

# CALENDAR OF THE UNIVERSITY OF NEW SOUTH WALES

1966 VOL. 2



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#### (Information in this Calendar has been brought up to date as at 30th November, 1965, but may be amended without notice by the University Council)

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# APPENDIX 1 UNIVERSITY PRIZES

The following table summarises the prizes awarded by the University at both undergraduate and post-graduate levels. Prizes which are not specific to any School are listed under general. All other prizes are listed under the Schools in which they are awarded.

School/Department	Donor/Name of Prize	Value	Awarded for
General	The Sydney Technical College Union Award	£25 0 0	Leadership in the development of student affairs and academic proficiency through- out the course.
	The University of New South Wales Commerce Society	£10 10 0	Academic proficiency throughout Com- merce course and leadership in student activities.
'n	The University of New South Wales Wives Group	£25 0 0	First Year of the Faculties of Architecture, Arts and Commerce—Women full-time students only.
	The University of New South Wales Wives Group	£25 0 0	Common first year-Women full-time stud- ents only.
	Wallace Wurth	£100 0 0	General proficiency in Medicine (first award 1967).
School of Accountancy	The Australian Institute of Cost Accountants	£10 10 0	14.161 Advanced Cost Accounting.
	Chamber of Manufactures of N.S.W.	£5 0 0	14.131 Auditing and Internal Control.
	Edwin V. Nixon & Partners	£10 10 0	14.321 Business Finance.
	Esso Australia	£10 0 0	14.102 Accounting II—Part-time students only.
	E. S. Wolfenden Memorial	£10 10 0	14.103 Accounting III.

School/Department	Donor/Name of Prize	Value	Awarded for
	Greenwood, Challoner & Co.	£10 10 0	14.502 Commercial Law II.
	Larke Consolidated Industries.	£10 0 0	14.102 Accounting II—Full-time students only.
	Philips Electrical	£10 0 0	14.311 Marketing.
	The Law Book Co. of Australasia Pty. Ltd.	Books to the value of £10 10 0	14.101 Accounting I.
	S. R. Brown, Pringle, Wolff & Co.	£10 0 0	14.104 Accounting IV.
	The Taxation Institute of Australia	£10 10 0	14.201 Taxation Law and Practice.
School of Anatomy	Senior Prize in Practical Anatomy (including Radiological Anatomy)	£10 10 0	Practical Anatomy-Medicine, Year 3.
School of Applied Geology	Geological Survey of New South Wales	£6 6 0	25.511 Geology I.
School of Applied Psychology	The British Psychological Society	£5 0 0	A Stage 3 Psychology subject selected by Head of School.
School of Architecture and	Alex Rigby	£52 10 0	Master of Building-Distinguished graduate.
Building	Archibald Howie Memorial	£7 7 0	Building Diploma, Stage 5.
	The Australian Institute of Builders	£25 0 0	Building Diploma, Final Stage-2 prizes.
	Board of Architects of New South Wales	£20 0 0	School Prize Fund—Subject selected by Head of School.
	Byera Hadley Testimonial	£5 5 0	Design subjects of last stage of Architecture diploma.
	Chamber of Manufactures of N.S.W.	£5 0 0	Architecture and Building courses—subjects selected by Head of School.

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	Dunlop Rubber Australia Ltd.	£26	5	0	Architecture, Year 3.
	Frank W. Peplow	£12	0	0	Church Architecture.
	The Institute of Quantity Surveyors (Austraha)	£15	15	0	Quantity Surveying—subject selected by Head of School.
	James Hardie	(i) £50 (ii) £20	0 0	0 0	General Proficiency—Architecture degree. Building, Year 1.
	Marley Reliance Industries	£25	0	0	Architecture, Year 1.
	Master Builders' Association of New South Wales	£100	0	0	School Prize Fund—subjects selected by Head of School.
	Royal Australian Institute of Archi- tects	£25	0	0	Architectural Design and allied subjects in last two years of Architecture course.
	R. Still Memorial (Australian Institute of Quantity Surveyors)	£10	10	0	Architectural Design and allied subjects in last two years of Architecture course. Quantity Surveying—subject selected by Head of School. Studio project—Architecture. Year 4 (1965
	W. A. Nelson	£30	0		
	Joseph Auto-Hot Pty. Ltd.	£300	0	0	Architecture, Final Year.
	William King McLean	£2	2	0	Building Construction and Theory of Struc- ture—first three stages.
School of Biological Sciences	E. O. Tout Memorial	£10	10	0	17.301 Botany I and 17.302 Botany II.
School of Business Administration	John Storey Memorial	(i) £50 (ii) £30		0 0	Thesis. General Proficiency, Year 2.
	F. W. Williams	£21	0	0	Financial Management.
	P. C. Boon	£20	0	0	General Proficiency, Year 1.

School/Department	Donor/Name of Prize	Value	Awarded for
School of Chemical Engineering	Chamber of Manufactures of N.S.W.	£5 0 0	Chemical Engineering—subject selected by Head of School.
	Dunlop Rubber Australia Ltd.	£26 5 0	Chemical Engineering, Year 3.
	Esso Australia	£10 0 0	3.111 Chemical Engineering I.
	The North Shore Gas Co. Ltd.	£5 5 0	Chemical Engineering—subject selected by Head of School.
	Petroleum Refineries (Australia) Pty. Ltd.	£31 10 0	Chemical Engineering, Year 4.
	Shell	£31 10 0	3.122 Chemical Engineering IIB.
	Simon-Carves (Australia) Pty. Ltd.	£10 10 0	3.121 Chemical Engineering IIA.
School of Chemical Technology	Australian Paper Manufacturers Ltd.	£10 10 0	School Prize Fund—subject selected by Head of School.
	Colonial Sugar Refining	£10 10 0	School Prize Fund—subject selected by Head of School.
	Morganite	£50 0 0	Ceramics—year or stage selected by Head of School (1966 then each alternate year).
	Stauffer Chemical Co. (Aust.) Pty. Ltd.	£10 10 0	School Prize Fund—subject selected by Head of School.
School of Chemistry	Australian Chemical Holdings Ltd.	£10 10 0	2.64 Organic Chemistry III.
	Australian Glass Manufacturers Co. Pty. Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
	Chamber of Manufactures of N.S.W.	£5 0 0	School Prize Fund—subject selected by Head of School.

C.S.R. Chemicals	£50 0 0	Chemistry Honours.
Drug Houses of Australia Ltd.	£5 5 0	School Prize Fund—subject selected by Head of School.
George Wright	£5 5 0	2.001 Chemistry I-Full-time students only.
Inglis Hudson Bequest	£3 0 0 (approx.)	2.611 Organic Chemistry I.
Merck, Sharp & Dohme (Aust.) Pty. Ltd.	(i) £26 5 0 (ii) £26 5 0	2.002 Chemistry II. 2.003 Chemistry III.
The Nestlé Co. (Aust.) Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
Parke Pope	£5 5 0	of School. School Prize Fund—subject selected by Head of School. School Prize Fund—subject selected by Head of School.
Science Association	£10 10 0	
Smith, Kline & French	£25 0 0	General Proficiency—Food and Drug Analysis Graduate Diploma.
Tooheys Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
Tooth & Co. Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
Unilever	£10 10 0	2.34 Physical Chemistry III.
V. S. Rawson	£5 5 0	School Prize Fund—subject selected by Head of School.

School/Department	Donor/Name of Prize	Value	Awarded for
School of Civil Engineering	Association of Consulting Structural Engineers of New South Wales	<ul> <li>(i) £10 0 0 ° and books to the value of £15 0 0</li> <li>(ii) £10 0 0 and books to the value of £15 0 0</li> </ul>	General Proficiency—Structures (full-time students). General Proficiency—Structures (part-time students).
	Chamber of Manufactures of N.S.W.	£5 0 0	Civil Engineering—subject selected by Head of School.
	Dunlop Rubber Australia Ltd.	£26 5 0	Civil Engineering, Year 3.
	Freyssinet	Books	8.126G Prestressed Concrete.
	Water Board Gold Medal	Medal	8.64A Public Health Engineering.
Department of Drama	Fourth Centenary Shakespeare	£10 0 0	Essay on Shakespearean topic.
School of Economics	The Economic Society The Statistical Society of N.S.W.	$f_{3}$ 3 0 and one year's membership of Economic Society. $f_{3}$ 3 0	Economics, Final Year/Stage. Statistics—General Proficiency throughout
	Unilever	(i) $\pounds 10 \ 10 \ 0$ (ii) $\pounds 10 \ 10 \ 0$ (iii) $\pounds 10 \ 10 \ 0$ (iv) $\pounds 10 \ 10 \ 0$ (v) $\pounds 10 \ 10 \ 0$	course. 15.101 Economics I. 15.102 Economics II. 15.103 Economics III. 15.104 Advanced Economic Analysis. 15.401 Business Statistics.
School of Electrical Engineering	A.E.I. Engineering Pty. Limited	£2 2 0	School Prize Fund—subject selected by Head of School.
	British General Electric Pty. Ltd.	£1 1 0	School Prize Fund—subject selected by Head of School.
	Chamber of Manufactures of N.S.W.	£5 0 0	School Prize Fund—subject selected by Head of School.

	Crane Copper and Aluminium	(i) £40 0 0 (ii) £40 0 0	Electrical Engineering, Year 3. Power Apparatus and Systems Option or Utilisation and Control Option.
	English Electric Co. Ltd.	£10 10 0	Electrical Engineering—Thesis and Seminar.
	I.R.E.E. Fisk	£30 0 0	School Prize Fund—subjects selected by Head of School (3 prizes).
	J. Douglas MacLurcan	£5 5 0	Control Systems.
	Johnson & Phillips	Books	School Prize Fund-subject selected by Head of School.
	Morganite	£50 0 0	Electrical Engineering—year or stage selected by Head of School (1965 then alternate years only).
	Standard Telephones and Cables Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
School of English	New South Wales Association of University Women Graduates	£5 0 0	English Essays—Women students only.
Department of Fuel Technology	Institute of Fuel	£15 15 0	School Prize Fund—subject selected by Head of School.
	Shell	£31 10 0	School Prize Fund—year selected by Head of School.
School of Highway Engineering	Le Tourneau-Westinghouse	£125 0 0	General Proficiency—Highway Engineering, Master of Technology degree.
School of Hospital Administration	The Connie Ratcliff Memorial	£10 10 0	General Proficiency—Hospital Administra- tion.
Department of Industrial Arts	A. W. Wonders	£5 5 0	General Proficiency in course for the degree of Bachelor of Science in Industrial Arts.
Department of Industrial Engineering	Chamber of Manufactures of N.S.W.	£5 0 0	School Prize Fund-subject selected by Head of School.
	Crane Copper and Aluminium	£75 0 0	Industrial Engineering, Year 3.
	Duly and Hansford Ltd.	£5 5 0	Industrial Engineering, Stage 6.

UNIVERSITY PRIZES

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School/Department	Donor/Name of Prize	Value	Awarded for
School of Mathematics	School of Mathematics	(i) £10 0 0 (ii) £10 0 0	10.121 Pure Mathematics II (Higher). 10.001 Mathematics I.
	Statistical Society	£3 3 0	General Proficiency—Theory of Statistics subjects.
	Statistics Fund	(i) £10 0 0 (ii) £10 0 0 (iii) £10 0 0	10.321 Theory of Statistics I (Higher). 10.322 Theory of Statistics II (Higher). 10.323 Theory of Statistics III.
School of Mechanical Engineering	Babcock and Wilcox of Australia Pty. Ltd.	£10 10 0	School Prize Fund—subject selected by Head of School.
	Chamber of Manufactures of N.S.W.	£5 0 0	School Prize Fund—subject selected by Head of School.
	Cockatoo Docks and Engineering Co. Pty. Ltd.	£2 2 0	School Prize Fund—subject selected by Head of School.
	Colonial Sugar Refining	£10 10 0	School Prize Fund—subject selected by Head of School.
	Dunlop Rubber Australia Ltd.	£26 5 0	Mechanical Engineering, Year 3.
*	Esso Australia	£10 0 0	Mechanical Engineering, Year 1.
	Ford	£10 0 0	School Prize Fund—subject selected by Head of School.
	Staedtler	£25 0 0	General Proficiency-Mechanical Engineer- ing, Year 2.
School of Medicine	The Australian College of General Practitioners	£10 10 0	Case History Study—Medicine, Year 5 or Year 6.
	FRATA	£50 0 0	Essay on a clinical or scientific aspect of alcoholism.
	W. G. Telleson Memorial	£15 15 0	Written and Clinical Examinations, Year IV.

School of Metallurgy	Austral Bronze Co. Pty. Ltd.	£5	0	0	School Prize Fund—subject selected by Head
	Australian Aluminium Co. Ltd.	£5	5	0	School Prize Fund—subject selected by Head of School.
	The Australian Institute of Metals	£12	12	0	School Prize Fund—subject selected by Head of School.
	Australian Welding Institute	£5	0	0	School Prize Fund—subject selected by Head of School.
	Boiler Inspectors' Association	£10	10	0	School Prize Fund—subject selected by Head of School.
	The Broken Hill Proprietary Co. Ltd.	£5	0	0	School Prize Fund—subject selected by Head of School.
	Chamber of Manufactures of N.S.W.	£5	0	0	of School. School Prize Fund—subject selected by Head of School. School Prize Fund—subject selected by Head of School
	The Eagle and Globe Steel Co. Ltd.	£5	5	0	
	The Electrolytic Refining and Smelt- ing Co. of Australia Pty. Ltd.	£5	0	0	School Prize Fund—subject selected by Head of School.
	Electrolytic Zinc Co. of Australia Ltd.	£5	5	0	School Prize Fund—subject selected by Head of School.
	R. H. Myers	£10	0	0	Metallurgy, Year 1.
	Zinc Corporation Ltd.	£10	10	0	School Prize Fund—subject selected by Head of School.
School of Obstetrics and Gynaecology	F. J. Brown Memorial	£10	0	0	Final Written and Practical Examinations in
Gjilloology	Gordon Lowe Memorial	£25	0	0	Obstetrics and Gynaecology. Clinical Obstetrics and Gynaecology.

School   Department	Donor/Name of Prize	Value	Awarded for
Department of Optometry	Australian Optical Co. Pty. Ltd.	£10 10 0	Optometry, Year 4.
	Australian Optometrical Association	£10 10 0	Optometry, Year 2.
	Chamber of Manufactures of N.S.W.	£5 0 0	1.811 Optometry I.
	Arthur Cocks & Co. Ltd.	£5 5 0	1.812 Optometry II.
	Corneal Lens	£10 10 0	1.813 Optometry III.
	Optical Products Pty. Ltd.	£10 10 0	Optometry, Year 3.
	The Opticians & Optometrists' As- sociation of N.S.W.	£10 10 0	1.841 Clinical Optometry.
School of Physics	G. P. Falls	£10 0 0	1.133 Mathematical Physics.
	Physics Staff	£25 0 0	1.113 Physics III.
School of Political Science	Australian Institute of Political Science	£15 0 0 and one year's subscription to the "Australian	54.111 Political Science I.
	Politics	Quarterly". £10 10 0	54.111 Political Science I.
	The Sydney Morning Herald	£21 0 0	54.112 Political Science II or later stage.

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School of Textile Technology	J. B. Speakman	£10 0 0	Undergraduate Thesis.
	R. J. Webster	£50 0 0	General Proficiency—Textile Technology.
School of Traffic Engineering	Veteran Motorists of Australia	£10 0 0	School Prize Fund—subject selected by Head of School.
School of Surgery	Frank Gerbode Graduation	£50 0 0	Surgery-Medicine, Final Year.
School of Wool Technology	Henry H. York & Co.	£25 0 0	General Proficiency—Wool Technology, Years 2 and 3.
	Parkes Wool Promotion Committee	A shield held in the School of Wool Technology on which the successful stud- ent's name is en- graved each year.	Wool Technology, Year 3.

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#### **APPENDIX 2**

# GRADUATES AND DIPLOMATES OF THE UNIVERSITY

The following is a list as at 30th November, 1965, of persons who have been admitted to degrees and diplomas of the University since its incorporation in 1949.

#### HONORARY GRADUATES

- Lieut.-Colonel Sir Charles Bickerton Blackburn, O.B.E., D.Sc. 1952
- Frank Symonds Bradhurst, D.Sc. 1955
- John Joseph Cahill, D.Sc. 1955§
- William Edward Clegg, D.Sc. 1955§
- Arthur Denning, D.Sc. 1957
- Robert James Heffron, D.Sc. 1955
- Norman Edward Jones, D.Sc. 1955
- William George Kett, D.Sc. 1957§
- James Kenneth MacDougall, D.Sc. 1955§
- Francis Mackenzie Mathews, D.Sc. 1962
- Sir Leslie Harold Martin, Kt., C.B.E., D.Sc. 1963
- Sir Maurice Alan Edgar Mawby, D.Sc. 1955
- Sir Robert Gordon Menzies, K.T., C.H., D.Sc., 1957

- Robert Kenneth Murphy, D.Sc. 1957 Lieut.-General Sir John Northcott,
- K.C.M.G., K.C.V.O., C.B., D.Sc. 1956
- The Rt. Hon. The Viscount Nuffield, O.B.E., D.Sc. 1952§
- Marcus Lawrence Elwin Oliphant, D.Sc. 1952
- Sir Earle Grafton Page, G.C.M.G., C.H., D.Sc. 1959§
- Cobden Parkes, C.B.E., D.Sc. 1958
- Field-Marshal Sir William Joseph Slim, K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J., D.Sc. 1959
- William Francis Sheahan, D.Sc. 1960
- Sir Colin York Syme, Kt., D.Sc. 1960
- Sir Robert Joseph Webster, C.M.G., C.B.E., M.C., D.Sc. 1962
- Lieut.-General Sir Eric Winslow Woodward, K.C.M.G., C.B., C.B.E., D.S.O., D.Sc. 1958

#### GRADUATES

#### DOCTOR OF SCIENCE

Angyal, Stephen John Charles, 1964

#### DOCTORS OF MEDICINE

Logan, Geoffrey Gibson, 1965 Mishkel, Maurice Alan, 1964 Stokes, Gordon Stewart, 1964

§ Deceased

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Achmad, Sjamsul Arifin, 1964 Allen, John Ronald, 1960 Amigo, George, 1963 Arrowsmith, Robert James, 1963 Ausburn, Kenneth John, 1963 Bach, John Percival Spence, 1964 Backhouse, James Roy, 1958 Baker, Leslie Alan, 1964 Baker, Stanley Charles, 1958 Barnes, Geoffrey Thomas, 1958 Basden, Kenneth Spencer, 1961 Batterham, Thomas James, 1962 Bell, Kevin Hilton, 1964 Bennett, George, 1965 Betz, Eric, 1965 Bevan, John Althorp, 1963 Bonamy, Stanley Edward, 1961 Bowling, Keith McGregor, 1955 Brettle, Horace Joseph, 1958 Briggs, William Robert, 1956 Bryson, Alexander, 1957 Buchanan, Robert Hawkins, 1955 Burdon, Russell George, 1961 Burley, Terence Martin, 1963 Burrows, Keith Meredith, 1964 Cairns, Robert Charles, 1955 Cambey, Leslie Alan, 1960 Carmichael, Alexander John, 1959 Celitans, Gerard John, 1964 Chorlton, Stanley Harold. 1965 Clampett, John Bremner, 1965 Clark, Doreen Veronica, 1965 Cleary, Graham James, 1965 Cole, Edward Ritchie, 1960 Collins, John David, 1964 Connors, Francis Leslie, 1958 Conolly, John Robert, 1963 Courtney, John Lawrence, 1957 Cranmer, Venn, 1957 Craven, Brian Raymond, 1962 Croft, James Bernard, 1965 Crowden, Ronald Keith, 1961 Csanady, Gabriel Tibor, 1958 Davies, Evan Edwin, 1965 Davis, Brian Keith, 1962 Dintenfass, Leopold, 1962 Draper, Laurence Moreton, 1965 Dunlop, John Ian, 1965

Edwards, Ronald Alexander, 1964 Ernst, Ian Thomas, 1965 Fielding, Peter Eric, 1957 Figgis, Brian Norman, 1956 Ford, Douglas Lyons, 1959 Ford, Geoffrey Hunter, 1962 Gero, Stephan Dov, 1963 Ghosh, Debabrata, 1960 Gilby, Alestion Ross, 1956 Gilham, Peter Thomas, 1957 Giutronich, John Eric, 1963 Gregor, Ian Kelvin, 1964 Haggarty, George James, 1963 Hanson, Morgan Alfred, 1965 Harris, Clive Melville, 1955 Harris, Iestyn James, 1963 Hart, Richard John, 1964 Hatherly, Max, 1963 Hatwalne, Vinod Kumar Ganesh, 1959 Hayes, John William, 1964 Herzog, Anthony, 1965 Hinterberger, Hertha, 1961 Hopkins, Edward Goodman, 1955§ Hoskins, Bernard Foster, 1962 Hoskinson, Ronald Milton, 1962 Johnston, Arthur Kerr, 1957 Judell, Trevor Leopold, 1959 Keane, Austin, 1956 Kennard, Colin Harold Leslie, 1961 Kenny, Peter, 1963 Kingston, John Vincent, 1965 Kirchner, William George, 1953 Kokot, Ernest, 1961 Kornis, Gabriel, 1962 Laurenson, Eric Marwick, 1964 Law, Siu Wah, 1964 Lawrence, Laurence James, 1956 Lee, John William, 1961 Livingstone, Stanley Edward, 1955 Lloyd, Peter James, 1964 Lockyer, Trevor Norman, 1963 Loughnan, Frederick Charles, 1959 Low, Angus Henry, 1961 Lowenthal, Gerhard Clause, 1962 Madden, Barry George, 1964 Madgwick, George Graham, 1957 Magnusson, Eric Alfred, 1957 Maguire, Mary Helen, 1956

§ Deceased

#### **DOCTORS OF PHILOSOPHY-continued**

Manurung, Firman, 1965 McCartney, Eric Robert, 1956 McConnell, Jack Foster, 1958 McDonald, Neil Robert, 1965 McHugh, Dennis Joseph, 1957 McKay, Maxwell Herbert, 1965 McKenzie, Elwyn Donald, 1963 McManus, Raghnall Walter, 1961 Moran, Vincent John, 1962 Morton, Allan James, 1964 Napier, Keith Hamilton, 1961 Newman, Wolfgang Max, 1965 Nichol, Alan William, 1965 Norman, Joseph Rangott, 1959 Norton, Gary Peter, 1965 O'Brien, Keith George, 1959 Oedjoe, Djoeriaman, 1965 Parry, Lindsay George, 1965 Pickering, William Frederick, 1960 Pinkerton, Donald Malcolm, 1962 Pollard, Howard Frank, 1963 Ralph. Raymond Keith, 1958 Ratcliffe, John Spurgeon, 1960 Rayner, Edward Oswald, 1962 Reichel, Alex, 1963 Richardus, Petrus, 1963 Roberts, Alan William, 1962 Roberts, Euan Maurice, 1959 Robins, Robert George, 1958 Roper, Geoffrey Harold, 1956 Rose, Ivan Lincoln, 1961 Ryan, Keith Donald, 1963 Salasoo, Inno, 1963 Schoenborn, Benno Paul, 1962 Schofield, Philip John, 1964 Shanahan, Gregory James, 1962 Sheasby, John Seymour, 1964

Shelton, Bertram, 1963 Shipp, Erik, 1964 Skinner, John Norman, 1962 Smart, Ronald George, 1962 Soemitroadi, K. Ng. Bambang, 1963 Soeparman, Entol, 1965 Sollich, Werner Andreas, 1964 Solomon, David Henry, 1959 Stanton, Kenneth Neil, 1965 Stephens, Frederick Selwyn, 1963 Stephenson, Neville Charles, 1961 Sullivan, John Leslie, 1961 Sutton, Gervaise John, 1956 Swinbourne, Ellice Simmons, 1960 Tallis, George Michael, 1965 Tao, Shu Jen, 1964 Tate, Max Edwin, 1961 Taylor, John Charles, 1963 Tetaz, John Robert, 1956 Thompson, Colin John, 1964 Thornton, Barry Stephen, 1960 Tirrell, Roy, 1962 Tschoegl, Nicholas William, 1959 Walker, William Raymond, 1963 Wallwork, Greig Richard, 1960 Warne, Slade St. John, 1964 Warner, Noel Alfred, 1958 Warner, Ronald Kenneth, 1955 Warrener, Ronald Norman, 1960 Werner, Ronald Louis, 1957 Whitfield, Frank Brierley, 1963 Wilkins, Coleridge Anthony, 1963 Wood, Alec Edward, 1963 Wulff, Hans Eberhard, 1965 Young, Ronald Jerome, 1958 Zahid, Mohammad Saeed, 1957 Zeitlin, Adela, 1965

#### MASTERS OF ARCHITECTURE

Daniels, Eric Charles, 1965 Greenslade, Anita Barbara, 1957 Kollar, Laszlo Peter, 1963

Phillips, Ralph Oswald, 1956 Woolard, Frank, 1961

#### MASTERS OF ARTS

Braggett, Edwin John, 1964 Elliott. Gordon Charles, 1963 Irwin, Peter George, 1965 McMinn, Winston Gregory, 1961<sup>•</sup> Robinson, Ross, 1963 Young, Irwin Edward, 1963

\* Honours Class I. Awarded under original regulations. Under current regulations the degree is not graded.

#### APPENDIX 2

#### MASTER OF BUILDING

Cooper, Arthur Ashley, 1964

#### MASTERS OF BUSINESS ADMINISTRATION

Goth, John, 1965

Spry-Bailey, Philip, 1965

#### MASTERS OF COMMERCE

Fisher, Ross Graham, 1963 Lay, U Bo, 1963 Muchtar, Sofjan, 1963 Ninh-Van-Tu, Peter, 1963

#### MASTERS OF ENGINEERING

Balint, Peter Stephen, 1959 Bason, Peter Thomas, 1964 Baxter, Robert Ian, 1964 Beale, Jack Gordon, 1965 Betz, Eric, 1957 Bofinger, Harold Edward, 1962 Bonner, Maxwell George, 1965 Boonyaprabhatsorn, Patipan, 1964 Borchardt, Henry Alexander, 1961 Boughton, Walter Charles, 1965 Bowland, Kenneth Clive, 1964 Bridger, Kenneth Ralph, 1964 Brown, Hilton Russell, 1961 Bryant, Raymond Alfred, 1957 Burdon, Russell George, 1954 Chandler, Geoffrey Arnold, 1964 Chinn, Henry Ronald, 1963 Choda, Andrew, 1964 Clarke, Richard Henry, 1964 Close, John Frederic Campbell, 1965 Coulter, Charles Garth, 1962 Douglas, Arthur Gordon, 1960 Dudgeon, Colin Raymond, 1965 Faulkes, Kenneth Alan, 1958 Frisch-Fay, Robert, 1961 Glucharoff, Todor, 1958 Gould, Bernard William, 1959 Gruner, Lucian, 1963 Harrison, Harry, 1961 Hattersley, Ralph Thomas, 1961 Hind, Edward Colvyn, 1961 Howell, David Trewhella, 1963 Jenkins, Jack Lachlan, 1962 Jumikis, Thomas, 1965 Lancaster, Barry John, 1964 Lau, William Tsun Fong, 1961

Learmonth, John Robert, 1964 Longfoot, John Elms, 1962 Loo, Sonny Gabriel, 1964 Magnusson, David John, 1962 Maguire, Kevin Hector, 1959 Matthews, Warren Arthur, 1961 Medina, Leo, 1959 Nettleton, Alan Frank Stewart, 1959 Nightingale, Derek Thomas, 1960 O'Connor, Desmond Conroy, 1960 Parker, Geoffrey John, 1961 Randall-Smith, Thomas Carl, 1965 Reddy, Dabbala Rajagopal, 1964 Redman, Stephen John, 1962 Reizes, John Arthur, 1965 Richardus, Petrus, 1960 Robertson, Robert George, 1965 Ryan, Paul William, 1958 Saeed-ud-Din, 1957 Saiva, Guntars, 1964 Salvo, Eluderio Sevilla, 1961 Sapsford, Charles Matthew, 1958 Scholer, Harry Albert Theodore, 1960 Sekhon, Manjit Singh, 1962 Shearman, Ian Henry, 1964 Shrivastava, Krishna Kumar, 1955 Smith, Algernon Fletcher, 1962 Stanton, Kenneth Neil, 1961 Stuart, Anthony Graham, 1964 Sullivan, Philip Albert, 1962 Throsby, Peter Wentworth, 1965 Tinh, Tran Kiem, 1963 Toomey, John Joseph, 1961 Turner, Harold James, 1961 Upfold, Robert William, 1961

#### **MASTERS OF ENGINEERING**-continued

Van Der Werf, Peter, 1964 Wallis, Raymond Allan, 1954 Warner, Robert Falcon, 1957 Watkinson, Eric, 1959 Watson, Keith Kingsford, 1959 Weiss, Kurt, 1958 Welch, Geoffrey Baldwin, 1957 Williams, Ewart George, 1960 Wong, Kwan Yui, 1963 Wood, Ian Ruthven, 1958 Woodhead, Ronald William, 1957 Yang, John Tong, 1964

#### MASTERS OF HOSPITAL ADMINISTRATION

Crowley, Paul Bertram, 1965

#### MASTERS OF SCIENCE

Ahmed, Waheed, 1962 Albani, Alberto Domenico, 1965 Alfredson, Peter George, 1964 Algie, John Edgar, 1961 Anand, Jagdish Chandar, 1955 Anderson, Anders John, 1958 Anderson, John Ragnar, 1953 Angyal, Stephen John, 1961 Arman, Masly, 1963 Armstrong, John McDougall, 1958 Aylward, Gordon Hillis, 1954 Ayscough, Frederick William, 1957 Baillie, Malcolm George, 1961 Baker, William Ernest, 1963 Balasubramaniam, Eliathamby, 1965 Ball, Judith Helen, 1964 Baqar, Syed Ali, 1962 Barbour, Robert Gavin, 1958 Barker, Norman Thomas, 1960 Barnes, John Edward, 1965 Barrett, Jack, 1963 Basoeki, 1965 Batley, Graeme Edward, 1964 Bayliss, Peter, 1963 Beckmann, Peter, 19558 Belcher, Charles Brian, 1963 Bellingham, Andrew Irwin, 1961 Bender, Veronika Judith, 1963 Bendit, Ernest George, 1955 Boland, James Norman, 1965 Bolliger, John Edward, 1963 Bowen, Leonard Oswald, 1954 Branch, Stuart Innes, 1965 Brian, Harry Hamilton, 1964 Brisley, Warren, 1962

Brockhurst, Peter John, 1965 Brown, John Keith, 1964 Browne, James David, 1964 Buchsbaum, Nicolas, 1964 Burke, Morris, 1963 Chapman, Ralph Edward, 1963 Chiswell, Barry, 1960 Choudhry, Mohammed Siddique, 1958 Clancy, Brian Edward, 1959 Connors, Francis Leslie, 1954 Conolly, John Robert, 1960 Cook, James Lindsay, 1959 Cooke, Colin Garland, 1957 Cooper, Anthony, 1963 Cornford, Pamela Athalie, 1960 Costoulas, Aristotle John, 1958 Cowell, Norman David, 1961 Craig, Donald Chadwick, 1964 Craske, John David, 1964 Craven, Brian Raymond, 1959 Crawford, Brian Raymond, 1964 Cudmore, Joseph Francis, 1964 Cullen, James Sylvester, 1963 Curthoys, Geoffrey Carlton, 1959 Davies, Jean Isabel, 1961 Davis, Peter Stanislaus, 1962 Davis, Ronald Bruce, 1963 Dintenfass, Leopold, 1958 Dircks, Alexander Douglas, 1963 Donegan, Henry Arthur, 1955 Duckworth, Valerie Frances, 1964 Dworjanyn, Orest, 1963 Elbourne, Ronald George Pomeroy, 1964 Elliott, David, 1965

§ Deceased

#### MASTERS OF SCIENCE-continued

Ewers, William Hector, 1963 Farrington, Keith John, 1962 Fletcher, Harold Oswald, 1957 Florence, Trevor Mark, 1961 Flynn, Thomas Desmond, 1958 Ford, Douglas Lyons, 1954 Fowler, Douglas George, 1964 Fowler, Herbert, 1956 Garnett, John Lyndon, 1954 Gatehouse, Bryan Michael, 1956 George, Eric Paul, 1965 Ghosh, Sucharita, 1964 Gohain, Annada, 1959 Golding, Henry George, 1957 Golightly, David Rankin, 1960 Gregor, Ian Kelvin, 1959 Griffin, Russell John, 1960 Griffith, June Clare, 1956 Grimmett, Stanley, 1963 Guest, Graeme Beresford, 1963 Haken, John Kingsford, 1962 Halass, Steven, 1965 Hall, Francis Michael, 1960 Hall, Lennard Robert, 1958 Haly, Alan Robert, 1958 Hanscomb, John Robert, 1963 Hansen, Norman Reginald, 1956 Harper, Kevin Anthony, 1961 Harrington, Rodney Bernard, 1962 Harris, Bruce, 1960 Harris, Robert William, 1963 Harry, John Raymond, 1963 Hart, Richard John, 1961 Hatherley, Max, 1956 Hattersley, David Edwin, 1965 Hay, William James, 1965 Hellyer, Robert Owen, 1958 Henderson, John Barry, 1962 Hewitt, Bernard Robert, 1957 Hill, David Deveril, 1965 Ho, Raymond Kwong Yau, 1965 Holland, Bruce Owen, 1961 Hooper, Thomas Leslie, 1962 Howarth, Walter James, 1962 Huggins, Paul, 1960 Hughes, Thomas William, 1957 Humphreys, Frank Reginald, 1957 Hunt, Charles Henry, 1959 Ip, Hung-Kwong, 1965 Irwin, Robin Carol, 1958

Jasifi, Epi, 1963 Johnston, Gordon Basil, 1960 Joyce, Linton Glen, 1965 Kalotas, Thomas Michael, 1965 Kapur, Narinder Singh, 1955 Karihaloo, Autar Krishen, 1964 Kennedy, John Patrick, 1961 Kennon, Noel Frederick, 1960 Kerr, Andrew Colin, 1963 Keys, Lewis Henry, 1961 Khandekar, Vasudeo Narayan, 1964 Kidman, Antony David, 1964 Kiek, Sidney Noel, 1965 King, Dianne, 1965 Kirchner, William George, 1955 Klavins, Janis Evalds, 1962 Ko, Maung Ko, 1963 Laisk, Elmar, 1961 Lambert, John Alexander, 1963 Lark, Prosper David, 1957 Lederer, Josef, 1956 Le Marne, Alan Ernest, 1963 Levan, Nhan, 1962 Lock, Laurence Charles, 1961 Locksley, Harry David, 1957 Lockyer, Trevor Norman, 1960 Lowenthal, Gerhard Clause, 1958 Lynch, Alban Jude, 1958 Lynch, Barbara Joy, 1964 Macara, Brenda Jean, 1965 Macey, Michael John Kempster, 1964 Maggs, David Frederick, 1963 Maher, Thomas Patrick, 1964 Malin, Anthony Samuel, 1962 Maloney, John Edgar, 1962 Mann, Kenneth, 1963 Manners, Vincent John, 1965 Marsden, Kenneth Hulme, 1959 Martin, Cyril Maxwell, 1953 Martin, Ewan Cameron, 1959 Matthews, Ralph William, 1962 May, James Richard, 1961 McBrien, Basil Patrick, 1963 McFarlane, John Douglas, 1963 McGilchrist, Clyde Arnold, 1963 McKenzie, Peter John, 1959 McKern, Howard Hamlet, 1957 McLaren, Keith Gerrard, 1960 McLennan, John Ewen, 1964 McMichael, Oliver Clements, 1965

#### **MASTERS OF SCIENCE**—continued

Melouney, Harold Francis, 1954 Miklouho-Maclay, Robertson Wentworth de, 1956 Minty, Edward James, 1961 Mirza, Meftahul Ahmed, 1955 Moorehead, David Ronald, 1964 Muir, Andrew, 1963 Murdoch, John Sylvester, 1962 Mustard, David Alan, 1965 Naylor, Robert, 1960 Newburn, John Milton, 1962 Nicholson, Frank David, 1965 Ninio, Freddie, 1962 Norton, Gary Peter, 1962 O'Brien, Reginald William, 1964 Oedjoe, Djoeriaman, 1961 Oglethorpe, Bruce James, 1961 O'Neill, Dermott Kevin, 1958 Ormay, Miklos Kalman, 1961 Ozcan, Kazim, 1957 Ozols, Gunars, 1961 Park, Thomas Michael, 1964 Parry, Lindsay George, 1955 Pickering, William Frederick, 1956 Pitt, John Ingram, 1965 Powning, Rodney Francis, 1953 Pullin, James Anthony, 1965§ Ramm, Eric John, 1963 Ratcliffe, John Spurgeon, 1957 Rauf, Abdur, 1956 Rayner, Edward Oswald, 1957 Reece, Ian Harold, 1961 Reynolds, Judith Louise, 1962 Rigby, Bernard John, 1957 Rileigh, Albert Kenneth, 1965 Ritchie, Arthur Sinclair, 1962 Robins, Robert George, 1955 Robinson, Phillip, 1964 Roper, Geoffrey Harold, 1953 Roulston, William James, 1958 Rubin, Burah Robert, 1964 Rudzats, Richards, 1963 Sadler, William Robert, 1959 Schulz, Ronald Arthur, 1965 Schwartz, Alfred, 1958 Scott, George Everly, 1959

Serjeant, Eldon Percy, 1962 Shanahan, Gregory James, 1960 Sharry, Leo Francis, 1965 Silberstein, Bernard, 1964 Simes, Henry Victor, 1961 Simpson, John Robert, 1963 Smith, Keith Lyne, 1963 Smith, Malcolm Bruce, 1961 Soemarno, 1964 Solomon, David Henry, 1955 Spedding, Peter Lee, 1960 Sreemulanathan, Harihara, 1955 Standish, Nicholas, 1963 Steele, Maxwell Campbell, 1956 Stevenson, Brenda Jean, 1959 Sugowdz, Galina, 1955 Sullivan, John Leslie, 1956 Sutton, Gervaise John, 1953 Tallis, George Michael (Dr.), 1963 Taneja, Gopi Chand, 1954 Taylor, James Harding, 1961 The, Kwat Ie, 1962 Thomson, Joseph Alexander, 1962 Todd, Donald Douglas, 1964 Turner, Kevin Stuart, 1960 Veeraburus, Manas, 1963 Villaroel, Leon Juan, 1960 Wall, Geoffrey Craig, 1963 Waterman, Hanneke, 1958 Waugh, John Blake, 1957 Wecksler, Oscar Sneir Salman, 1962 Weiler, Hans, 1956 Weiss, Paul William, 1965 Werner, Ronald Louis, 1953 Whichello, Kenneth Edgar, 1960 Whiffen, Neville Albert, 1956 Whitfield, Frank Brierley, 1960 Willatt, Stephen Thomas, 1964 Williams, John Francis, 1961 Williamson, William Harold, 1957 Winter, George, 1957 Wong, Ching Lien, 1965 Young, Brian Charles, 1965 Young, Sydney Sze Yih, 1956 Zaki, Mahmud, 1962

§ Deceased

#### MASTERS OF TECHNOLOGY

Afzal, Ahmad, 1965 Akhtar, Khalid Mahmud, 1965 Andreassend, David Charles, 1965 Archer, Norman John, 1965 Austin, Terence William, 1963 Austria, Rodrigo, 1965 Betts, Neville Oswald, 1964 Bicevskis, Andrejs, 1965 Binns, Michael Roger, 1962 Birzulis, Aldis Janis, 1965 Black, Donald John, 1964 Blake, John Barrymore, 1962 Bonthorne, James Dean, 1964 Brewster, Ian James, 1965 Brodie, Hugh David, 1964 Brown, John Vernon, 1965 Buckley, Douglas John, 1961 Bunton, Robert Brian, 1961 Burnett, Bierzynski Ignacy, 1964 Byrne, John Denis, 1964 Carter, Thomas Arnold, 1965 Carters, Peter, 1962 Casey, Peter William, 1961 Catchpoole, Alan David, 1965 Ceniza, Bienvenido, 1965 Chang, Kin Koon, 1964 Chawla, Tara Chand, 1962 Chen, Malcolm Mien Chee, 1962 Chen, Peter Yo Pin, 1965 Choy, Gay, 1962 Choy, Hon Tim, 1962 Choy, Thomas Tak Cheung, 1965 Choy, Way, 1963 Christmas, Raymond William, 1965 Clancy, Kenneth George, 1963 Clark, William Keith, 1961 Clarke, Albert George, 1961 Clissold, Carne Maurice, 1962 Conner, John Martin, 1961 Cook, David Charles, 1963 Cornell, Michael Alexander, 1964 Cram, Anthony Adrian, 1961 Crowe, John Gordon, 1961 Ding, Gar Day, 1961 Donovan, Peter John, 1964 Evans, Peter John Anthony, 1965 Fenwick, John Robert, 1963 Finger, Erik Franz Ferdinand, 1964 Fisher, Ronald Benjamin, 1960 Foong, Ka Nim, 1963 Fordyce, William Alexander, 1963

