1976;
- that inter-disciplinary research projects with limited life should qualify for grants to enable universities to develop concent-

rations of post-graduate students and staff;

for the contracting of educational work between colleges of advanced education and universities to enable increased access to higher education, especially in outer suburban areas and country centres. The AVCC observes that some such arrangements already exist and are working well, and it supports an extension where appropriate of the contracting system.

The AVCC has been aware of comments which have been made to the Williams Committee about the structure of the Australian University System. It notes that a suggestion had been made to the Committee that universities be divided into two groups. Some time ago the AVCC drew attention to the fact that all Australian universities share unique responsibilities for combining scholarship, research and teaching in a variety of disciplines and that their ability to discharge these responsibilities, which they all accept, is conditional upon having equivalent opportunities to argue and to have examined on a common basis their cases for support in the light of their particular historical, geographical and educational circumstances.

The AVCC welcomes the recommendation of the Williams Committee that the universities' responsibilities are such as to justify the preservation of the existing unitary system of universities in Australia.

The Williams Report provides for universities a blue print for action and for development. The AVCC observes that a number of suggestions for action by universities and the AVCC are already in train but it welcomes the support lent by the Williams Committee to the need for more work on such matters as

- flexibility and innovation in staffing arrangements particularly with regard to schemes for retirement, secondment, granting of tenure, annual appointments and redundancy;
- arrangements for secondments and exchanges between university staff and staff in Public Service, CSIRO, industry and other educational institutions;
- the provision of further assistance with special programs for people with handicaps;
- the development of diversity and different patterns of education to meet the needs of people who enter higher education later than is normal;
- the extension of provisions for credit transfer between educational institutions.

The AVCC has noted with special interest the Committee's comments on library matters. It supports the recommendation that developments in technology of relevance to library services should be kept under view and that where possible schemes for rationalisation and the sharing of cataloguing be developed.

The AVCC shares with the Williams Committee its belief that the Australian higher education system has considerable strengths and the view that more is to be gained from continuing gradual reform than from sweeping structural change.

FIRST LECTURES

A report by Ms. Chris Wieneke entitled **THE FIRST LECTURE: IMPACT ON AND IMPLICATIONS FOR STUDENTS WHO ARE NEW TO THE UNIVERSITY** has just been published as a result of detailed study of twenty seven first lectures made last year by the Tertiary Education and Research Centre (TERC) at the University of N.S.W.

Observation of a "first lecture situation" by TERC in 1977 suggested that "students remembered the first meetings at their department in great detail for a long time afterwards". Believing that the experience of the first lecture, with its covert messages conveyed by the lecturer's manner and selection of content, helped set the tone of a student's attitude to the particular subject and school, TERC embarked on this more detailed study.

The data showed that a significant number of lectures were devoted entirely to administration, including distribution of handouts and detailing what sort of equipment and books would be needed. The only instance of a first lecture being devoted entirely to course content was a case in which students had already had a faculty orientation program and had been introduced to staff.

Other aspects which concerned the survey team were whether lecturers introduced themselves to students and how this was done, whether other staff were introduced and whether students were formally welcomed on the occasion.

A supplement to the report is a checklist of questions for lecturers to consider in preparing the first lecture.

A copy of the report, available from TERC, has been ordered by the Development and Planning Office and is available on loan. Those interested should contact the D.P.O. on extension 988.

JUDO BLACK BELT

At the recent New South Wales Amateur Judo Association Dan (black belt) grading, Mounir Bahsoun passed his black belt examination. Mounir is the Vice-President of the Wollongong University Judo Club. He has been a brown belt for six years, gaining most of his expertise in Senegal (West Africa).

Mounir is a 2nd year Arts student majoring in Languages. The grading was held at Sydney University on 9/4/79. As well as the formal examination the requirements include contest ability, principles of teaching, technique and contributions to Judo. Mounir now brings the total of black belts in the University Club to three.

As well as the Tuesday and Thursday training sessions at 8 o'clock, winter Sunday sessions have begun. Starting time is 4 o'clock at 15 Burelli Street, Wollongong.

Karin Sheedy,
President, W.U.J.C.

AVCC SEEKS DIRECTOR FOR AAUCS

The Australian Vice-Chancellors' Committee (AVCC) invites applications for the newly-established post of Director of the Australian-Asian Universities' Co-operation Scheme (AAUCS). The Director will be the chief executive of the AAUCS and will be located in Canberra.

The AAUCS is an inter-universities' scheme which was established in November 1969 by an agreement between the AVCC and the Australian Department of Foreign Affairs. It operates in close association with the Australian Development Assistance Bureau (ADAB), the aid division of the Department, and mainly in the ASEAN countries of Southeast Asia (Indonesia, Malaysia, Philippines, Singapore and Thailand). The emphasis of the program is on the improvement of standards in teaching and research in disciplines relevant to development, principally but not exclusively in provincial universities serving rural communities.

Academic planning is conducted by a Standing Committee established by the AVCC and the program is administered in collaboration with Australian universities which contribute personnel and services and, in some cases, manage projects on the Committee's behalf. In addition, the AAUCS assists ADAB in other educational-aid programs and its services are available to help Australian universities in their own relations with developing universities overseas.

Applicants should have academic qualifications and experience pertinent to development assistance in tertiary education, proven administrative ability and the capacity to establish and maintain relations of mutual confidence with government departments, universities, other organizations and individuals with whom the AAUCS works, both at home and overseas. The post will require extensive travel, mainly within Australia and Southeast Asia.