Foster, John, 1962 Fraser, John Bruce, 1961 Gander, Brian John, 1962 Gerrard, Charles Mervyn, 1964 Gonzalez, Delfin, 1965 Graham, Peter, 1961 Grav, Robert Alfred, 1963 Gregg, Peter Stewart, 1960 Griffiths, Robin Bransom, 1962 Gurley, Colin Richard, 1965 Hall, Alan James, 1964 Haynes, John Frederick, 1961 Hazzard, James Edward, 1965 Headford, Peter William, 1963 Herschtal, Ludwig, 1964 Hinwood, Jonathan Barry, 1962 Ho, Wah Chiang, 1963 Holt, Neil Douglas, 1963 Holy, Zdenek Josef, 1964 Hope, Ian Gorden, 1965 Hurd, Frank William, 1961 Ida, Aziz Ahmad, 1965 Ings, Noel Leslie, 1964 Ivering, John, 1965 Jabbour, Sami Khalil, 1964 Johnstone, Clifford Owen, 1963 Jones, Peter George, 1965 Kabaila, Algis, 1960 Kandiah, Kumarasivam, 1961 Kennedy, Allan George, 1963 King, Frederick Joseph, 1961 Kneebone, Douglas Craig, 1963 Knox, David Wykeham, 1964 Ko. Chew Kai. 1962 Koo, Hock Khean, 1964 Krishna Swamy, Tirumala Bukkapatnam, 1960 Kwong, Sze-To, 1963 Lam, Kui-Kwong, 1965 Lee, Choong Woh, 1962 Leong, Harry Jung-Wing, 1962 Ling, Ching Sang, 1963 Longrigg, John Christopher Hemsley, 1965 Lukey, John Doak, 1964 MacBride, James Richard Michael, 1960 Major, Norman Grant, 1962 Mallesch, Peter Harold John, 1965 Manton-Hall, Arthur William, 1962 Marin, Nicasio, 1961 Marshall, Gordon Lyle, 1961

#### **MASTERS OF TECHNOLOGY**-continued

Marshall, Ronald James, 1964 Mateffy, Stephen Alexander, 1962 McAdam, David Victor, 1965 Messner, John Pitt, 1963 Mills, John Edward, 1962 Mok, Kee Pan, 1963 Monks, Philip Egerton Harry, 1961 Morris, Robert William James, 1965 Navarro, Eppie Cano, 1963 Nicholls, Maxwell James, 1961 O'Brien, Terence Ignatius, 1965 O'Kelly, Peter Anthony, 1965 O'Loughlin, Emmett Michael, 1960 Oppy, Edmund Thomas, 1961 Pak-Poy, Patrick Gerald, 1960 Pathmanathan, Sabharatnam, 1963 Pe, Antonio, 1965 Perry, Robert George, 1962 Pike, Russell Edward, 1962 Quaynor, Herbert Opare-Addo, 1963 Raffaele, Joseph, 1960 Ranganna, Ganganna, 1961 Ray, Keith Morris, 1963 Reddy, Dabbala Rajagopal, 1961 Royal, Donald Norman, 1965 Russell, William Francis, 1963 Sanchez, Emiliano Baluyot, 1964 Simpson, John Roger, 1963 Shadwell, Thomas Graeme, 1961 Shattock, John William, 1962 Siddiqi, Muhammad Akram, 1965

Siyali, Mohinder Singh, 1962 Snow, Bryson Keith, 1961 Spinks, Norman Joseph, 1963 Spitzkowsky, Colin William, 1963 Storr, Eric David, 1965 Swami, Shanmugam Arumuga, 1961 Swanson, Bruce McKenzie, 1962 Tainsh, John McArthur, 1962 Tan, Jin Lee, 1962 Tao, Shu-Jen, 1962 Tchelet, Moshe, 1962 ten Brummelaar, Theo, 1961 Thomas, Charles William Govan, 1964 Tognetti, Keith Phillip, 1964 Toomath, John Battersby, 1964 Toppler, Jeno Frank, 1962 Trickett, Graham George, 1964 Tsang, Gee, 1965 Vidler, Garrie Joffre, 1963 Walker, John Allan, 1965 Warren, Eric George, 1964 Waslin, Nelson Alex, 1961 Watts, Dean Lachlan, 1963 Wheeler, Richard Carrington, 1964 Wijesinghe, Thilakaratne, 1963 Wilson, Denis Patrick, 1964 Wiltshire, Neville Duncan, 1964 Win, Paw, 1962 Wong, Kwai Wah, 1965 Wotherspoon, Robert John, 1962 Yang, Kwai-Sang, 1964

#### **BACHELORS OF ARCHITECTURE**

Adams, Gordon Stuart, 1960\*\* Adcock, Bernard Leighton, 1963 Allen, Darryl Rawdon, 1965\*\* Allen, David Bradley, 1957 Ashton, David Myles, 1963 Ashton, William Winter, 1960 Atkin, Philip Maurice, 1964 Aynsley, Richard Michael, 1965\* Bastock, Graeme Frederick, 1964 Baxter, John Denis, 1965 Beardsmore, Trevor Gordon, 1965 Behne, Stuart Edmond, 1958\*\* Bennett, Graham Frederick, 1963\*\*

\* Honours Class I \*\* Honours Class II

Boss, Adrian, 1965
Bourke, John Giles, 1965
Bracs, Gunars, 1963
Brawn, Graham Wesley, 1962\*\*
Breden, Ian Richard Squire, 1965\*\*
Brogan, John Murray, 1963\*\*
Brogan, Richard Ian, 1964\*\*
Brookes, Christopher James Stuart, 1965
Brothers, Michael Charles, 1965
Browne, Gardner Leigh, 1964
Buhrich, Clive Peter, 1964
Buivids, Edwin, 1965\*\*

#### APPENDIX 2

#### **BACHELORS OF ARCHITECTURE**—continued

Butler, Paul William, 1965 Cahill, Patrick Edward, 1964 Carr, Donal Pattison, 1965 Cashell, Mervyn Michael, 1965 Ceprynski-Ciekawy, Andrzej Kazimierz Marian, 1961 Chan, Edwin Chin Tan, 1958\*\* Chappelow, Raymond Arthur, 1963\*\* Charlton, Kenneth Donald, 1965 Chen, Lawrence Li-Chih, 1957 Ch'ng, Poh, 1965 Chou, John Tai Ping, 1964\*\* Clinton, Ronald Peter, 1961 Colman, James Stanley, 1957 Courtney, John Michael, 1963 Coward, Philip Michael, 1960 Cowdroy, Robert McLeod, 1965 Dalton, Peter John, 1965\*\* Danks, Geoffrey Richard, 1963\*\* Davis, Ronald John, 1964\*\* Devine, Ronald Harry, 1957 Dorrough, Athol Terrence, 1962\*\* Doyle, John Hamilton, 1963 Drake, Barrie Lawrence, 1958\*\* Drezins, Aivars Leonids, 1964 Dunn, Richard Barry, 1964 Ellis, Barry Scott, 1962\*\* Ezzy, Ian Edward, 1965\*\* Firkin, Warren, 1965 Fisher, Bruce Allan, 1965 Foo, Alexius Kee Fong, 1961 French, Graham James, 1962 Fuller, George Gordon, 1958\*\* Glasson, Gilean, 1964\*\* Greenslade, Anita Barbara, 1955\*† Greig, Barry John, 1965 Greste, Juris, 1959\*\* Guest, George William, 1962 Hamaker, Emanuel Hendrikus, 1965 Hanly, David Thomas, 1960 Harvey, Antony James, 1965 Hay, Graeme, 1962\*\* Ho, John Lung Tat, 1960 Hodges, Harold John, 1960\*\* Hoffmann, John Robert, 1964 Holland, Graham Edward, 1963 Houghton, Keith Stuart, 1960\*\* Howes, Raymond Keith, 1963 \* Honours Class I \*\* Honours Class II

Karklins, Arnis, 1961 Koo, Hock Yeow, 1965\* Kringas, Christopher, 1959\*\* Kringas, George Peter, 1963 Lake, John Andrew, 1963 Lester, Alfred Nathan, 1964\*\* Lane, Terence William, 1965 Langstaff, Alan McGregor, 1965 Lehmann, Noel Fergus, 1965 Leung, Edwin Chung-Ching, 1963\*\* Lewicki, Michael Nicholas, 1963 Littlemore, David Anthony, 1962\* Liu, Thai Ker, 1963\*† Lodens, Ilmars Karlis, 1956\* Lowe, Colin Arthur, 1963 Lynch, Brian Patrick, 1964 Mack, Edward Carrington, 1958 Mander Jones, David Rhys, 1960 Marelli, Hans Karl, 1961\* Maron, Guy Claude Charles, 1962 Martin, Francis William, 1965 McKay, Ian David, 1955 McManus, Patricia Frances, 1965 McNamara, Arthur, 1963\* Meadows, Ronald, 1955 Meyer, Robert Werner, 1960 Mezdreis, Arnolds, 1957\*\* Michalandos, Nicholas, 1965 Ming, Charles Ka Fook, 1964 Mitchell, Jon Patrick, 1963 Moor, Derek Vernon, 1959 Moorcroft, John Frederick, 1965 Moore, John Dudley, 1956 Moore, Robert Frank, 1964 Morris, Donald David, 1962\*\* Morton, Neville John, 1965 Mutton, John William, 1965\*\* Myers, Peter William, 1965 Newman, Kenneth Moreton, 1955 Newman, Philip Moreton, 1965 Nicholas, John Sutton, 1964\*\* Owers, Robert Charles, 1963 Parrott, Diane Jacynthe, 1960 Perey, Robert Adrian Henry, 1965\*\* Perm, Vladimir, 1957\*\* Phelan, Robert James, 1965\*\* Pollack, Henry, 1964\*\* Ray, David William, 1960\*\*\* † University Medal

#### **BACHELORS OF ARCHITECTURE**—continued

Reedman, Leslie Arnold George, 1961\*\* Rice, Kevin James, 1955\* Robertson, Lindsay Francis, 1960\*\* Rodd, Brent Tremayne, 1964 Roebuck, Joan, 1964 Roseth, John, 1960\* Sabolch, Bela Emery, 1960 Sheather, Graeme Douglas, 1964 Sheedy, Sidney David, 1962 Smart, Graeme Gilbee, 1960 Sobolevskis, Richards Haralds, 1964 Statzenko, George, 1958\*\* Stone, George Barry, 1958 Suters, Brian John, 1962\*+ Tanner, Richard Gordon, 1962 Taylor, Bruce Merrick, 1962\*\* Thompson, Christopher Richard, 1965 Thorvaldson, Finn Christopher, 1961

Thorvaldson, Sven Daniel, 1965\*\* Tomaszewski, Michal Krzysztof Fortunat, 1964 Trankels, Valentins Ivars, 1963 Trevena, Lindsay Allan, 1963 Trinder, David Frederick, 1962 Tunin, Boris Christopher, 1961 Twitchett, William Arthur Philip, 1961 Veenstra, Alan Anno, 1963 Vote, Bruce Kent, 1964 Wilson, Neil Frederick, 1963 Witts, Phillip Walter, 1964 Wong, Wai Ying, 1957 Woo, Raymond Kok Chew, 1965 Wyllie, Donald Russell, 1963 Yong, Kain Chung, 1965 Yow, Sze Wun, 1963 Yuen, Helen, 1964

#### **BACHELORS OF ARTS**

Adcock, Sylvia Grace, 1964 Addison, Kerry Joan, 1964 Alcock, Enid Margaret, 1965 Aldersey, Richard Aubrey, 1964 Allen, Stanley, 1963 Alley, Leigh, 1962 Anderson, Colin Robert, 1963 Anderson, James Ross, 1963 Anderson, John Stanley, 1965\*\* Andrew, Merrilyn Jane, 1965 Andrews, Barry Geoffrey, 1964\*\* Annesley, Michael John, 1965 Archer, Arthur George, 1963\*\* Archer, John Malcolm, 1964 Armstrong, Henry Roderick Albert, 1965 Atherton, John Raymond, 1960\*\* Aus, Margaret Jean, 1963 Aw, Dennis Hong-Lim, 1965 Baillie, Raymond John, 1964 Baker, Lauretta Anne, 1964\*\* Baldwin, Marie Rose, 1961 Bale, Emily Joan, 1965 Balks, Denise Elaine, 1964

Banfield, Brian Melville, 1962 Banks, Enid May, 1965 Barnwell, Norman Edgar, 1965\*\*\* Bartholomew, Geoffrey, 1960 Bastian, Anne, 1965 Beck, Michael Massey, 1964 Belford, Irene Janice, 1961 Benham, Dawn Mary, 1963 Bennett, Norman Ross, 1963 Bentley, Geoffrey Robert, 1961 Bidstrup, Graham James, 1965 Bignill, Kenneth Robert, 1961 Birthistle, Brendan Thomas, 1965 Blackburn, Robyne Patricia, 1965\*\*\* Blunden, Thomas William, 1961\*\* Bohringer, Jeanette Marjorie, 1964 Bond, David Grant, 1963 Bowe, Annette Marjorie, 1960 Bray, Betty Evelyn, 1963 Breakwell, Helen Elizabeth, 1965\*\* Brentnall, Robyn Austin, 1964 Brice, Janet May, 1963\*\* Broadbent, Patricia, 1964 Brown, Doreen Bronwyn, 1961\*

\*\*\* Honours Class III † Univers

Brown, Eileen Barbara, 1963 Brown, John Matthew, 1961\* Brown, Lionel Henry, 1962 Brown, Marian Elsbeth, 1960 Brown, Susan Elaine, 1965 Buchhorn, Anna Zofia, 1962 Bullerwell, Judith Claire, 1960\*\* Burke, Beverley Anne, 1964 Burt, Dorothy Anne, 1965 Buxton, Ann, 1964 Caillot, Marc, 1965\*\* Caldwell, John Archibald Wayne, 1962 Callen, Marie Bernadette, 1962 Callen, Mary, 1960 Camden, Jacqueline Rose, 1963 Cameron, Brian Edward, 1965 Campbell, Kerrie Elizabeth, 1965 Carter, John Edward, 1961\*\*\* Cashmere, John Joseph, 1964\* Caskey, Sandra Clare, 1961 Chew, Lee-Kiang, 1965 Chew, Peck Geok, 1964 Chignell, Lesley Anne, 1965 Chow, Joseph Wah Seng, 1965 Cicolini, Leo, 1963 Clack, Marie Eleanor, 1960 Clarke, Alan Thorn, 1964 Clarke, Alexander Marshall, 1963\* Clarke, Judith Anne, 1965\*\* Cliff, Leonard William, 1965\*\* Coates, James Robert, 1965 Cocks, Michael Richard, 1965 Cohen, Philip, 1965 Collits, Terence John, 1961 Comerford, Mabel Mary, 1963 Conners, Noel Thomas, 1963 Cook, Jeanette Deidre, 1963\*† Cook, Paul Clifford, 1963 Cooper, Jennifer Ann, 1965 Cooper, Robert Gordon, 1965 Cornish, Peter John, 1965 Corr, Lance Cameron, 1961 Cranfield, Clifford Alan, 1965 Croft, Julian Charles, 1961 Crosbie, Maureen, 1964 Crothall, Marion Mildred, 1961\*\* Crowley, Irene Margaret, 1964 \* Honours Class I \*\* Honours Class II Cummings, Lois, 1964 Currey, Aphra Nell, 1961 Cuthbert, Alexander Walker, 1960 D'Abrera, Bernard Laurance, 1965 Dan, Victoria, 1963 Davidson, Vivienne Enid, 1965 Davis, Geoffrey Malcolm, 1965 Davis, Janise Anne, 1965 Davis, Lyndall Kay, 1965 Davis, Ronald John, 1961\*\*\* De Plevitz, Loretta Ruth Amelia, 1964 Dibley, Pamela Joy, 1963\*\* Dick, Mary Carmel, 1961 Dickinson, Etta Gwen, 1964 Donaldson-Evans, Lancelot Knox, 1962\*\* Donegan, Brian Frederick, 1964 Dornan, Lynn Alexander, 1964 Douglas, Mai, 1965 Doyle, Catherine Mary, 1965 Doyle, Wendy Gai, 1962 Drinan, Frances Margaret, 1963 Driscoll, Jessie Alice, 1961 Duggan, Allen Dion, 1964 Dyer, Donald Allen, 1964 Eastcott, Leslie Raymond, 1965 Edden, Kenneth Roy, 1961 Ellenor, Keith Ronald, 1965 Elvidge, Norman Charles, 1965\*\* Emanuel, Robyn Monroe, 1965 Emery, Diana Leonie, 1964 Evans, Warren Thomas, 1965 Farrell, Judith Patricia Mary, 1962 Farrell, Kathleen Patricia, 1960 Felton, Kay, 1965\*† Ferrett, Ruth Lorraine, 1962 Firkin, Helen Clare, 1965 Fisher, Darrell Graeme, 1961 Flanagan, Kay Frances, 1962 Flynn, Catherine Helen, 1964 Foley, Gerard William, 1965 Foulkes, Rosalind, 1964 Fowler, Fay Anne, 1964 Gardner, Michael George, 1965 Geary, John Joseph, 1960\*\* Geyer, Robert John, 1964 Gibbs, Brenda May, 1961 Gibbs, Rodney Allan Stewart, 1964

\*\*\* Honours Class III

† University Medal

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#### **BACHELORS OF ARTS-continued**

Gilbert, Wendy Renée, 1962 Goffet, Natalie, 1965 Goodacre, Lionel John, 1963 Grady, John James, 1960\* Grady, Mabel Frances, 1960 Graham, John Robert, 1964 Gray, James Lindsay, 1965 Gray, Patricia Jacqueline, 1965 Green, Pamela Anne, 1962 Greenland, Samuel Osborne, 1963 Greenwood, Joy Emma, 1962 Groenewegen, Michiel, 1965 Guest, Beverley, 1965 Guy, Denis Maxwell, 1965 Haberl, Othon, 1964\*\* Hales, Doris Edna, 1962 Hallett, Ronald Walter, 1965 Handel, Jeffrey John, 1965 Hannan, Keith Ronald, 1965 Hanzic, Nicola Mary Hughes, 1965 Hargreaves, Rosemary, 1965 Harrington, Prudence, 1965 Harrison, Timothy William, 1965 Hart, Ian Ernest, 1963 Harvey, Ruth Bonita, 1963 Hassall, Anthony John, 1964\*\* Henry, Rusheen Ellen, 1964 Hepp, Johanna Wilhelmina, 1965 Hestelow, Amy Lillian, 1964 Hofman, Brian Anthony, 1965 Holden, Colin Anthony, 1962 Holmes, Marcia Kay, 1964 Holt, John Michael, 1962 Hook, William Charles, 1965 Hopkins, Edward Harold, 1964 Hughes, Jannese Elizabeth, 1964 Hughes, Max William, 1965\*\* Hughes, Susan Lesley, 1964 Hume, Carmel Josephine, 1965 Humphreys, Gordon Davies, 1963\*\* Humphreys, Janice Lily, 1960 Hurley, John Laurence, 1962 Hunter, Geoffrey Brian, 1964 Ingram, Errol James, 1965 Ironside, David James, 1965 James, David Edward, 1964\* Jarrett, Arline Narelle, 1963 Jeffery, Ann Margaret, 1962 \*\* Honours Class II • Honours Class I

Johns, Richard, 1964 Johnston, Margaret Raie, 1964 Jonas, William James Albert, 1963\*\* Jones, Glennie, 1960 Jones, Grahame Charles, 1962\* Jones, Judith Anne, 1964 Jones, Margaret Elaine, 1962 Kazis, Vita Olga, 1964 Kelly, Barry Thomas, 1961 Kelly, Robert Andrew, 1960\* Kennedy, Brian Ernest, 1964\*† Kent, Judith Ann, 1965 Kerr, Patricia Margaret, 1964 Kinder, Josephine Kate, 1963 King, Rosemary Anne, 1965 Kingston, Peter Stannett, 1965 Klim, George, 1965\*\* Knott, Pamela Dorothy, 1964\* Koh, Guak Yan, 1965 Korevaar, Teunis Jan Geerit, 1964 Kraemer, Yvonne, 1960 Krivans, Severins, 1962 Krywoszyja, Halina, 1965 Laffy, Marie Therese, 1962 Lance, Robyn Margaret, 1964 Lang, Ross James, 1965 Latham, Paul John, 1965 Lawrence, Wendy Kay, 1963 Lee, Kevin Hargreaves Patrick, 1964\* Lewis, Milton James, 1962\*+ Lieberman, Rachael, 1961\* Lindgren, Kevin Edmund, 1962 Ling, Janice Margaret, 1963 Linnertson, Hazel Anne, 1964 Lizdenis, Violeta Joan, 1964 Long, Foo Yee, 1964 Long, Patrick Winston, 1965 Longworth, Kenneth James, 1962 Lorton, Margaret Mary, 1964 Lovett, George Alfred, 1964 Lupton, Gillian Mary, 1964\*† Lynch, Beverly Anne, 1964 MacDonald, Heather Jean, 1960 Maddocks, Charles David Alexander, 1964\*\* Manning, Diana Kathleen, 1964 Manser, Beverley Anne, 1962 † University Medal

Jobson, Stephanie Claire, 1964

#### **BACHELORS OF ARTS-continued**

Markham, Maureen, 1960 Marks, Gregory Cecil, 1963 Marsh, Malcolm Ian, 1965 Maskey, Rosemary, 1960 Mathieson, Wendy Laraine, 1963 Maughan, Elizabeth Narelle, 1962 May, Helen Louise, 1965\*\* McCann, Robyn, 1963 McCormack, Marlene, 1963 McGregor, Lynne Frances, 1965 McInnes, Kerry Vincent, 1965 McIntosh, Heather Adelaide, 1964\*\* McMahon, Loretta Margaret, 1963 McMahon, Patricia Ann, 1961 McNab, Leonard Lethbridge, 1961 McNamara, Maree Margaret, 1962 McPherson, Robyn June, 1965 Meder, Marie Ingeborg, 1964 Meeth, Deslee Coral, 1964 Menzies, John Andrew, 1965 Milgate, Shirley Ann, 1964 Milner, Jessica Ruth, 1965\*\* Mingay, John Warren, 1964 Mitchell, James Thomas, 1963 Mobbs, Sandra Rose, 1965 Monkley, Warren James, 1962 Mooney, Maureen Josephine, 1965 Moore, John William, 1961 Morgan, Loretta Elsie, 1964 Morris, John William, 1964\*\* Mountford, Judith Beverley, 1964\*\* Muir, Elisabeth Helen, 1965 Mulconry, Gregory, 1965 Murphy, Lawrence Patrick, 1965 Murphy, Mark Frederick, 1963 Murray, Cynthia Robin, 1963 Murray, Raymond William, 1964 Murray, Wendy, 1962 Musto, Graeme Harley, 1964 Neville, Denise Marie, 1961 Neville, Richard Clive, 1964 Newton, Douglas, 1965 Newton, Robert Graham, 1965\*† Ng, Poey Siong, 1965 Ng, Yan Chung Jonathan, 1964 Nicholls, Robert Grant, 1965\* Nielson, Jack, 1961 Niland, Philip Edward, 1962\*\* \* Honours Class I \*\* Honours Class II

Norris, James Winston, 1965 O'Brien, Christine Elizabeth, 1965 O'Donohue, Terence Markham, 1964 O'Neill, Michael John, 1962 Ooi, Kim Huat, 1964 Opitz, Valerie Therese, 1963 Osadchy, Lydia, 1965 O'Shea, Patrick Grant George, 1960 Palmer, Bruce Stewart, 1963 Pang, Lucy Lee Chin, 1963 Papworth, Phillip Gary, 1964 Parkinson, Mira Evelyn, 1965 Pascoe, Margaret, 1962 Payne, Robert William, 1960 Pears, Geraldine Elizabeth, 1960 Pellow, Garry Wayne, 1965 Penfold, Judith Lorraine, 1962 Perronnet, Maree Catherine, 1963 Petherbridge, Robert Joseph, 1962 Pettigrew, David James, 1965 Platt, Pamela, 1965 Plumridge, Margaret Anne, 1963 Polkinghorne, Bronwyn Ann, 1964 Pollard, Dianne Ruth Blemell, 1964 Popov, Alexander, 1965 Powell, Anne Geraldine, 1964 Prince, Harold James, 1960 Proctor, Brian John, 1961 Pryor, Travice Young, 1965 Rabbitt, Mary Elizabeth, 1964 Rabbitt, Michael John, 1960 Radford, Barbara, 1963 Rapp, Darcy Leon, 1963 Rappit, Sheena Margaret, 1965 Rattur, Salvia, 1964 Reader, Dorothy Elizabeth, 1965 Reay, Logan John, 1962 Ree, Anne Estelle, 1964 Rees, Carolyn Rosemary, 1965 Rees, Kevin Wilfred, 1964 Renwick, Ada, 1962\* Reynolds, Kevin James, 1962 Reynolds, Sandra Anne, 1965 Rice, Helen Josephine, 1960 Richter, Margaret Dorothea, 1965 Roberts, Brian Charles, 1965 Robertson, Michael William, 1965 Robertson, Robin Louise, 1960 † University Medal

#### **BACHELORS OF ARTS-continued**

Robins, Margaret Narelle, 1963 Rochester, John Alexander, 1963 Rocks, Janice Anne, 1963 Rogers, Derek David, 1965 Rogers, Judith Anne, 1963 Rolfe, Kay, 1961 Ross, Margaret Mary, 1962 Rowe, Frances Mary, 1962 Rudman, Mary Vanessa, 1964 Rummery, Mary Elizabeth, 1962 Russell, Yvonne, 1961 Rutherford, Noel, 1962\* Sakker, Rachelle, 1964 Sams, Gwenda Rosemary, 1963 Sawkins, Peter, 1963 Scanes, Malcolm, 1964 Schiess, Glenda Kay, 1965 Scott, Maurice Bainbridge, 1964 Sharman, Carole Jean, 1963 Sheedy, Brian Patrick, 1961 Sheehan, Kay Maree, 1965 Shepherd, Ian Clarence, 1964 Sheriff, David John, 1961\* Sherriff, Kay Ashton, 1964 Sieber, John Joseph, 1963 Slattery, Anne Maria, 1965\*\* Slaven, Leslie Raymond, 1963 Small, Kenneth John, 1963 Smee, Allen James, 1962 Smith, Kay Margaret, 1965 Smith, Malcolm Lawrence, 1965\*\* Smith, Owen Benaud, 1965 Smith, Patricia Ann, 1963 Smith, Patricia Margaret, 1963 Smithies, Heather Caroline, 1963 Snelling, Peter Ernest, 1963 Solomon, Julie, 1963 Sommerville, Sharon Margaret, 1964 Southern, George William, 1962 Southward, Ramon William, 1961 Speering, Geoffrey Ross, 1964 Spencer, Graham, 1961\*† Stanton, Lorraine Thelma, 1965 Stauroulakis, Panayiota, 1965 Stevenson, Andrew Wentworth, 1964 Stewart, Joan Rosemary, 1964\*\* Stewart, John Prescot, 1965 Stewart, Kenneth Alexander, 1964\*\* \* Honours Class I \*\* Honours Class II

Stewart, Robert George, 1962 Stock, Roslyn Louise, 1962 Stuckey, Carolyn Ann, 1965 Sweeney, Brian John, 1962\*\* Sykes, Wendy Nola, 1964 Symes, Eileen Jill, 1960 Taper, Michael John, 1962 Tattersall, Dianne Wendy, 1965 Taylor, Joan, 1964 Taylor, Sarah Elizabeth, 1962 Telfer, Ross Alexander, 1964 Temple, Kathleen Frances, 1961\* Tennant, Barbara Joyce, 1965 Teo, Chin Kiok Katherine, 1964 Thompson, Elaine Margaret, 1961 Thompson, John James, 1960 Thomson, Philip, 1962\*+ Thorpe, Bruce Burton, 1965 Thurgar, Penelope Anne, 1964 Thursby, Christine Helen, 1964 Tolley, Katherine Sue, 1965 Toomey, Lorraine Ellen, 1961 Tranter, Janice Maree, 1964 Towner, Errol Grev, 1963 Tresidder, Warren David, 1964 Trudgeon, Hilton Nelson, 1962 Tucker, Anthony Francis, 1965 Turner, Kay Lorraine, 1965 Van Der Veen, Theo Tiete Foppe, 1964 Wagner, Maxine Sophie, 1965 Wall, John Desmond, 1964 Wallace, Ann Maria, 1963 Wallace, Katherine Susan, 1962 Walls, Virginia Anne, 1965 Walmsley, Leo Benedict, 1961 Walmsley, Maree Louise, 1964 Walsh, Gerard, 1961 Walsh, Richard Bruce, 1965 Ward, Reginald John, 1962 Warfield, Ian Theodore, 1965 Warner, Penelope Ann, 1965 Waterhouse, Annabel, 1961 Watson, Andrew, 1964 West, Trevor Frederick, 1964 Whalan, Paul Russell, 1965 Wiblin, Margaret Grace, 1965 Wiggins, Robyn Dawn, 1964 † University Medal

#### APPENDIX 2

#### **BACHELORS OF ARTS**-continued

Williams, Peter Michael, 1963\*\* Williamson, Margaret Dawn, 1965 Willson, Jennifer Florence, 1964 Wilson, Judith Margory Jane, 1961 Winney, Noel Raymond, 1965 Woodhouse, Robin Adele, 1965 Woodward, Judith Marilyn, 1965\*\* Woolley, Barbara Joan, 1961 Woolley, Janice Anne, 1962 Wynter, Michael Rodney, 1965 Young, Alexander Walter, 1960\*\* Yuen, Wai Leung, 1964

#### BACHELORS OF BUILDING

Beat, Thomas Ballantine, 1965\* Boot, David Arthur, 1964 Clark, Nicholas James, 1965 Conen, Jeffrey Graham, 1964\*\* Connery, Garry Michael, 1965 Donnelly, Roger Paul, 1965 Groves, David Arthur, 1965 Hanna, George William, 1963\*\* Harrold, Graham Clifford, 1965 Henwood, Nelson Leslie, 1965 Kapp, Ernest Edward, 1965\*\* Miller, Roger Mark Anthony, 1963 Mosman, Warwick Darrell, 1965\*\* Mottram, Kenneth Roy, 1964\*\* Read, Terence Earl, 1965 Richter, Graham John, 1965\* Smith, Peter Charles, 1965 White, Paul Francis, 1965

#### **BACHELORS OF COMMERCE**

Aboud, Peter Nicholas, 1965 Abrahams, Alan Geoffrey, 1963 Adams, Rex Lyle, 1965 Aiken, Maxwell England, 1963 Alexander, William Michael, 1962 Ali, Sri Kustiah, 1962 Allen, Margaret Louise, 1961 Allen, Thomas William, 1965\* Antoniak, Robert Bogdan Arcadius, 1964 Anderson, Alan William Godfrey, 1964 Arnold, Noel Walter Owen, 1963 Avery, Langer Edward, 1959 Avery, Ralph Telfer, 1963 Aw, Dennis Hong-Lim, 1963 Ayers, Anthony Pelham, 1961 Ayres, Raymond Robert, 1963 Bach-Mai, Ho Thi, 1963 Back, Robert David, 1963 Bailey, Robert Burton, 1963 Ball, Raymond George, 1960 Baptist, Edward Frederic, 1960 Barnes, Robert Lloyd, 1962 • Honours Class I \*\* Honours Class II Barnett, Violet Lillian, 1961 Barnsdall, David Grosvenor, 1961 Barto, Louis, 1962 Batchelor. Wallace MacDonald, 1963\*\* Batley, Ronald Frederick, 1965 Batty, Kevin Lawrence, 1963 Baumert, Kurt, 1961 Baumert, Ronny, 1964 Baillie, William Peter, 1964 Barton, Andrew Leslie, 1964 Barton, Keith Edwin, 1964 Baylis, Anthony Martin Lorimer, 1963 Beachley, Graham Rex, 1963 Beaver, Terence John, 1965 Berecry, Barry Laurence, 1961 Bergman, Peter Ward, 1963 Berntsen, Reginald Joseph, 1960 Bersten, Ian Jeffrey, 1960 Best, Ronald Ernest, 1965 Bible, Richard Philip, 1962 Binh Son, Le Thi, 1960 Birchall, Sydney Frank, 1965 Bird, James William, 1965

#### **BACHELORS OF COMMERCE**-continued

Birkhead, Robert John, 1965 Birrell, Frank Ray, 1964 Birrell, Michael Thomas, 1965§ Bishop, Terence Edwin, 1963 Blackadder, Edwin John, 1964 Blackwell, Neil Edwin, 1962 Blaiklock, Richard Scott, 1963 Bland, Bruce William, 1965 Blizard, John Laurence, 1962 Bock, Kenneth William, 1962 Booth, Stephen John Felix, 1965 Bouckley, George Harold, 1965 Boulton, Harris James, 1964 Bowd, Geoffrey Winston, 1964 Bowen, Harvey Clifford, 1964 Bower, Peter Ronald, 1961 Bowman, Richard Arthur, 1964 Bowrey, Kevin Stanley, 1962 Boyce, John Martin, 1963 Boyle, Kenneth Alfred, 1965\*\* Breden, Peter John, 1964 Brigg, John Sidney, 1961 Brown, Bryan Arthur, 1964 Brown, Leigh Anthony, 1965 Brown, Peter Michael, 1964 Brown, Philip Ronald, 1963\*† Bryan, John Richard, 1965 Buchanan, David McKenzie, 1962\*\* Buddee, Donald, 1965 Burke, Edward John, 1962 Burke, Peter, 1964 Burns, Robert Bruce, 1963 Butler, Maurice, 1965 Cains, Kevin James, 1965 Campbell, Diane Susan, 1965 Campbell, John Gilchrist, 1965 Campbell, John Keith, 1965 Carman, Donald Forrest, 1964 Carter, Richard, 1965 Cassimatis, Andrew George, 1964 Cayzer, Cynthia Mary, 1964 Chan, Heng Seng, 1961 Chandler, Bevan James, 1965 Charlton, Keith Paul, 1964 Chew, Chek Chang, 1962 Chia, Eric Victor, 1965 Chin, Louis Teck-Siong, 1965 Chin, Voon Leong Henry, 1964 \* Honours Class I \*\* Honours Class II С

Ch'ng, Swee Joo, 1964 Choo, Kok Tong, 1965 Chown, Alan Anthony, 1964 Church, John Archibald, 1965\* Clare, Graham John, 1962 Clark, Robert, 1961 Clarke, Dimity Anne, 1964 Clarkson, Anthony Marshall, 1962 Cleland, Robert Graham, 1964 Clemens, Kenneth John, 1961 Clemens, Raymond Stewart, 1965 Coddington, Ian Hugh, 1964 Conlan, Peter James, 1962 Connolly, Vincent Francis, 1964 Conrick, Edward Thomas, 1964 Conrick, Michael Claude, 1964 Cook, Digby Hamilton, 1965 Corbett, Roger Campbell, 1965 Cordukes, Peter Anthony, 1963 Cottrill, Kevin Eric, 1965 Couper, Anthony Bruce, 1965 Coutts, Richard Donald, 1965 Crawford, John Cowan, 1962 Creagh, Philip Michael, 1965 Creelman, John Edgar, 1964 Cromer, Ralph Peter, 1961 Crompton, Barry Douglas, 1965 Cronin, Peter John, 1964 Cross, Peter Frederick, 1964 Curry, Gloria, 1964 David, John Charles William, 1964 Davidson, Douglas Ritchie, 1964 Davies, John Justin Hamilton, 1964 Day, Daniel John, 1962 Dean, John Reginald, 1962 Dein, Terence Kemball, 1964 de Kantzow, Serge, 1965 De Mellow, Ian Tudor, 1962 Desmarchelier, John Anthony, 1963 De Szoeke, Attila Steven, 1964\*\* Devrell, William George, 1963 Diamond, Adrian David, 1965 Dickinson, Neal Joseph, 1964\*† Doig, Michael William, 1965 Donaghey, Dennis Ross, 1963 Donnolley, Terence James, 1961 Douglas, Nicholas, 1965 Dowsett, Francis John, 1962 † University Medal § Deceased

#### **BACHELORS OF COMMERCE**—continued

Doyle, Kevin Peter, 1964 Doyle, William Justin, 1965 Duncan, David Ian, 1962\*\* Duncan, Ian George, 1963 Dunn, Patricia Isabelle, 1964 Dwyer, William Charles, 1965 Easson, John Bowie, 1962 Eck, John Joseph, 1964 Edwards, Colin Adrian, 1965 Edwards, John David, 1965 Egan, Paul Francis, 1964 Elliott, Barry John, 1962\*\* Ethell, Graham Douglas William, 1965 Fairbairn, Raymond Walter, 1964 Faraday, Ronald Douglas, 1961 Farrell, Barry John, 1960 Faulkner, Ian Douglas, 1964 Fayle, Richard Disney, 1965 Field, Peter Raymond, 1964 Fink, Christopher, 1964 Finn, Peter Robert, 1965 Fisher, Ross Graham, 1962\* Fitzgibbons, Athol John, 1962\* Flack, Leslie Herbert, 1961 Flanagan, Donald David, 1965\*\*\* Flick, Peter Andrew, 1965 Foote, Arthur James, 1961 Forgie, Allan Lee, 1962 Foster, Gordon Graham, 1962\*\*\* Francis, John Cyril, 1963 Franklin, Allan, 1963 Freeman, Allan Beresford, 1965 Freeman, Michael John, 1964 Freestone, Colin Stanley, 1965 Gallagher, Edward Anthony, 1963 Gellel, Richard John Lawrence, 1964 Gerrand, James Graham, 1965 Gett, Henry Ernest, 1961 Gibson, Kenneth John, 1964\*\* Gibson, William Joseph Patrick, 1964 Gill, Peter Scott, 1965 Gillies, Stuart Alexander, 1964 Godden, Randal William, 1962 Gordon, James Galloway Patrick, 1964 Gorham, Peter Neil, 1962 Gosling, Peter Frederick, 1963 \*\* Honours Class II \* Honours Class I

Goth, John, 1962\*\* Grace, Michael Edward, 1964 Grahame, Frederick William, 1962 Gray, David Hamilton, 1961 Green, Richard John, 1963 Griffin, Donald William, 1961\*\* Griffin, Richard Marcus, 1961 Griffiths, Richard Francis, 1964 Grima, Edwin Michael, 1965 Grossman, Elias Ilya, 1962 Gullick, Cecil, 1961 Hall, John Thomas, 1962 Hall, Michael Jack, 1964 Hardie, Terence Martin, 1962 Hardingham, Glynn Bowen, 1965 Harricks, Timothy James, 1965 Harrison, Mervyn Eric, 1963 Hartenstein, Ronald Bruce, 1964 Hauke, Herbert Herman, 1963 Haylan, Kenneth William, 1964\*\* Heiler, Robert Thomas, 1961 High, Michael John, 1961 Hill, Bryan Thomas, 1965 Hill, Graham George, 1964 Hill, John David, 1963 Hill, Robert Hamilton, 1962 Hinkley, Francis Raymond, 1964 Hird, Spencer Colin, 1963 Hirst, Douglas Edward, 1964 Hirst, John Kenrick, 1964 Hodgins, Wayne Lawrence, 1964 Hogan, Peter John, 1965 Hole, Keith Reynolds, 1964 Holloway, Lloyd Moore, 1964 Holm, Denis James, 1961 Holmes, Howard William, 1965 Houseman, Michael Ralph, 1965 Howatson, Robert John, 1964 Huckerby, John William, 1965 Hughes, Kenneth John, 1962 Hunt, Alan John, 1962 Inkratas, Vytautas, 1961 Irwin, Bruce Munro, 1963 James, Brian Knight, 1964 Jennings, Neil Joseph, 1965 Jones, Raymond George, 1962 Joye, Ian Edward, 1962 Juchau, Roger Hugh, 1962 \*\*\* Honours Class III

#### **BACHELORS OF COMMERCE**-continued

Kane, Ellen Mary, 1962 Kane. Therese Anne, 1961 Karklins, Gederts, 1962 Karpin, David Simon, 1964\*\* Kells, Geoffrey Victor, 1964\*\* Kemeny, Andrew, 1965 Kenderes, Michal, 1964 Keulemans, Tony, 1964\*\* Khuamphorn, Pruthigrai, 1964 King, Alan John, 1962 King, Brian Franklin Vernon, 1962 King, Graham Murray, 1964 King, Heinz Max, 1961\*\* Kinghorn, John Alan, 1964 Kirby, James Stewart, 1964 Klas, George Miroslav, 1964 Klingen, Leonard Gerard, 1965 Knight, Grantley Robert, 1965 Koenig, Susan, 1964 Kofler, Peter Henry, 1963\*\*\* Kok, Fook Choon, 1963 Kolivos, George, 1959 Konstas, John Demetrius, 1962 Kovac, Marjan, 1964 Kwan, Chai Seong, 1964 Kyle, Peter Edward, 1964 Lamothe, Leonard Robert, 1965\*\* Lance, Graham Kingsley, 1964 Landahl, Peter Robert, 1963 Larkey, James Victor, 1964 Latona, William John, 1963 Lau, Brian Kim Kwong, 1961 Lee, Anna Yu Hsien, 1964 Lee, Leong Hin, 1964 Lee, Paul Soo Hing, 1964 Lee, Walter Wah, 1962 Leentjes, Pieter, 1965 Leipzig, Eugene, 1962 Le Marchant, Ross Colin, 1963 Lester, David Elsworthy, 1965 Leung, Bruce Kwok Chuen, 1964 Leung, Therese Shui Kun, 1962 Lever, James William, 1962 Levey, John Robert, 1962 Lewis, Brian Wallace, 1962\*\*\* Liew, Lucas Kim Voon, 1962 Lilburn, Bruce Victor, 1965 Lindley, Geoffrey Kenneth, 1964 \* Honours Class I \*\* Honours Class II

Lindstrom, Robert Harry, 1964\*\* Livermore, Brian John, 1961 Livermore, Ramon Edwin Dixon, 1963 Lo, Hing Chuen, 1964 Logan, John Graham, 1965\*? Long, Lance Frederick, 1965 Lovett, Phillip Arthur, 1963 Low, Peng Chow, 1964 Lucas, Gawaine Hamilton, 1963 Lucas, Robin William, 1962 Luchich, Michael, 1964 Lyttle, Barry Robert, 1964 MacDonald, Leslie Allan, 1965 MacGregor, Ernest Donald John, 1963 Mackay, William, 1961 Mackertich, Ivan, 1962 MacLachlan, Ian Gibson, 1963 Macleod, Michael Fenton, 1965 Maddox, Richard Peter, 1963 Maitland, Florence Claire, 1962 Maloney, Reginald Robert, 1963 Malouf, Roger Noel, 1964 Malouf, Samuel, 1959 Mann, Robert Graeme, 1965 Manning, John Beresford, 1963 Maple-Brown, Robert Lee, 1965 Mar, Gordon Stanley, 1962 Marks, Noel Gordon, 1963 Marshall, Duncan Andrew William, 1961 Martensz, Johann Adrian, 1965 Martin, Albert Spencer, 1965 Marx, Gary Alfred, 1963 Mason, Rodney James, 1963 Matthews, Peter Sydney, 1964 McBride, John Charles, 1965 McCann, Jack Edwin, 1962 McCarthy, Timothy James, 1964 McConville, Charles Joseph, 1962\*\* McCrory, David John, 1964 McDonald, Barry Donald, 1962 McDonald, Donald Benjamin, 1961 McDonald, Duncan Malcolm, 1963 McDonald, John Roderick, 1964 McDonell, David Alexander, 1965 McEvoy, Kevin Thomas, 1961 McFadzean, Samuel John, 1963 \*\*\* Honours Class III † University Medal

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# **BACHELORS OF COMMERCE**-continued

McGaurr, Arthur Darcy, 1963 McGregor, Allan Bruce, 1960 McLean, Malcolm Henry, 1964 McLeod, Graham Angus, 1965 McMillan, John Norman Bretnall, 1962 McNeill, Alexander Lachlan, 1961 McVicker, Kevin James Leslie, 1962 Melick, John Patrick, 1964 Meyer, Thomas Richard Walter, 1964 Middleton, Donald Maurice, 1960 Middleton, John McKenzie, 1961 Miller, Kenneth Hilton, 1963 Miller, Malcolm Conrad, 1964\*† Miller, Robert Dieter, 1963 Milner, Douglas Humphrey, 1959 Milthorpe, John Kevin, 1964 Miner, Malcolm John, 1965 Mitchell, Paul Michael, 1963 Mitchell, Warren Richard, 1964 Moore, Alan Roland, 1963\*\* Moore, John Ashton, 1965 Moran, William Edwin, 1963 Morley, Brian Albert, 1965 Morris, John Lindsay, 1962 Morse, Michael John, 1964 Moser, Oskar, 1964 Moss, Constantinos, 1963 Mossie, Richard James, 1965 Moylan, John Philip, 1962 Moyle, Melville, 1962 Muchtar, Sofjan, 1961 Mudge, David Howard, 1963 Muhs, Richard Christian, 1962 Mulligan, Terence Robert, 1965 Murphy, Noel John, 1965 Neilson, Denis Peter, 1962 Nelmes, Adrian Palmer, 1962 Newman, Graham Robert, 1965 Newton, Anthony John, 1962 Ngoc, Tran Luong, 1960 Nicey, Brian George, 1965 Nicholls, Gordon Frederick, 1963 Nicholls, John Robert, 1962 Nicholls, Noel Maxwell, 1964 Niland, John Rodney, 1963\*\* Ninh Van Tu, Peter, 1960 Nixon, John Robert, 1962 \* Honours Class I \*\* Honours Class II

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Noad, Brian McKinnon, 1960 Noone, Peter Laurence, 1963 Norton, Allan Henry, 1964 Norton, Paul Edward Paton, 1963 O'Brien, Edward, 1962 O'Donnell, Bernard Richard, 1964\*\* Oliver, Bruce, 1960 O'Neile, Michael John, 1964 Ong, Chin Chye, 1962\*\*\* Orr, Alan Milton, 1964 Orrock, Donald Charles, 1962 Osborne, Kevin Edward, 1962\*\* O'Shae, Brian Patrick, 1964 O'Toole, Frederick Stewart, 1963 Owens, John Arthur, 1962 Padgen, Graham, 1964 Page, Ernest Thomas, 1962 Parker, James Harry, 1959 Parry, Keith Stanley, 1963 Pass, John James, 1963 Patasius, Vytautas Jonas, 1962 Paterson, Ian, 1965 Pearsall, David Leslie, 1963 Pearson, Oliver David, 1964 Peterkin, Leonard Sidney Raymond, 1962 Petersen, Brian Norman, 1964 Philips, Timothy John, 1964\*\* Phillip, Tibor Janos, 1963 Phillips, Anthony James, 1964 Phillis, Graham Leslie, 1960 Pickles, Geoffrey James, 1965\*\* Pinkstone, Richard Claude, 1962 Pittorino, Adrian John, 1964 Platt, Roy Hamilton, 1961 Po, Pui Leung, 1964 Pogany, Peter Paul, 1965 Polkinghorne, Nevis Owen, 1964 Pollard, Reginald Neville, 1964 Polovineo, Mirko, 1964 Portley, Leslie, 1959 Poulos, Archibald George, 1964 Powers, Beaumont Ward. 1961 Prescott, John Barry, 1962 Preston, Ronald Lionel, 1962 Price, Jeffrey Charles, 1964 Ouinlan, John Victor, 1964 Rath, John Linden, 1964 † University Medal \*\*\* Honours Class III

# **BACHELORS OF COMMERCE**-continued

Reisgys, Anskis, 1965 Reynolds, Peter, 1964 Rheuben, Nathan Leonard, 1964 Richard, David John, 1965 Roberts, Ian William, 1963 Robertson, Alan George, 1965 Robinson, Bruce Frederick, 1965 Robinson, Edward Scott, 1963 Robinson, Michael Christopher, 1964 Robson, James Colin, 1965 Rogers, Robert Wallace, 1960 Ronis, Imants Jekabs, 1963 Rose, Paul Gerald, 1961 Rose, Stanley William, 1965 Routley, Richard Thomas, 1964 Rowe, Phillip Steven, 1960 Rundle, Peter David, 1963 Rush, James Steenson, 1964 Russell, Alan John, 1964 Russell, Graham John, 1965 Ryan, Colin Francis, 1963 Ryan, James Bernard, 1959 Sankey, Leslie Ernest, 1964 Saunders, Trevor Raymond, 1962 Scott, Michael, 1963 Scott, Thomas Norman, 1965 Seamonds, Morris, 1965 Segaert, Robert Paul, 1965 Sheffield, Leslie Harry, 1959 Shepherd, Glyn Frank, 1963 Shepherd, Graham Joseph, 1964 Sietsma, Adrian William, 1964 Skelton, Trevor David, 1965 Sliogeris, Vytenis, 1963 Sloan, Robert William, 1963 Smith, Douglas Raymond, 1964\*\* Smith, Shane Anthony, 1962 Smithson, Norman Leslie, 1963 Smoother, Leslie Clarence Athol, 1962 Southwell-Keely, Michael, 1963 Sprogis, Nikolajs, 1963 Staniland, Michael Ralph, 1964 Stanmore, Kenneth Edward, 1964 Stanley, Phillip Michael, 1961 Stephens, Raymond Barrington, 1964 Stephenson, Graham George, 1965 Stevenson, Geoffrey Alan, 1965 • Honours Class I \*\* Honours Class II Stokes, Peter, 1965 Stone, Barry Joseph, 1963 Sutherland, Robert Hugh, 1963 Sutton, Robert Clive, 1963 Talty, Michael Gordon, 1963 Talty, William Watson, 1962 Tan, Kay Thiam, 1964 Tan, Siak Tee, 1965 Tan, Yeow Ngoh, 1965 Taylor, Richard James, 1965 Taylor, Vincent James, 1962 Tchappat, Harold Robert, 1962 Teo, Lan Chua, 1964 Teo, Song Ann, 1965 Terry, Christopher Stephen, 1964 Tesseyman, John Vernon William, 1965 Thackray, Howard William, 1962 Thanh, Pham Chi, 1963\*\* Thomson, Alexander Robert, 1965 Tien, Cung Thuc, 1962 Tisdell, Clement Allan, 1961\*+ Tisdell, Kenneth William Le Roy, 1964 Tsang, Siew Wai, 1965 Turnbull, Ronald James, 1962 Turner, Peter Hildreth, 1964 Ure, Richard Michael, 1965 Vagg, Terence Robert, 1965 Vallender, Robert Gilbert, 1965 Vanderlaan, Jacob, 1964 Vass, Lawrence David, 1961 Vaughan, Gary John, 1965 Vavros, Zdenek, 1961 Veldrums, Vilis Aleksandris, 1962 Vicars, John Robert, 1962 Vidor, Erwin Hugo, 1964 Vincent, Elaine Margaret, 1965 Virgo, David Gilmour, 1965 Vu, Nhi Thuy, 1960 Wagener, William Henry, 1961 Wakely, William Bruce, 1965 Walker, Kevin James, 1963 Walker, Robert Graham, 1964 Walmsley, Paul Francis, 1963 Walsh, James Robert, 1962 Ward, Bryan Reginald, 1965 Watters, Richard Brian, 1965 † University Medal

### **BACHELORS OF COMMERCE**—continued

Watts, Ian Russell, 1964 Webb, Richard Brian, 1963 Wee, Heng Thong, 1964 Welch, John Alan, 1964 Wells, Brian John, 1965 Westbury, Allyson Charles, 1965 Weston, William Lewis, 1964 Whitelock, Brian Jesse, 1964 Wilkinson, John Francis, 1965 Wilkinson, Ross, 1965 Williams, Geoffrey Lloyd Cook, 1963 Williams, Ian Besley, 1964 Williams, Robert Bernard, 1964 Willis, Kenneth Albert, 1963 Wilson, Barrie Norman, 1963 Wilson, Eric Warren, 1963 Wilson, Graham Frederick, 1963 Wilson, Ross Kenneth, 1963 Wise, David Lawrence, 1965

Witham, Ronald James Greer, 1961 Wong, Toh Ming, 1965 Woodger, John David, 1965 Woods, James Gregory, 1963 Worner, Ian Claude, 1964 Worrall, Iain Edward, 1965 Wright, Phillip Louis, 1962 Wright, Robert Brien, 1962 Yates, Colin Bruce, 1962 Yates, Geoffrey Edmonds, 1965 Yee, Chang, 1962 Yee, Malim, 1965 Yeo, Yong Siang, 1965 Yong, Robert Tze-Khiong, 1962 Young, Judith Anne, 1962 Young, Robert Keith, 1962 Young, Wayne Edwin Leighton, 1964 Zamzami, Amran, 1961

# BACHELORS OF ENGINEERING

Adam, Peter John, 1963\*\*\* Adams, William Francis, 1965 Adcock, Eric Francis, 1959\*\* Ahmad, Riaz, 1963 Ainsworth, John Leslie, 1960 Aizstrauts, Osvalds, 1964 Algie, John Edgar, 1957 Allaburton, Robert, 1963 Allen, Arthur Francis, 1955\*\* Allen, Philip Frank, 1963 Allomes, Graham Colin, 1965\*\* Allsopp, Lindsay Bede, 1964\*\*\* Ambler, Alan Raymond, 1961 Ambrose, Charles Walter, 1957 Andersen, John Charles Victor, 1964 Anderson, Basil Wolfe, 1953 Anderson, Robert George, 1965 Anderson, William Omrah, 1960 Andrews, Graham, 1961 Ang, Arthur, 1957 Angel, Harold Stuart, 1961 Anh, Phan Ba, 1963\*\* Arbon, Leonard Fulton, 1963 Archard, Colin, 1963 Archer, Norman John, 1962 \*\* Honours Class II \* Honours Class I

Argue, John Robert, 1955 Arman, Masly, 1960\*\*\* Armstrong, Ernest James, 1958 Armstrong, Ronald John, 1962\*\* Arnall, Tasman Wilkins, 1961\*\*\* Arnold, David, 1962 Arnold, Ian Robert, 1964 Arnold, Peter Charles, 1962\* Arnold, Robert George, 1959 Arnold, Walter John, 1964 Ashby, John Bernard, 1965 Ashcroft, John Francis, 1962 Ashworth, Terry John, 1961 Aston, Peter Robert, 1962 Atherton, Ronald George, 1963 Atkins, Graham Peter, 1963\*\*\* Atkins, Kerry, 1962 Atkinson, Henry Waldon, 1958 Atkinson, John Hubert Davies, 1962 Audova, Henry Jaan, 1957\*\* Avery, Philip Charles, 1959 Bagust, Leslie John, 1954 Baillie, Graham William, 1961\*\* Baker, Bernard William, 1953 Baker, John Edward, 1962 \*\*\* Honours Class III

Baker, John Morton, 1952 Baker, Leslie Herbert, 1961\* Baker, Lloyd Sydney, 1953\*\* Baker, Ronald William, 1963 Baker, Stanley Howard, 1959 Baker, Stanley Kenneth, 1964\*\* Bakewell, John Canvin, 1963 Balint, Peter Alfred Michael, 1965 Bamford, William Edward, 1959\*\* Barda, Uldis, 1959\*\* Barker, Charles Richard, 1961 Barr, Noel Foster, 1959 Barrett, Robert George, 1964 Barrett, Ross Douglas, 1965 Barton, Keith Adrian, 1964 Barwood, Timothy Spencer, 1960 Basoeki, 1960\*\*\* Bason, Peter Thomas, 1954\*\* Bass, Graham Lindsay, 1965 Batchelor, Robert Alexander, 1962\*\* Bates, Robert Ernest, 1964 Bayliss, Peter, 1960 Baxter, Robert Ian, 1957 Beard, John Russell, 1957 Beardwood, Peter John, 1960\* Beath, James Norman, 1955\* Beaton, John Charles, 1962 Beatty, Leslie John, 1959 Beaumont, Ross Cameron, 1965 Bell, Andrew John, 1954 Bell, James, 1961\*\* Bender, Robert Albert, 1961 Benjamin, Raymond Edward, 1959\*\* Benn, Alan Charles, 1964 Bennett, Charles, 1956 Benneworth, Neal Edward, 1965 Benton, Kenneth William, 1964\*\* Berzins, Guntis, 1960\* Best, Ross Edwin, 1963 Bigeni, John Joseph, 1964\*\* Birt, Norman Leslie, 1964 Birzulis, Aldis Janis, 1959 Bishop, Eldred William, 1960 Black, Allan Norman, 1963 Blackman, William Harley, 1961 Blatchford, Rex Vincent, 1965\*\*\* Bliss, Peter John, 1965 Bloxham, William Henry, 1955 • Honours Class I \*\* Honours Class II

Boadle, Mervyn Edwin, 1964 Bodisco, Joseph, 1963 Body, David Neil. 1958 Bofinger, Harold Edward, 1958 Bogdanovics, Gvido Pavils, 1965 Boland, Maurice Adrian, 1959 Boland, Michael John, 1962\*\* Boleyn, Douglas Alan, 1965\*\*\* Bond, Hugh Gayton, 1964 Bond, Robert Geoffrey, 1960 Bonner, Maxwell George, 1960 Bonnitcha, Frank, 1960 Bonthorne, James Dean, 1959 Booker, Malcolm Noble, 1960 Bow, Norman, 1963 Bowers, Frederick Peter, 1963 Bowman, Alistair Stuart, 1958 Bowrey, Ronald Graham, 1964\* Boyle, Anthony Francis, 1959 Boyle, Bede Edward, 1964 Boyle, John Francis, 1964 Boyle, Trevor Rodney, 1959 Bradley, Donald Lance, 1964\*\*\* Bradley, Ian Ashe, 1965 Bradley, Ian William, 1964\*\* Brady, Colin James, 1957 Brady, John Travers, 1957 Bramble, Allan Graham, 1965\* Brand, Maxwell Graham, 1964 Brennan, Edward, 1962 Brett, John Frank, 1961 Brew, John Richard, 1965 Brewer, Donald Spencer, 1960 Bridge, Russell Quinlin, 1963\*† Bridle, Michael Herbert, 1961\*\* Brissett, Robert George, 1961 Britt, Peter Thomas, 1963 Britten, Donald Barrie, 1955\*\* Broadbent, Robert Leonard, 1961 Broadbridge, William Henry, 1961 Broadley, John Raymond, 1965 Brock, Raymond Owen, 1964\*\* Brodie, Hugh David, 1957 Brook, Joseph Frank, 1958 Brookes, John Douglas, 1953 Brooks, James Junior, 1954\*\* Brown, Alan Raymond, 1962 Brown, Austin Warren, 1965 \*\*\* Honours Class III † University Medal

Brown, Ian Powell, 1958\*\* Browne, Lindsey Edwin, 1957 Brunker, Rowley Lance, 1960\*\*\* Buccoliero, Lorenzo, 1963 Buchanan, James Alex, 1960 Buchhorn, Dominic Paul, 1962 Buchhorn, Richard James, 1954\*\* Budd, Warwick Roland, 1964\*\* Budden, Francis John, 1962 Budge, Ian Lindsay, 1954 Budihardjo, Raden Mas Sajid, 1961 Bull, Nathaniel George, 1963 Bunton, Robert Brian, 1960\*\* Burgess, Lawrence Wesley, 1964 Burgess, Richard John, 1965 Burling, Malcolm George, 1964\*\*\* Burn, Henry Livingstone, 1954 Burnett, Keith James, 1965 Butler, Geoffrey Donald, 1958\*\* Butler, Paul William, 1956 Butt, Graham Kenneth, 1962 Byrne, Geoffrey David, 1959 Bywater, Robert Patrick, 1963 Caddy, Douglas John Laidlaw, 1964\*\*\* Caddy, John Arnold, 1964\*\*\* Cady, George, 1963 Cady, John, 1955 Callinan, Francis Joseph, 1964 Cameron, Hugh Creed, 1964 Campbell, Colin Lorne, 1960 Campbell, Grahame David, 1965 Campbell, Kerry Holford, 1962 Campbell, Wesley, 1963 Cantrill, Peter William, 1962 Carlson, Douglas John, 1965 Carlyle, James Vincent, 1959 Carmichael, Alexander John, 1952\*\* Carrington, William Bernard John, 1962 Carr-Boyd, Peter Murray, 1960 Carter, Bertram Cedric, 1965 Carter, Eric Arthur, 1965\*\* Carter, Herbert Thomas, 1959 Carters, Peter, 1959 Casey, Brian Gregory, 1957\*\* Casey, Kevin Bernard, 1960 Casey, Peter William, 1955 \*\* Honours Class II \* Honours Class I

Cashman, John Desmond, 1962\*\*\* Cashman, John Harold, 1962 Cashman, Sydney John, 1954 Cau, Truong Tieu, 1964 Chambers, Arthur John, 1965\* Chan, Chai Keung, 1963 Chan, Franklin Bing Shu, 1964 Chan, Gabriel Kai Fan, 1963\*\*\* Chan, Hon Chee, 1961 Chan, Yoke Lock, 1965 Chandler, Geoffrey Arnold, 1958 Chang, Kin Koon, 1963\*\*\* Chapman, Douglas Paul, 1956 Chapman, Laurence Harry, 1964 Chapman, Robert Fuller, 1952 Chapman, Robert Henry, 1962 Charlton, Willis Herbert, 1963\*† Chen, Malcolm Mien, 1957 Chen, Paul Pao-Sun, 1961 Cheng, Michael Ying-Ngai, 1964 Cheong, Karm Lun, 1964 Chesnut, William Sadler, 1961\*\* Chiang, Kwok-Wah, 1965 Chick, Malcolm Willis, 1965 Chin, Anthony Nyen, 1957 Chinn, Henry Ronald, 1960\* Chiswell, Peter, 1955 Chou, Tai Choong, 1958 Choy, Gay, 1954 Choy, Hon Tim, 1961\*\* Christian, Bruce Harold, 1962 Christie, Barry James, 1963 Christie, Ronald David, 1961 Chu, Hin Lai, 1963 Chu, Pak Lim, 1963\*\*\* Chua, Chin Hwa, 1964 Churches, Alexander Eric, 1964\* Churchill, Brian Spencer Winston, 1965\*\* Clack, Robert Amos, 1963 Clancy, Kenneth George, 1957\*\* Clark, Alexander Lyndsay Gale, 1964 Clark, David Andrew, 1958 Clark, Donald William, 1961 Clark, Ian MacDonald, 1958 Clark, John Donald Lister, 1963 Clarke, Albert George, 1957\*\* Clarke, Alfred John, 1962 \*\*\* Honours Class III † University Medal

Clarke, James Frederick, 1962 Clarke, Michael Newman, 1956 Clarke, Richard Henry, 1952 Clarke, Roy Milton, 1960 Clay, James Norman, 1965 Clayton, Bruce James, 1956 Cleary, Kevin Patrick, 1956\*\* Cleland, Brian Geoffrey, 1960\*\* Coad, Kenneth Stuart, 1962 Coady, John Albert, 1964 Cockerill, Peter John, 1960 Cocking, Gordon Maxwell, 1960 Cogar, Phillip Edmond, 1955 Cole, Robert Edward, 1960 Coleman, Milton Barry, 1959 Coleman, William Alexander, 1965 Colless, William Jennings, 1959 Collins, Dennis Hugh, 1963 Collins, John Lewis, 1965\*\*\* Collins, Kevin Raymond, 1964 Collins, Patrick Michael, 1957 Colwell, Brian Edward, 1964 Condon, Anthony Joseph, 1958 Conner, John Martin, 1957\*\* Connolly, Gregory Thomas, 1964 Connolly, Peter James, 1964\*\*\* Conrow, William Henry, 1957 Cook, Robert John, 1965\*\* Cook, Robert Owen, 1965 Cooke, Kenneth John, 1953\*\* Cooley, Donald Read, 1953 Coombes, James William, 1962 Cooper, Bruce William, 1961 Cooper, William Lyster, 1962 Copeland, William Raeburn, 1954 Cordatos, Emmanuel Evangelo, 1963 Corderoy, Bryce, 1959 Cordery, Ian, 1963\*\* Cordingley, Gilbert Douglass, 1955 Corin, Richard Arthur, 1956 Corn, Leon, 1962 Corr, Dennis Otto, 1964 Cowan, Robert John, 1965 Cowell, Neil Elwyn, 1961 Cowper, Norman Terry, 1959 Cox, Allan, 1952 Cox, Geoffrey Earl, 1954 Cox, James Ernest, 1964 \* Honours Class I \*\* Honours Class II

Cox, Malcolm Ashton, 1957 Coyle, John, 1956 Crabtree, John Patrick, 1960\*\* Craig, Robert Henry, 1963 Cram, Anthony Adrian, 1960\*\* Cranny, Gerald King, 1952 Crawford, Douglas William, 1962 Crawford, George, 1955\*† Crawley, Geoffrey Bruce, 1963 Crees, David John, 1965\*\* Cregan, Kenneth, 1964 Crewes, Bruce William, 1961 Cridland, Leslie, 1956\*\* Cripps, John Gerald, 1965 Cripps Clark, Grandison Patrick, 1963 Crisp, Anthony John, 1964 Croft, James Bernard, 1960\*\* Croker, Brian Mackay, 1962 Cromarty, Campbell George, 1954\* Cross, Donald Brian, 1961 Cross, Victor Michael, 1963 Crouch, Aubrey Glenn, 1964 Crow, Tom William, 1962 Crowe, John Phelps, 1956 Crowley, Theodore Arthur, 1958 Cudmore, Francis James, 1962 Cullen, Ronald, 1965 Cumming, Grahame Hugh, 1959\*\* Cumming, Ian Ross, 1961 Cummings, Brian Arthur, 1965 Cummins, Peter John, 1962 Cunningham, George Clifton, 1963 Cunningham, John Sydney, 1961\*\* Cunningham, Robert Andrew, 1957 Curtis, Thomas Cooper, 1964\*\* Dadd, Michael John, 1962 Danilas, Mohamad, 1962 Darby, William Edward, 1954 Davey, Clyde Leslie, 1952 Davey, Leslie Allen, 1960 Davies, David Russell, 1964 Davies, Mervyn John, 1965\* Davies, Peter, 1965\*\* Davies, Peter Michael, 1963 Davies, Phillip Sydney, 1965\*\* Davis, George Francis, 1965 Davis, Kenneth John, 1964\* Davis, Leslie James, 1955 \*\*\* Henours Class III † University Medal

Davison, Clem Newton, 1953\* Davison, Ian, 1961 Deall, John Agnew, 1960 Dearden, Charles Leon, 1965 De Ferranti, Noel Lancelot, 1953\*\* Dembecki, Januzy Adam, 1955\*† Dendang, Jan Pieter, 1961 Dennett, Malcolm James, 1962 Dennett, Ronald George, 1965\*\* Deutschbein, Ernest Alan, 1965\*\* Devine, John David, 1965 Devine, Warren Richard, 1961 De Vos, John Garthneill, 1954 Dew, David Henry, 1964 Dewar, Paul Michael, 1963\* Diemar, Philip Nicholas, 1965\*\*\* Dilley, Warwick John, 1963 Dillon, George John, 1965 Doak, Brian, 1965\*\*\* Dockrill, Bruce George, 1965 Donald, Graham Charlesworth, 1961 Donald, Wallace William, 1960 Donovan, John Anthony, 1954 Dorahy, Dennis Joseph, 1960 Doran, John Leo, 1959 Douglas, Arthur Gordon, 1953\*\* Dowd, Russell Geoffrey, 1963 Downey, Dennis Adrian, 1961\*\* Downey, John Phillip, 1958 Dowrie, James Mott, 1956 Doyle, John Francis, 1963 Drake, Darryl Ashley, 1958 Dransfield, Peter, 1961\*\* Drew, Roger Sumner, 1961 Drew, William Ross, 1965\* Dudgeon, Colin Raymond, 1954\* Duff, Stanley Lynn, 1963\*\*\* Duffy, Rodney Michael, 1960 Duggan, Thomas Joseph, 1963 Duncan, Ian Robertson, 1963 Duncan, John Charles, 1952 Duncan, Ronald Stewart, 1955 Dunk, Robert Edward, 1964 Dunk, Sidney Albert, 1953 Dunlop, Joseph, 1964\*\* Durez, John, 1965\* Durick, Kevin Patrick, 1964 Durkin, Owen Charles, 1960 \* Honours Class I \*\* Honours Class II

Durkin, Thomas, 1953 Dwyer, Robert Stewart, 1962 Eagles, Mervyn Royce, 1956 Ebner, John George, 1965 Eddie, Warren Alexander, 1965 Edmunds, Robert Lee, 1958 Edwards, Maxwell Hugh, 1961 Eggins, Clarence Wesley, 1963 Egloff, Roger Louis, 1960 Ekert, Leslie Francis, 1963 Elber, Lutz, 1962\*\* Elber, Wolf, 1964\*\* Eldridge, Thomas Maxwell, 1958\*\* Elias, Hans Gerhard, 1963 Ellem, Neville James, 1956 Eller, Samuel George, 1965 Elliott, Colin James, 1965 Elliott, David John, 1955 Ellis, Michael George, 1959 Ellison, Brian Kean, 1961 Ellison, David Frederick John, 1958 Emerson, Donald Westland, 1962\* Emslie, Norman Arthur, 1952\*\* Engel, John Griffiths, 1954 English, John Michael, 1964\*\* Enright, Roger John, 1959\*\* Erdmanis, Uldis Viesturs, 1965 Erwin, Russell Francis, 1963 Esquilant, Leslie Edward, 1962\*+ Evans, David Alexander, 1963\*\* Evans, David Armstrong, 1958 Evans, Francis Charles, 1959 Evans, Malcolm Wesley, 1954\*\* Evans, Peter John Anthony, 1961\*\* Exton, Peter Derek, 1963\*\* Faggotter, Neville Herbert Charles, 1963 Fan, Alex, 1961\*\* Fardell, Denis Bede, 1961 Farkas, Tibor Imre, 1964 Farmer, Leonard Edward, 1965\*\* Farr, Kenneth Patrick, 1962 Farrell, Richard Goold, 1959 Faulds, Robert Andrew, 1964 Faulkes, Kenneth Alan, 1955\*\* Faulks, John Erskine, 1955 Fehlberg, Gerald, 1965 Fekete, Paul Harry, 1952 \*\*\* Honours Class III † University Medal

Felkins, Bernard Patrick, 1961 Fennell, Lance Sidney, 1957 Fenton, Arthur Stanley, 1962 Fenwick, John Robert, 1961 Field, Walter George, 1962\*+ Fietz, Trevor Regis, 1956\* Finch, Raymond Christopher, 1963 Findlay, Kenneth Francis, 1952 Fischer, Peter Brian, 1963 Fishburn, Bruce Ronald, 1964 Fisher, Bruce Gordon, 1965 Fisher, Terrence William, 1963 Flakelar, David Francis, 1959 Fletcher, Norman George, 1965 Fletcher, Ronald Joseph, 1954 Flynn, Kevin John, 1963 Foong, Ka Nim, 1962 Forbes, Alexander Ian, 1962 Forbes, Cecil Frederick, 1953 Forrest, John Leslie, 1962 Forsythe, John Harold, 1952\*\* Foster, Colin Edwin, 1963 Foster, William John, 1959 Fozzard, Allan Victor, 1965 Fraser, Graham Melwyn, 1964\*\* Fredericks, Brian Roland, 1961 Freeland, Colin William, 1954\*\* French, Robert, 1965 Frenda, Gundo Albert, 1961\*\* Friend, Richard John, 1965 Frost, Raymond John, 1956\*\* Frost, Vadim Alexander, 1963\*\* Fu, Chiao Shen, 1956\*\* Fuller, Kenneth Ronald Stephen, 1961 Fulton, Kenneth Charles, 1963 Fulton, Thomas Michael, 1961 Fung, Hon-Ying, 1963 Fung, Keith Yuk Kee, 1961 Furley, Robert John, 1964\*\*\* Gall, Richard William, 1961 Gallagher, Kenneth Bede, 1959 Gallagher, Terence Michael, 1962\* Gallant, John Edwin, 1962 Gan, Thomas Eng Siew, 1958 Garden, Malcolm Andrew, 1962 Gardiner, John Winston, 1964 \* Honours Class I \*\* Honours Class II

Gardner, Francis John, 1952\*\* Garlick, Peter Maxwell, 1963 Garrity, Paul Everard, 1955 Gately, Kevin Gerald, 1958\*\* Gatt, Francis Cecil, 1965 Gedgovd, George Ivar, 1963\*\* Gero, John Steven, 1965\* Gibbs, Edward Francis, 1962 Gill, John William, 1965 Gillard, John Douglas, 1962 Gillies, Bruce Peter, 1965 Godfrey, Noel Raymond, 1961\*\*\* Goh, Chen Peng, 1963 Goh, George Thean-Chye, 1960 Goh, Paul Teck Seong, 1960§ Goh, Xavier Khen Wah, 1958 Goldhammer, Arthur Brian, 1956 Goldstein, Peter John Paul, 1964\*\* Golvers, Gunis, 1963 Gomez, Alexius Joseph, 1962 Goodhew, Ronald William, 1964\*\* Gorbunow, Miroslaw George, 1958 Gordon, John Charles Hunter Patterson, 1963\*\* Gore, Gerard, 1955\*\* Gore, Gordon Bruce, 1961 Gorrell, John, 1965 Gotthard, Detre, 1965 Gould, John Ashton, 1965 Gow, Graeme Douglas, 1963 Graham, David Griffith, 1958\*\* Grainger, Alexander Warwick, 1961\* Granger, Roy Stuart, 1964 Grauds, Janis, 1962 Graves, Stanley Noel, 1956 Gray, Brian Richard, 1961 Gray, Denis Stewart, 1963 Gray, Donald Keith, 1959\*\* Gray, Harold William, 1964 Gray, Kevin James, 1964 Green, Ralph Anthony, 1962 Greenham, Geoffrey Eric Campbell, 1961\* Greentree, Malcolm Warren, 1964 Greiss, Bernard, 1959 Greste, Ojars Indulis, 1963\* Grieve, Bruce Leslie, 1956, 1962 \*\*\* Honours Class III † University Medal

Griffin, Richard Leslie, 1964 Griffith, Kenneth John, 1954 Griffiths, Norman Eric Benjamin, 1960 Griffiths, Robin Peter Clive Bransom, 1961\*\* Grigg, Brian Terrence, 1961 Grimshaw, William Lindsay, 1958 Grove, Alan Maurice, 1965\*\* Grzina, Anton, 1960\*\* Gwilliam, Graeme Burslem, 1963 Hackett, John, 1964 Hahn, Eric Joseph, 1963\* Halawa, Sjamsuddin, 1960 Halewijn, Ernest Henri Emile, 1958 Hall, Alan James, 1963\*\*\* Hamilton, Humbert Edward, 1956 Hamilton, Lloyd Hinton, 1961 Hampton, Donald Harris, 1962\*\* Hampton, John Douglas, 1956 Hands, Errol Bruce, 1955\* Hanlon, David Sedgley, 1963 Hansen, John Alan, 1959 Harant, Heinz Richard, 1955\*\* Hardie, David Leslie, 1965 Hardie, John Barry, 1962 Harris, Stuart McIntosh, 1953 Harrison, Colyn, 1954 Harrison, Geoffrey Charles, 1964 Hashim, Mohammed, 1965\*\* Hatfield, Frank Alan, 1963\*\* Hatfield, William, 1963 Hatten, Kenneth John, 1964 Havercroft, David Ralph, 1964 Hay, Desmond Joseph, 1955 Hayes, Wayne Joseph, 1965\*\*\* Haynes, John Frederick, 1960 Hayward, Robert Douglas James, 1965 Hazell, John Richmond, 1960§ Hazell, William Richmond, 1958 Headford, Peter William, 1959 Healey, Roger Francis, 1962 Healy, Geoffrey, 1954\*\* Heap, Donald Robert, 1962 Hearnden, Norman Bennett, 1960 Heaton, Alexander Cecil, 1964 \* Honours Class I \*\* Honours Class II

Heaton, Brian Stuart, 1962\*\* Hendry, Albert Alexander, 1960\* Hendy, Evan Francis, 1960 Henery, Robert John, 1962 Hennessey, Michael Francis, 1962 Henry, Alan William, 1956 Hewson, Alan Richard, 1965 Higgins, John Maitland, 1957 Hill, Leslie Charles, 1954\*\* Hill, Roger Donald Charles, 1963 Hiller, John Barry, 1961\* Hillier, Kenneth Richard, 1958 Hillyer, William Richard, 1963 Hind, David Edward, 1960 Hind, Edward Colvyn, 1957\*\* Hintze, Michael Michailovich, 1963 Hirschl, Paul Heinz, 1955\*\* Hislop, Alan Keith, 1953\*\* Hitchcock, Robert Leith, 1957 Hitz, Konrad Leonhard, 1961\* Ho, Ben Hugh, 1962 Ho, Chun Kiong, 1965 Ho, Franklin Kwok Kwan, 1962 Hockley, Robert Edward, 1962 Hodge, Robert Leslie Clive, 1963 Hogg, Ross William, 1954 Holland, Kenneth Benjamin, 1960 Hollis, John Winston, 1962 Holmes, Benjamin Roland Glennie, 1965 Holmes, Richard Peter Glennie, 1965 Holmes, Wilfred George, 1963\*† Holmes, William Harry Glennie, 1958 Holt, Reginald John, 1963 Home, Robert Lindsay, 1955\*\* Hong, Geok Whatt John, 1961 Hood, Russell, 1957 Hooper, William George, 1960\*\* Hoore, John Alexander, 1959 Hope, Graham Clarke, 1963 Hope, Ian Gordon, 1962 Hopkins, Edward Goodman, 1952\*\$ Hopkins, George Wallace, 1963\* Horton, Kenneth Douglas, 1965 Horwood, William Stewart, 1961 Hough, Michael John, 1965 Housley, Trevor John, 1963 \*\*\* Honours Class III † University Medal

§ Deceased

Howard, Kevin Charles, 1958 Howells, Edward Morris, 1959, 1961 Howes, Phillip John, 1965\*\* Hoy, Mervyn Douglas, 1957 Hughes, Phillip William, 1965 Hui. Wai Tin Albert, 1964\*\* Hulscher, Frans Rudolf, 1957 Humphrey, James Kevin, 1961 Humphreys, John Joseph, 1962 Humphry, Ronald Edward, 1964 Hurst, David Francis, 1965 Hutton, James Richard, 1965 Hyde, Robert James, 1962 Hyslop, John Stewart, 1960 Iles, John Francis, 1963 Inglis, Barry David, 1962\*\* Ip, Yun Wing, 1963 Ireland, Vernon, 1965\*\*\* Irvine, Kenneth Robert, 1956 Irving, Alastair John, 1957 Irving, Clive Robert, 1960\*\* Irving, Leonard Sylvester, 1964 Ivashkoff, Igor Boris, 1956 Ivers, Geoffrey Ainsworth, 1958\*\* Jackson, Ivan Victor, 1961 Jackson, Kenneth Arnold, 1957 Jacobs, James Arthur, 1952 Jaggar, Frank Edwin, 1957 Jaggers, Charles David, 1965 Jakubowsky, George, 1965 James, Charles Alexander, 1962\*\* James, John Francis, 1964 James, Walter David, 1963 Jameson, Cyril Kenneth, 1961 Jamieson, Bruce Nelson, 1963 Jamieson, William Hunter, 1963 Jan. Kevin. 1956 Jarvis, Robert Charles, 1963 Jeans, Paul Edward, 1965 Jeans, Tom Edney, 1961 Jeffery, Douglas Braham, 1962 Jeffery, Rodney Philip, 1964 Jenkins, Brian Selby, 1965\*† Jenkins, Bruce Edward, 1954 Jessop, Peter Edwin, 1958 Jiew, Frederick Boon Thai, 1965\*\*\* Johnson, James Harcourt, 1961 Johnson, John Barry, 1964\*\* \*\* Honours Class II \* Honours Class I