The appointment will be for a period of 5 to 7 years at a level equivalent to that of a deputy vice-chancellor in an Australian university. The terms and conditions will be negotiable. Applicants should be able to take up duties not later than 31 March 1980.

Applications with the names and addresses of two referees, should reach The Secretary, Australian Vice-Chancellors' Committee, P.O. Box 1142, Canberra City, A.C.T. 2601, Australia by 31 May, 1979.

VICE-CHANCELLOR AT INSTITUTE GRADUATION CEREMONY



Above: The Vice-Chancellor, Professor Michael Birt, addresses the gathering at the open air Graduation ceremony of the Institute of Education.

Professor Michael Birt, Vice-Chancellor of the University addressed an assembly of 2000 staff, graduating students and parents at the Wollongong Institute of Education's recent annual graduation ceremony.

He described the coming years of the 80's and 90's as "the years of the disappearing child", reflecting not only the downturn in births, but also the downturn in numbers of young students seeking post-secondary education. Professor Birt suggested that the "disappearance of the child from the educational scene follows from a complex of reasons connected with the raising of false expectations about the outcomes of formal education and the collapse of those expectations in practice". One of the symptoms of this collapse is the decreased government funding, which reflected changing public opinion.

An effect of these changes in society has been to cause universities to rethink their positions and to offer more vocationally oriented courses of study, and to re-examine their role in education generally. Another changing factor is that increasingly mature age students are seeking tertiary education of all kinds.

Professor Birt stated that one of the most important effects of these changes has been to cause a greater degree of consultation and co-operation between the Institute, the Technical College and the University. He stated that these three institutions are already working closely together, and to some extent with the local community and industry. He recommended that representatives of these groups should together form a "Regional Education Advisory Committee". There was a good possibility that such a body would be in a position to offer valuable comment to the governing bodies of the tertiary institutions about educational developments, and that this would considerably improve the provision of higher education in the Illawarra region.

In a word of encouragement to the new graduates Professor Birt said that teachers, along with staff of other academic institutions, "would in the years ahead face great uncertainties, frequent criticism, frustration and an almost unrivalled opportunity to show capacity for imaginative and resourceful thinking and action".

S.R.C. ELECTION RESULTS

Statement by New President

President
Vice-President
Honorary Secretary
Treasurer
A.U.S. Secretary
Editor, Tertangala
Women's Officer
Education Officer
Environment Officer
General Reps

Engineering Rep
Humanities Rep
Mathematics Rep
Science Rep
Social Sciences Rep

Michael McCarthy
Geoff Morrell
Julie Devlin
Terry Bunn
Jenny Macdonald
James Sanders
Linda Jones
Henry Baumeister
Peter Bunn
Geoff Imisides
Kevin Nichol
Mark Robson
Michael Young
Tony McGrath
Peter Martin
Sandra Stanley

As President, my obligation is to the students, and my first act will be to make the S.R.C. a very efficient and well-managed organization which will inspire confidence in the student body and make students aware of the role the S.R.C. plays and the benefits that can be gained by both individuals and groups. Two examples are the promotion of Clubs and Societies on campus and the initiation of a detailed survey to determine the major problems of part-time students, and to lobby Administration in those areas where changes are necessary.

Michael McCarthy,
S.R.C. President.



Pictured at right is Michael McCarthy.

TABLE TENNIS

The Table Tennis Staff-Students Challenge Match was held in the Union Hall at lunch time on Friday, April 20th, and resulted in a 5-5 draw. Individual results were:

	Staff		Students	
Singles	1 C. Kiernan	l	N.Q. Thoi	16-21, 16-21
	2 J. Korth	b	R. Adra	21-12, 21-8
	3 A. Ng	l	K. Murray	14-21, 21-17, 18-21
	4 J. Ryan	l	K.W. Tan	14-21, 18-21
	5 C. Keys	l	M. Iqbal	21-15, 10-21, 14-21
	6 M. Bunder	b	A. Singh	21-10, 21-13
	7 E. Dayal	b	Rama	21-12, 21-1
Doubles	1 Kiernan-Korth	l	Thoi-Adra	15-21, 21-16, 18-21
	2 Ng-Bunder	b	Murray-Iqbal	21-16, 23-21
	3 Ryan-Keys	b	Tan-Singh	21-15, 21-16

The surprise results were the very easy win of Korth over Adra and the loss of second division players Ryan and Keys to third division players Tan and Iqbal.

RETIREMENTS

Attendant Patrol, Neale Tiemstra, retires on May 11 after ten years with the University. Born in Holland, Neale is an ex-policeman who came to Australia in 1952, was sent to a job with A.I.S. at Port Kembla and soon decided that the Illawarra region was where he wanted to spend the rest of his life. He and his English born wife, Elsie, love the climate, the scenery and the friendliness of the people.

Neale started to plan for retirement three years ago. He and Elsie sold their home at Oak Flats and moved into a retirement village at Woonona. Both share a love of fishing and swimming and Neale is looking forward now to spending more time on these hobbies - commuting between Woonona and their caravan parked permanently by the river at Sussex Inlet.

In July Elsie and he leave for 5 months overseas, where family re-unions are already being planned in England and Holland.

Also recently retired is Alex Kainerder, Painter, who with his wife, Heidi, and their four children came to Australia twenty four years ago from Austria. Like the Tiemstras, the Kainerders enjoy fishing and Alex plans to spend more time enjoying this hobby now. His garden at Bulli will also demand more of his leisure hours - not to mention his eight grand-daughters in various parts of the State.



Pictured are (far left) Neale Tiemstra and (left) Alex Kainerder.