Johnson, Malcolm Wallace, 1962\*\* Johnson, Richard Colin, 1957\*\* Johnson, Robert Michael Cedric, 1959 Johnston, Donald William, 1965 Johnston, Gordon Ronald, 1958 Johnston, Phillip Reginald, 1964 Johnston, Stephen Frederick, 1961\*\* Johnstone, Clifford Owen, 1956 Jones, Ian Stanley Ferguson, 1964\*\* Jones, James Robert, 1958 Jones, John Hunter, 1958\*\* Jones, Neville David, 1960 Jones, Peter George, 1958 Jordan, Kerry John, 1964 Joseph, Ronald Stanley, 1956 Jubelin, Keith Russell, 1953\*\* Jumikis, Tautmilis Tom, 1955 Kaberry, Max Arthur, 1962 Kadak, Ado, 1957 Kaldor, Andrew Ferdinand, 1964 Kaldor, Thomas, 1965 Kalotas, Thomas Michael, 1962\* Kalotay, Egon, 1963 Kandiah, Gnananantham, 1964 Kavanagh, Kevin Bernard, 1965\*\* Kay, James Neil, 1957 Kearney, Richard Patrick Adderley, 1965 Kennedy, Alexander John, 1965 Kennedy, Anthony Joseph, 1960 Kennedy, Graeme Alexander, 1958\*\* Kefford, Michael Owen, 1954\*\* Keith, Ronald James, 1952\*\* Kelly, John Michael, 1963 Kelvin, Norbert Victor Peter, 1964\* Kerr, James Allen, 1961 Kershaw, Kenneth William, 1964 Khing, Wong Shun, 1962 Khuri, Nicolas Melhem, 1961 Kidd, Peter Scott, 1963 Kim, Ngo Duc, 1964 King, Frederick Joseph, 1957 King, John George, 1961 Kingsmill, Richard Anthony, 1964 Kinsky, Roger Andrew, 1961 Kirkpatrick, Tim, 1960 Kirkwood, Lance Cooper, 1961 \*\*\* Honours Class III † University Medal

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### **BACHELORS OF ENGINEERING**-continued

Knight, Hugh Bentley, 1963 Knight, John Kendall, 1958 Knuckey, Mervyn Robert, 1959 Koh, Jimmy, 1964 Kohler, John Denis, 1962 Kolff, Simon Cornelis van der, 1956\*† Kolsky, Barry William, 1961 Kolsky, Vaclav George, 1958\*\* Koskins, Vidvuds, 1959 Kradzins, Juris Eizens, 1961 Krumins, Uldis, 1965 Kugaevsky, Alexis, 1961 Kuras, Norbert, 1962 Kuru, Ago, 1956\*\* Kuter, André Marie, 1959 Kuter, Daniel Marie, 1957 Kwok, Daniel Pui-Sang, 1963 Lam, Teng Chee, 1964 Lamb, Cedric St. John, 1956\* Lamb, Rodney Donald, 1956 Lancaster, Barry John, 1959\*\* Landon-Smith, Ian Hamilton, 1961 Lane, Robert James, 1963 Lang, Raymond James, 1964 Langfield, Gilbert Neil, 1965\*\* Langley, Phillip Archdall, 1962 Laron, George Gavriel, 1963 Laserson, Harold Chaim, 1964 Lau, Shing Ming Benjamin, 1965 Lau, William Tsun Fong, 1959\*\* Lau, Wing-Pak, 1963 Lauder, John Edwin, 1963\*\* Laurenson, Eric Marwick, 1953\*† Law, Yiu Ming, 1965 Layton, Christopher John, 1963\*\*\* Leach, Gregory Joseph, 1963 Leahy, Michael Francis, 1959 Leary, Brian Gilbert, 1958\* Leask, Austin Graeme, 1963 Lee, Brian Chang Leng, 1964 Lee, Choong Woh, 1960 Lee, Geok Tong, 1963 Lee, Siaw Phin, 1956 Lee, Stanley George, 1963 Lee, Thomas Woon, 1956 Lee, Yow Ching, 1965 Leeser, Robert Claus, 1956 Leesment, Henn Harry, 1963 \* Honours Class I \*\* Honours Class 11

Lehmann, John Eric, 1965 Leng, William Nelson, 1956\*\* Lenham, George, 1961 Lenn, Philip John, 1962 Lennon, Ross Mathew, 1956\* Leonard, Vincent Vadim, 1964 Leong, Harry Jung-Wing, 1960 Leong, Khee Seong, 1964 Lesleighter, Eric James, 1959 Lesnie, Warren Richard, 1963 Lester, Gregory Francis, 1965\*\* Leverett, Ronald Arthur, 1954 Li, Ka Keung, 1964\*\* Li, Kwong Yiu George, 1965\* Li, Steven Sing Yu, 1963 Liengjayetz, Suthichai, 1961 Liew, Herman Kim Seng, 1963 Liggins, Terence Bernal, 1959\*\* Lim, Thiam Lok, 1959 Lindus, John Christopher, 1965\*\*\* Liney, George Herbert, 1954\*\* Ling, Thomas James, 1962 Linker, Maurice, 1960 Liston, Clive Shannon, 1954 Liu, Yin Suen, 1965 Lloyd, John Milton, 1961 Lloyd, Leslie William, 1961 Lockhart, Frank Graham, 1965 Logan, Ronald Joseph, 1962 Logothetis, Demetrios, 1963 Loke, Wan Foo, 1960 Long, Frederick Charles, 1955 Longfoot, Bruce Raymond, 1965 Longfoot, John Elms, 1959\*\* Loo, Sonny Gabriel, 1962\*\* Louwerson, Pieter Van, 1953 Love, Milton Patrick, 1962 Lovelock, Brian John, 1963 Lovett, Errol Paul, 1965\*\*\* Lowrey, Maxwell John, 1962\*\* Lui, Sze Ho, 1963 Luks, Robert William, 1963 Lumsden, John, 1962\* Lunsmann, Hinrich Nicolaus Fritz, 1961 Lyell, Andrew, 1965\*\* MacDessi, Peter Joseph, 1965 MacDonald, Ian Maxwell, 1965 \*\*\* Honours Class III † University Medal

MacDougall, Duncan Norman, 1957\*\* MacKenzie, Colin John, 1960 Mackie, David Andrew Forbes, 1965 Mackney, Desmond Craig, 1965 MacLeod, Iain Donald Graham, 1965\*† MacLeod, Ian Forbes, 1965\*\* Macnab, David Keith, 1958\*\* MacPherson, Ian Peter, 1958 MacRae, Kenneth John, 1965 Maggs, David Frederick, 1961\*\* Maggs, Ian Harold, 1957\*\* Magnussen, Walter Harold, 1956\*\* Magnusson, David John, 1957\*\* Mah, Khing Kong, 1962 Maino, Raymond John, 1958 Makki, Zoelkarnain, 1962 Malamo, Claude Remus, 1962 Malins, James Arthur, 1957 Maltabarov, George, 1960 Mandla, Reinhold, 1963 Mangunwidjojo, Augustinus Purnama, 1962 Mann, Edward Alan, 1956 Manning, Geoffrey Edmund, 1965 Manton-Hall, Arthur William, 1953\* Marcheff, John, 1964 Marr, Donald William, 1958 Marshall, Ronald James, 1960 Martin, John Frank, 1965 Martin, Warren Harold, 1963\*\* Mason, Phillip John, 1963 Matas, Evald, 1961 Mather, Terry Lawrence, 1965\*\*\* Mathew, Alexander Michael, 1958 Mathews, Michael Richard, 1955 Mattes, John Edmond, 1962 Matthews, Leonard Excel, 1953 Matthews, Warren Arthur, 1959\*\* May, Robert George, 1963 Mayhew, Roger Alban, 1957 McAdam, David Victor, 1961\*\* McAdoo, Gregory Nelson, 1963 McBean, Donald John, 1955 McBride, Brian Francis, 1964\*\* McCallum, Donald Sloman, 1955 McCarthy, Derek Eugene, 1964 \*\* Honours Class II \* Honours Class I

McCarthy, Malcolm John, 1965\*\* McCarthy, Ronald George, 1956\* McCormack, Allan Keith, 1963\*\* McCowan, Malcolm, 1964 McCoy, Albert Edward, 1953\*\* McCredie, Graeme Bruce Boyd, 1965 McDermott, Arthur Brian, 1958\*\* McDermott, Raymond John, 1959 McDonald, Bruce Alan, 1963 McDonald, Errol Christopher, 1958\* McDonald, Graham John, 1964 McDonald, Leonard Angus, 1959 McEwen, Robert Cleland, 1958\*\* McGrath, Alan James, 1963\*\* McGregor, Robert Keith, 1960 McGuinness, William John, 1953 McIlwraith, James Raymond, 1965 McInerney, Kevin John, 1964 McKay, Robert Michael, 1965 McKenzie, Gordon Alan, 1954\*\* McKilligan, Ranald Scott, 1957 McLean, Graham John, 1965 McLennan, Dennis James, 1958\*\* McMahon, Denis Walter, 1959 McMahon, Robert Francis, 1963 McNair, Keith, 1954 McNamara, Brian Robert, 1959 McNeall, Malcolm Richard, 1953 McNeill, Donald John, 1953\*† McNeill, Geoffrey William, 1952 McNiven, Errol John, 1962 McPaul, Page, 1959 McPhee, David George, 1953 McWhinney, Michael Quested, 1964 Mears, Ian David, 1964 Mega, George, 1954 Melbourne, Kenneth George, 1964 Mellor, John Harold, 1960 Melville, David James, 1958 Metcalfe, John Paul, 1961 Meulman, Peter Boyce, 1952 Meulman, Richard Boyce, 1957 Meyrick, Kevin Charles, 1962 Michel, Peter John, 1962 Millington, Peter George, 1965 Mills, Raymond Albert, 1962 Milne, Bruce Campbell, 1957 Milton, Barry William, 1965\*\* \*\*\* Honours Class III \* University Medal

Milton, Brian Edward, 1960 Minter, Michael Mervyn, 1961 Mitchell, Brian Arthur, 1962 Mitchell, Robert Brien, 1961\* Mitchell, Robert Leonard, 1962 Mok, Kee Pan, 1961 Moloney, James Laurence, 1958 Monaghan, Graham John, 1963\*\* Mondel, Robert Henry, 1952\* Monk, Geoffrey, 1955 Montano, Raymond Robert, 1962 Montgomery, David Lloyd, 1960 Moore, Gilbert Highfield, 1961\*\* Moore, Harold Graham, 1960 Moore, John Eric, 1955 Moore, John Percival Henry, 1964 Moran, Edward John, 1962 Moreton, John Preston, 1956 Morgan, Allan James, 1962 Morgan, Malcolm Edwin, 1960 Morgan, Robert James, 1955\*† Moretti, Frank, 1961 Morris, Howard Linton, 1962\* Morris, Peter John, 1964\*† Morrison, Robert Erskine, 1964 Morrow, Darrell Elwyn, 1954\*\* Mortiss, David Robert, 1962 Motson, Barrie Clifford, 1961\*+ Moyle, Peter Crossley, 1964 Mudd, Peter Douglas, 1958\*\* Mudie, Peter George, 1964 Muir, Mitchell James, 1952\*\* Mulder, Christian Joseph, 1965 Mulheron, John James, 1962\*\* Mullen, Raymond Owen, 1956 Murch, James Bryan, 1956 Murdoch, Kenneth Hugh, 1961\*\* Murphy, Richard Peter, 1965 Murray, Alistair Robert, 1963 Murray, John Bloxham, 1952 Murtagh, Kenneth John, 1965 Myers, Roger Gordon, 1964\*\*\* Nagy, Andrew Francis, 1957\*\* Nayler, Percival George, 1959 Neil, Anthony Edmund, 1964 Nella, Richard John, 1962 Nelson, Gordon Darvey, 1957 Nestel, Thomas Alexander, 1954 \* Honours Class I \*\* Honours Class II

Neville, William Edgar, 1963 Newman, Aubrey Gavin, 1958 Newton, Donald Thomas, 1956 Newton, Robert, 1959 Newton, Trevor Arthur, 1954 Ng, Chong Guan, 1959 Ng, Chun Wing, 1962 Ng, Suan Chung, 1961 Ngai, James Wing-Kong, 1963 Nguyen, Manh Tri, 1962 Nguyen-Van, Hoi, 1962 Nicholls, Maxwell James, 1957 Nichols, Warwick Dixon, 1965 Nickols, Alan Hector, 1962\*+ Nicoll, James Anthony, 1960\*\* Nimmo, Robert James, 1965 Nittim, Rein, 1956 Noble, Bruce Kennedy, 1953 Nolan, Richard Charles, 1956 Noller, John William Murray, 1962 Norburn, Paul Ben, 1964 Norman, Bruce Richard, 1964 Norman, Roger, 1962 Northey, Ian Alan, 1965 Norton, Anthony Mansfield, 1960 Nugent, Donald Charles, 1962 Oberg, Donald Gordon, 1957\*\* O'Brien, Francis Alan, 1961 O'Brien, Jonathan Brian, 1965\*\* O'Brien, Kenneth Robert, 1952 O'Brien, Kerry Ernest, 1962 O'Brien, Terence Ignatius, 1959 O'Dwyer, Joseph Aloysius, 1954\*\* O'Grady, David John, 1965 O'Grady, Peter Francis, 1960 O'Kelly, Peter Anthony, 1962 Olde, Maxwell James, 1960 Oliver, Graham Robert, 1965 Oliver, Warren James, 1963 O'Loughlin, Emmett Michael, 1958\*\* O'Neal, Terence Leslie John, 1963\*\*\* O'Neill, Peter John, 1957\*\* Ong, Boon Ling, 1959 Ong, Tiong Lam, 1964 Ooi, Chin Yong, 1962 Orlovich, John, 1957 O'Shea, John Joseph, 1962 Owers, Noel Francis, 1958 \*\*\* Honours Class III † University Medal

Oxenford, Warren Gilbert, 1962\*\* Ozols, Valdis, 1962 Page, Ernest Thomas, 1957 Page, William George, 1952 Painton, Graham James, 1964 Palmer, Wilford Terry, 1964\*\* Palumbo, John, 1965 Panozzo, Livio, 1956 Parker, Malcolm Alfred, 1963 Parker, Neville, 1959 Parr, Colin Robert, 1958 Parsons, Graham Wills, 1961 Partridge, Alan Arthur, 1955 Paterson, John Lindsay, 1957 Paton, Brian Anthony, 1963 Patrick, Malcolm Douglas, 1965 Payten, Maxwell Campbell, 1959 Pearce, Henry Frederick, 1964 Pearce, Noel, 1956 Pearson, David Stuart Henry, 1960 Pearson, Kenneth, 1964\*\* Pengilley, Cecil John, 1954\*\* Penhall, Brian William, 1955\*\* Penn, Ralph, 1965 Petersen, Robert Keith, 1954\*\*§ Phillips, Peter James, 1963 Pickford, Geoffrey Claude, 1963 Pidcock, John Barrie French, 1962\*\* Pierce, Eric William Thomas, 1958 Pierce, John Harold, 1958 Pietor, Edward Joseph, 1962 Piggott, Terry Leicester, 1957 Piira, Paul, 1959 Pilgrim, David Herbert, 1953\*† Pillay, Ratnam Kandaswamy, 1956\*\* Pines, Michael Thomas, 1956 Pinkerton, William James, 1965 Pittaway, Ian Henry, 1960 Pittaway, Malcolm Lyle, 1956\*\* Planner, John Henry, 1958 Podger, John David, 1962 Pok, Sheung Foo, 1959 Pok, Sheung Yee, 1958 Poole, Christopher James, 1964 Popplewell, Thomas Rex, 1965 Porter, John Robert, 1965 Potter, Darryl John Leslie, 1965\*\*\* \* Honours Class I \*\* Honours Class II § Deceased

Potter, Kenneth, 1954\*\* Potts, Terry Sydney, 1963\*\* Pout, Denis Alan, 1965 Powell, John Donald, 1963\*\* Procter, Stephen, 1963 Propsting, John Risby, 1961 Proudfoot, Donald Barry, 1960 Pryor, Denis James, 1963\*\*\* Pryor, Murray Howard, 1965 Punnett, Trevor Charles, 1965 Purkiss, Alva Edwin, 1961 Purnell, John Arthur, 1957 Quah, Choon Huat, 1957 Queck, Peck Cheng, 1961 Quek, Seng Hin, 1957 Quinlan, Kevin Joseph, 1952 Rabbidge, Bruce Francis, 1953\* Radford, Christopher Denys, 1964\*\* Rae, David Arthur, 1961 Raffaele, Joseph, 1959\* Ragg, Barrie Charles, 1963\* Rainbird, Frederick John, 1962\*\* Ramachandran, Thamotheram, 1961 Ramsay, Mervyn Ross, 1955\*\* Ranaweera, Piyasiri Senaratne, 1955 Randoja, Michael, 1958 Randrup, Maurice Francis, 1964\*\* Ray, John William, 1955 Ray, Keith Morris, 1957\*† Rayner, Peter Chorley, 1957\*\* Rea, Brian Laurence, 1955 Read, Peter Lawrence, 1965 Rebikovs, Sergei, 1963 Redman, Stephen John, 1960\*\* Reece, Lance Edward, 1965\*\* Reichardt, Alfred Corfield, 1959\* Reichel, Alan James, 1964 Reid, James Milton, 1961\*\* Reid, Robert, 1963 Reidy, Noel Aloysius, 1955 Reimer, John Walter, 1961 Reimer, Peter Stewart, 1961 Reizes, John Arthur, 1960\*\* Resevsky, Charles Girt, 1962 Rheinberger, Brian Philip, 1955 Rheinberger, Michael Anthony, 1962 Richards, Owen John, 1954 \*\*\* Honours Class III † University Medal

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### **BACHELORS OF ENGINEERING**-continued

Richardson, Graham Murray, 1962\*\* Riding, Kenneth Wilmot, 1958 Rigby, Geoffrey Raymond, 1965\* Riley, Terry Walter, 1962 Ring, Peter John, 1961 Ringis, John, 1962\* Risbey, Graham Charles, 1963\*\* Roach, Ian Evans, 1965\*\*\* Robbie, Neil Valentine, 1959\*\* Roberts, Alan William, 1956\* Roberts, Bryan William, 1959\*+ Roberts, John Grahame, 1963 Roberts, Ronald Henry, 1961\*\* Robertson, Alan Milton, 1961 Robins, Norman Paget, 1960 Robinson, David Errol, 1960\* Robinson, David Harold, 1953 Robson, Brian Leslie, 1963\*\* Robson, John Brian, 1964 Rodwell, Grahame Lewis, 1965 Roebuck, William Norman, 1960 Rogers, Leonard Allan, 1963 Rogerson, Raymond Louis, 1952\*\* Rolley, Alexander James, 1952 Roos, Hans, 1959 Rosing, Daniel, 1959 Rossiter, Peter Thorne, 1953\* Roth, Dudley Lawson, 1956\*\* Rozenauers, Alfred, 1955 Rudd, James William, 1959\*\* Rumball, Donald John, 1965 Rupchev, Svjatoslav, 1962 Russell, Percy, 1962\*+ Russell, Ronald Mark, 1964 Ryan, John William, 1965 Ryan, Kenneth, 1957 Ryan, Kerry Dominic, 1960 Ryan, Peter Michael, 1957 Sachs, Brian Anthony, 1959 Saiva, Guntars, 1955 Salkeld, Leonard John, 1958 Saltis, Constantine, 1962 Sampson, William Alan, 1954 Samsa, Stanley, 1958\*\* Samson, Alexander, 1960\*† Sancbergs, Edwin Karlis, 1965 Sanders, John Edward, 1960 Sandi, Wajan, 1961 \*\* Honours Class II \* Honours Class I

Sands, John Richard, 1957 Sasmaja, 1962 Saunders, Desmond, 1955 Saunders, William Henry, 1964 Saunderson, David Mervyn, 1954\*\* Savage, Darrel, 1955 Savage, John Milton, 1956\*\* Savage, Warwick, 1959 Saville, James, 1965 Savins, Lionel Henry, 1960 Sawell, William Edgar, 1961 Scale, Ivan Edwin, 1965\* Schlensky, Boris, 1961 Schneider, Ronald Francis, 1962 Schultz, Paul. 1957 Schuster, Bernard Frederick, 1960 Schwarzer, Robin Anthony, 1964 Sciffer, David Eric, 1965 Scott, Raymond Kenneth, 1961 Scouller, Robert, 1964\*\* Sears, John Robert, 1961 See, Andrew John, 1964\*\* Sehu, Toong Meng, 1960 Sellick, Keith Smedley, 1958\*\* Sharpe, Alfred Ernest, 1963 Sharpe, Gordon Brian, 1955 Shaw, Alan Robert, 1961 Shaw, David Lachlan, 1953\*\* Shaw, Neil William, 1961\*\* Shaw, Robert Fitzgerald, 1965 Shearman, Ian Henry, 1959\*\* Shears, Donald Peter, 1963 Sheean, John Lyle, 1962\*\* Shepherd, Barrie John, 1960 Shepherd, Michael Stanley, 1959\*\* Sheppard, Christopher Albert, 1965\*\*\* Shields, Alan Edward, 1959 Shields, Graham John, 1954 Shipway, John Charles, 1963 Sieuwerts, Johan Herman, 1961 Siew, Fook Fong, 1964 Silink, Ivan, 1962\* Silva, Eric James, 1956\*\* Silva, Max Edward, 1962 Silvester, John Austin, 1962 Simanowsky, Wolodymyr, 1963 Simington, Petrie Laing, 1964 \*\*\* Honours Class III † University Medal

Simons, Alan Gordon Kent, 1961 Simpson, Gordon Burdekin, 1963 Simpson, John Roger, 1961 Sinclair, Alexander Herbert, 1962 Sivagnanam, Thambipillai, 1958 Sivis, Vincent Andrew, 1965 Slack-Smith, Geoffrey, 1964\* Slater, Rodney James, 1958 Small, Kevin Edwin, 1965 Smart, Ronald George, 1954\*+ Smedman, Harold Francis, 1960 Smith, Allan Reginald Philip, 1965 Smith, Bernard Lindsay, 1965 Smith, Colin Barrington, 1965 Smith, David Allan, 1964 Smith, Graham, 1961 Smith, Howard Winston, 1964 Smith, Ian Lindsay, 1961 Smith, Kenneth Hayden, 1961 Smith, Malcolm John, 1953\*\* Smith, Neil Campbell, 1962 Smith, Paul Vincent, 1963\* Smith, Peter William Lee, 1964\*\*\* Smith, Richard George, 1959 Smith, Robert Arthur, 1965 Smith, Roger Albert Alfred, 1964 Smith, Roger Ernest Gordon, 1964\*\*\* Smythe, Frederick Charles Phillip, 1959 Smythe, Robert William, 1964\*† Smythe, Ronald Leslie, 1957 Sneddon, John, 1960\*\* Snell, John Lionel, 1962\*\*\* Snow, Bryson Keith, 1960 Soeharto, Soedomo, 1963 Soepomo, Soetiman, 1961 Solomons, Louis Anthony, 1964 Solowij, Jaroslaw, 1964 Somasekaran, Sinnappu, 1963 Somervaille, Ian James, 1952\*\* Southwell, John Carlyle, 1953 Sparke, Reginald Morris, 1962 Spence, Ian Keith, 1958 Spencer, John Allan, 1964 Spencer, Lance Clifford, 1952\*\* Spesyvy, Vyacheslav, 1962 • Honours Class I \*\* Honours Class II

Spitzkowsky, Colin William, 1960\*\* Spratt, James William, 1957 Stafford, Warwick John, 1963 Stanton, Kenneth Neil, 1959\*\* Starr, John, 1961\* St. Baker, Trevor Charles, 1961 Steele, Ian William, 1962 Steggles, Kerry Ronald, 1961\*\*\* Stein, Frederick Adrian, 1956 Stevens, Brian, 1962 Stewart, David Brian, 1960 Stewart, David Thomas, 1963\*\* Stewart, Donald John, 1957 Stewart, John Leonard, 1958\*\* Stitt, Peter Henry, 1963 Stobert, Charles, 1964 Stokes, Stanley Seddon, 1958 Stone, John Patrick, 1963 Storr, Eric David, 1963 Strain, William Joseph, 1961 Strang, James, 1962 Strong, James Arthur, 1952§ Stuart, Alexander Robertson, 1958 Stuart, Anthony Graham, 1960\*\* Stubbs, Cecil Raymond, 1964\* Stutchbury, Geoffrey James, 1955 Sugden, John Vivian, 1955 Sugden, Warren George, 1964 Sukarso, Wijoto, 1960 Sujan, Anand Hiranand, 1962 Sullivan, Philip Albert, 1959\*† Summersby, Victor John, 1962\* Suski, John, 1959 Suski, Joseph, 1962 Sutherland, Gordon Anthony, 1953 Sutton, Camden James, 1963 Sutton, Gerard Roger, 1963\*\* Swan, John Warren, 1961 Swinford, Howard Malcolm, 1965 Swords, Ian Barry, 1962 Tainsh, John McArthur, 1961\*\* Tam, Biu Kay, 1962§ Tampi, Gopala Pillai Krishnan, 1965 Tan, Jin Kah, 1962 Tan, Jin Lee, 1960 Tan, Kiah Tong, 1958 Tan, Kok Ngarn, 1963 \*\*\* Honours Class III † University Medal

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Tan, Sebastian Chiaw Hock, 1960 Taub, Michael, 1965\*\*\* Taunton, Colvin George, 1965 Taylor, Geoffrey Neale, 1963 Taylor, Graham Roy, 1955 Taylor, Leslie Frederick, 1962\*\*\* Taylor, Michael Roderick, 1963 Taylor, Noel Fredrick, 1964 Taylor, Peter John, 1959 Taylor, Russell McKenzie, 1962\*\*\* Taylor, Victor Michael, 1957 Teichert, Klaus Dietrich, 1964\*\*\* Telfer, Morris John, 1959 Temple, Richard William, 1963\*\* ten Brummelaar, Theo, 1960\*\* Than, Naing, 1963 Thieben, George, 1957 Thio, Oon Tean, 1965 Thompson, Aidan Allen, 1962\*\* Thompson, Barry John, 1964 Thorpe, Peter, 1953 Ticehurst, Jack Stanley, 1955 Timar, Michael, 1965 Timmins, Douglas Arthur Claude, 1963 Tindall, William Frank, 1963 Tinh, Tran-Kiem, 1960\*\*\* Tinni, Arvo, 1959 Tinslay, Peter John, 1964\*\* Tipping, Garry Raymond, 1965 Tischler, Eric, 1963\*\* Tisdell, Robert Henry, 1962 Tjio, Beng Seng, 1965 Tjitrosidojo, Sumartono, 1961 Tognetti, Keith Phillip, 1954 Tong, Kok Soon, 1961 Toppler, Jeno Frank, 1958 Toswill, Brian Joseph, 1959 Towson, Peter Granville, 1961 Travis, Ian Mark, 1963 Trembath, Barry Paul, 1965\*\*\* Trestrail, Walter Raymond Glen, 1965 Trueman, Norman Anthony, 1960\*\*\* Trumpmanis, John Peter, 1962 Truupold, Enn, 1964 Tsang, Gee, 1963 Tsang, Yuk Lun, 1965 • Honours Class I \*\* Honours Class II

Turner, Alan Leslie, 1961\*\* Tyacke, Philip Norman, 1965 Uebel, Royde Murray, 1955\*\* Upfold, Robert William, 1955\*\* Vaino, Erich Lembit, 1961\*\* Vainomae, Arvi, 1955\*\* Vamos, Peter, 1962\*\* Van der Lit, Hermanus Stephanus, 1962 Van der Werf, Peter, 1962\*+ Van Es, Ronald John, 1964 Van Oostrom Soede, John Karel, 1965\*\*\* Varley, Clement George, 1961 Vaughan, Ronald George, 1963 Velthuysen, Hans Antoni, 1964 Vesilo, Kusta, 1958 Vesk, Mart, 1963 Vickery, James Cochrane, 1965\*\*\* Vidalis, Harry Charalampos, 1964 Vidler, Garrie Joffre, 1961 Voits, Ivars, 1965 Vujic, Milan, 1964 Waddell, John Stanton, 1958\*\* Wade, James Tomes, 1958 Waldman, Frank Dan, 1965 Walker, Allan, 1964 Walker, Francis Ulric, 1964 Walker, John Allan, 1952\*\* Walker, Neil William, 1954 Walker, Robert George, 1965\*\* Wall, Michael Anthony, 1965 Wall, Patrick Joseph, 1961 Wallace, Alan MacDonald, 1955 Wallace, Harry Lachlan, 1955 Wallis, Graham Rodney, 1959 Wallyn, Robert Eric, 1958 Walsh, Francis Thomas, 1962 Walsh, Paul Francis, 1964\* Walters, Garry Francis, 1964 Wang, Richard, 1962 Ward, Geoffrey, 1952 Ward, Ronald Bentley, 1962 Waring, John Mead, 1956 Warner, Robert Falcon, 1955\*\* Warren, Eric George, 1960 Warren, John Daniel, 1953\*\* Warrilow, Peter, 1961 \*\*\* Honours Class III † University Medal

Waters, John Frederick, 1962 Watkins, Ian Cadell, 1961 Watson, Gordon Stewart, 1959\*\* Watson, James Herbert, 1957\*\* Watson, Lloyd Stewart, 1962 Watson, Malcolm Russell, 1965\*\* Watson, Robert Burnley, 1959 Watts, Brian William, 1962 Watts, Michael Anthony Ansdell, 1964 Weatherall, Francis John, 1963 Webb, Loris Maxwell, 1965\*\* Webb, Trevor James, 1960 Webster, Antony Arthur, 1963\*\*\* Weidemier, John Alan, 1959 Weir, Keith Graham, 1962 Wells, Alan John, 1954 Wenham, Brian Godfrey, 1958 Whatham, John Frederick, 1958 Whatham, Robert Parry, 1956 Wheeler, Geoffrey Walter, 1956 Wheeler, William Raymond, 1952 Wheway, Robert Thomas, 1965\*† White, James Frank, 1964 White, Kenneth Leigh, 1961 White, Maxwell William, 1952\*+ Whitehouse, George, 1963\*\* Whittaker, Wallace Henry, 1960\*\* Whitting, Alan Charles, 1954 Widdup, Alfred James, 1955 Wiedemann, Herbert George Rudolph, 1962 Wikoebroto, 1961 Wilcox, James Gerald, 1960 Wild, Brian Frederick, 1962\*\* Wilkins, Peter George, 1960 Wilkinson, Frank Lyon, 1961 Wilks, John Harold, 1961\*\* Willems, Hendrik Anton, 1961 Williams, Adrian Crichton, 1965 Williams, Alan Cecil, 1961 Williams, Ernest Harrison, 1961 Williams, Graham Alban, 1963 Williams, Leo Roy, 1956 Williams, Maurice John, 1960 Williams, Michael Paul Charles, 1960 Williams, Robert Carl, 1954\*\* Williams, Roy Arnold, 1956\*\* \* Honours Class I \*\* Honours Class II

Willing, Keith Robert, 1954 Willson, Graham Frederick, 1964 Wilmshurst, Peter, 1965 Wilson, Denis Patrick, 1961\*† Wilson, George, 1964\*\* Wilson, Morris James, 1959 Wilson, Oliver Bruce, 1960\*\* Wilson, Robert James, 1963\* Winton, John Edward, 1958\* Wong, Chung Cheung, 1964 Wong, Colin Wai-Lai, 1964 Wong, Keng Chow, 1962 Wong, Kwan-Yui, 1960\* Wong, Lock Seng, 1957 Wong, Paul Kai-Sing, 1963 Wong, Wing Him, 1963 Wonson, Kenneth Douglas, 1964 Wood, Barry Clive, 1964 Wood, George Ernest, 1963\*\* Wood, Ian Frederick, 1964\*\* Wood, Raymond George, 1960 Woodbury, Stephen Patrick, 1962\*\* Woodman, Douglas Robert, 1958 Woods, William Michael, 1962 Wooldridge, John Brian, 1957 Wootton, Frederick Robert, 1953\* Worrall, Ross Richard, 1961 Wright, Leonard, 1952 Wu, Howard, 1961 Wulff, Eberhard, 1961 Wylie, Kenneth, 1961 Yandell, William Otho, 1962 Yap, Yoke Kin, 1965 Yardley, Peter, 1963 Yastreboff, Michael Michaelovich, 1965\* Yau, Chao Pong, 1965 Yee, John Juneyih, 1965\*\* Yee, Wellington, 1963 Yeo, Anthony Chih Sheng, 1962 Yeung, Dennis Nai-Choy, 1963 Young, Edmund, 1953 Young, Leslie, 1963\* Young, Robert Forbes, 1958 Yu, Kwok-Leung, 1963 Zimin, David Gdaly Joseph, 1962 Zissermann, Constantin Nicholas, 1964 \*\*\* Honours Class III † University Medal

# **BACHELORS OF OPTOMETRY**

Beh, Heng-Pang, 1965 Fisher, Peter Charles, 1965 Henderson, Christopher, 1965 Quinsey, Noel Raymond, 1965 Shoebridge, Robert Ronald, 1965\*\* Sim, Ian Gordon, 1965

# **BACHELORS OF SCIENCE**

Abbott, Bruce, 1964\*\*\* Abbott, Douglas William, 1963 Abbott, Grahame Michael, 1964\* Abimanju, Bambang, 1956 Achmad, Sjamsul Arifin, 1960\* Adam, Graeme Stevenson, 1962 Adams, Neil Leon, 1963\*\* Aggett, Jack Stanley, 1958 Ainsworth, Edward John, 1963\*\*\* Ainsworth, Elizabeth Ann, 1964\*\* Ainsworth, William Murray, 1961\*\* Akre, Thomas, 1960 Alexander, John Andrew, 1965\*\* Algie, Stephen Hopetoun, 1965\*† Allan, Robert William, 1964 Allen, David Ven, 1962\*\*\* Allen, John Reginald, 1962 Allen, Peter Henry Printz, 1961 Allman, Maxwell, 1960\*\*\* Allotta, Joseph Anthony, 1963 Alsop, Philip John, 1963 Alston, Phillip Arthur, 1960 Anderson, John Murray, 1960 Anderson, John Ragnar, 1952\* Anderson, John Robert, 1952\* Anderson, Robert Neil, 1965 Anderson, Thomas Frederick, 1959 Anderson, William John, 1955 Andrews, Albert Henry, 1958 Andrews, Allen Raymond, 1960 Anstee, Sydney Alfred, 1958 Antoniadis, Theodore Dennis, 1963 Armstrong, Geoffrey Winston, 1965 Armstrong, Kenneth John, 1963 Arnold, Kenneth William, 1960 Ashby, Richard Alexander, 1962\* Astridge, Annette, 1962 Atkins, Michael Joseph, 1964 Atkinson, Noel Robert, 1963 Avis, Edward Arthur, 1957 Aylward, Gordon Hillis, 1952\*\* • Honours Class I \*\* Honours Class II

Babister, Kenneth James, 1963 Babu, Henry Ralph, 1962 Bagnall, Frank Thomas, 1959 Bagshaw, John Ralph, 1961 Bailey, John Desmond, 1965 Baker, Judith Mary, 1965 Baker, Leslie Alan, 1961\*\* Baldwin, Thomas Evan, 1965 Ballard, Maxwell John, 1964 Baluk, George, 1959 Bannister, Charles Hugh, 1965 Barber, Peter, 1963\*† Barker, David Robin, 1964 Barker, Norman Thomas, 1956 Barnes, Colin Ivor, 1965 Barnhill, Stanley Robert, 1957 Barnicoat, Gregory Peter, 1964 Barr, Jeanette Elizabeth, 1964\*\* Barr, Kevin Richard, 1963 Barratt, Kenneth Victor, 1957 Barrett, John Roland, 1960 Barrett, Paul Joseph, 1964 Barry, Robert John, 1963 Barry, Walter James, 1956 Basden, Kenneth Spencer, 1955 Bates, Lawrence John, 1963\*\* Bates, William Alexander, 1957 Batistich, John Royden, 1965 Batley, Graeme Edward, 1962\* Batterham, Thomas James, 1958\*\* Batti, Frederik, 1962 Battye, Alastair Cameron, 1961 Bayfield, Raymond Francis, 1962 Bayley, David John, 1964 Beaman, Ian Robert, 1965 Beard, Barry George, 1962 Beasley, Brian Keith, 1965 Beath, Helen Mary, 1962 Beattie, Roger Ernest, 1955\* Beauchamp, Herbert, 1953 Beehag, John Henry, 1963\*\* \*\*\* Honours Class III † University Medal

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Belcher, Charles Brian, 1955 Bell, Kevin Hilton, 1960\* Bell, Raymond Douglas, 1962\*\* Bell, Richard Thomas Edward, 1962 Bell, Robert Samuel, 1959 Bellingham, Andrew Irwin, 1952\*\* Bembrick, Colin Seymour, 1965\*\* Bennie, Claude Vincent, 1961 Benson, David Linger, 1965 Berg, Mary Irene Elizabeth, 1959 Berglund, Cedric Ross, 1961\*\* Bergs, Karina, 1964 Berman, Graeme Walton, 1958 Bernard, Margaret Jacklyn, 1965 Beuzeville, Barry Yates, 1964 Bielig, George Andrew, 1965\*\* Bien, Chia Nien, 1959 Binks, Noel Margaret, 1965 Birch, John Alexander, 1961\*\* Bird, Kevin Douglas, 1964\*† Bishop, George Rowley, 1964 Bitmead, Ronald Charles, 1954\*\* Blackmore, Hugh Norris, 1960 Blackshaw, Leslie Bruce, 1961 Blakemore, John Stewart, 1964 Bland, Barbara Joy, 1962\*\* Blattman, Robert John, 1963 Blayden, Ian Douglas, 1965\*\* Bliss, William John, 1955\*\* Bloomfield, Barry John, 1957 Boardman, Brian Raymond, 1962 Boedihardjo, Otto, 1958\*\* Boland, James Norman, 1962\* Bollinger, Peter Cameron, 1957 Bolt, Anthony Leo, 1962 Bolt, Arthur George, 1961 Bolton, Robert Frank, 1962 Bolton, Robert John, 1956 Booth, Malcolm John, 1962 Boshell, Gregory John, 1959 Bostrom, John, 1957 Bouffier, Trevor Brian, 1960 Boughton, Anthony John Matheson, 1965 Bourke, Maxwell Eric, 1963\*\*\* Bourke, Sidney Frederick, 1962 Bowling, Keith McGregor, 1952\*\* Bovd, Robert, 1960 \* Honours Class I \*\* Honours Class 11

Boyer, John Peter, 1956\* Boyes, Kenneth Ronald, 1963 Boyling, Warwick Francis, 1959\*\* Bracken, Malcolm Royston, 1965 Bradford, John Dennis, 1965 Bradhurst, Peter Lovett, 1961 Bradley, Robert Burton, 1957 Bradwell, John Edward, 1957 Brady, Leslie John, 1963 Brady, Lynette Margaret, 1959 Brady, Peter Harland, 1960 Branch, Stuart Innes, 1963 Brandley, Barry Alexander, 1962 Brennan, David James, 1964\*\* Brent, Ernest Harold, 1957\*\* Bridge, Lawrence James, 1964 Brieger, Klaus Martin, 1958 Brien, Beverley Edward James, 1960 Briggs, Ian Campbell, 1963\* Briggs, William Robert, 1952\*\* Brock, Charles Warren, 1961 Brock, Trevor John, 1964 Brookes, Roy Frederick Alexander, 1965 Brophy, Joseph John, 1965\* Brown, Ian Henry, 1962 Brown, Kevin Robert, 1964\*\* Brown, Robin Francis Martin, 1961 Brunker, Janice Marion, 1961 Brunton, Robert Sidney, 1965 Bryan, John Hamilton, 1965\* Brvant, David Lindsey, 1958 Buckle, Kenneth Alan, 1965\*† Buckman, Edmund James, 1955\*\* Buist, Ronald Victor, 1958 Bulathsinghala, Don Milton, 1956 Bulian, William Anthony, 1965 Bunch, Kenneth, 1959 Bunder, Maarten Wicher, 1962 Bundy, Harold Charles, 1963 Bunting, John William, 1964\*† Burges, William Richard, 1965 Burgess, Ian Glencross, 1958 Burke, Harvey Francis, 1964 Burns, Colin Cousins, 1964 Burns, Edward Joseph, 1964 Burns, Malcolm John, 1964\* Burns, Richard Alfred, 1962 \*\*\* Honours Class III † University Medal

Burns, William James, 1964\*\* Burrell, George Albert, 1956 Burridge, William Aubrey, 1962 Burrows, Kenneth Archibald, 1963 Burton, Peter George, 1962\* Burton, Vivienne Isabell, 1965 Burton, William Henry, 1962 Busch, Noel Claude, 1965 Butler, Douglas Neve, 1959\*\* Butler, Lewis Allan, 1964\*\* Butler, Wilfred Barrington, 1960 Byrnes, Julian John, 1960 Caddy, Joanne Mary, 1964 Cahill, Mary Judith, 1964 Caiger, Philip, 1957\*\* Cain, David Anthonv. 1965 Cairns, Robert Charles, 1952\*† Caldwell, Raymond Joseph, 1965 Callcott, Mary Millicent, 1965 Callender, Wesley, 1958 Callinan, Bryan Francis, 1959 Cambey, Leslie Alan, 1955\*† Cameron, Nevell John, 1956 Campbell, Colin Douglas, 1956 Cantwell, John Charles, 1962 Carne, Peter Raymond, 1962 Carr. David Reginald, 1961 Carr, James Eshott, 1953\*\* Carr, Ronald William, 1959 Carroll, Bruce Phillip, 1965 Carroll. Denis Edward, 1965 Carroll, Morris William, 1959 Carter, Frank Robert, 1957 Carter, John, 1954\*\* Carter, Robert Aedy, 1960 Cartwright, Brian William, 1952 Cartwright, David Frederick, 1961 Cartwright, Peter Albert, 1963 Cartwright, Terence Robert, 1958 Castanos, John Nicholas, 1964 Celitans, Gerard John, 1959\*\* Chan, Bertram Kim-Cheong, 1962\* Chand, Fateh, 1964\* Chaplin, Phillip Arnold, 1959 Chapman, Bernard Milton, 1965\*\* Chapman, Gordon Edwin, 1963 Chapman, John Stanley, 1963\*\* \* Honours Class I \*\* Honours Class II

Chapman, Kenneth James Campbell, 1959\*\* Chapman, Robert McArthur, 1957 Chappell, Geoffrey Bruce, 1959 Charlesworth, David Huntley, 1965 Charlton, David, 1965 Charlton, Robin John, 1963 Chaston, Scot Henry Herbert, 1959 Cheema, Rajinder Singh, 1965 Chen, Peter Yo Pin, 1963\*\*\* Cheng, Albert Chak Lap, 1965 Cheong, Michael Chan Seng, 1958 Chernikeeff, Dimitry, 1965\*\* Chew, Fook Chun, 1962 Chia, Peter See Kien, 1964 Chie, James Mervyn, 1958 Childs, Robert Arthur, 1961 Chilman, Gary Frederick, 1964 Ching, William Wai-Lam, 1963 Chiswell, Barry, 1958 Cho, Kai Yip, 1964\*\* Chong, Aloysius Ngian Leong, 1964 Chong, Foo Chin, 1965\*\* Chong, Robert, 1963\*\* Chorlton, Stanley Harold, 1956\*\* Christie, Colin Maxwell, 1965 Chung, Mui Fatt, 1963\*\* Churches, Roland Warwick, 1961 Clark, Edward Henry, 1963 Clark, Roy, 1963 Clarke, Lesley Dorothy, 1962\* Clarke, Lyndall Patricia, 1963 Clarke, Nefra Pauline, 1961 Clarke, Rodney Max, 1963\*\* Claxton, Charles William, 1965 Cleary, Graham James, 1957 Cleary, James Edwin, 1955\*\* Cleary, John Rashleigh, 1955\*\* Coady, John Robert, 1964 Coates, Eric Bruce, 1960 Cochrane, Stanley, 1963 Codd, Peter, 1965\*\* Coggiola, Iliano Mario, 1961 Cohen, Soly Angel, 1963 Coleman, Brian John, 1961 Coleman, Maurice Leigh, 1965 Collard, Margaret Anne, 1965 Colley, Douglas Fraser, 1959 \*\*\* Honours Class III † University Medal

Collin, Philip James, 1962\*\* Collings, Anthony Francis, 1963\*\* Collins, Barry Frederick, 1955\*\* Collins, Henry Lillyman, 1957 Collins, John David, 1961\* Collins, Lindsay Robert, 1962 Collins, Robert Franklin, 1963 Collins, Terry Ralph, 1965 Collins, Terry William, 1965 Collison, Irwin Walter, 1959 Colman, John Cornish, 1961 Comanos, George, 1962\*\*\* Comino, George Andrew, 1965 Comino, Peter Chris, 1965 Condon, David John, 1965 Conway, Neil Francis, 1965 Conyngham, Maxwell George, 1963 Cook, Barry Alexander, 1965 Cook, Graham Arthur, 1965 Cook, James Lindsay, 1957 Cook, Robert Anthony, 1963 Cooper, Dennis John, 1965 Cooper, Mervyn Kenneth, 1955\*\* Cooper, Norman, 1960 Cope, Alan Edward, 1964 Copley, Wendy Jean, 1965 Corderoy, David John Haviland, 1959\* Cornell, Ronald Frederick, 1961 Costoulas, Aristotle John, 1956 Cotham, Raymond Lawrence, 1960\* Cotterill, Mervyn James, 1957 Coulter, William John, 1965 Coupe, Henry, 1964 Court, John David, 1961 Courtney, John Lawrence, 1952\*\* Cousens, Graham Robert, 1962 Cowper, Stanley James, 1960 Cox, Barbara Jean, 1963\* Cox, Edith May, 1957 Cox, Gilbert John, 1964 Cox, Gordon Whitworth, 1961\* Cox, Pamela, 1965\* Cox, Peter James, 1965 Craig, John Victor, 1959 Crane, William John, 1964 Cranmer, Venn, 1954 Cranston, Peter Michael, 1965 \* Honours Class I \*\* Honours Class II

Craven, Brian Raymond, 1958\* Crawford, Brian Raymond, 1960\*\* Crawford, George, 1961 Crawford, Ian Andrew, 1960 Crawford, John, 1960\*\*\* Crawford, Mervyn James, 1965 Cripps-Clark, Campbell John, 1958\* Crispin, Peter Donald, 1960 Crocker, Peter Maxwell, 1958 Croker, Gregory John, 1964 Crouch, Elizabeth Joy, 1965 Croucher, Phillipa Audrey, 1965\*\* Crowe-Mar, Kerry Harold, 1956 Cruikshank, Bruce Ian, 1965\*† Cudmore, Joseph Francis, 1960\*\* Cumines, William, 1961\*\*\* Cummins, William Henry, 1963 Cunningham, James Robert, 1965 Curtin, John Hedley, 1958 Curtis, Robert James, 1961 Custer, David Lawrence, 1965 D'Abrera, Christopher Robin Vernon, 1965§ Dadd, Gordon Hugh, 1963 Dalglish, John Scott, 1961 Dalton, Anthony Edward, 1955\*\* Daniels, Edward James, 1957 Danks, Paul Anthony, 1964 Dann, Jeffrey Allen, 1958\* D'Arcy, Raymond Lawrence, 1959 Darvey, Ivan George, 1964\* Davidoff, Alexander, 1965\* Davids, Erik, 1965\*\* Davidson, Harry Robertson, 1960 Davies, Brian, 1963\* Davies, David Alexander, 1954\*\* Davies, John Edward, 1960 Davies, Judith Ann, 1961 Davies, Lionel, 1962 Davies, Michael Owen, 1959 Davies, Thomas Herbert, 1955 Davis, Brian Keith, 1958\*\* Davis, John James, 1960 Davis, Kenneth John, 1961 Davis, Leslie Stanley, 1960 Davis, Peter John, 1962 Davison, Leigh, 1965 Dawes, Jennifer Anne, 1963\*\* \*\*\* Honours Class III † University Medal

§ Deceased

Dawkins, Gary Studleigh, 1964 Dawson, William Leonard Harold, 1964 Day, Henry, 1964 Day, Walter Roy, 1958 Dean, Arthur Barry, 1959 Deane, Kenneth Robert, 1953 Deasey, John Patrick, 1960 Deasy, Kenneth James, 1964 De Haan, Jacob Jan, 1962 Deitz, Graham, 1965\*\*\* De Jongh, Bernard Julian, 1957 de Kantzow, David Anthony, 1965 Dekkers, John, 1963 De Lacey, Philip Richard, 1959 Delaney, William Francis, 1962 Delbridge, Richard John Martin, 1960 Demmler, Wolf George, 1962 den Dulk, Gesina Margaretha, 1960 De Plater, Roy Charles, 1962 Devine, John Malcolm, 1965 Devine, Kevin Noel, 1964 Dewhurst, Ian Stanley, 1956 Diehl, Herman Willem, 1959 Digby, Jonathan George, 1965 Dignan, Michael Stanislaus, 1961 Dilli, Sergio, 1959\*\* Dixon, John, 1964 Doak, James Robert, 1963 Dodds, Norman Brian, 1965 Dogan, Francis Leon, 1956 Doherty, Bruce Graham, 1965 Doherty, Gregory, 1962\*\* Domars, Malcolm Richard, 1965 Donaldson, Janet Ruth, 1958 Donaldson, Pamela, 1961 Donnan, Peter Stroyan, 1965 Donnan, Reginald Carson, 1954\*\* Donnelly, James Clifton, 1961 Donovan, Dennis Patrick, 1964 Donovan, Patrick James, 1958 Dossetor, John Vinson, 1958 Douglas, Stephen Arnold, 1962\*\* Doyle, Robert Wilfred, 1957 Doyle, Terence Patrick, 1965 Drake, Kenneth John, 1965 Draper, Graham Richard, 1956\*\* \* Honours Class I \*\* Honours Class II

Dreise, Peter William, 1962 Drew, Barry Joseph, 1963 Driksna, Victor Van, 1964 Drobny, Dawn Leila, 1964 Drobny, Peter, 1965 Druitt, Robert John, 1961\*\* Duesbury, Ross Malcolm, 1956 Duffy, Geoffrey Graeme, 1963 Duffy, James Robert, 1962 Duguid, James, 1965 Dunlop, John Ian, 1961\*\* Dunn, Gregory Charles, 1965 Dunn, Robert Charles, 1965 Dunne, Druce Patrick, 1964\*† Dunning, John, 1957 Durrell, Sidney Richard, 1964 Dworjanyn, Orest, 1960\*\* Easton, Gwenyth Marjorie, 1963 Eather, Robert Hugh, 1962\* Eaton, Kenneth Brian, 1965 Edmonds, Walter Henry, 1957 Edwards, David Thomas, 1965\*\* Edwards, John, 1965\*\*\* Edwards, Robert Anthony, 1964 Edwards, Ronald Alexander, 1956\* Ee, Meng Siong, 1964 Ekstrom, Alfred, 1963\*\* Elbourne, Ronald George, 1961 Elkington, Paul Alexander, 1965\*\* Ellershaw, Richard John, 1962 Elliott, Graham Frank, 1960 Elliott, John William Murray, 1964 Elmslie, Malcolm Kenwyn, 1963 Elson, Wendy Elizabeth, 1965\*\* Eltis, John William, 1964\* Emmett, William James, 1964 England, Richard Geoffrey, 1962 Ernst, Ian Thomas, 1960\*\* Evans, Arthur William Hurst, 1960 Evans, John Oliver, 1965\*\* Everett, Kevin Oswald, 1959\*\* Everett, Peter Kenneth, 1965 Eyland, Edward Peter, 1965 Ezer, Charles David, 1958 Fabrello, Nereo, 1964 Faggotter, Rainsford Sydney, 1962 Fahey, David Mahon, 1960 Fairbrother, Anthony Howard, 1964\*\*

\*\*\* Honours Class III † University Medal

Fairbrother, Jefforv Graham, 1961\* Fairey, Kenneth David, 1964 Fardy, John Joseph Matthew, 1958 Farmer, Anthony Douglas, 1964\*\* Farrell, Neville Bruce, 1960 Farrell, Peter Anthony, 1964 Farrell, Robert John, 1965\*\* Farrer, Bruce, 1963 Farrington, Keith John, 1956 Farrugia, Anthony Joseph, 1964 Faulkner, Robert Warren, 1965 Faulkner, Robert William, 1965 Fell, Christopher Joseph, 1962\*+ Fenner, John Raymond, 1953\* Ferguson, Anthony John, 1964 Ferguson, Graham Ronald, 1965 Fergusson, Yvonne Ann, 1962 Fernandez de Viana, Jose-Maria Alberto, 1963 Ferrier, William Edward, 1965 Field, Peter James, 1962 Filson, Arthur Cole, 1953 Findlay, Anthony Walter, 1957 Finkelstein, Clive Benjamin, 1962 Firkin, Geoffrey Robert, 1960 Fisher, Brian Douglas, 1965\*\* Fisher, James Arthur Hector, 1965 Fisher, Philip, 1957 Fitz, Paul Louis, 1962 Fitzgerald, Brian Thomas, 1963 Fitzpatrick, Brian Patrick, 1958 Fitzsimons, Colin Joseph, 1965 Flanagan, John Terrence, 1958 Fleming, Henry David, 1959 Fletcher, Colin George, 1960 Fletcher, Ian Stewart, 1964\*\* Fletcher, Walter Maurice, 1953 Fletcher, Warwick Alfred, 1965 Fleury, John Gilbert, 1965 Fligg, James Edward, 1961 Florence, Trevor Mark, 1958 Flynn, Patrick Francis, 1961 Flynn, Thomas Desmond, 1955 Fok, Che Nang John, 1965\* Foldvary, Gabor Zoltan, 1965 Ford, Geoffrey Hunter, 1955\*\* Ford, Richard David, 1965 \* Honours Class I \*\* Honours Class II

Ford, Trevor de Brabander, 1965 Forster, Raymond Henry, 1964\*\* Foster, Neville Russell, 1958 Fowler, Douglas George, 1960 Fox, Barry James, 1965 Fox. Bruce John, 1960 Fox, Peter John, 1963 Fragala, Joseph Nicholas, 1962\*\* Francis, Arthur Philip, 1965 Franklin, John Alan, 1964 Franklin, William John, 1962\* Fraser, Ian Edward, 1964 Fraser, William Bruce, 1961 Free, Ross Vincent, 1965\*\* Freeman, John Richard, 1963 Freeman, Kevin Leonard, 1964 French, Stanley James, 1962 French, Victor David, 1963 Fryer, Colin Arthur, 1965 Fuller, Kevin, 1962 Furniss, Geoffrey Robert, 1965 Gadsden, William Roger, 1962 Gallagher, James Russell, 1963\*\*\* Gallagher, Walter William, 1962 Gammie, Keith Robert, 1958 Gan, Ignatius Eng Tho, 1963 Gardiner, Peter Edward, 1964 Garland, Geoffrey Michael, 1963 Garling, Mary Elizabeth, 1965\*\* Garnett, John Lyndon, 1952\*\* Garvin, Joseph William, 1963 Garvin-Smith, Shirley Gladys, 1956 Gatt, John Roland, 1965 Gauci, George, 1961 Gaul, Anthony John, 1965 Geddes, Harvey Stewart, 1965 George, Colin Walter, 1955 Gerdes, Robert George, 1962 Geyer, Geoffrey William, 1963 Gibson, Allan John, 1964 Gibson, Frederick Allan, 1959 Gilbert, Kevin Paul, 1965 Gilchrist, Stanley William, 1964 Giles, John Rex, 1965\*\*\* Giles, Maxwell Stuart, 1961 Gillies, William John, 1964 Gilmore, Harry, 1958 Gilmour, John Alan, 1963 \*\*\* Honours Class III † University Medal

Gilmour, Leonie, 1965 Gilmour, Ronald Walter, 1962 Glassey, Alan Rhodes, 1957 Gledhill, Lloyd Ronald, 1962 Gluvchinsky, Paul, 1965 Godden, Donald McArthur, 1965 Gohl, Erhard Paul, 1956 Goldsmith, Gay Frances, 1965 Golightly, David Rankin, 1956 Good, William John, 1963 Goodwin, Brian Thomas, 1963 Goodwin, Graham Clifford, 1965 Gordon, Helen, 1961 Gordon, John Lindsay, 1959 Gordon, Neville Cecil, 1961 Gordon, Pauline Kay, 1962 Gordon, Ross Brian, 1962 Gore, Leslie George, 1963 Gorman, Harry James, 1958\*\* Gould, Geoffrey Neville, 1965\*\* Grage, Peter, 1965 Graham, Arthur Alexander, 1958 Graham, Bruce Malcolm, 1954\*\* Graham, Bruce William, 1963 Graham, Clifford Arthur, 1957 Graham, Colin Charles, 1960 Graham, Edward Joseph, 1957 Grahame, Frederick William, 1955 Grainger, Terence John, 1958 Grant, John Thomas Peter, 1965\*\* Charles Stephen, Robert Grant, 1963\*\* Grant, Wendy Doreen, 1964 Graves, Donald Arthur Jeffrey, 1965 Gray, Arthur Herbert, 1962 Gray, Ian Ross, 1964\* Green, Alan Rae, 1954 Green, John Michael, 1964 Green, Robert John, 1965\*\* Greenup, Royce John, 1959 Greenwood, John William Neville, 1958 Gregory, Ian, 1963 Gregory, Roy Thomas, 1956 Greive, Cedric Eric, 1965 Grey, Douglas Alister, 1961\*\*\* Griffin, George Thomas, 1961 Griffin, Peter Grenville Thomas, 1958 \*\* Honours Class II \* Honours Class I

Griffin, Robert Francis, 1962 Griffith, June Clare, 1952\*\* Griffith, Ross Ernest, 1961\*\* Griffiths, Raymond Birchall, 1963 Groenhout, Victor Evert, 1965 Gruber, Sepp Jochem, 1963\*† Grundy, Allan Arthur Willson, 1959 Guest, Carolyn Marie, 1964 Guest, Graeme Beresford, 1958\*\* Guiffre, Vincent, 1954\*\* Gulson, Brian Lindsay, 1964\* Gunn, Raymond Charlton, 1962 Gunn, Ronald John, 1964 Gunzburg, Doron, 1962 Guy, Ian Leslie, 1964 Guyot, Reginald Edward, 1963 Gwatkin, Edward Alan, 1955 Gwynne, Victor John, 1964 Haakman, Aukeia, 1964 Hackett, Ian Harry, 1965 Haile, Ronald Francis, 1964 Haken, John Kingsford, 1957 Halasz, Steven, 1961\*\* Hall, Robert James, 1965\* Halsey, Reginald Beres, 1958 Hambrett, Paulette Jeannine, 1964 Hambridge, Kenneth Alfred, 1963 Hamilton, Bruce Allan, 1964\*\* Hamilton, Noel Cedric, 1959 Hamilton, Raymond Leo, 1965 Hamilton, Thomas Ross, 1961 Hammond, David Hartley, 1962 Hammond, James Robert, 1962 Hancock, John Otho, 1960 Hanich, Jacob, 1963 Hannaford, Jane Elizabeth, 1965 Hansen, Frank Keith, 1965 Happ, Philip Joseph, 1961 Harborne, Francis John, 1963 Harden, Rodney John, 1960 Hardie, Catherine, 1961 Hardinge, Eric St. John, 1962 Hardjo, Suhadi, 1960 Hardy, Helen Diana, 1961 Hargreaves, Kenneth John, 1961 Harland, John Dureau, 1955 Harper, Kevin Anthony, 1957\*\* Harper, Peter John, 1965\*\* \*\*\* Honours Class III † University Medal

Harris, Alan John, 1958 Harris, Arthur Robert, 1958 Harris, Clive Melville, 1952\*\* Harris, Douglas Clive, 1958 Harris, Geoffrey Charles, 1962 Harris, Rodney Alexander, 1963 Harrison, Barry Leigh, 1955 Harrison, Donald, 1964 Harry, John Raymond, 1955\*\* Hart, Richard John, 1958 Hart, Robert Francis, 1964 Harting, Erik, 1961\*† Hartmann, Ross Arnold, 1964 Harverson, John Dennis, 1961 Harvey, Ian Livingstone, 1963 Haupt, Rita Sofia, 1965 Hawke, Ian Graham, 1963 Hawkins, Clifford John, 1960\* Hawkless, John Clinton, 1963 Hay, William James, 1960 Hayes, John William, 1960\* Hayhurst, Joan Doreen, 1963\* Hayter, William, 1964 Hazelton, William John, 1963 Healy, Margaret, 1963 Hellyer, Robert Owen, 1955 Henderson, John Barry, 1958\* Henderson, John Brian, 1961 Henderson, Linton John, 1961\*\* Henderson, Peter Douglas, 1965 Heng, Kheng Boon, 1965 Hennessy, George Gerald, 1961 Henry, Brian David, 1958 Heran, William, 1960 Hermann, Graham Douglas, 1959 Herwig, George Lang, 1956 Hetherington, Pamela Helen, 1962\*\*\* Heyes, John Donald George, 1960 Hibberd, George Edward, 1957\*† Hickie, Thomas Stanislaus, 1959\* Hicks, Ronald Lloyd, 1965 Higinbotham, John, 1965 Hill, Keith Dawson, 1962 Hill, Peter William, 1957 Hillen, Lance William, 1962\*\* Hinde, John Gordon, 1959 Hinks, Neil Taylor, 1959 Hinterberger, Hertha, 1957\* • Honours Class I \*\* Honours Class II

Hintze, Vladimir Michael, 1962 Ho, Sai Ngo, 1961 Hobart, John Geoffrey, 1962 Hobson, Thomas, 1964 Hodges, Raymond John, 1965\*\* Hodgins, Raymond Lewis, 1961 Hodgins, Reginald William, 1961 Hodgins, Robert Francis, 1961 Hogan, Bernard Francis, 1964 Holden, John Oliver Robert, 1960 Hole, Jeffrey Keith, 1965 Holland, Bruce Owen, 1957 Hollick, John Clinton, 1961 Hollis, Murray John, 1965\* Hollo, Agnes, 1960 Holloway, John Paul, 1964 Hopkins, Frank Richard, 1963 Horne, Gilda Ann, 1962\*\* Hoschke, Barry Norman, 1963\*\* Hoschke, Graham Carl, 1965 Hoskins, Bernard Foster, 1959• Hoskinson, Ronald Milton, 1959\*\* Hourigan, James Arthur, 1964 House, Denis John, 1964 Howard, Ian James, 1961 Howard, William James, 1959 Howarth, Bruce Robert, 1964\*\* Howarth, Walter James, 1959\*\* Howe, Barry Thomas, 1963 Hubery, Ronald Winston, 1960 Hudson, Francis, 1959 Hughes, Brian Francis, 1965 Hughes, Donald Bruce, 1955 Hughes, Donald Keith, 1963 Hughes, Kenneth Charles, 1965\* Hughes, Richard Maclay, 1959 Humphreys, Robert William, 1958 Hunt, James Herbert, 1953 Hunt, Kenneth Richard, 1955\*\* Hunt, Levitt John, 1965 Hunt, Royston Luther, 1960 Hunter, Robert, 1963\*\* Hutchison, Peter John, 1964\*† Hyslop, Donald, 1957 Ibrahim, Omar Bin, 1963 Ip, Hung Kwong, 1961 Irwin, Ian Hector, 1959 \*\*\* Honours Class III † University Medal

Irwin, Roderick Morrison Stephen, 1961\*\*\* Ivin, Percival Charles, 1964 Jaason, Svea-Reet, 1963 Jackson, Frederick John, 1962 Jackson, James Keith, 1960 Jackson, Wilbert Andrew, 1964 James, Leigh Barrie, 1963 James, Paul Sidney, 1963 James, Peter Anthony, 1963\* James, Peter Edward, 1964\*\* Jameson, Graeme John, 1960\*\* Jamieson, Peter Norman, 1962 Janov, Juri, 1965\* Jasjfi, Epi, 1960\*\* Jay, Anthony William, 1965 Jay, William Harold, 1961 Jefferson, Anthony David, 1961 Jeffries, James, 1961 Jehne, Claus, 1965\*\*\* Jelavic, Dennis Felix, 1963 Jenkins, John Henry, 1964 Jenkins, Trevor Barry, 1963 Jennings, John Francis Peter, 1965 Jensen, Noel Vincent, 1965 Jex, Richard Leonard Ernest, 1959 Joasoo, Ulo, 1961 Jobling, Ralph, 1961 Johnson, John Wentworth, 1954 Johnson, Keith John, 1952 Johnson, Merike, 1965 Johnson, Richard Derwent, 1962 Johnson, Richard John, 1960\*+ Johnston, Andrew Gordon, 1955 Johnston, Bruce Beresford, 1964 Johnston, Gordon Basil, 1956 Johnston, Kenneth Alan, 1962\*\* Johnston, Nancy Vada, 1963 Johnston, Ronald David, 1965\* Johnstone, Cyril David, 1957 Johnstone, James Norman, 1965 Jones, Arthur Vincent, 1964\* Jones, Mark Robert, 1962 Jones, Peter Robert, 1965 Jones, Raymond Charles, 1960 Jones, Russell Campbell, 1961\*\* Jones, Thomas Alwyn, 1956 Jones, Warwick Leonard, 1953\*\* \* Honours Class I \*\* Honours Class II

Joscelvne, Ronald Arthur, 1963 Jostsons, Adam, 1963\*† Jostsons, Peter, 1964 Kabat, Miroslav John, 1963 Kaberry, Bryce, 1964 Kable, John William, 1961 Kadwell, John Albert, 1962 Kaineder, Alfred Frank, 1964 Kastalsky, Victor, 1963\* Kaufman, Jack, 1958 Keane, Terence James, 1964 Keats, Neil Gordon, 1959 Keena, Harry Vernon, 1963 Keese, Ian James, 1965 Kelcoyne-Lawrence, Graham Giorgio, 1962 Kellett, John Raymond, 1965 Kelly, David Patterson, 1965\* Kelly, Douglas Edward, 1963 Kelly, Francis Peter, 1961\*\* Kelly, George Desmond, 1965 Kelly, Peter Yates, 1961 Kelsey, Peter John, 1963 Kemp, John Edward, 1965\* Keniry, John Stanley, 1965\* Kennan, Ross William, 1962 Kennard, Colin Harold, 1956 Kennedy, Geoffrey John, 1961 Kennedy, John Patrick, 1957\*\* Kennedy, Richard Edmond, 1955\*\* Kennett, Ross Hallett, 1959\*\* Kenny, Peter, 1957\* Kenny, Rosalind Margaret, 1963 Kernebone, Francis Ellis, 1962\*\*\* Kerr, Andrew Colin, 1958\* Kerr, Jeffrey Lionel, 1958 Keyzer, Hendrik, 1964\* Kilpin, Colin John, 1965 King, Allan Roy, 1953\*\* King, Dianne, 1962\* King, Keith Douglas, 1964\* Kinnersley, Donald Stuart, 1960 Kirke, Errol Andrew, 1962 Kirsop, Walter, 1960\* Klavins, Janis Evalds, 1960\*\* Klein, Patrick Dawson, 1965 Knight, Sylvia Margaret, 1961 Knispel, Charles Christian, 1958\* \*\*\* Honours Class III † University Medal

Knox, Warren Samuel, 1964 Koczkar, George Michael, 1962 Kokot, Ernest, 1957\*\* Kornis, Gabriel, 1958\*\* Kraegen, Edward William, 1965\*\* Krysko v Tryst, Maren, 1963 Kuyper, John Carel, 1964 Kwei, Sophia Che Ying, 1963 Lacey, Daryl Thomas, 1961\*\* Laicans, Zigfrids Bruno, 1963 Laing, David George, 1965\* Laing, Olga Nicolaevna, 1965 Lam, Kwan Wu, 1965 Lambert, Colin Godfrey, 1961 Lambert, Graeme Ross, 1965 Lamens, Hans, 1958 Lamond, Maxwell James, 1956\*\* Lampard, Mark Gregory, 1962 Lancaster, Brian William, 1964 Lancaster, Kenneth John, 1965\*\*\* Lancaster, Susan, 1965 Landa, Barry Samuel, 1965 Landon, Anthony William, 1964 Lane, Warwick Manning, 1957 Lang, Maxwell McNeil, 1960\*† Langby, Claude William, 1957 Langford, Edward John, 1962 Lanzarone, Roland Michael, 1959 Lark, Prosper David, 1952\*\* Larking, Alexander Denis, 1963 Lassak, Erich Vincent, 1963\*\* Lathlean, Barry, 1956\*\* Lau, Donald Yue Kui, 1963 Law, Siu Wah, 1960\*\* Lawson, Frank, 1955\*† Lawson, Philip Burton, 1960 Layt, James Edward, 1960 Laytham, Brian Robert, 1965 Layton, Richard Edward Stacey, 1965 Lazar, Marianne, 1963 Lean, John Barry, 1955 Le Bas, John Joseph, 1960 Lee, Chong Pin, 1965 Lee, Colin Francis, 1965 Lee, Ernest John, 1961 Lee, Francis Albert, 1961 Lee, Frederick Thomas, 1957\*\* Lee, Helen Henderson, 1963 \* Honours Class I \*\* Honours Class II

Lee, John Barry, 1957 Lee, John William, 1957\* Lee, Nyit Sin, 1965 Lee, Seng Chong, 1965 Lee, Terence Henderson, 1963\* Lee, Vincent, 1955 Lehoczky, Ildy Marie, 1964 Leigh, Ronald Maurice, 1959 Lenn, Anthony Marcus, 1965 Leonard, Barry David, 1965 Leung, Ping Kwan, 1960 Lewis, John Alfred, 1959 Lidbetter, David William, 1963 Lie, Kok Toen, 1960\*\*\* Lightfoot, Betsy Blythe, 1965\* Lim, Hai Yan, 1964 Lindoy, Leonard Francis, 1964 Lino, Barry Frederick, 1965\*\*\* Little, Alec George, 1955\* Little, John Jeffrey, 1959 Little, Lambert Ronald, 1954 Livingstone, Sandra Elizabeth, 1964 Livingstone, Stanley Edward, 1952\* Lloyd, Christopher Paul, 1964\*\* Lo, Mary Frances Meng Choo, 1965 Locksley, Harry David, 1955\*\* Locksley, Peter John, 1963 Lockyer, Trevor Norman, 1957 Lonie, Thomas John, 1964 Lorenc, Jaroslav, 1960 Lorschy, Peter, 1962\*\*\* Lourey, Brian Joseph, 1961 Love, John Leslie, 1965 Lovell, Derek Campbell, 1957 Lowe, Brian Frank Sydney, 1965 Lowe, James, 1965 Lozzi, Andrey, 1965 Lunin, George, 1962 Lyddiard, Kathryn Rose, 1963 Lynch, Alban Jude, 1956\*\* Lynch, Denis Francis, 1962\*\* Lynch, Leo James, 1964\*\* Lynch, Patrick William, 1958 Lyon, Kevin Robert, 1963 Macdonald, Ian Laurence, 1965 MacDonald, John Robert, 1961 MacDonald, Ronald James, 1962\* Machin, Michael Vincent, 1964 \*\*\* Honours Class III † University Medal

Mackay, Bruce Hugh, 1959\*\* Mackay, Ian Naunton, 1961 Mackenzie, James Archibald, 1964 Mackey, Phillip John, 1964\*\*\* Mackie, James Alexander, 1953 Mackintosh, Donald Lachlan, 1964\*† Mackintosh, Malcolm McInnes, 1965 MacLennan, David Graham, 1959 Macmillan, James, 1952\*\* Macmillan, William Pattie, 1958\*+ Macrae, Ann, 1964 Madden, Barry George, 1956\*\* Madgwick, George Graham, 1954\*\* Madgwick, John Colin, 1962 Magill, Lawrence Ian, 1964 Magnusson, Alan Hastings, 1962 Maher, Kenneth James, 1964\*\* Maidment, Edward Holdsworth, 1959 Maksvytis, Juozas Joseph, 1961 Malin, Anthony Samuel, 1958\* Malkan, Hermanto, 1962 Maltman, Harry Lister, 1965\*\*\* Manley, Robert Frank, 1965 Mann, Edward Alan, 1964 Mann, Robert Keith, 1964\*\* Manners, Vincent John, 1955 Manocha, Jaswant Singh, 1965 Manocha, Kalwant Singh, 1955 Mansberg, Emanuel, 1954 Manurung, Firman, 1959\*\* Marjoribanks, Kevin McLeod, 1959 Marler, Geoffrey Charles, 1961 Maroney, Allan Patrick, 1964 Martin, June Rosemary, 1963\* Martin, Norman, 1958 Martin, Ronald Hugh, 1954 Martin, Warren, 1963 Marx, Barry Clive, 1963 Masnick, Anthony Joel, 1962\*\* Mason, Kevin Joseph, 1962 Massey, Ian Warren, 1963 Masson, Michael Angus, 1965 Mather, Laurence Edward, 1965 Matheson, Alexander William Hay, 1964\*\* Mathew, Brian Albert, 1965 Matthews, Joseph, 1960 Matthews, Peter Iceton Miles, 1964 \*\* Honours Class II \* Honours Class I

Matthews, Ralph William, 1960\*\* Mawby, Marcus William, 1964 McAuslan, Brian Richard, 1961\*\* McBride, Thomas Patrick, 1965 McBrien, Basil Patrick, 1958 McCallum, Valerie May, 1962 McCaughtrie, Glen Allan, 1963 McClintock, Donald John, 1961 McColl, David Neil, 1961 McConnell, John Murree, 1963 McCormack, Gerard Laurence, 1965 McCoy, Arthur Keith, 1960 McCoy, Athol William, 1959 McCracken, Jack Geddes, 1963 McCulloch, Ian Gordon, 1962 McDonald, Neil Robert, 1960\*\* McDonald, Stanley, 1965\*\* McDougall, Peter George, 1956 McFarland, Bruce, 1964 McFarlane, Jeanette, 1962 McGarity, John Michael, 1964 McGeachie, Ingles Wordsworth, 1960 McGowan, Allan James Joseph, 1963 McGregor, Robert Douglas, 1965 McGuiness, Leslie James, 1965 McGuirk, Brian John, 1965\* McInnes, Peter Aloysius, 1958 McIntosh, Alexander Ian, 1963\*† McIntosh, Josephine Robin, 1962 McKay, Harry David, 1957 McKee, Alastair Neil, 1963\* McKee, Ian Alexander, 1963\*\*\* McKee, Ian James, 1962\*\* McKelvie, Dawn Rosalyn, 1964 McKenna, Robert John, 1964 McKillop, John Gordon, 1961 McKinnon, Kenneth Hamilton, 1961\*\*\* McLaren, Keith Gerrard, 1958\* McLeod, Peter Donald, 1964 McMahon, Shane Evelyn, 1965\*\* McMartin, Ian Bruce, 1962 McMaugh, William John, 1958 McNamara, James Patrick, 1963 McNaught, James Stewart, 1955\*\* McPaul, Keith Stanley, 1964 McRae, Colin Alexander, 1965 McSwan, Robert Bruce, 1962 \*\*\* Honours Class III † University Medal

Mead, Murray, 1953 Meade, Thomas John, 1964 Merry, Robert Richards, 1962 Meyer, Helen, 1965 Meyers, Lorraine Edna, 1963 Meyjes, Ernest Harry, 1963 Miceli, Michael John, 1956 Milani, Lawrence, 1963 Mildwater, Susan Alice, 1962 Milham, Harold Stanton, 1963 Miller, Cedric Earl, 1960 Miller, Charles James, 1953\*\*§ Miller, James, 1957 Miller, Jeffery John, 1963 Miller, Keith Andrew, 1963 Mills, Sylvester Colin, 1958 Milne, Douglas Keith, 1962\*\* Milne, John Warren, 1956 Milward-Bason, Paul Miles, 1965 Mitchell, Geoffrey James, 1964 Mitchell, Keith John, 1963\*\*\* Mitro, George, 1962 Mockler, Garry Michael, 1964\*\* Moerjono, John, 1962 Moffat, Douglas William, 1965 Montgomery, Kelvin Alan. 1960 Moo, Lincoln Tim Kui, 1961 Moor, Beresford Christopher, 1958 Moore, Michael Nean, 1957 Moore, Patricia Ann, 1964 Moore, Philip William, 1963\*\* Moore, Wayne Eric, 1965 Moran, Vincent John, 1955 Morgan, Anthony Robin, 1962 Morgan, Peter David, 1963\*\*\* Morgan, Robert John, 1962 Morgan, Stanley Roy, 1960 Moriarty, John William, 1965 Morieson, Warwick Thomas, 1964 Morley, Donald Marshall, 1965\*\*\* Morrant, Alan James, 1955 Morris, Anthony Alexander, 1961 Morris, Anthony John, 1964 Morris, Frederick Ronald, 1964 Morris, Maxwell George, 1953 Morrison, Alexander John, 1953 Morrison, Barry Leonard, 1956 \* Honours Class I \*\* Honours Class II

Morton, Allan James, 1960\*† Moses, Marilyn Nea, 1962 Moulton, Clifford Arthur, 1965\*\*\* Mowbray, Gordon, 1958\*\* Mowbray, William, 1957 Moylan, William Laurian, 1964 Mudford, William John, 1964\*\* Muir, Andrew, 1958 Muir, Christopher Charles, 1963 Muir, Peter Lawrence, 1956 Mulholland, John Gordon, 1962\*\* Mullen, Brian Joseph, 1961 Muller, Ross Leslie, 1957\* Munk, Leon, 1964\*\* Munk, Nissim, 1965\*\* Munns, William Leslie, 1964 Munro, Arthur William, 1963 Murdoch, Raymond Neville, 1964\*\* Murphy, Henry Matthew, 1965 Murphy, Peter Francis, 1964 Murray, Graham Leslie, 1965 Murray, John Coll, 1965 Mushan, William George, 1964 Muthucumaru, Puspavathy, 1964 Myers, Barry John Frederick, 1962 Myles, Kenneth William, 1963 Nagel, Brian Richard, 1960 Nancarrow, Peter Charles, 1962 Napier, Keith Hamilton, 1957\* Nash, Peter, 1961\*\*\* Nasserie, Dick, 1958 Nay, Ronald George, 1960 Neale, Wilson Harry, 1959\*\* Neasbey, Neville William, 1961 Neill, Barry Vincent, 1956 Neilson, Ian Young, 1961\*\*\* Netschey, Alexander, 1963 Neu, George, 1956\*\* Neville, Joseph Michael, 1963 New, Alan James, 1963 Newton, Alexander, 1956 Newton, Wendy Lynette, 1962 Ngiam, Tong Yuen, 1962\*\* Nichol, Alan William, 1962\*+ Nicholls, Richard George, 1962 Nichols, Allan Charles, 1961\*\* Nicholson, Frank David, 1962

\*\*\* Honours Class III † University Medal § Deceased

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Nicholson, Malcolm Charles, 1962 Nicholson, Peter Herbert, 1964 Nickson, Brian John, 1955 Nicol, John Charles, 1960 Nicol, Patricia Irene, 1963\*\* Ninio, Freddie, 1960\*\* Nolan, Raymond John, 1962 Noller, Charles Geoffrey, 1958 Noonan, Denis Edward, 1958 Noordewier, Hans, 1962 Nordon, Peter, 1954\*† Norman, Joseph, 1953\*\* Noy, Marion, 1962 Nugent, Hugh Russell, 1959 Nunn, Barry Nigel, 1959 Oates, Hugh William, 1965 O'Bree, Eric William, 1960 O'Brien, Anthony David, 1964 O'Brien, Colin John, 1964 O'Brien, John Charles, 1960 O'Brien, Paul, 1962 O'Brien, Reginald William, 1956 O'Connor, Michael Wetherill, 1954 O'Donnell, John Michael, 1957 Oedjoe, Djoeriaman, 1960\*\* Offner, Janice Ellen, 1963 O'Flynn, Patrick Michael, 1964 Oglethorpe, Bruce James, 1954 Oitmaa Jaan, 1965\*† O'Keefe, John Herbert, 1963 O'Neil, William Frederick, 1963 O'Neill, Brian Michael, 1962 Oom, Peter John, 1957 Orlova, Tatiana, 1965 Ormay, Miklos Kalman, 1959 O'Regan, Barry Phillip, 1963 O'Rourke, Thomas Philip, 1962 Orrock, Bryan John, 1963\*\* Orwell, Ralph Laurence, 1961\*\* Osborn, Phillip George, 1961 O'Toole, Anthony John, 1963 Ottewill, Geoffrey Rabone, 1961 Ozols, Gunars, 1956 Paddison, Barry Arthur, 1953 Paddon, John Julius, 1963 Painter, Edward, 1963 Pajor, Peter Andrew Emeric, 1961\*\* Pallister, Ernest Thomas, 1960 \* Honours Class I \*\* Honours Class II

Palmer, Barry Phillip, 1965 Palmer, Eric Francis, 1958 Pankhurst, Roger Lawrence, 1963 Pappas, Peter, 1962\*\* Parkee, Malcolm, 1961 Parker, George Frederick, 1960 Parker, Peter, 1965 Parkes, Kevin Charles, 1965 Parkinson, Brian Alexander, 1965\*\* Parnell, Denis Anthony, 1963 Parry, Christopher John, 1963 Parsons, Ronald John, 1963 Parts, Arne Adolf, 1963 Pascoe, John Lawrence, 1959 Passmore, Brian Victor, 1958 Paterson, Donald Charles, 1963 Pattie, William Anthony, 1960 Payne, Denis Arnot, 1963 Pearce, Alanson Lindsay, 1963 Peebles, Anthony John, 1964 Peet, Diana Margery, 1963 Peh, Siew Cheng, 1965 Pemberton, Donald Marsden, 1959 Pemberton, Gary Milton, 1961 Pembleton, Kenneth Ruben, 1961\*\* Perrett, Eric William, 1962\*\* Perry, Douglas Ernest, 1965 Perry, Peter Patrick, 1954\*\* Petersen, Maxwell Christian Edward, 1963\*\* Pez, Guido Peter, 1962\*\* Philipp, Donald Henry, 1957 Phillips, Kevin James, 1963 Phua, Cheng Chit, 1965 Phuoc, Dang Huu, 1964\*\*\* Pickering, Edward Phillip, 1964 Pickering, William Frederick, 1952\* Pilkington, John Thomas, 1952\*\* Piltz, Kenneth Roy, 1965 Pinkerton, Donald Malcolm, 1959• Piper, Graeme Leslie, 1963 Piper, Neville Richard, 1965 Pirie, Alexander Walter, 1962 Pitchfork, Colin Edward, 1963 Pitt, John Ingram, 1962 Pomeroy, Alan Bruce, 1962 Pope, Charles Warwick, 1963\*\*\* Popovski, Vitali, 1961 \*\*\* Honours Class III † University Medal

Porritt, Donald William, 1965\*\* Porter, David Thomas, 1963 Postle, Ronald, 1962\*+ Poulton, Geoffrey Thomas, 1964 Powell, Graham Leonard Fraser, 1958 Powitt, Albert Henry, 1957 Pradhan, Satrughan Lal, 1964\*\* Pratt, Neil Richard, 1961 Pratten, Christopher Hugh, 1956 Preece, Daphney Emily, 1964 Price, Barry Charles, 1965 Prince, Roger Oliver, 1956\*\*\$ Prokopovich, Sviatoslav Antonovich, 1965 Proudfoot, Bruce William, 1962 Proudman, Peter John, 1965 Puck, Herbert Richard, 1963 Pullen, Pamela Margaret, 1965\*† Pullin, James Anthony, 1961§ Purches, Frederick Walter, 1953 Purss, Alan Stanley, 1953 Pyke, Bruce Henry, 1958\*\* Pyle, Titia, 1962 Pym, Ronald Kenneth, 1954 Quail, Harold Graham, 1962\*\* Quane, Douglas William, 1965 Quinn, John Malcolm, 1961\*\* Rainis, Andrew, 1965\*† Raison, John Kenneth, 1961\*\* Raiss, James Patrick, 1964 Raiss, Richard George, 1962 Raphael, Peter, 1960 Rayner, Arthur Wilson, 1962 Rayner, Mark Richard, 1961\*\* Read, Harold Walter, 1962 Reece, Ian Harold, 1956 Reece, Robert Edwin, 1965 Reed, John Leslie, 1965 Rees, Barbara, 1962 Reidy, Michael Joseph, 1961 Reilly, Keith Francis, 1965 Restall, Barry John, 1959\*\* Rhoades, Gerald Frederick, 1956 Richardson, Donald George, 1963 Rickard, Jon Albert Frederick, 1965 Rigby, Harold John, 1959 \* Honours Class I \*\* Honours Class II Rileigh, James Ronald, 1963 Riley, Brian Terence, 1964 Rippon, Denis Everard, 1959 Robards, Geoffrey Edward, 1964\*\* Robb, Jean Violet, 1965 Robbie, Ian Stuart, 1957 Robens, Barry John, 1965 Roberts, John, 1958\*\* Roberts, Kenneth Charles, 1964 Roberts, Michael John, 1963 Roberts, Norman Arthur, 1964 Roberts, Peter Kingsman, 1958 Robertson, Donald Ormiston, 1961 Robertson, Graham Dunnett, 1962 Robins, Harold George, 1955 Robins, Robert George, 1953\*\* Robinson, David Keith, 1965 Robinson, John McKay, 1960 Robinson, Valerie Joyce, 1963 Robson, Ruth Elaine, 1965\*\*\* Rockwell, James Francis, 1965 Rodgers, Patrick John, 1965 Rodgers, Raymond Francis, 1960 Rodrigo, Tennyson, 1955 Rogers, George Maxwell, 1958 Rogers, John Roland, 1960 Rogers, Robert Bruce, 1965 Rogers, William Robert, 1956 Rolfe, Christopher Brian, 1964 Roman, Dumitru, 1960 Rome, William Arthur, 1963 Romer, Edward Adolph, 1961 Romer, Joseph Arthur, 1962 Rooney, Michael Laurence, 1965 Roscoe, Noel Edward, 1956 Rose, Frank Arnold, 1961 Rose, Mary Letitia, 1964 Rosenthal, Aaron, 1964 Rosenthal, Jill Norene, 1965 Rosenthal, Ruth Marjorie, 1965 Rosevear, Pamela Eunice, 1965 Ross, Brian Thorpe, 1962 Ross, Frederick Harold, 1956 Rossler, Ludvick Peter, 1955 Rothwell, Robert, 1960 Routley, Walter Laurence, 1954 Rowe, Allan Winston, 1963

† University Medal

\*\*\* Honours Class III § Deceased

Rowe, Brian Lawrence, 1960 Roy, John Malcolm, 1964 Rozea, Sandra, 1965 Rudzats, Richards, 1958 Rush, Frederick Albert James, 1960 Rushton, David Anthony, 1963 Russell, Barrie James, 1959 Russell, Graeme John, 1962\* Rutherford, Denis Samuel, 1960 Rutherford, Neil Firth, 1960 Ruthven, Phillip Kenneth, 1962 Ryan, Bruce John, 1965\*\* Ryan, Keith Ronald, 1959\*\* Rvan, Kevin Francis, 1959 Ryan, William Patrick, 1962 Salasoo, Inno, 1957 Salasoo, Nony, 1962 Salasoo, Silvia, 1962 Sale, John, 1961 Salmon, David Anthony, 1960 Samin, Alan George, 1964\* Samios, John Morris, 1958 Sampson, Robert William, 1963 Sams, Jeffrey, 1960 Sander, Christian, 1959 Sanger, Paul Louis, 1965\* Sastrosoenarto, Hartarto, 1959\*\* Saunders, Helen Anne, 1965 Saunders, Phillip Warwick, 1962 Scahill, Dianne Maria, 1962 Scaife, Peter Hansen, 1964\*\* Schaefer, Ian Francis, 1963 Schafer, William Grenville, 1960 Schaffner, Karl, 1963\* Schlenker, Barry Royce, 1962\* Schlesinger, Peter, 1965 Schmitzer, Brian Michael, 1961 Schofield, Philip John, 1960\*\* Schramko, Rodney Peter, 1965 Schwab, John, 1965\*\* Schwarzer, Neale, 1963 Schweinsberg, Paul Desmond, 1964 Scott, Frederick Henry, 1964 Scott, John Alistair, 1961 Scott, Thomas Charles, 1960 Sculley, Maxwell Patrick, 1965 Seah, Teow Puan, 1965 Sedgers, Neil Thomas, 1960 \* Honours Class I \*\* Honours Class II

See, Brian Arthur, 1963 See, Graeme Thomas, 1955 See, John Bruce, 1965\* Selley, Ernest William, 1960 Seow, Kee Ying, 1963 Shanahan, Anthony Gregory, 1965 Shannon, William Patrick, 1964 Shapiro, Jacob Shemuel, 1962\* Sharkey, Ernest Stephen, 1957 Sharp, Alexander Malcolm, 1964 Sharp, John Howard, 1962\* Sharp, Judith Bentley, 1962 Sharry, Leo Francis, 1960 Shaw, Keith Hamilton, 1958 Shearer, Albert William, 1958 Sheargold, Leonard John, 1962 Shearsby, Geoffrey Winston, 1962 Sheather, Lloyd Henry, 1964 Sheedy, Peter Anthony, 1963 Sheehy, Patrick Francis, 1961 Shell, Graeme Stanley, 1964\*\* Sheppeard, Roger Sydney, 1964 Sheppherd, William Alfred, 1964 Sherlock, Stuart Laurence, 1965 Sherwood, Rosalind Anne, 1964 Shiell, Ronald Keith, 1965 Shoebridge, Richard Arthur Leo, 1964\*\*\* Short, Colin Campbell, 1960 Shortland, John Willoughby, 1964 Shu, Hsing-Chuan, 1963 Shying, Michael Ezra, 1960\*\* Siagian, Manalsal Bonaparte, 1961 Sianipar, Linde Manahara, 1960 Siddins, Joseph Charles, 1957 Sietzema, Piet Bart, 1959 Sigley, George Leonard, 1963 Simmons, Terence Llewellyn, 1961\*\*\* Simon, Hermann Ernst, 1961\*\* Simpson, Colin Morris, 1962 Simpson, John Robert, 1960 Simpson, John William, 1962 Simpson, Robert Frank, 1964\* Simson, Roman Edward, 1959, 1962 Sinclair, Monica, 1962 Sirmai, John, 1964 Skelton, Graham Edwin, 1963 \*\*\* Honours Class III

Skelton, Lola Beverley, 1962 Skidmore, John Anthony, 1953\*\* Skidmore, John Barry, 1960 Skinner, Daryl Rodney, 1963 Skinner, David Henry, 1958 Skinner, John Norman, 1957\*\* Slarke, Bruce Edward, 1959 Slee, Owen Bruce, 1959\* Smart, Geoffrey Alan, 1961 Smartt, Raymond Newton, 1964\*\*\* Smith, Bryan Gilbert, 1961\*\*\* Smith, Edmund Otho, 1964 Smith, Harold James, 1958\*\* Smith, James Davidson, 1952\*\* Smith, Malcolm Bruce, 1956 Smith, Marion Joy, 1963 Smith, Maurice Edward, 1957 Smith, Michael, 1965\* Smith, Richard Murray, 1964 Smith, Ronald David, 1956 Smith, Sylvia Constance, 1961 Smith, Valma Joan, 1962 Smithard, Ronald Reginald, 1962 Smythe, George Albert, 1965\* Smythe, Neville Francis, 1962\*† Smythe, Timothy William, 1965\* Snape, Trevor Alfred, 1957 Snedden, Jeffrey Robert, 1964 Snelson, Neville Frank, 1965 Snowdon, Geoffrey Arthur, 1964 Sobb, Michael Vincent, 1964 Soeharsono, Har, 1960 Soekarno, Pudjadi, 1961 Soemarno, 1961 Soemitroadi, Bambang, 1960\*\* Soepardan, Hasim, 1962 Soeparman, Entol, 1960\*\*\* Soeparwadi, 1958 Sollich, Werner Andreas, 1960\*\* Solomon, David Henry, 1953\*\* Solomon, Harold Edward, 1964 Somers, Malcolm Leonard, 1958 Sonkkila, Gail Marie, 1964 Sorensen, Brian Henry, 1961 Souter, Thomas George, 1959 Sowerby, Brian David, 1964\* Sparkowski, Anatoli, 1963 Sparrow, Kenneth Gale, 1965\* \* Honours Class I \*\* Honours Class II

Spedding, Peter Lee, 1958\*\* Spooner, Barry, 1963 Springthorpe, Brian Charles, 1961 Stacey, George Stephen, 1963 Stagg, John Alexander, 1965 Standish, Nicholas, 1959 Stanley, Gerald, 1962 Stanmore, Brian Ralph, 1959 Stead, Blair Victor, 1964\*\* Steadman, Robert George, 1961\*\* Steanes, John Ellington, 1958 Stein, Alan Walter, 1956 Stekelenburg, Marcus Titus Thyl, 1961 Stephen, Bruce William, 1957 Stephen, Wallace, 1952 Stephens, Frederick Selwyn, 1960\*\* Stephens, Garry Herbert, 1962 Stephens, Geoffrey Malcolm, 1957 Stephens, James Rosevear, 1962\*\* Stephens, Jeffrey, 1965 Stephenson, Peter John, 1965 Stern, Walter, 1960\*\* Stevens, Rhonda May, 1964 Stevenson, David Dunlop, 1960 Stevenson, William Morton, 1962 Stewart, Alistair James, 1960 Stewart, Colin Crosbie, 1958 Stewart, David Murray, 1965 Stewart, Edward Keith, 1963 Stewart, Jennifer Christine, 1965 Stewart, Philip Sidney, 1962\* Stiebel, Paul Andrew, 1962 Stimson, Alan Keith, 1958 Stoddart, Norman Thomas, 1955\*\* Stone, Allan Michael, 1964 Stone, Kenneth Francis, 1965 Storey, David, 1963 Storum, Gregory Daniel, 1963 Strange, John Arthur Edward, 1963 Strasser, Stephen, 1962 Stubbs, Thomas John, 1965 Sullivan, Denis John, 1964\*\* Summers, Tyrone Allicent, 1961 Sun, Robert Keith, 1962 Suters, Ralph William, 1961 Sutherland, Brian Andrew, 1963 Sutton, Gervaise John, 1952\*\* \*\*\* Honours Class III † University Medal

Swan, Francis Joseph, 1964 Swan, Peter Matthew, 1962\* Swinbourne, Ellice Simmons, 1952\* Swinkels, Dominicus Adrianus Johannes, 1960\*† Sylva, Ronald Noel, 1965<sup>4</sup> Symons, Douglas Ross, 1958\*\* Szumer, Adam Zygmunt, 1957\* Taggart, Diana Helen, 1962 Tai, Joseph Yau-Sing, 1961 Tait, John Russell, 1965\* Talbot, William Linton, 1962 Taloni, Augusto, 1964\*\* Talty, William Watson, 1958 Tan, Kim Chong, 1965 Tan, Sik Liang, 1961 Taylor, Alexander John, 1963 Taylor, Francis Joseph, 1957 Taylor, Peter Charles, 1958 Taylor, Robert Folster, 1959 Teague, Joanne Lisbeth, 1964 Telford, John Alexander, 1965 Teo, Chester, 1963 Thackray, Ian Hamilton, 1962 Thalassinos, Stavros, 1962 Thatcher, John David, 1965 Thatcher, Malcolm John, 1964 The, Kwat Ie, 1960 Thitchener, Dennis Henry, 1964 Thomas, Ellis Rodger, 1959 Thomas, John Clarence, 1960 Thomas, Philip Emlyn, 1962 Thomas, Robert John, 1962\*\*\* Thomas, Roderick William, 1964 Thomas, Terry Latham, 1964\*\*\* Thompson, Barry Edward, 1959\*\* Thompson, Colin John, 1962\*† Thompson, Graham Ward, 1965\*\* Thompson, Raymond George, 1956 Thompson, Richard Lawrence, 1960 Thompson, Robert Ian, 1965 Thomson, Joseph Alexander, 1959 Thomson, William, 1964 Thomson, William Kenneth, 1961 Thorburn, Trevor John, 1958 Thornley, Robin Crystal, 1963 Thurling, Brian Leslie, 1965 Thurstan, Edward Gray, 1962 • Honours Class I \*\* Honours Class II Thurstun, John Robert, 1962 Tibbles, Stanley Raymond, 1959 Ticehurst, Gregory William, 1965 Tille, John Joseph, 1963\*\* Tindale, Brian Earl, 1957 Tinsley, David Alfred, 1964 Tobin, Denis Paul, 1962\*\* Todd, Donald Douglas, 1961 Todhunter, John William, 1957 Toh, Kok Wah, 1961 Torzillo, Rex Louis, 1956 Towle, Alan Norman, 1965 Trainor, Kevin Eugene, 1964 Travers, John Ralph, 1963 Treloar, Ernest Edgar, 1964 Tremain, Jeffrey Edward, 1962\*\* Trotter, Peter George, 1965\*\* Tschoegl, Nicholas William, 1954\*\* Tuberg, Harry, 1959 Tuddenham, Ronald Frederick, 1959\*† Tudehope, Brian John Stevens, 1965 Tulloch, John Norman, 1965 Tuohy, Leonard John, 1963 Tye, Marea Carolyn, 1962 Udomsakdhi, Bancha, 1957 Uhrig, John Allan, 1958 Underwood, James, 1964\*\* Upjohn, Robert George, 1954 Upton, David Edward, 1963 Urane, David, 1959 Vagg, Robert Sylvester, 1965 Vail, Noel Walter, 1957 Vallance, Adam Anthony John, 1959 Van der Poorten, Alfred Jacobus, 1965\*† Van Dooren, Paul Henri, 1961 Van Es, Alan Richard, 1965 Van Oostrom Soede, John Karel, 1963 Vaughan, Barrington Maxwell, 1964 Venczel, Ernest Desiderius, 1964 Vickers, James Frankland, 1961 Vilensky, Leo David, 1961\*\*\* Vine, Tim, 1965 Vogt, Viktor, 1963 Volegoff, Basil, 1964 Wadds, Elizabeth Mary, 1962\*\* Wade, Kenneth John, 1965

\*\*\* Honours Class III † University Medal

Wagland, Barry Maxwell, 1960 Wailes, Frederick Brian, 1965\*\* Walker, Alan John, 1957 Walker, Llovd Herbert, 1958 Walker, Richard Michael, 1965 Wall, Geoffrey Craig, 1954\*\* Wallace, William James, 1965 Wallis, Donald Clarke, 1961 Wallis, Douglas Malcolm, 1965 Wallwork, Greig Richard, 1956 Walpole, Ernest Allan, 1953\*\* Walter, Geoffrey William, 1964 Waltho, Judith Anne, 1960 Wan, Kwok Tai, 1963 Warby, John Robert, 1961 Ward, Colin Wesley, 1965\*† Ward, David Jock, 1964\* Ward, Lynette Alice, 1963 Ward, Peter Andrew, 1963 Ward, Robert James, 1964 Ware, James William, 1961 Warner, Noel Alfred, 1953\* Warner, Ronald Kenneth, 1952\*† Warren, Timothy James Howden, 1961 Waters, Maurine Ann, 1963 Waters, Naomi Anne, 1965 Watson, Brian Philip, 1961 Watson, Ian Russell, 1961 Watton, Edward Charlton, 1957\* Watts, John Bourne, 1964\* Waugh, Clyde Todhunter, 1957 Wavgood, Evelvn Gerhild, 1965 Wearne, Berris Rodner, 1957 Webb, Geoffrey Archibald, 1961 Webster, Alexander MacDonald, 1956 Webster, Robert Brian, 1960 Weeden, Douglas George, 1962 Weir, William Anthony John, 1964 Weiss, Paul William, 1961\* Welbourne, Christopher Thomas, 1964 Wells, Robert Arthur, 1962 Werner, Ronald Louis, 1952\*† Whan, Robert Bruce, 1959\*\* Wheatley, Ian Starr, 1960 Wheelahan, Bernard, 1961 Wheeler, Ramsey Moore, 1958 \*\* Honours Class II • Honours Class I

Whiddon, Fredrick Ross, 1956 Whight, Patrick Raff, 1965 Whitaker, John Malcolm, 1964 Whitby, David John, 1961 White, John Lawson, 1961 White, Maxwell Alexander, 1963\*\* White, Warren James, 1962 Whitehouse, John McCathie, 1964\*\* Whitely, Kenneth James, 1955\*† Whitfeld, David, 1956 Whitfield, Frank Brierley, 1958\* Whittaker, John Douglas, 1963 Wickham, Douglas, 1961 Wiggins, Bruce, 1961 Wilcox, Ronald Walter, 1964 Wild, John David, 1961\* Wild, Stanley Bruce, 1964\* Wiley, James Alfred, 1965 Wilkinson, Kevin Edward, 1964 Willcox, Donald Roderick, 1965\*\* Williams, Barry Edgar, 1958 Williams, David Roland, 1961 Williams, Eric Joseph, 1955 Williams, Gerard, 1965 Williams, John Russell, 1963 Williams, Lloyd, 1958 Williams, Warwick Raimond, 1965 Williamson, Elaine Frances, 1963 Willis, Colin George, 1964 Wilmot, Frederick Richard Hiatt, 1964 Wilson, Barrie Alexander, 1962\*\* Wilson, Brian Gerard, 1963 Wilson, Colin Joseph, 1960 Wilson, Derek John, 1963 Wilson, Donald William, 1960\*\*\* Wilson, Douglas Harold, 1956\*\* Wilson, Robert Edward, 1961 Wilson, Tasman Ian, 1963 Wilson, William Richard, 1964 Wiltshire, Neville Duncan, 1961 Winch, Alfred William, 1965 Wingrove, Alan Lionel, 1965 Withers, Michael Keys, 1960 Wolfe, Anthony, 1964 Wolfenden, Jack, 1953\*\* Wong, Ching Lien, 1961 Wong, Pak Kuen, 1963 \*\*\* Honours Class III † University Medal
#### **BACHELORS OF SCIENCE**—continued

Wong, Reginald James, 1963 Woo, Lee Yong, 1965 Wood, David Graham, 1960\*\* Woodcroft, Donald Arthur, 1965 Woodland, Leslie Keith, 1962\*\*\* Woodley, Leslie James, 1964 Woodward, Roger Thomas, 1964 Woolley, Edwin Price, 1959 Worner, Colin Murray, 1965 Worrall, Robert Grant, 1958 Worswick, Barry James, 1964 Worthington, Carol Ann, 1965\*\*\* Wrench, Maxwell Cleeve, 1959 Wright, Allan, 1965 Wright, Janice, 1963 Wright, Roddam Knyvet, 1962 Wright, Warren Douglas, 1961 Wright, William James, 1955

Wrighter, Edward Martin, 1962 Wyatt, Graeme Keith, 1959 Wunderlich, Frank Bryan, 1962 Yap, Tung Buan, 1965 Yardley, Ronald Harley, 1965\* Yarrington, Karl George, 1961 Yee, Allan, 1964 Yee, John Junevih, 1963 Yee, Samuel Wing Cheung, 1959 Yeo, Loy Meng, 1965 Yeung, Victor Ming Tak, 1965 Young, Brian Charles, 1963\*† Young, Donald Charles, 1961\*\*\* Zainal, 1962 Zaki, Mahmud, 1959 Zantiotis, Steve, 1961 Zarb, Joseph Mario, 1965 Zee, Richard, 1965

## **BACHELORS OF SCIENCE (MEDICINE)**

Isbister, James Paton, 1965\* Mok, Henry Yue Iu, 1965\* Mutton, Patricia Elizabeth, 1965\*\*

## **BACHELORS OF SCIENCE (OPTOMETRICAL SCIENCE)**

Amigo, George, 1956<sup>+†</sup> Asgar, Asad Ali, 1957<sup>\*\*</sup> Bennett, Norman Boutflower, 1957 Bromley, John Thomas, 1956<sup>\*\*</sup> Brown, Colin Robert, 1956<sup>\*†</sup> Cleworth, Richard Henry, 1958 Fulthorpe, Neville Alfred, 1957<sup>\*\*</sup> Harvey, Kelvin Richard, 1957<sup>\*\*</sup> Herbert, Kenneth Cyril Royston, 1958 Layland, Brian, 1958 Micheletti, Peter Albert, 1958 Pedersen, Melville Roy, 1957 Ryman, Leslie Alfred, 1957 Simpson, John Arthur, 1957 Thomas, Penrhyn Francis, 1957 Tucker, Jeffrey Ernest, 1957 Walker, Burnett Fenwick, 1957 Webb, Jack Barrie, 1957 Williams, Owen Ashley, 1956

#### **BACHELORS OF SCIENCE (TECHNOLOGY)**

Abel, John Geoffrey, 1964 Alcock, William Angus, 1965 Alleyn, Anthony George, 1963 Anderson, Donald Murray, 1964 Andrews, Ernest William, 1964 \* Honours Class I \*\* Honours Class II Avery, Ronald George, 1964 Barclay, Allen Robert, 1964 Barker, John Murray, 1965 Beard, Geoffrey Edward, 1964 Bezimienny, Jan, 1965

\*\*\* Honours Class III † University Medal

# **BACHELORS OF SCIENCE (TECHNOLOGY)**-continued

Bhai, Elias, 1963 Binskin, Leonard Henry, 1965 Blair, Charles Anthony, 1964 Boland, Anthony Peter, 1964 Booth, John Clifford, 1963 Braddock, Donald Alexander, 1964 Brandis, Christopher Charles Pascall, 1965 Brooks, John William, 1964 Broughton, David Thomas, 1965 Brown, Warren David, 1965 Bruveris, Inars, 1963 Buchanan, James Alex, 1965 Budinsky, Allan Robert, 1964 Butcher, John Powell, 1965 Byrne, Nevil Ernest, 1965 Byrnes, Kerry Michael, 1965 Cahill, Frank, 1963 Camac, Stuart, 1964 Carr, Robert Anthony, 1964 Chapman, Thomas Mervyn, 1964 Charlesworth, James Lisle, 1964 Chiang, James, 1964 Condon, Warwick Arthur, 1964 Connaughton, Robin Douglas, 1965 Cooper, Rodney John, 1965 Corin, Phillip John, 1964 Cornell, Roy Edward, 1965 Cornford, Donald James, 1964 Coughlin, Robert Charles, 1964 Crawford, Bruce William, 1965 Davis, Edwin Thomas, 1964 Dawe, Hilton Edyvean, 1963 Dennis, John Joseph, 1965 Denney, Ian Windsor, 1965 Devine, John Thomas, 1964 Dorber, Geoffrey Martin, 1964 Dorien-Brown, Barry, 1964 Douglas, John Ellis, 1964 Downie, Sidney William Edwin, 1965 Dransfield, Stanley Baden, 1965 Dunkley, Kenneth Graeme, 1963 Dusting, Ronald Albert Stanley, 1963 Dymet, Adolf, 1964 Eckett, Philip Graham, 1963 Edwards, Paul Lindsay Clarence, 1963 Eiler, Henry George, 1964 Elliot, Maxwell John, 1964

Erdstein, Arthur, 1964 Evans, Roger Frederick Kingston, 1964 Fabok, Miloslav Michal, 1963 Filewood, George Raymond, 1964 Fish, John Douglas, 1964 Fisher, Graham Norman, 1965 Franchimon, Charles Colet, 1965 Fraser, Robert Alexander, 1964 Freijs, Juris, 1963 Furney, William Sydney, 1965 Gabbott, Stephen Leonard, 1964 Geier, Alois Zoro Vjekslav, 1965 George, Terence John, 1965 Gibson, Bruce, 1963 Gibson, Terrence George, 1965 Gray, Roger Barry, 1964 Griffiths, Anthony Vincent, 1964 Griffiths, Robert Rainford, 1962 Haertsch, Anthony Peter, 1964 Hancock, Thomas Neil, 1965 Harper, John Charles, 1964 Harradence, Ronald William, 1965 Harris, John Alfred, 1965 Harrison, Keith James, 1965 Hattersley, John Bruce, 1963 Hazel, Robert Cecil, 1964 Heimann, Douglas Graham, 1963 Hine, Richard John, 1965 Hodges, David Alexander, 1965 Hoffman, Alan James, 1964 Holland, Anthony John, 1965 Hollingsworth, James Melville, 1964 Horne, Warwick John, 1965 Hornery, Stuart Gordon, 1964 Ivanoff, Valery, 1964 Ives, Michael Herbert, 1963 James, Michael Alan, 1964 Jenkinson, Bruce Ian, 1964 Johnston, Graham Herbert, 1963 Jones, Edward Arthur, 1964 Kinch, Michael Allen, 1964 Kirwan, Anthony Paul, 1964 Kovari, John, 1965 Kupke, Dale Reginald, 1964 Kwei, Gibson Chi-Shun, 1964 Lamond, Tony Wilfred, 1965 Last, Reinder, 1965

#### **BACHELORS OF SCIENCE (TECHNOLOGY)**-continued

Laudams-Gulbis, Aksels, 1965 Lawson, Raymond, 1965 Layton, Thomas Martin, 1965 Lean, Knowles Lovick, 1964 Le Bas, David Heber, 1964 Lindsay, Vincent John, 1965 Lo, Paul, 1965 Locke, Edward Francis, 1963 Lumley, Thomas Geoffrey, 1965 Lynch, Keith Stanton, 1965 Lyon, Clifton James, 1965 Mackie, Graham Lawrence, 1964 Mactavish, Alan Edward, 1965 Magisztrak, Istvan, 1965 Martin, John Owen, 1965 McGowan, Kenneth William, 1964 McMillan, Peter John, 1964 Meany, David William, 1964 Melville, Colin John, 1963 Munday, Donald John, 1965 Murray, Frank, 1965 Neal, Ashley Noel, 1964 Newman, Edward Lawrence, 1964 Newman, Ronald Charles, 1963 Nicey, Kevin Richard, 1965 Nicholson, Kenneth, 1963 Nyholm, Eric Edward, 1965 Oakley, Robert Maxwell Lytton, 1964 Olds, Ronald Keith, 1965 O'Leary, Michael Anthony, 1963 Orames, David William, 1964 Pace, Francis George, 1965 Pedersen, Ronald James, 1963 Pellow, Arthur, 1964 Perry, John Harold, 1964 Phelps, Ross Leslie, 1964 Phillips, David James, 1964 Pitt, John Charles, 1963 Pittman, Peter Frank, 1964 Podzebenko, Eugen, 1963 Powell, Brian Leslie, 1964 Powell, Ronald Michael, 1965 Psillakis, George, 1964 Renneberg, Peter Michael, 1964 Richardson, George Stanley, 1965 Roberts, Alan Frederick, 1964 Robinson, Adrian John, 1964 Rolfe, Austin Parma, 1965

Romberg, Thomas Michael, 1964 Ross, Noel Arthur, 1965 Rowe, Jamieson, 1963 Rowe, Terence Seymour, 1964 Schroder, Kevin Hugh, 1965 Sheaves, Trevor Brian, 1965 Sherlock, Brian Leonard, 1963 Sidaway, Donald Henry, 1963 Slattery, Peter William, 1965 Smith, Alexander Keith, 1964 Smith, Desmond Charles, 1962 Spence, John Lawrence, 1965 Spence, William John, 1964 Spicer, Edmund John, 1963 Steege, Brian Eric, 1965 Street, Ronald Philip, 1964 Stewart, William Harvey, 1965 Sutton, John Garry, 1963 Tan, Hock Hoe, 1964 Tang, Henry Shun Hang, 1964 Tencate, Pieter William, 1965 Thomson, Peter John, 1965 Thorpe, Brian Anthony, 1963 Timms, Robert Wilson, 1965 Titmuss, Keith William, 1963 Tompkins, Clive Lindsay, 1963 Toms, John Stafford, 1964 Townes, John Graeme, 1964 Tregarthen, Hugh Manning, 1964 Tregoning, Bryan Robert, 1965 Trevallion, Ronald Alexander George, 1965 Waghorn, Graham Harry, 1964 Waldon, Laurence Alfred Eugene, 1965 Walker, Ronald Jack, 1963 Wallace, Peter Leslie, 1965 Walton, Robin Leslie Arthur, 1965 Watt, Craig John, 1965 Watts, Keith Richard, 1963 Weaver, David Anthony, 1965 Webb, Robert Lawrence, 1963 Webb, Sydney Richardson, 1965 Weine, Philip Henry, 1964 Wilson, Peter Anthony, 1964 Wood, Eric Roland, 1965 Woropinski, Janusz Piotr, 1963§ Wyatt, William John, 1965

§ Deceased

## **BACHELORS OF SCIENCE** (TECHNOLOGY)-continued

Yoole, John, 1965 Young, Basil, 1963 Ziviani, Silvano, 1965

# **BACHELORS OF SURVEYING**

Allman, John Stuart, 1962 Anderson, Peter Warner, 1965\*\* Bebb, Geoffrey, 1964 Benjamin, Ronald Thomas James, 1962 Bowden, John, 1963 Burrell, William Hales, 1963\*\*\* Canty, Robert Edward, 1965\*\* Carpenter, Glyndwr, 1965 Chambers, Ernest Arthur, 1965 Chudleigh, David Charles, 1964 Clentsmith, Bruce Gordon Kenneth, 1965 Curtis, James Thomas, 1963 Dive, William James Clouston, 1963 Gray, Malcolm Louis, 1965 Hammond, Kenneth John, 1963 Hudson, Stephen Trevor, 1965\* Hunt, James Newman, 1965

Hutton, Ian, 1965 Johnston, Douglas McLeod, 1965 Karl, Heinz, 1965 Kearsley, Arthur Harry William, 1963 Kent, Brian, 1962 Lambeck, Kurt, 1963\*† Leet, Norman Thomas, 1964 Lovell, Jeffrey Douglas, 1965 Lyons, Kenneth James, 1965\*\* McDonald, Donald Charles, 1963 Newnham Gregory Joseph, 1965 Oliver, Laurence George, 1965 Purdy, Donald Hugh, 1964 Robinson, Anthony John. 1962\*\* Sheaves, David James, 1962\*\* Smythe, Allan Edwin, 1965 Stolz, Artur, 1963\*\* Toft, Graham Simco, 1964\*\* Trinder, John Charles, 1963\*\*

# DIPLOMATES

# **DIPLOMA IN APPLIED SCIENCE**

Aceituno, Julio Cesar Ramirez, 1963 Adkins, George Earl, 1964 Corbett, Robert Knowles, 1964 Craig, James Douglas, 1965 Danilas, Mohamad, 1963

Ho, Sai Ngo, 1963 Karihaloo, Autar Krishen, 1963 Meades, Robert Henry, 1964 Oshea, John Martin, 1965 Stitt, Peter Henry, 1965

#### **DIPLOMA IN EDUCATION**

Addison, Kerry Joan, 1965 Akre, Thomas, 1961 Allen, Stanley, 1964 Alley, Leigh, 1963 Andrews, Allen Raymond, 1961 • Honours Class I \*\* Honours Class II \*\*\* Honours Class III

Archer, John Malcolm, 1965 Atherton, John Raymond, 1961 Baldwin, Marie Rose, 1962 Balks, Denise Elaine, 1965 Banfield, Brian Melville, 1963

† University Medal

#### **DIPLOMA IN EDUCATION**-continued

Belford, Irene Janice, 1962 Bennett, Norman Ross, 1964 Bohringer, Jeanette Marjorie, 1965 Bowe, Annette Marjorie, 1961 Broadbent, Patricia, 1965 Brown, Brian Joseph, 1960 Brown, Doreen Bronwyn, 1962 Brown, Eileen Barbara, 1964 Brown, Marian Elsbeth, 1961 Burns, Colin Cousins, 1965 Buxton, Ann, 1965 Caddy, Joanne Mary, 1965 Caldwell, John Archibald Wayne, 1963 Callen, Marie Bernadette, 1963 Callen, Mary, 1961 Camden, Jacqueline Rose, 1964 Caskey, Sandra Clare, 1962 Charker, Hilary Ethel, 1960 Coleborne, Ian William, 1963 Collins, Robert Franklin, 1964 Collits, Terence John, 1962 Comerford, Mabel Mary, 1964 Crosbie, Maureen Alicia, 1965 Crothal, Marion Mildred, 1962 Cummings, Lois, 1965 Dan, Victoria, 1964 Danks, Paul Anthony, 1965 Davidson, Harry Robertson, 1961 Davies, Judith Ann, 1961 Dibley, Pamela Joy, 1964 Dick, Mary Carmel, 1962 Dornan, Lynn Alexander, 1965 Dreise, Peter William, 1963 Ellicott, Robyn Ann, 1960 Eltis, Kenneth John, 1960 Ferrett, Ruth Lorraine, 1963 Fisher, Darrell Graeme, 1964 Garner, Robyne Georgina, 1960 Geyer, Robert John, 1965 Gibbs, Rodney Allan Stewart, 1965 Gilbert, Wendy Renee, 1963 Goodwin, Brian Thomas, 1964 Green, John Michael, 1965 Green, Pamela Anne, 1963 Greenland, Samuel Osborne, 1964 Haberl, Othon, 1965 Harvey, Ruth Bonita, 1964

Hill, John Francis, 1960 Hinde, John Gordon, 1960 Holden, Colin Anthony, 1963 Holmes, Rae June, 1965 Holt, John Michael, 1963 Hughes, Jannese Elizabeth, 1965 Hughes, Susan Leslev, 1965 Humphreys, Janice Lily, 1961 Hunter, Robert, 1964 Jarrett, Arline Narelle, 1964 Jeffery, Ann Margaret, 1963 Johns, Richard, 1965 Jonas, William James Albert, 1964 Jones, Judith Anne, 1965 Kerr, Patricia Margaret, 1965 Kinder, Josephine Kate, 1964 Knott, Pamela Dorothy, 1965 Korevaar, Teunis Jan Geerit, 1965 Kraemer, Yvonne, 1961 Lance, Robyn Margaret, 1965 Leigh, Ronald Maurice, 1960 Linnertson, Hazel Anne, 1965 Lizdenis, Violeta Joan, 1965 Lvddiard, Kathrvn Rose, 1965 Lynch, Beverley Anne, 1965 MacDonald, Heather Jean, 1963 Macrae, Ann, 1965 Manser, Beverley Anne, 1963 Marjoribanks, Kevin McLeod, 1960 Markham, Maureen, 1961 Mathieson, Wendy Laraine, 1964 Maughan, Elizabeth Narelle, 1963 McDermott, Margaret Estelle, 1960 McGregor, Allan Bruce, 1961 McHugh, Eileen, 1960 McMahon, John David, 1960 McMahon, Loretta Margaret, 1964 McMahon, Patricia Ann, 1962 McNamara, Maree Margaret, 1963 Meyers, Lorraine Edna, 1964 Milgate, Shirley Anne, 1965 Mitchell, Paul Michael, 1964 Moore, Patricia Ann, 1965 Mudford, William John, 1965 Muir, Anne Caroline, 1963 Murray, Cynthia Robin, 1964 Murray, Wendy, 1963 Neville, Denise Marie, 1962

#### **DIPLOMA IN EDUCATION**-continued

Nolan, Raymond John, 1964 O'Neill, Michael John, 1964 Opitz, Valerie Therese, 1964 Palmer, Bruce Stewart, 1964 Papworth, Phillip Gary, 1965 Pascoe, Margaret, 1963 Pears, Geraldine Elizabeth, 1961 Penfold, Judith Lorraine, 1963 Petherbridge, Robert Joseph, 1963 Plumridge, Margaret Ann, 1964 Powell, Anne Geraldine, 1965 Proctor, Brian John, 1962 Ouinn, John Michael, 1960 Radford, Barbara, 1964 Rapp, Darcy Leon, 1964 Rice, Helen Josephine, 1961 Rigby, Harold John, 1960 Robinson, John McKay, 1961 Rogers, Judith Anne, 1964 Rolfe, Kay, 1962 Ross, Margaret Mary, 1963 Rowe, Frances Mary, 1963 Rudman, Mary Vanessa, 1965 Rummery, Mary Elizabeth, 1963 Russell, Yvonne, 1962 Sams, Gwenda Rosemary, 1964

Sharman, Carole Jean, 1964 Simpson, John William, 1963 Sinclair, Harry Thomas, 1965 Smith, Patricia Margaret, 1964 Sommerville, Sharon Margaret, 1965 Stewart, Robert George, 1963 Stock, Roslyn Louise, 1963 Symes, Eileen Jill, 1961 Taylor, Joan, 1965 Temple, Kathleen Francis, 1962 Thomson, Philip John, 1963 Thornley, Robin Crystal, 1964 Thurgar, Penelope Anne, 1965 Thursby, Christine Helen, 1965 Tye, Marea Carolyn, 1963 Van der Veen, Theo Tiete Foppe, 1965 Wallace, Katherine Susan, 1963 Walmsley, Maree Louise, 1965 Waterhouse, Annabel, 1962 West, Trevor Frederick, 1965 Wilcox, Ronald Walter, 1965 Wilson, Judith Margory Jane, 1962 Woolley, Janice Anne, 1963 Wright, Janice, 1964 Youngman, John Howard, 1965

# **DIPLOMA IN FOOD TECHNOLOGY**

Barlahan, Asuncion, 1962 el Khidir, Omar Hag, 1961 Salon, Dionisio, 1962

# **DIPLOMA IN FOOD AND DRUG ANALYSIS**

Black, William Hector, 1963 Brady, Milton Neil, 1963 Parkee, Malcolm, 1963

# DIPLOMA IN HIGHWAY ENGINEERING

Capper, Kelvin Victor, 1962 Chow, Hoy Cheng, 1963 Cranston, Robert Francis, 1962 Gomez, Alexius Joseph, 1964 Gorbunhow, Nicholas, 1963 Hartman, John Albert, 1963 Keirnan, Warwick Robert, 1963 Leckey, Brian William, 1965 Leong, Harry Jung Wing, 1964 Loomes, Rodney Thomas, 1963 McIntosh, Maurice Malcolm, 1962 Minano, Alfredo, 1961 O'Neile, Bryce Mervyn, 1962 Riding, Kenneth Wilmot, 1965 Rose, Reginald Arthur, 1962 Secco, Gaetano Nino, 1964 Sheffield, Donald Herbert, 1963 Siew, Ngai Hoon, 1962 Thomas, David Ross Melville, 1962

# DIPLOMA IN INDUSTRIAL ENGINEERING

Arunachalam, Pollachi Kandaswamy, 1964 Boyling, Warwick Francis, 1963 Bradley, Geoffrey Allen, 1964 Buckler, Emil, 1964 Campbell, Colin Douglas, 1963 Chambers, Norman Stanley, 1964 Charan, Ram, 1963 Clayden, Roger, 1965 Clayton, Peter Charles, 1965 Collins, Robert William, 1965 Cooper, Norman, 1964 Dadd, Gordon Hugh, 1965 Ehrenburg, Jacobus, 1963 Farrell, Neville Bruce, 1963 Fisher, Philip, 1964 Foreman, Barry Lewis, 1965 Garnsey, Raymond, 1965 Gebler, John Wesby, 1965 Goodridge, Daniel, 1964 Harrison, Barry Leigh, 1965 Hart, James Robert, 1965 Hing, Colin Raymond, 1963 Irving, Alasdair John MacDonald, 1963 Jamieson, Peter Norman, 1965 Jeffries, James, 1964 Jobling, Ralph, 1964 Johnston, Andrew Gordon, 1964

Jones, Thomas Alwyn, 1963 King, John George, 1964 Lambert, Louis John, 1963 Lamond, Maxwell James, 1963 Lane, David John, 1964 Lee, Frederick Thomas, 1963 Mateo, Amado San, 1965 McCaughtrie, Glen Allan, 1965 Minter, Michael Mervyn, 1965 Moor, Beresford Christopher, 1963 O'Donnell, Daniel, 1965 Parkinson, Lindsay Andrew, 1963 Parle, Dennis Charles James, 1963 Pinnington, Reginald Henry, 1964 Prithviraj, Bollini, 1963 Rodrigues, Ronald Bryan, 1964 Rudd, James William, 1963 Selley, Ernest William, 1963 Shaukat, Syed Mahmood, 1965 Spence, Ian Keith, 1964 Surplice, Ian Alexander, 1965 Van Wensveen, Jacobus Cornelis Petrus, 1963 Wallis, Donald Clarke, 1964 Wheeler, Maxwell John, 1964 Wiadrowski, Ian Barrie, 1964 Wilkie, Allan Edward, 1964 Wood, David Graham, 1965

#### **DIPLOMA IN LIBRARIANSHIP**

Aboud, Winsome, 1965 Affleck, Jennifer Linsley, 1965 Alojipan, Carmencita Alonsagay, 1962 Amm, Jennifer Ann, 1964 Anderson, Jane Doris, 1963 Anstee, Cecily Anne, 1962 Ashley, Joan Bernice, 1964 Bashford, Alistair, 1965 Benson, Margery Anne, 1964 Bevan, Shirley Karin, 1965 Bradley, Anthony John, 1964 Bryan, San Mary, 1964 Budavari, Alajos Istvan, 1964 Burrows, Rita Jean, 1965 Calder, Olga Elspeth, 1965 Clinch, Margaret Anna, 1963 Comino, Anne, 1964 Cooper, Barbara June, 1964 Courtney, Elizabeth Anne, 1962 Davis, Consett Leonard Rodway, 1964 De'Sigmond, Kornel Tivadar, 1964 Devid, Sandra Patricia, 1964 Dowe, Dorothy Rosemarie, 1964 Eccles, Alice Catherine, 1965 Economus, Helen Marie, 1964 Enderby, Ann Mary, 1965 Everett, Muriel Ruth, 1964 Franki, George Thomas, 1965 Giles, Enid Estelle, 1965 Goldfinch, Leslie Kristin MacArthur, 1964 Goldstein, Fran Robyn, 1964 Gray, John Leigh, 1965 Green, Pamela Winifrid, 1963 Groenewegen, Hans Walter, 1964 Gurr, Margaret Eleanor, 1962 Haenke, Janice Helen, 1965 Hall, Vivien Helen, 1965 Hardy, Roslyn Gathorne, 1964 Harris, Judith, 1965 Hartigan, Margaret Mary, 1964 Haworth, Janice Elizabeth, 1962 Haydon, Patricia Bloomfield, 1962 Heagney, Brenda, 1964 Ho, Olivia Oi Kwan, 1964 Hogue, Mary Barbour, 1964 Holland, John Hadfield, 1965

Holm, Ann Maria, 1965 Holster, Alison May, 1963 Howarth, Peter Jack, 1965 Hughes, Leone Munro, 1965 Hutchins, Andrew James, 1964 Järv, Aet, 1962 Jossek, Frances, 1964 Kaljee, Ruth, 1964 Kee, Nai Mee, 1963 Kimber, Jennifer, 1964 Koo, Ethel Yung-ti, 1965 Kosa, Geza Attila, 1965 Kyi, Tin Aye, 1964 Lennox, Wendy Lynette, 1965 Levine, Helen, 1965 Levings, Pamela May, 1963 Lim. Edward Huck Tee, 1963 Lowe, John Robert, 1964 Marsh, Marilyn Gai, 1965 Mason, Claire Therese, 1963 Mather, Frances, 1965 McBain, Drummond William George, 1965 McGrath, Lawrence Henry, 1964 McIntyre, Joanna Elizabeth, 1964 McPherson, Morna Elizabeth, 1965 Mellor, Anne Winifred, 1964 Miller, Ann Elizabeth, 1964 Moalem, Louise, 1964 Moore, Rhonda Dorothea, 1962 Morgan, Margaret Jean, 1964 Morison, Gael, 1962 Naylor, Pamela, 1962 Ng, Philomena Soo Ching, 1965 Oakenfold, Jean, 1964 Oo, U Tin, 1964 Outteridge, Gwen, 1964 Over, Joan Patricia, 1965 Page, Marina, 1962 Parkhill, Deirdre Mary, 1964 Pate, Joyce Barry, 1964 Prowse, Dawn Gweneth, 1965 Radi, Heather Joan, 1964 Ragg, Dora Petrie, 1964 Rayward, Warden Boyd, 1964 Read, Penelope Antill, 1964 Reid, Susan Frances, 1965 Roberts, Mererid, 1965

#### **DIPLOMA IN LIBRARIANSHIP**—continued

Robertson, Anne Margaret, 1962 Ronai, Mary Julianne, 1963 Rustemeyer, Margaret Ann, 1964 Seeto, Fannie Kam Yun, 1963 Sellers, Jennifer Ann, 1963 Shaw, Jill Douglas, 1964 Shearman, Alan George, 1963 Shilling, Barbara Margaret Wolzendorff, 1964 Simpson, Sheila Robertson, 1963 Somerville, Marilynne Rewa, 1962 Stead, Dorothy Anne, 1965 Tamblyn, Adrienne Mary, 1964 Taylor, Lindley Bryson, 1964 Thompson, Pamela Marie, 1965 Trask, Margaret, 1965 Truebridge, Jean Elizabeth, 1964 Tucker, Janice Lorraine, 1964 Vaughan, John, 1964 Walker, Alan John, 1965 Wallace, Ann Maria, 1964 Whitehead, Roberta Seymour, 1964 Williams, Gaenor Anne, 1965 Wilson, Susan, 1964 Woods, Julian Philip Mather, 1964 Wunderlich, Susan Lee Cohen, 1964

# **DIPLOMA IN SOCIOLOGY**

Adams, Virginia Lei, 1965 Bentley, Charmian, 1965 Bradwell, Lorna Frances, 1964 Dare, Graham Solomon, 1965 Gosden, Sylvia Dorothy, 1965 Hayes, Francis Daniel, 1963 Hunt, Ellis Pickering, 1964 Keller, John Augustine, 1963 Nash, Christine, 1965 Ridings, Pamela Sue, 1965 Van Exter, Tineke, 1965 Vinson, Phillip Anthony, 1963 Webb, Richard Henry, 1965 White, Anthony Harold, 1964 Yeomans, Neville Thomas, 1963

# **REPORT OF THE COUNCIL OF THE UNIVERSITY OF NEW SOUTH WALES**

#### For the year ended 31st December, 1964

The Council of the University of New South Wales, as required by section 47 (1) of the Technical Education and University of New South Wales Act, 1949-61, has the honour to transmit to the Minister for Education the following report upon the proceedings of the University during the period of twelve months ended 31st December, 1964.

#### Introduction

Last year's Report reviewed the achievements of the University in the six years following the Report of the Committee on Australian Universities (the Murray Report). In this, the first year of a new triennium (1964-6), it is appropriate not only to record the events of the past year, but also to look forward to some of the possibilities of future development.

In 1964 total enrolments increased to approximately 11,000, an increase over 1963 of 1,100 or 11%. Next year there will be a slight, if temporary, recession when the figures for Newcastle, which will have been granted autonomy, will no longer be included. Full-time enrolments increased from 4,023 in 1963 to 4,996 in 1964, part-time enrolments from 5,800 to 5,929, thus maintaining the trend to a proportionately larger increase in full-time than in part-time enrolments. There were 697 higher degree students.

In six faculties the University was able to accept all qualified students seeking enrolment. In Medicine the problem mentioned in last year's Report persists: a shortage of places in the teaching hospitals continues to restrict the number of enrolments which can be accepted in the pre-clinical years. It was thought that it might also be necessary to restrict the intake of students into Architecture, but in the event it was possible to accept all qualified students wishing to enrol, although only by diverting a number of intending full-time students into part-time courses.

An additional building for Architecture, to be constructed on the lower campus, is expected to be brought into use during the 1967 Academic Year. This, and the spectacular building programme which is being put into effect on the upper campus, where Library, Chancellery, Arts/Mathematics and Commerce buildings are being erected, should preclude accommodation problems after 1967 in six of the seven faculties, although the situation in Medicine is more intractable. Council regrets that full use cannot be made of the School of Medicine, which

was built at great cost to the community. Indeed, the facilities of this School cannot, in the present circumstances, be used to even half capacity due to the shortage of teaching hospital capacity.

Apart from the establishment of the University Colleges at Newcastle and Wollongong and the Division at Broken Hill, the University has carried its work into many different areas of the State through the activities of the School of Wool Technology, the Institute of Rural Technology and the Water Research Laboratory. An impediment to these activities was the fact that the University did not own any site in a rural district which could be utilized for research. In 1964, however, the State Government, through its Department of Lands, made available to the University an area of some 600 acres at Wellington, which will lend itself to research work by staff and students in a number of disciplines.

The University has been asked by the Bar Association and the Law Society to establish a law school, these two professional bodies believing that present and future demands for legal education call for two law schools in Sydney. During the year the Council established a Faculty of Law in the University and, at the same time, set up a Faculty of Law Committee to draw up a programme for the establishment of a law school, including such details as staff, accommodation and curriculum. The Committee includes representatives of the Bar Council and the Law Society and other members of the legal profession. It is the Council's intention that the second law school should be brought into existence when the Government gives support to the proposal.

# The Council

In 1964 the Council held five ordinary meetings and six special meetings.

On 28th April, 1964, the Legislative Assembly adopted a resolution re-electing the Honourable J. J. Maloney, M.L.C. as the member of Council representing the Legislative Council, and on 29th April, 1964, His Excellency the Governor re-appointed him as a member of Council.

It was a matter of regret to Council that owing to ill health Professor Sir Lorimer Dods found it necessary to resign in July, 1964. Dr. Richmond Jeremy, M.B., Ch.M., F.R.C.P. (Lond.), F.R.A.C.P. was appointed to Council to fill the vacant position.

In 1964, the various Committees of Council held the following meetings:

Executive Committee	••••			12
Finance Sub-Committee				11
Personnel Sub-Committee				11
Academic Committee		••••		5
Buildings and Equipment Committee				6
Public Relations Committee		••••	••••	3
Student Affairs Committee		••••	••••	5

To facilitate the transaction of urgent business a combined meeting was also held of the Finance Sub-Committee of the Executive Committee and the Buildings and Equipment Committee of Council.

#### Inaugural Wallace Wurth Memorial Lecture

On 28th August, 1964, the Right Honourable the Prime Minister, Sir Robert Menzies, who last visited the University in 1957, delivered the Inaugural Wallace Wurth Memorial Lecture in memory of the University's first Chancellor.

The lecture was given in the Science Theatre before an audience of some 1,000 people including representatives of commerce and industry, of the State and Federal Governments, the University of Sydney, the Council of Macquarie University, Newcastle University College and Wollongong University College.

After paying tribute to our first Chancellor as a great civil servant Sir Robert went on to the subject of his lecture, which was: "The Universities, Some Queries". The two queries he considered were: "Should University education be regarded as a right and not as a privilege?" and "What is academic freedom?"

On the first he held that finance should not be the limiting factor where intellectual capacity and personal ambition were adequately high. He said, however, that "far too many people in our country, when they urge the creation of a new university, seem to think of it in terms of financial provision by governments and the bricks and mortar of practical construction. Yet the fact is that the value of a university depends primarily upon the standard of its research and teaching. In short, the greatest problem about the expansion of universities is that of securing a highly qualified staff." In the past we had been able to obtain numbers of highly qualified staff from overseas, but that time has passed. This meant that we must "as never before, generate in our own universities our own future staff".

On the question of academic freedom, while recognizing the vital importance of the inquiring mind in a university, he emphasized that the freedom of academics is a right which they enjoy as citizens, in common with other citizens, and one which is not enlarged by their status as academics. "In the absence of specific legal provisions, no man may claim a greater freedom than another."

#### Official Opening of the Phillip Goldstein Hall

A further stage in residential development took place on 30th June, 1964, when the Premier, the Honourable J. B. Renshaw, officially opened the Phillip Goldstein Hall.

At the opening the guests, who included the Hon. the Minister for Education, Mr. E. Wetherell, the Chancellor of the University of Sydney. Sir Charles Bickerton-Blackburn, and Dr. R. J. Heffron, were welcomed by the Chancellor. The Vice-Chancellor paid a warm tribute to the late Phillip Goldstein whose gift of £40,000 had given the impetus for the building of the hall of residence,



The Rt. Hon. Sir Robert Menzies, K.T., C.H., Q.C., M.P.



The Phillip Goldstein Dining Hall.



Balcony of the Phillip Goldstein Dining Hall.

The Premier declared the Phillip Goldstein Hall officially open, and was thanked by Dr. G. A. Wheen, Master of Basser College.

The term "Phillip Goldstein Hall" covers two residential blocks for men and women students respectively, common room facilities, and a refectory where all students dine.

The buildings enclose two courtyards, in one of which is a modern sculpture and an ornamental pool. The walls are of clinker brick, and no veneers, claddings, rendered or painted surfaces have been used externally. This is in the tradition of the "truthful" approach to architecture derived from Mies van der Rohe and le Corbusier, who believe that materials should be used "honestly"—that the essential characteristics of the materials, the grain of the timber, the texture of the brick, should not be disguised or hidden under paint or plaster.

The dining hall is large with timber forms and tables and can seat over 400. It has high concrete roof beams and the interior walls, like the external, are of clinker brick. The panelling and flooring are of tallowwood. A pale brownish-grey glass is used in the windows, which by reflecting the browns of the bricks and timber eliminates the glare normally experienced with big areas of glass. In effect it is a combination of the medieval and the modern—the medieval in the austere, monastic atmosphere, and the modern in the use of materials and techniques.

#### **Building Progress**

Because of the funds made available by the State and Commonwealth Governments, the year 1964 witnessed the greatest advance in its building programme which the University has made in any one year.

On the upper campus a group of buildings is being constructed, comprising the Library, Chancellery, Arts/Mathematics and Commerce buildings, and a lecture theatre block to service the last two buildings. The plan is based on three interlocking quadrangles forming inner courts at different levels following the hillside and linked by stairways. The main quadrangle will eventually be completely served by a covered way connecting the Library, the Arts/Mathematics building and the Chancellery.

The Library will be ready for occupation in September, 1965. It will consist of four floors, providing accommodation for 1,500 readers and storage space for half a million books. A tower building, designed primarily to store books, and to be up to fourteen storeys high, is to be added to the Library in a later triennium. Reading capacity will be greatly increased when the stacks are removed from the present building.

The lecture theatre block, which will be ready for use at the beginning of the 1965 Academic Year, will contain eight lecture theatres with accommodation for 1,600 students. On the ground floor there will be five lecture rooms, each seating 120; on the upper floor there will be a large central lecture theatre for 500 students and two lecture theatres each for 250 students.

The Chancellery will contain the Council Chamber, which will be

used for meetings of Council, of the Professorial Board and of other large academic groups. It will also contain a number of other committee rooms, and will provide accommodation for the University's senior academic and administrative staffs. This building has been designed so that the addition of the final wing will form the third side of a quadrangle. This wing will eventually be linked to a large theatre with a capacity for seating 1,000 persons.

The Commerce building, which will face the Arts/Mathematics building across a quadrangle, will have TV studios on the lower ground floor. These will be used in connection with closed-circuit television for on-the-campus lecturing and for the programmes to be broadcast by the University's own television station. This University has led the way in Australia in the use of closed-circuit television for university purposes.

The new School of Civil Engineering was the last building on the upper campus on which construction began in 1964. Standing on the higher ground between the recently completed Schools of Electrical and Mechanical Engineering, the eight-storey main block will have an adjoining laboratory and workshop area. This first stage of the new school will cost about £750,000, and is expected to be completed about the end of 1965.

Further residential facilities will be available at the beginning of the 1966 Academic Year. A start was made on the third stage of the Kensington Colleges group, which will house a Vice-Master, six tutors and 200 students. A residence for the Master was also begun. On the lower campus the Anglican and Roman Catholic Churches intend to build colleges affiliated with the University, and have set up separate organizations to administer them. Meanwhile, architects have been engaged to prepare plans.

By the end of the year the University was ready to get under way with extensions to the Union Building. Additional shopping areas, offices and accommodation for the Students' Union and space for a Senior Common Room Club will be provided. A substantial amount of the cost of this building (£150,000) is being provided by the University staff. The new building will link with the recently constructed covered way at its western end, and will finally have covered walkways to Anzac Parade and the Roundhouse.

At Little Bay, in the grounds of Prince Henry Hospital, a building for Clinical Sciences (Faculty of Medicine) has been completed. A Graduate House for the Institute of Administration is also to be built at Little Bay in a beautiful setting surrounded by lawns, trees and gardens and looking over the Pacific Ocean. Plans include residential accommodation, lecture rooms, common rooms, syndicate offices, a library and other training facilities.

At Daceyville the first stage of the pavilion for the David Phillips Field was completed. This consists of two change rooms and two shower rooms. Six more change rooms and a grandstand are to be added later, the grandstand to be built over the change and shower rooms.



Aerial picture of the Kensington Campus.



Artist's perspective of buildings to occupy the centre foreground of aerial picture on the opposite page.

# **International House**

On 26th October, 1964, a limited company, the University of New South Wales International House Limited, was incorporated for the purpose of planning for the construction of an International House on the campus. This is a non-profit company limited by guarantee, comprising twenty-five members appointed by the Council, of whom five are representatives of Rotary. The company has six directors.

In 1964 the University had approximately one thousand oversea students, drawn from many different countries, and it was felt that our International House, while providing residential accommodation, should be primarily a meeting centre for much larger numbers of oversea and Australian students.

#### Award of Degrees

From the time of its incorporation in 1949 to 31st December, 1964, the University has awarded 4,251 degrees to 4,022 persons, 211 graduates holding two degrees and nine graduates holding three degrees. At the close of the year under review seven of the graduates were members of Council, six having been elected by their fellow graduates and one by the undergraduates.

The total number of degrees awarded in 1964 was 894. Of this number 161 were awarded at Newcastle University College and 32 at Wollongong University College. Details regarding the degrees awarded to students of the two Colleges are set out in the sections of this report concerning developments at the respective centres.

The following table gives the classifications of the degrees awarded in Sydney during 1964:

				4
Doctor of Science	••••			1
Doctor of Medicine		••••		2
Doctor of Philosophy			••••	20
Master of Building		• · · •		1
Master of Engineering				15
Master of Science				29
Master of Technology				29
Bachelor of Arts				45
Bachelor of Architecture				22
Bachelor of Building				3
Bachelor of Commerce				137
Bachelor of Engineering				143
Bachelor of Science				193
Bachelor of Science (Techr	ology)			56
Bachelor of Surveying				5
				701
				101

It was the first occasion on which the degree of Doctor of Science has been awarded, the recipient being Professor Stephen Angyal. The award was made for his published work, especially on the chemistry of inositols and related compounds and on the Sommelet reaction. The degrees of Doctor of Medicine and Master of Building were also awarded for the first time.

During the year under review the following post-graduate diplomas were awarded in Sydney:

Diploma in Applied Science		 2
Diploma in Highway Engineering		 17
Diploma in Industrial Engineering	••••	 19
Diploma in Librarianship		 56
		94
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Three undergraduate diplomas in Sociology were also awarded.

#### **Reunion of Graduates**

Following the successful Reunion of Graduates inaugurated in 1963, a further reunion was held in 1964, the University being host on 24th October to graduates of 1954.

The graduates were shown the building developments taking place on the campus, and were entertained at a buffet dinner, where they met a number of members of staff with whom they had been associated as students.

Council believes that the development among the graduates of a corporate spirit and a continuing sense of identity with the University is of great importance, and thought is being given to ways of maintaining these objectives when there are considerable numbers of graduates involved.

# New and Revised Courses of Study

During 1964 a number of new courses was introduced and changes were made to several existing courses.

Of particular significance was Council's decision to approve in principle the creation of a Faculty of Law at the University. As mentioned earlier in this report, the decision was the outcome of approaches made to the University by the New South Wales Bar Association and the Law Society of New South Wales, who believe that existing facilities for legal education in Sydney are inadequate to cope with the demand.

Another matter of considerable interest in the academic field was the establishment of a Graduate School of Engineering, the purpose of which is to integrate post-graduate activities in the Faculty of Engineering.

In the undergraduate sphere a new Department of History and Philosophy of Science was created within the School of Philosophy; two new undergraduate courses were approved, a full-time course leading to the degree of Bachelor of Social Work, and a part-time course leading to the degree of Bachelor of Building; and approval was given to the revision of courses in Optometry. At its September meeting Council approved conditions for the award of an undergraduate diploma in Hospital Administration.

At the post-graduate level a number of new graduate diploma courses was introduced—in Corrosion Technology, Landscape Design, Civic Design and Biochemical Engineering, and the graduate diploma course in Librarianship was varied by the addition of new subjects and some revised syllabuses. Council approved a revision of the courses leading to the degree of Master of Technology in the Faculty of Engineering and to the implementation in 1964 of a Master of Technology course in Engineering Construction. In the Faculty of Medicine a new course leading to the degree of Master of Surgery was introduced. Council agreed to minor revisions in the conditions for the award of the degree of Doctor of Philosophy, and to more extensive revisions in the conditions for the award of the degree of Master of Hospital Administration.

# Symposia, Summer Schools, Seminars and Special Courses

The tenth annual symposium was held on 4th November, 1964, when the subject of discussion was "The University and Industry".

In his opening address the Vice-Chancellor said: "Universities produce knowledge and industry has a use for it. The results of University research are however less important to industry than the supply of the right kind of people."

In developing these thoughts the Vice-Chancellor suggested a flow of staff from the University to industry and back again, a proposal which evoked interesting discussion.

Subsequent papers on "Scientific Innovation and Industrial Prosperity" and "Industrial Efficiency in Australia" delivered by Professor J. A. Allen, Newcastle University College and Dr. K. L. Sutherland of C.S.R. Ltd. illustrated aspects of the industrial side of the matter. In the afternoon sessions the questions of what the University and industry expected of one another were examined by Mr. G. W. E. Barraclough, Chairman, Unilever, Australia and Dr. R. G. C. Parry-Okeden, Chairman, John Lysaght (Aust.) Ltd. who is a member of Council. A graduate representative on Council, Mr. J. J. Toomey, contributed "A Graduate's Impressions".

The symposium was attended by several hundred people drawn from industrial, commercial, semi-governmental and academic spheres and their discussion after the papers had been delivered was lively and interesting. The papers contributed, together with a summary of the discussion, have been published.

The third Summer School for teachers of Mathematics was held in the University of New South Wales Union during January, 1964. Seventy-two secondary school teachers from sixty-two high schools and two inspectors from the Department of Education attended. These secondary school teachers came from widespread areas, forty-three metropolitan schools (State 25, private 18), seventeen country schools (State 9, private 8) and two private schools at Canberra being represented.

The guest speaker was Professor Kurt Mahler, F.R.S., Professor of Mathematics at the Australian National University. Other distinguished mathematicians present on the opening day were Professor Paul Halmos of the University of Chicago, Professor D. H. Neumann and Mrs. Hanna Neumann of the Australian National University, and Professor Szekeres, Acting Head of the School of Mathematics.

Lectures given by staff members of the School of Mathematics were interspersed with discussion sessions, and on the final day a demonstration of computers and a film about their construction were arranged by the Olivetti Company.

The sum of £1,171 was contributed by sixteen industrial and commercial organizations towards the expenses of organizing the School. This amount, along with £380 in hand from earlier Summer Schools, was sufficient to cover costs.

Questionnaires, letters and verbal comments indicate that the School was very successful. Valuable suggestions were also made about improvements. The papers presented were later published.

When the possibility was first canvassed of establishing a Chair of Marketing in the University some people had doubts as to whether marketing was really a serious field of study. The International Marketing Seminar organized at the University in February, 1964, by the Institute of Administration, in conjunction with the Market Research Society of Australia, was a triumph, and it should have dispelled any local qualms about marketing being a field both of study and research.

We were able to bring to the University for this seminar three very distinguished marketing authorities—

Professor Edward C. Bursk, Professor at the Harvard Graduate School of Business Administration, editor of the *Harvard Business Review*, Educational Director of the International Marketing Institute, and one of the world's foremost authorities on marketing research, market planning, and marketing management;

Professor Albert W. Frey, Professor of Marketing and Director of Executive Development Program, Graduate School of Business, University of Pittsburgh. Formerly marketing consultant to General Motors, American Telephone and Telegraph and other corporations, and a former editor-in-chief of *Journal of Marketing*, and *Advertising*, one of the most widely used textbooks on the subject of sales promotion;

Professor George Risley, an author, consultant, editor and educator, currently Associate Professor of Business Administration at the Clarkson College of Technology, Potsdam, N.Y.

The University expected that fifty people would be enrolled for the whole three days, with the maximum attendance possibly reaching 250. Council is pleased to report that more than 200 persons attended each

day, and on the third day there were 320 present. In Council's view this seminar went some way towards illustrating that there is a very active interest in this community in a more academic approach to marketing.

This venture into the administrative aspects of the field of selling in the world of private enterprise was followed by the successful First National Instalment Credit Seminar conducted by the Institute of Administration in May, 1964. This, too, was quite a bold venture, and one which met with gratifying success, being attended by over 150 delegates from a wide range of financial institutions and retail houses and marked by a considerable amount of favourable publicity.

It is noteworthy that during the year 1964 the Institute of Administration succeeded in attracting course members from all the States of the Commonwealth, from the Australian Capital Territory, New Guinea, New Zealand and the Philippines—a creditable achievement evidencing the growing reputation of the Institute.

During 1964 the Institute of Administration also made spectacular progress with its Building Fund Appeal aimed towards establishing its own residential centre on a site made available to Council by the Board of the Prince Henry Hospital. By the end of 1964 the fund had reached  $\pounds 100,000$ , thus ensuring that within the next few years the Institute of Administration will have its own premises which will permit more continuous and varied programmes to be offered.

#### Fifteenth International Student Seminar

The Fifteenth International Student Seminar was conducted by the National Union of Australian University Students at this University from Saturday, 4th July to Tuesday, 7th July and the subject of the Seminar was "Students and Political Action". The co-administrators of the Seminar were Miss Jessica Milner and Mr. A. van der Poorten, both students of this University.

About eighty student delegates attended the Seminar coming from the following countries:

Angola	Hungary	Norway
Australia	India	Jordan
Bolivia	Iran	Paraguay
Canada	Iraq	Philippines
Ceylon	Ireland	Scotland
Chile	Israel	Sierra Leone
Costa Rica	Kenya	Southern Rhodesia
Cyprus	Lebanon	Spain
Denmark	Malaya	Switzerland
England	Malta	Sweden
Finland	Mexico	Syria
Germany	Mozambique	Tanganyika
Ghana	Netherlands	United Arab Republic
Greece	New Guinea	United States of America
Guatemala	New Zealand	Vietnam
Hong Kong	Nigeria	West Indies

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#### **Student Sporting Progress**

The year 1964 marked the emergence of this University as a first class competitor in many sports.

The students' attitude has been that the University should aim at 1st Grade District level in all sports, thus enabling our students to be chosen to represent the State and Australia. With this goal in view the Hockey Club was successful in winning the club championship in 2nd Division, and will now be promoted in 1965 to 1st Division. The Rugby Union Club also won the 2nd Division Club Championship, and has been recommended for promotion to 1st Division in 1966. The Athletics Club, which had achieved 1st Division standard in 1964, was runner up in B Grade and won the E and G Grades in addition to competing in A Grade with reasonable results. The Cricket Club won the B Shires Competition 1963-64 season, and was leading in the A Shires Competition 1964-65 at the conclusion of 1964. The Rifle Club was again successful in winning the Albert Trophy with a record score against all Australian and New Zealand Universities in addition to winning the Inter-Varsity Venour Nathan Shield.

Taken as a whole, these results represent a remarkable achievement on the part of the students.

#### Newcastle University College

Council has for some time directed its efforts towards ensuring that the Newcastle University College authorities should become increasingly responsible for the framing of policy and for the carrying out of academic, administrative and financial operations at that centre.

The aim of the Council has been, of course, to prepare the way for the Newcastle University College authorities to undertake all the tasks associated with autonomy if and when this was granted by the State Government.

All members of Council were therefore pleased when on 18th March, 1964, the Premier announced that, provided satisfactory financial arrangements could be made with the Commonwealth Government, the State Government would be prepared to grant autonomy to the Newcastle University College as from 1st January, 1965. Council feels that it is a tribute to the understanding and co-operation of the Commonwealth and State Governments that the necessary arrangements were completed. Autonomy was achieved on the date announced and the University of Newcastle commenced its separate existence.

It was a source of gratification to Council that so much progress had been achieved on the Shortland site by the time the new University was created. In 1964 construction of buildings for the Faculties of Arts, Commerce and Science was commenced, and the Library and Administration block was also started. Three-quarters of a million pounds was allocated for these projects and more than £100,000 over and above this for site services and sporting facilities.

In 1964 the following degrees were awarded to students at Newcastle University College:

Doctor of Philosophy	• • • • •			3
Master of Arts				1
Master of Engineering		••••		1
Master of Science				2
Bachelor of Arts		••••		67
Bachelor of Architecture				4
Bachelor of Commerce	••••		••••	18
Bachelor of Engineering				25
Bachelor of Science				35
Bachelor of Science (Techn	ology)			5
				161

In addition, thirty-four graduate diplomas in Education were awarded to students of the College.

In the period in which the University administered the Newcastle University College a total of 687 degrees was awarded, from 1953 to 1964 inclusive. Of these forty-one were higher degrees, and of the remaining 646 degrees 133 were awarded at honours standard.

#### Wollongong University College

Consistent with its policy of extending the range of courses offered at Wollongong University College, within the limits of finance and staff available, Council in 1964 approved of the following courses being offered in 1965:

Arts	Commerce	Science
History II English II Psychology II Scientific Thought II Economics II	Accountancy II Economics II Economics III Commercial Law II	Pure Mathematics III Applied Mathematics III

This step permitted development of the courses in Arts and Commerce initiated in 1963.

To meet the growing needs of the College, construction of the first stage of a two-part development of the Students' Union and extensions to the Metallurgy building were set in hand in 1964. Both were nearing completion at the end of the year and were expected to be ready for occupation early in first term 1965. In addition, the first stage of the development of the playing fields for the College was commenced during 1964. The cost of all these projects was in the vicinity of £150,000.

The second Graduation Ceremony was conducted at Wollongong University College on 3rd April, 1964, when one degree of Master of Engineering, nine degrees of Bachelor of Science and twenty-two degrees of Bachelor of Science (Technology) were awarded. A total of forty-six degrees has now been awarded to students of Wollongong University College.

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#### REPORT OF COUNCIL—1964

#### **Broken Hill Division**

Council is pleased to record the success of the steps being taken towards the establishment of a University College at Broken Hill. During 1964, grants of £50,000 were made by the State Government and Conzinc Rio Tinto Ltd., the total sum of £100,000 thus available being applied towards the establishment of the new University College. In addition, an area of twenty acres was given to the University by New Broken Hill Consolidated Ltd. as the site of the new College.

Sketch plans of the first buildings to be erected on the new site were begun late in 1964, and it is expected that these buildings will be available for use at the beginning of 1966.

#### Senior Staff

Appointments, promotions and other changes relating to senior staff are recorded in this section.

#### Kensington and Broken Hill

Appointments to the Professorial Staff during the year were as follows:

Professor of Surveying, School of Civil Engineering

Angus-Leppan, P. V., B.Sc. (Eng.) (Rand), Ph.D. (Natal), Dip.T.P. (Natal), M.I.L.S. (Natal); 16th December, 1963.

Professor of General Education and Head of Department of General Studies

Wood, J. F. D., B.Sc., B.E. (Syd.), M.I.E.Aust.; 16th December, 1963.

- Professor and Head of the School and Dean of the Faculty of Architecture and Building
  - Ashworth, H. I., O.B.E., M.A. (Manc.), B.A.(Hons.) (Arch.) (Manc.), F.R.I.B.A., Hon. F.R.A.I.A., M.A.P.I., Am.F.R.A.I.C.; 1st January, 1964.
- Professor, School of Physics
  - George, E. P., B.Sc., Ph.D. (Lond.), F.Inst.P., M.R.I.; 1st January, 1964.

Professor, School of Biological Sciences

Barber, H. N., M.A., Sc.D. (Cantab.), Ph.D. (Lond.), F.R.S., F.A.A.; 1st February, 1964.

Professor, School of Chemistry

- Cavill, G. W. K., M.Sc. (Syd.), Ph.D., D.Sc. (Liv.), F.R.I.C., F.R.A.C.I.; 13th July, 1964.
- Professor, School of Political Science
  - McCallum, D. M., B.A. (Syd.), B.Phil., M.A. (Oxon.); 31st August, 1964.
- Professor, School of Surgery
- Ludbrook, J., B.Med.Sc., M.B., Ch.M. (N.Z.), F.R.C.S., F.R.A.C.S.; 9th November, 1964.

Professor, School of Applied Psychology Hammer, A. G., M.A. (Syd.); 1st December, 1964.

Professor, School of Electrical Engineering

- Karbowiak, A. E., B.Sc., Ph.D. (Lond.), A.M.I.E.E.; 20th December, 1964.
- Visiting Professor, School of Business Administration

Urwick, L. F., O.B.E., M.A. (Oxford); 15th October, 1963. Visiting Professor, School of Sociology

Montague, J. B., Ph.D. (Michigan); 1st March, 1964.

Visiting Professor, School of Economics

Hadley, G. F., B.S. (Carnegie Inst.), A.M., Ph.D. (Harvard); 31st August, 1964.

Associate Professor, School of Paediatrics

Stevens, L. H., M.B., Ch.D., B.Sc. (N.Z.), Ph.D. (Lond.), M.R.A.C.P.; 9th December, 1963.

Associate Professor, Department of Drama

Weiner, A. B., B.A. (Temple), Ph.D. (Yale); 1st January, 1964.

Associate Professor, School of Mathematics

Delves, L. M., M.Sc. (N.Z.), D.Phil. (Oxon.); 1st January, 1964.

Associate Professor, School of Metallurgy

Hatherly, M., M.Sc., Ph.D., A.S.T.C., F.I.M.; 1st January, 1964.

Associate Professor, School of Pathology

Halley, J. B. W., M.D., Ch.B., (St. And.); 3rd March, 1964. Associate Professor, School of Textile Technology

Nicholls, C. H., B.Sc. (Adel.), Ph.D. (Leeds), A.R.A.C.I.; 11th May, 1964.

The following persons were either appointed or promoted to the position of Senior Lecturer:

- Hannon, N. J. (Miss), B.Sc., Ph.D. (Syd.); 14th April, 1963 (School of Biological Sciences).
- Lyness, J. N., M.A., D.Phil. (Oxon.); 22nd August, 1963 (School of Mathematics).
- Edwards, R. A., B.Sc., Ph.D., A.S.T.C.; 18th October, 1963 (School of Chemical Engineering).
- Cooley, D. R., B.E., A.M.Aus.I.M.M., A.M.I.E.Aust.; 11th November, 1963 (School of Mining Engineering, Broken Hill Division).

Giutronich, J. E., B.Sc. (Syd.), Ph.D.; 12th November, 1963 (School of Physics).

Elmslie, R. G., M.B., B.S. (Syd.), F.R.A.C.S.; 22nd November, 1963 (School of Surgery).

- Snoswell, A. M., B.Sc., Ph.D. (Adel.); 1st December, 1963 (School of Biological Sciences).
- Williams, C. A. D., A.R.A.I.A., M.S.A.I.A.; 9th December, 1963 (School of Architecture & Building).
- Basden, K. S., B.Sc., Ph.D., A.S.T.C., A.R.A.C.I., A.M.Aus.-I.M.M., A.M.Inst.F.; 1st January, 1964 (School of Chemical Engineering).
- Warner, R. F., Ph.D. (Lehigh), M.E.; 31st January, 1964 (School of Civil Engineering).
- Haggarty, G. J., B.E. (Syd.), S.M. (M.I.T.), Ph.D., A.M.I.E.Aust.; 1st February, 1964 (School of Civil Engineering).
- Howell, D. T., B.E. (Syd.), M.E.; 2nd February, 1964 (School of Civil Engineering).
- Bowring, A. C., M.B., B.S. (Syd.), F.R.C.S. (Edinburgh), F.R.C.S.; 3rd February, 1964 (School of Paediatrics). Position held conjointly with appointment as Paediatric Surgeon, Prince of Wales Hospital.
- Holy, Z. J., Dipl.Ing. (Prague), M.Sc. (Birm.), M.Tech.; 3rd February, 1964 (School of Nuclear Engineering).
- Mishkel, M. A., B.Sc. (Med.), M.B., B.S. (Syd.), M.D., M.R.A.C.P.; 6th February, 1964 as Associate Senior Lecturer, (School of Medicine).
- Chambers, L. R., M.A., Dip.Ed. (Syd.); 16th February, 1964 (School of Western European Languages).
- Ludbrook, J., B.Med.Sc., M.B., Ch.M. (N.Z.), F.R.C.S., F.R.A.C.S.; 17th February, 1964 (Faculty of Medicine).
- Archer, R. D., B.Sc. (Melb.), B.E. (Syd.), M.Sc. (Eng.), Ph.D. (Minn.), A.M.I.E.Aust., F.B.I.S., A.F.R.Ae.S., M.A.I.A.A. (U.S.); 21st February, 1964 (School of Mechanical Engineering).
- Taylor, J., B.Sc. (Nott.), A.M.I.Mech.E.; 21st February, 1964 (School of Mechanical Engineering).
- Reid, A. A., M.B., B.S. (Durh.), D.P.M. (Lond.), M.R.C.P.; 2nd March, 1964 (School of Psychiatry). Position held conjointly with appointment as Psychiatrist, Prince Henry Hospital.
- Hind, E. C., M.E., A.S.T.C., A.M.I.E.Aust.; 10th March, 1964 (School of Mechanical Engineering).
- Burrows, K. M., B.Sc. (W. Aust.); 11th March, 1964 (School of Physics).
- Clezy, P. S., B.Sc., Ph.D. (Tas.); 14th April, 1964 (School of Chemistry).
- Watton, E. C., B.Sc., A.S.T.C.; 14th April, 1964 (School of Chemistry).
- O'Farrell, P. J., M.A. (N.Z.), Ph.D. (A.N.U.); 15th April, 1964 (School of History).
- Ingham, S. M., M.A. (Melb.); 11th May, 1964 (School of History).
- Lacey, A. W., LL.B. (Syd.), Ph.D. (Lond.); 11th June, 1964 (School of Accountancy).

- O'Gorman Hughes, D. W., M.B., B.S. (Syd.), M.R.A.C.P.; 11th June, 1964 (School of Paediatrics).
- Ninham, B. W., M.Sc. (W. Aust.), Ph.D. (Maryland); 14th July, 1964 (School of Mathematics).
- MacManus, F., B.E. (N.U.I.), M.Sc. (Birm.), A.M.I.C.E.; 31st July, 1964 (School of Highway Engineering).
- Lamb, C. St. J., M.Sc. (Eng.) (Lond.), B.E., A.S.T.C.; 9th August, 1964 (School of Electrical Engineering).
- Dixon, J. D., M.A. (Melb.), Ph.D. (McG.); 10th August, 1964 (School of Mathematics).
- Bowen, L. O., B.Sc., B.E. (W. Aust.), Ph.D. (Lond.), M.Sc., A.Inst.P., A.A.I.P.; 11th August, 1964 (School of Physics).
- Heseltine, H. P., B.A. (W. Aust.), M.A., Ph.D. (Louisiana State); 11th August, 1964 (School of English).
- Learmonth, J. R., B.E. (Syd.), M.E.; 11th August, 1964 (School of Civil Engineering).
- Marchant, P. D., B.A. (Syd.), Ph.D. (A.N.U.); 11th August, 1964 (School of Political Science).
- Pilgrim, D. H., B.E., A.M.I.E.Aust.; 11th August, 1964 (School of Civil Engineering).
- Harrison, J. Y., B.E. (Syd.), A.M.I.E.Aust.; 14th September, 1964 (School of Mechanical Engineering).
- Markham, N. L., B.Sc. (Adel.), A.M., Ph.D. (Harv.); 8th October, 1964 (School of Applied Geology).
- Colebatch, H. J. H., M.B., B.S. (Adel.), M.R.A.C.P.; 9th October, 1964 (School of Medicine).
- Blanks, H. S., B.Sc., M.E. (Syd.), A.M.I.E.E.; 12th October, 1964 (School of Electrical Engineering).
- Hayes, J. W., B.E., M.Eng.Sc. (Syd.); 9th November, 1964 (School of Mechanical Engineering, Broken Hill Division).
- Scott, Mary J., B.Sc., Ph.D. (Lond.); 10th November, 1964 (School of Physiology).
- Palmer, J. H., B.Sc., Ph.D. (Sheff.); 7th December, 1964 (School of Biological Sciences).
- Appointments to the position of Senior Project Scientist were:
  - Miller, A. J., M.Sc., Ph.D. (Manc.); 7th September, 1964 (Institute of Highway and Traffic Research).
  - Symes, H. E. J., D.Sc. (Eng.) (Rand), A.M.I.E.E., M.(S.A.)I.E.E., A.M.I.C.M. & E.E. (S.A.); 25th September, 1964 (School of Mining Engineering)—formerly Senior Lecturer, School of Electrical Engineering.

Other senior appointments and promotions were:

Clancy, J. R., Administrative Officer, Vice-Chancellor's Unit (Seconded to Boards of Prince Henry Hospital and Prince of Wales Hospital as Chief Executive Officer) 28th January, 1964.

- Wheen, G. A., M.A. (Syd.), Ed.D. (Col.), Master of the First Group of University Residential Colleges, 25th February, 1964.
- Meyers, E. S. A., M.B., B.S. (Syd.), D.P.H., F.R.S.H., M.O.H., Co-ordinator of Studies in Public Health and Social Medicine, Faculty of Medicine, 16th April, 1964.
- Steigrad, J., C.B.E., E.D., M.B.Ch.M. (Syd.), F.R.A.C.S., Honorary Director of Post-Graduate Medical Education, Faculty of Medicine, 1st June, 1964.
- Rodgers, J. A., B.A. (N.E.), A.A.S.A., A.C.I.S., Senior Administrative Officer, Faculty of Medicine, 10th August, 1964.
- Horton, A. R., B.A. (Syd.), Deputy to the Librarian, appointed Librarian, 9th November, 1964.
- Resignations and retirements during the year were as follows:
  - Skertchly, A. R. B., Associate Professor in Textile Technology, resigned 31st January, 1964.
  - Teplitzky, D. R., Senior Lecturer in Biological Sciences, resigned 31st January, 1964.
  - Bosworth, R. C. L., Associate Professor in Chemistry, deceased 24th March, 1964.
  - Ryan, R. D., Senior Lecturer in Physiology, resigned 15th May, 1964.
  - Moran, V. J., Senior Lecturer in Metallurgy, resigned 31st May, 1964.
  - Spencer, L. C., Senior Lecturer in Highway Engineering, resigned 31st May, 1964.
  - Munro, J., Senior Lecturer in Mechanical Engineering, retired 3rd June, 1964.
  - Salton, M. R. J., Professor of Microbiology, resigned 30th June, 1964.
  - Turnbull, M. R. M., Senior Lecturer in History, resigned 13th July, 1964.
  - Cope, T. I., Senior Lecturer in Obstetrics and Gynaecology, resigned 24th July, 1964.
  - Guelke, R. W., Visiting Professor in Electrical Engineering, term of engagement ceased, 31st July, 1964.
  - Low, A. H., Senior Lecturer in Mathematics, resigned 30th August, 1964.
  - Wilkinson, W. J. C., Senior Lecturer in Anatomy, resigned 25th September, 1964.
  - Tichauer, E. R., Senior Lecturer in Mechanical Engineering, resigned 30th October, 1964.
  - Bowen, J. H., Senior Lecturer in Chemical Engineering, resigned 31st October, 1964.
  - Williams, D. W., Senior Lecturer in Nuclear Engineering, resigned 12th November, 1964.
  - Bowen, L. O., Senior Lecturer in Physics, resigned 13th November, 1964.

Montague, J. B., Visiting Professor in Sociology, term of engagement ceased, 30th November, 1964.

Carr, I. A., Senior Lecturer in Pathology, resigned 4th December, 1964.

Burton, J. R., Senior Lecturer in Water Engineering, resigned 31st December, 1964.

Craigie, N. R. M., Temporary Senior Lecturer in Structural Engineering, term of engagement ceased, 31st December, 1964.

Snoswell, A. M., Senior Lecturer in Biological Sciences, resigned 31st December, 1964.

#### Newcastle University College

**Professor of Engineering** 

Goodger, E. M., M.Sc. (Eng.), Ph.D. (Lond.), A.F.R.Ae.S., F.Inst.Pet., A.M.I.Mech.E., A.M.I.E.Aust.; 9th March, 1964.

**Professor of Mathematics** 

MacDonald, I. D., M.A. (Aberd.), Ph.D. (Manc.); 31st August, 1964.

**Professor of English** 

Cross, K. G. W., M.A., Ph.D., Dip.Ed. (Dublin); 1st September, 1964.

Professor of Latin and Head of Department of Classics

Tanner, R. G., M.A. (Melb. & Cantab.); 14th September, 1964.

Professor of Physics

- Ellyett, C. D., M.Sc. (N.Z.), Ph.D. (Manc.), F.R.A.S.; 14th September, 1964.
- Associate Professor, Department of Geology
  - Nasher, Beryl, B.Sc., Dip.Ed. (Syd.), Ph.D. (Tas.); 1st January, 1964.
- Associate Professor, Department of German

Ritchie, J. McP., M.A. (Aberd.), Dr. Phil. (Tubingen); 1st January, 1964.

Associate Professor, Department of Chemistry

Pickering, W. F. J., M.Sc., Ph.D., A.S.T.C., F.R.A.C.I.; 1st January, 1964.

Senior Lecturer, Department of Geology

Engel, B. A., M.Sc. (N.E.); 14th April, 1964.

Senior Lecturer, Department of Geography

Jarrett, H. R., B.A. (Birm.), M.Sc. (Econ.), Ph.D. (Lond.), F.R.G.S.; 14th July, 1964.

Senior Lecturer, Department of Mathematics

Lambert, J. A., B.Sc. (Syd.), M.Sc.; 14th July, 1964.

Senior Lecturer, Department of Civil Engineering

Betts, N. O., B.Sc. (Eng.) (Capetown), B.Sc. (South Africa), M.Tech., A.M.I.C.E.; 1st October, 1964.

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#### REPORT OF COUNCIL-1964

# Wollongong University College

Professor of Mathematics Keane, A., M.Sc. (Syd.), Ph.D.; 1st October, 1964.
Associate Professor, Department of Mechanical Engineering Bonamy, S. E., B.E. (Syd.), M.Sc. (Birm.), Ph.D., A.S.T.C., A.M.I.E.Aust., A.M.I.Mech.E.; 1st January, 1964.

Classes of Students						Totals 1964	Totals 1963
1st Degree and Diploma Stude Full-time Part-time and Conversion					4,552 5,034		3,664 5,025
Total						9,586	8,689
Higher Degree Students Graduate Diploma Students	•••	 	 	•••	697 242	939	823
Total of students proceedi	ng to	degree	or dip	loma		10,525	9,512
Other Students— Miscellaneous and <i>ad hoc</i>	cours	e stude	nts			452	363
Total	•••					10,977	9,875
Special course students					••••	7,861	3,076

# Summary of Enrolments-1964 (All Centres)

		Kensington	Newcastle	Wollongong	Broken Hill	Total
Post-graduate		843	90	5	1	939
Undergraduate		7,699	1,361	444	82	9,586
Miscellaneous		377	51	14	10	452
Total	•••	8,919	1,502	463	93	10,977

# **Summary of Enrolments by Centres**

#### Enrolments, 1964

Enrolments and higher degree registrations for 1964 for each University Centre are shown in detail in the tables which follow:

• <u>•</u> ••••••••••••••••••••••••••••••••••		T	1	<u> </u>	1	1	1	
Course		lst Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	Total
Applied Chemistry		24	16	14	7			61
Applied Geology		4	7	3	ί			15
Applied Psychology B.Sc.		10	5					15
Architecture		131	64	65	45	52	36	393
Arts		499	199	85	10	1	1	793
Building		13	10	11	13			47
Ceramic Engineering			10	2				47
Chemical Engineering		38	40	20	12			
Civil Engineering		114	90	55	37	•••	1	110
Civil Engineering Comb.	•••	117				••••		296
			2					
Commerce	•••		-	•••				2
A		87	56	40	1			
Applied Development	•••			40				184
Economica	•••	· ·		2				9
Inductrial Deletions	•••	66	30	30	1			127
Statistics	•••	9	5	6	1	•••		21
Wool Commerce	•••	2	3	1	•••		•••	6
Flootnicel Engineering	•••	3	1	3	•••	•••	•••	7
Electrical Engineering	•••	118	96	66	41	•••		321
Food Technology	•••	8	8	5	4			25
Fuel Engineering	•••		1	2				3
Fuel Technology	•••		1	•••	1			2
Industrial Arts	•••	8	4	11	6			29
Industrial Chemistry	•••	27	10	4	2			43
Industrial Engineering	•••	12	8	6	3			29
Industrial Engineering Comb.								
B.Sc./B.E		1						1
Mechanical Engineering	• • •	61	47	25	23			156
Mechanical Engineering Comb.								150
B.Sc./B.E			7					7
Madicina	• • •	97	84	78	33			292
Metallurgy		8	10	13	4			35
Mining Engineering		6	7	ĩ	2	•••	•••	16
Ontometry		13	i	6	õ	•••	•••	26
Polymer Science		2		-	-	•••	•••	20
Science		248	165	127	 26	•••	•••	566
Science (Medicine)		240	105	147	20	•••	•••	
Sumucing		43	23	22	15	•••	•••	3
Textile Technology	•••	17		22	15	•••	•••	103
Taxtila Chamistry	•••		 9	7		•••	•••	17
Textile Engineering	••••				4	•••		20
Taxtila Manufactura	•••	•••	· · ; ]	1	3		•••	4
Textile Physics	•••	•••	1		••;	•••	•••	1
Wool Technology	···		2	3	7			12
wool rechnology	•••	15	8	5	8			36
		1 600	1.025	710				
		1,689	1,025	719	319	52	36	3,840

Sydney—Full-time Undergraduate Degree Courses

REPORT OF COUNCIL—1964

Course	lst Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	Conv.	Total
Accountancy Diploma*					1					1
Aeronautical Engineering	5		2	3	i		•••			12
Applied Biology			·	-	i	3				4
Applied Chemistry	55	33	53		38	59	7		3	279
Applied Physics								•••	2	2/3
Applied Psychology				7	8	1		•••		51
Architecture	64	42	24		-	-		•••	3	133
Architecture*					28	 21	•••	•••	-	63
Duilding			6	6	20 9					
Commiss	ĭ	1	1	- 1	,	•••	•••	•••		40
Chemical Engineering	53	11	32	22	19	••••		•••		3
Civil Engineering	71	71	56	46	51	14 39	17	•••	•••	168
Commence	466	/1	20	40	51	39	38	•••		372
A consuma consul		129		 67				•••	•••	466
Accountancy Applied Psychology	3		60		74	24	2	•••	11	370
	1	11	8	6	5	1				32
Economics		58	56	15	38	16				183
Industrial Relations		4	3	3	1	3				14
Statistics		3	9	5	6					23
Wool Commerce	1	2	1	1	1	•••				6
Electrical Engineering	68	52	45	53	49	28	10		20	325
Food Technology	14	4	2							20
Fuel Technology	4	1	1		2					8
Industrial Arts	18	2	3	1						24
Industrial Chemistry	39	11	16	9	11	16				102
Industrial Engineering	15	8	11	18	10	3				66
Manual Arts*	1	3	7	2	54		*		•••	67
Mechanical Engineering	61	35	46	45	41	26			•••	271
Metallurgy	20	6	16	7	<u> </u>	- ~ č	6	•••	1	74
Naval Architecture	- 3	*	3	il	3	~ I	- 1	•••	-	10
Optometry	้		- 1		ĭ	•••		•••		16
Polumer Solence	2			1	- 1	···,		••••	15	
Quantity Summing*	11			7	5	1		•••		4
Dadia Engineeringt		- 1	-	- í	2			•••	••••	38
Colonia T	139			43	66			••••		3
Sociology	28	17	13	43	00	32	16	1		470
Sumaring				··· ,	···.			•••		58
Surveying	41	18	10	5	1	3	3			81
	1,197	642	593	419	535	297	120	1	55	3,859

Sydney—Part-time Undergraduate Degree Courses

\* This course leads to the award of the A.S.T.C. Diploma of the Department of Technical Education.

# Higher Degrees—Sydney

Doctor of Medicine	••••			6
Doctor of Philosophy				136
Doctor of Science				-
Master of Administration				30
Master of Architecture			••••	9
Master of Arts				15
Master of Building	•···•	• • • •		4
Master of Commerce	••••		••••	9
Master of Engineering				75
Master of Hospital Admini	stration			2
Master of Librarianship				12
Master of Science				161
Master of Surveying				2
Master of Technology			••••	186
				647

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# Graduate Diplomas—Sydney

Corrosion Technology			••••	5
Highway Engineering	••••			6
Industrial Engineering				67
Librarianship				104
Mineral Technology		••••	••••	7
Fuel Technology	••••			7
				196

# Other Courses—Sydney

Miscellane	eous	 ••••	••••	• • • •	286
Ad hoc	••••	 	•···		91
					377

Course		!	lst Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	Total
Architecture Arts Chemical Engineering Civil Engineering Commerce Accountancy Economics Electrical Engineering Industrial Chemistry Mechanical Engineering Metallurgy Science	···· ···· ···· ··· ··· ···	···· ···· ···· ··· ··· ···	4 168 1 7 2 13 2 4 3 4 1 41 250	8 89 1 6  2 2 2 2 4 4 34 154	5 63 2 7  3 2  1 6 2 23 114	2 4 7 5  4 1  18 7 6 54	···· ··· ··· ··· ··· ··· ··· ··· ···	1        1	20 324 11 25 2 24 7 6 6 32 14 104 575

.

# Newcastle—Full-time Undergraduate Degree Courses

Course	lst Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	Conv.	Tota
Architecture	5	9	4	3	2	3			1	27
Architecture*				2	1	4				7
Arts	104	60	72	11						247
Chemical Engineering	7	5	3	8	4	8	2	1		38
Civil Engineering	3	3	5	3		9	8			31
Commerce	36									36
Accountancy	5	21	11	12	9					58
Economics	1 7	4	3	2	3	4				23
Industrial Relations		i	-	_	-	-		•••		1
Electrical Engineering	4	14	4		2	2		•••		36
Industrial Engineering			1.7	-	-	-	5	•••		1
Industrial Chamister	16		6	3			2	•••	•••	
Manual Arts*	10	0	0	7		3	4	•••	•••	41
					4	•••		•••	•••	12
Mechanical Engineering		19	11	12	5	7	6			83
Metallurgy	24	9	11	5	10	7	5			71
Science	24	9	14	11	3	13		•••		74
	260	162	146	84	46	60	26	1	1	786

Newcastle—Part-time Undergraduate Degree and Diploma Courses

\* This course leads to the award of the A.S.T.C. Diploma of the Department of Technical Education.

# *Higher Degrees—Newcastle*

Doctor of P	hilosop	hy				12
Master of A	rchited	ture				2
Master of A	rts				• · · · ·	10
Master of C	Commei	ce			• • • •	4
Master of E	Inginee	ring			••••	4 5
Master of S				• • • •		10
Master of S	urveyin	ıg		••••		1
						44
						—
C	Traduat	o Dinle	mas—N	Inweast	lo	
Education	muuuu		mus—r	ie weusii	,C	46
Education	••••	••••	••••	••••	••••	40
	Other	Cours	es—Nev	vcastle		
Miscellaneo		Cours		rcustic		51
wiscenaneo	us	••••		••••	••••	21

Course	lst Year	2nd Year	3rd Year	4th Year	Total			
Arts Civil Engineering	68				68			
Commerce	6	2  1	•••	•••	6			
Mechanical Engineering	3	1	 1		5			
Medicine Metallurgy	2 5	 2	···· ···	•••	7			
Science Surveying	22 1	14 	1		37			
Textile Technology	1			•••	1			
	114	20	2	•••	136			
Course	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	Conv.	Total
--	---	--	-------------------------------------	--	---	--	---	---
Applied Chemistry          Civil Engineering          Commerce          Electrical Engineering          Manual Arts*          Mechanical Engineering          Mining Engineering          Surveying          Science	3 5 11 13 1 17 19 1  1 23 94	$     \begin{array}{r}       1 \\       1 \\       \\       5 \\       \\       8 \\       14 \\       \\       1 \\       16 \\       46 \\       \end{array} $	 3  5 13  9 35	··· ··· ··· ··· ··· ··· ··· ···	···· 7 1 11 17 ···· 7 43	1  6  11 21    39	···· ··· ··· ··· ··· ··· ··· ··· ··· ·	5 9 11 41 2 64 112 2  2 60 308

Wollongong—Part-time Undergraduate Degree Courses

\* This course leads to the award of the A.S.T.C. Diploma of the Department of Technical Education.

	Higher	Degree	es—Wo	llongong	?	
Doctor of	Philosop	hy				2
Master of	Engineer	ring				1
Master of	Science			<i>.</i>		2
						5
						-
	Other	Course.	s—Wol	longong		
Miscellane	eous					13
Ad hoc			••••			1
						14

Course			1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	Total
Civil Engineering Electrical Engineering Industrial Arts Mechanical Engineering Metallurgy Mining Engineering Science	····	···· ··· ···	2 4  4  4 14	 1  4  3	 5  1	 3  2  2 2	  3 2 2 2 2	 1 5  3	2 8 1 23 2 15 31
			28	11	16	9	9	9	82

REPORT OF COUNC	IL1964		
Higher Degrees—Bro	oken Hill		
Master of Engineering	••••	 1	
Other Courses-Bro	ken Hill		

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Miscellaneous .... 10

## **Benefactions**

Council acknowledges with gratitude the following benefactions which were received during 1964:

- Abbott Laboratories Pty. Limited: This firm donated  $\pounds 100$  towards the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics.
- The American Chemical Society has provided a grant of  $\pounds 2,094$  11s. 4d. for research by the School of Chemistry on complexes in catalysis.
- Andrews Laboratories Pty. Limited provided a grant of  $\pounds 150$  for the purpose of having a lecture delivered annually by a distinguished visiting scientist on the subjects of chemistry or biochemistry.
- Architectural Research Foundation Fund: The undermentioned firms have donated a total amount of £877 10s. to the Fund:

A.R.C. Engineering (N.S.W.) Co.	Pty.			
Ltd		£52	10	0
Bunning & Madden		100	0	0
Fowell, Mansfield & MacLurcan		100	0	0
Hanson, Todd & Partners		100	0	0
Joseland & Gilling		100	0	0
McConnel, Smith & Johnson		100	0	0
Otis Elevator Co. Pty. Ltd		25	0	0
Robertson & Marks		100	0	0
Rudder, Littlemore & Rudder		100	0	0
Wormald Bros. Industries Limited	••••	100	0	0

- The Asthma Foundation of New South Wales: The Foundation provided an amount of  $\pounds 5,522 \pounds 2,290$  for a Research Fellowship in the School of Medicine, and  $\pounds 3,232$  for research in the School of Pathology.
- The Australian Atomic Energy Commission provided an amount of  $\pounds 14,350$  for study in the undermentioned fields:

Study of surface properties of beryllium			
oxide (School of Physics)	£700	0	0
Radiation stability of chemical com-			
pounds (School of Chemistry)	1,000	0	0

Reaction of ferrous alloys and certain other materials of construction with complex gases at high temperatures (School of Metallurgy)	5,450	0	0
Insulation of enclosed cavities in which			
heat transfer occurs by natural con-			
vection (School of Mechanical En-			
gineering)	5,100	0	0
Resonance absorption and temperature	·		
Resonance absorption and temperature dependence (School of Mathematics)	2,100	0	0

- The Australian Dairy Produce Board: The Board donated an amount of  $\pounds 650$  for studies on casein and cheese by the School of Chemical Engineering.
- The Australian Automobile Association: The Association donated an amount of  $\pounds 2,000$  to provide a Fellowship in Traffic Engineering.
- The Australian Institute of Nuclear Science and Engineering: The Institute provided a total of £8,929 4s. 9d. for the following purposes:

<b>F</b>			
Research on radiation catalysis (School of Chemistry)	£100	0	0
Post-Doctoral Fellowship Dr. D. J. Cor- deroy (School of Metallurgy)	1,234	8	9
Post-Doctoral Fellowship Dr. R. J. Hus- sey (School of Metallurgy)	2,817	16	0
Neutron diffraction studies of reactive metals (School of Metallurgy)	1,467	0	0
Investigation of rates of heat transfer between fins and in slots of cylindri- cal surfaces (School of Mechanical			
Engineering)	950	0	0
Radiation damage studies in textile fibres and related high polymers (School of Textile Technology)	500	0	0
Study of the effect of irradiation on endo- parasite development (School of Biological Sciences)	260	0	0
Research on radiation damage on mech- anical properties of metals (New- castle University College)	50	0	0
Study of the structure of transition metal alloys	100	0	0
Research on mechanical properties of radiation damaged aluminium alloys	300	0	0
Neutron diffraction studies on the spinel structure (School of Metallurgy)	100	0	0

## Investigation of pulsed neutron techniques in reactor physics (School of Nuclear Engineering) .... 1,050 0 0

- The Australian Mineral Industries Research Association contributed an amount of £3,935 6s. 8d. for research by the School of Mining Engineering on a wire rope project.
- The Australian Planning Institute donated an amount of £15 towards the expenses of special lectures in the School of Architecture and Building.
- The Australian Road Research Board: The Board contributed an amount of £6,638 8s. 4d.—£2,275 for research by the School of Civil Engineering on reinforced concrete beams in combined bending shear and torsion, and £4,363 8s. 4d. for a Fellowship in Traffic Engineering.
- Professor Sir Philip Baxter donated £39 to the University Special Purposes Fund.
- Boots Pure Drug Co. (Aust.) Pty. Limited: The Company provided £3,804 for a Research Fellowship in Wool Technology.
- Bristol Myers Co. Pty. Limited donated £50 towards the oversea travel expenses of Dr. A. E. Davis of the School of Medicine.
- British Tobacco Co. (Aust.) Limited donated £400 for research on stochastic processes at A.N.U. Canberra by Mr. R. B. Davis of the School of Mathematics.
- The Broken Hill Proprietary Company Limited donated an amount of  $\pounds 200$  towards the oversea travel expenses of Professor A. E. Jenkins of the School of Metallurgy.
- Ciba Limited contributed a total of £3,843—£3,738 for research in the School of Chemistry on phosphoinositides, and £105 towards the oversea travel expenses of Dr. A. E. Davis of the School of Medicine.
- Clean Air Conference: The undermentioned firms contributed a total of  $\pounds 1,361$  15s. to the expenses of the Clean Air Conference.

Austral Bronze Co. Pty. Limited	£75	0	0
Australian Fertilizers Limited	75	0	0
Australian Iron & Steel Pty. Limited	250	0	0
Babcock & Wilcox (Aust.) Pty. Limited	50	0	0
Consolidated Metal Products Limited	25	0	0
Electricity Commission of N.S.W.	52	10	0
Email Limited	52	10	0
Federated Engineers Limited	10	10	0
<b>R.</b> Fowler Ltd	10	10	0
G.M.H. Pty. Limited	100	0	0

J. Howden & Co. (Aust.) Pty. Limited	100	0	0
Imperial Chemical Industries of A. & N.Z.	200	0	0
Joy Manufacturing Co. Pty. Limited	50	0	0
Monsanto Chemicals Aust. Pty. Limited	25	0	0
Moreland Metal Coy	5	5	0
North Shore Gas Co. Limited	20	0	0
Petroleum Information Bureau	200	0	0
S.F. Aust. Pty. Limited	10	10	0
Sturtevant Engineering Co. Aust. Limited	50	0	0

- Colonial Sugar Refining Co. Ltd. contributed a total of £1,200— £1,000 for evaluation by the School of Paediatrics of the efficiency of calcium sucrose phosphate as an inhibitor of dental cavities, and £200 towards the oversea travel expenses of Professor S. J. Angyal.
- The Commonwealth Banking Corporation donated an amount of  $\pounds 250$  for a temporary Post-Graduate Research Fellowship in Wool Technology.
- The Commonwealth Literary Fund: A total of  $\pounds 150$  was allocated from the Fund for special lectures in Australian Literature at Kensington and Newcastle.
- The Commonwealth Scientific and Industrial Research Organization has contributed an amount of £3,700 for research by the School of Civil Engineering on: (i) drying shrinkage of concrete and (ii) the strength and durability of epoxy bonded concrete members.
- Conzinc Rio Tinto (Aust.) Limited has contributed an amount of  $\pounds 200$  to the oversea travel expenses of Professor A. E. Jenkins of the School of Metallurgy.
- The Council of the City of Sydney has donated  $\pounds 2,200$  for research by the Department of Nuclear and Radiation Chemistry on low-level radiation contamination.
- The Council of Library Resources Inc. made a grant of £3,346 8s. 5d. for research on alphabetical subject indexing (School of Librarianship).
- Davis Gelatine (Aust.) Pty. Ltd. donated £26 5s. towards the oversea travel expenses of Mr. J. R. Norman (School of Chemical Engineering).
- The Dental Health Education and Research Foundation made a grant of £2,000 for research on the Dentist/Patient relationship (School of Applied Psychology).
- The Department of Civil Aviation has donated  $\pounds$  500 for research into the efficiency of Airways Operations Staff.

- The Department of Main Roads contributed a total of  $\pounds 55,000 \pounds 50,000$  for research by the Institute of Highway and Traffic Research, and  $\pounds 5,000$  towards the Chair of Highway Engineering.
- The Department of Motor Transport, N.S.W. has donated £2,000 for testing of traffic signal lanterns.
- The Department of Public Health, N.S.W. has donated  $\pounds$  500 for research by the School of Applied Psychology on the chest X-ray campaign in New South Wales.
- Professor G. C. De Gruchy has donated £150 towards the oversea travel expenses of Associate Professor W. R. Pitney (School of Pathology).
- Ducon Condensers Pty. Limited have contributed £200 towards the oversea travel expenses of Dr. D. Haneman.
- School of Economics: A total of  $\pounds 800$  was contributed by the undermentioned firms for research on Industrial Relations.

New Broken Hill Consolidated Ltd.	£175	0	0
The Zinc Corporation Ltd.	175	0	0
Commonwealth Banking Corporation	100	0	0
Rural Bank of N.S.W.	100	0	0
Sulphide Corporation Pty. Ltd.	50	0	0
The Colonial Sugar Refining Coy. Ltd.	200	0	0

- The Electricity Commission of N.S.W. donated £1,100 for the H. G. Conde Memorial Research Fellowship (Institute of Nuclear Engineering).
- Lilly-Eli (Aust.) Pty. Limited donated £550 for a Research Fellowship in Wool Technology.
- External Studies in Hospital Administration: The following organizations contributed £5,880 towards this course.

Hospitals Commission of New South		
Wales £1,470	0	0
Hospitals and Charities Commission of		
Victoria 2,720		0
Western Australian Government 1,690	0	0

Farm Management Study Group: Members of the Study Group listed below have made donations totalling £360 towards the travelling expenses of members of the staff of the School of Wool Technology who provide an advisory service:

W. D. Blowes					£20	0	0
R. Cornelson					20	0	Ō
J. T. Coventry			••••	••••	20	0	Ō
J. Dangar				••••	20	0	0
B. C. Gordon	••••				40	0	0
F. J. Hickey	••••	••••		••••	20	0	0
F. J. Hickey	••••	••••	••••	••••	20	0	0

M. A. Hough	 20	0	0
I. Kingham	 20	0	0
Roberts & Morrow	 20	0	0
D. A. Rutherford	 40	0	0
Springfield Pty. Limited	 20	0	0
Stonehaven (Blayney) Pty. Limited	 20	0	0
H. & J. M. Taylor	 40	0	0
P. Warwick	 20	0	0
F. G. White	 20	0	0

- Geigy (A/asia) Pty. Limited donated £150 towards the maintenance of the Plastics and Rubber Laboratory in the School of Chemical Technology.
- General Motors-Holden's Pty. Ltd. contributed a total of  $\pounds 2,900$  for two Research Fellowships, one in the School of Metallurgy and the other in the School of Applied Geology.
- Glaxo-Allenburys (Aust.) Pty. Ltd. contributed a total of  $\pounds 205$   $\pounds 105$  for the Medical School of the Air and  $\pounds 100$  towards the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics.
- Graziers' Association of New South Wales: The Association has donated £2,500 for the Burdekin Trust Fellowship in Parasitology in the School of Wool Technology.
- Gutteridge Haskins and Davey donated £65 towards equipping a design office in the School of Mechanical Engineering.
- P. G. Goldstein Trust: The Trust made a grant of £5,000 towards the Halls of Residence buildings.
- I.B.M. Aust. Pty. Limited donated £218 to cover the cost of prizes awarded in the 1964 School Mathematics Competition.
- Imperial Chemical Industries of Aust. and N.Z. Ltd. contributed a total of  $\pounds 1,108$  8s.— $\pounds 1,100$  for a Research Fellowship in the School of Chemistry and  $\pounds 8$  8s. to the Hospital Administration External Studies Prize Fund.
- Industrial National Bank—Wake Trust (U.S.A.): The Trust contributed £222 8s. 7d. towards the oversea travel expenses of Dr. J. L. Garnett of the School of Chemistry.
- Dr. A. Innes Brown (Lederle Laboratories) contributed £334 16s. to the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics.
- Institute of Administration: The undermentioned contributed a total of  $\pounds$  92,529 15s. to the Institute's Residential Centre Building Fund:

	Mr. J. S. Adams		£2	2	0
• •	William Adams & Co. Limited	••••	100	0	0

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Ashfield Municipal Council	52	10	0
Associated Battery Makers of Aust.	100	0	Δ
Limited		ŏ	0
Australian Aluminium Co. Limited	100		-
Australian Bankers' Association	2,500	0	0
Australian Guarantee Corporation	105	~	~
Limited	105	0	0
Australian National Industries	20	0	0
Australian Oil Refining Pty. Ltd.	100	0	0
Mr. E. F. Bezar	1	1	0
Berlei Limited	100	0	0
Birt & Co. Pty. Limited	10	0	0
Blue Mountains City Council	5	5	0
Mr. K. Bond	5	5	0
Bond's Industries Limited	100	Ō	Õ
Mr G Boreham	2	ž	ŏ
Mr. G. Boreham Mr. R. Boyer Bradford Cotton Mills Ltd.	19	8	ŏ
Mr. R. Boyer Bradford Cotton Mills Ltd.	500	ŏ	ŏ
		-	0
Mr. R. T. Brownell	5	0	
Mr. H. Bunting	1	1	0
	8	8	0
Mr. J. J. Cahill	2	2	0
Mr. B. Cameron Mr. J. M. Carswell	8	8	0
Mr. J. M. Carswell	5	0	0
Civil Engineers Construction Manage-			
ment Course No. 4	48	6	0
Professor J. F. Clark	21	0	0
Mr. W. S. J. Cochrane	2	2	0
Colonial Sugar Refining Co. Limited	500	ō	Ō
Commercial and General Acceptance	200	v	Ũ
Limited	50	0	0
Commonwealth Portland Cement Co.	50	U	U
	250	Δ	Δ
Limited		0	0
Comptoir National D'Escompte de Paris	10		0
Concrete Industries (Monier) Ltd.	15	15	0
Mr. G. P. Cook	7	7	0
Mr. M. Curnow	6	6	0
Dalgety & New Zealand Loan Limited	50		0
Mr. H. Dann	42	8	0
Davis Gelatine (Aust.) Pty. Limited	25	0	0
Mr. H. H. Dickinson	25	4	0
Mr. S. C. Derwent	95		0
Duly & Hansford Ltd.	50	0	0
Mr. D. Duncan	15	15	Õ
Mr. H. Eastwood	5	Ō	Ŏ
Email Limited	750	ŏ	Ŏ
Esso Standard Oil (Aust.) Limited	50	ŏ	ŏ
Executive Staff of Psychiatric Hospitals	11	ŏ	ŏ
	100	ŏ	ŏ
Farmer & Company Limited	250	ŏ	ð
Felt & Textiles (Aust.) Limited	250	v	U

A. Forsyth & Co. Pty. Limited		25		0
Mr. A. Geyer		12	12	0
Mr. A. Geyer Gilbert & Barker Manufacturing (	Co.			
(Aust.) Pty. Ltd R. W. Gillespie Trust		200	0	0
R. W. Gillespie Trust		300	0	0
Mr. M. Gillies		2	2	0
Mr. C. R. Gold		2	2	0
Mr. M. Gillies Mr. C. R. Gold Goldberg International Pty. Limited		52	10	0
Mr. J. M. Gothe		16	16	Õ
Greater Union Theatres Pty. Limited		105	Õ	Õ
Associate Professor L. M. Haynes		8	8	ŏ
		8	8	ŏ
M. D C U:11		5	5	ŏ
	••••	7	7	Ő
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Mr. B. Hodgson Hoover (Aust.) Pty. Limited	• • • •	315	0	Ő
M. R. Hornibrook (N.S.W.) Pty. Limit	bad	25	Ő	0
Houte Theatre Limited	.cu	50	0	0
Hoyts Theatre Limited Institute of Municipal Administration	••••			
		10	0	0
Mr. I. S. Loffron	••••	100	0	0
	• • • •	7	7	0
Mr. H. Kramer	• • • •	5	5	0
Mr. E. J. Lee		3	3	0
Mr. E. J. Lee John Lysaght (Aust.) Limited	• • • •	2,000	0	0
Mr. A. B. McDowell	••••	24	18	0
Mr. A. B. McDowell Mackellar County Council Mr. R. C. Madsen Malleys Limited	• • • •	10	10	0
Mr. R. C. Madsen	• • • •	3	3	0
Malleys Limited		250	0	0
The Hon. J. J. Maloney	• • • •	8	8	0
Mr. W. G. Mathieson Members of the Administrative St.		6	6	0
Members of the Administrative St	aff			
Courses Nos. 7 & 8	• • • •	58	10	0
Members of the State Health Services	&			
Administrative Officers' Conferen	ice	5	0	0
Metal Manufactures Limited	••••	150	0	0
Mulwaree Shire Council		5	5	0
Murrumbidgee County Council		100	0	0
Mutual Life & Citizens Assurance C	lo.			
Limited		1,500	0	0
Limited Mr. W. S. Napier National Safety Council of Australia		26	5	0
National Safety Council of Australia		5	5	Õ
Mr. J. Neeson		5	Õ	Ŏ
Mr. J. Neeson Nestlé Co. (Aust.) Limited	••••	250	ŏ	ŏ
		250	ŏ	ŏ
	• • • • • • • • • •	75,000	ŏ	ŏ
Nilo Industrian Day I inside d	 	105	ŏ	ŏ
Nock & Kirby Limited		5	5	0
Mr. T. O'Neill		3	0	0
Dolog Wighten d. Transformer to T 1 14 1	••••	105	0	0
Penrith City Council	•••	25	Ő	0
• • • • • • • • • • • • • • • • • • •		∠ <i>S</i>	v	v

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Mr. D. L. Phillips	3	3	0
Philips Electrical Industries Pty. Limited		Ō	Ō
Prospect County Council	50	Õ	Ŏ
Public Service Association of N.S.W.	10	ŏ	ŏ
		ŏ	0
Qantas Empire Airways			
Professor B. Ralph Rank Xerox (Aust.) Pty. Ltd.		2	0
Rank Xerox (Aust.) Pty. Ltd.	15	0	0
Mr. F. Reid	1	1	0
Mr. J. Reid	2	2	0
Remington Rand (Aust.) Pty. Limited	10	0	0
Residential Course for Executives No. 3	34	0	0
Rheem (Australia) Pty. Limited	0.50	0	0
Mr. W. C. Ritchie	3	3	ŏ
Mr. S. C. Robertson	1	1	ŏ
Mr. S. C. Robertson	0	8	Ő
Mr. H. Routley			
Rural Bank of N.S.W	,	0	0
Mr. G. Scott Shop Stewards Course No. 1		10	0
Shop Stewards Course No. 1	. 3	3	0
Shop Stewards Courses Nos. 2 & 3	. 5	8	0
Mr. J. Shipway	. 1	0	0
Mr. W. E. Simmons	. 7	7	0
Smith Kline & French Laboratories	105	0	0
Professor E. B. Smyth	5	5	ŏ
Mr. C. Consutha	2	3	ŏ
Mr. G. Smythe			
WI. N. Spencer		0	0
Mr. K. Spencer W. C. Stevens Pty. Limited		10	0
Mr. J. A. Stuart Mr. W. I. Summons	. 5	5	0
Mr. W. I. Summons	. 7	7	0
Mr. T. Swadling	. 2	2	0
Mr. C. C. Thomas	. 24	3	0
Timber Development Association	. 20	0	0
Mr. J. Trimmer	. 3	3	0
Tubemakers of Aust. Limited	100	Ō	Õ
I Inilawan (Asset) Die I inside d	500	ŏ	ŏ
Mr. A. Urgubert	. 500	8	0
Mr. A. Urquhart Visiting Professor L. F. Urwick			
Visiting Professor L. F. Urwick		15	0
Vehicle Builders Employees' Federation		0	0
W. Watson & Sons Ltd.	. 10	10	0
Mr. L. Wells	. 1	1	0
Mr I R Westerway	. 10	10	0
Mr. M. F. Whiddon W. D. & H. O. Wills (Aust.) Ltd. Mr. S. J. Wilmott	. 9	9	0
W. D. & H. O. Wills (Aust.) Ltd.	500	Ó	Ō
Mr S I Wilmott	. 5	5	ŏ
	. 5	7	ŏ
			-
	. 7	7	0
Mr. R. E. Wilson	. 37	6	0
Mr. J. Wolfenson	. 8	8	0
Wollongong City Council		0	0
Mr. R. W. Woodhead		0	0
Wormald Bros. (Aust.) Pty. Limited	. 100	0	0
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- The Joint Coal Board made a total grant of £1,800—£300 for an X-ray generator for the School of Mining Engineering, and £1,500 for differential thermal analysis equipment for Newcastle University College.
- Associate Professor C. S. Jones contributed £90 to the Department of Anaesthesia Development Fund.
- The Life Insurance Medical Research Fund of Australia and New Zealand: The Fund donated  $\pounds 3,840$  for research to be carried out by the School of Physiology.
- Lions Club, Baulkham Hills: The Club donated £15 to the Mathematics Educational Projects Fund.
- The Co-editors of "Complimentary Mathematics and Mathematical Methods" donated royalties of £491 14s. towards providing prizes in

School of Mathematics£14679Department of Mathematics, Newcastle34563

- John Lysaght (Aust.) Ltd. contributed a total of £300-£100 for an Atmospheric Pollution Research Fellowship, and £200 towards the oversea travel expenses of Professor A. E. Jenkins (School of Metallurgy).
- Merck Sharp and Dohme (Aust.) Pty. Ltd. provided £2,255 16s. for a Research Fellowship in the Faculty of Medicine.
- Mobil Oil Aust. Limited: This Company donated £1,650—£500 for research in the School of Mechanical Engineering, and £1,150 for a Research Fellowship in Highway Engineering.
- Mohair Advisory Board, South Africa: The Board provided £1,250 for research on mohair in the School of Textile Technology.
- Monsanto Chemicals (Aust.) Limited contributed a total of  $\pounds 600$  for the following purposes:

Tritium Research Project (Dr. J. Garnett)	£200	0	0
School of Chemical Engineering Research			
Fund	200	0	0
Equipment for Entomology Section			
(School of Biological Sciences)	200	0	0

School of Mathematics: The undermentioned firms contributed a total of £70 to the Theory of Statistics Prize Fund of the School:

Data Control Business Systems	 £10	0	0
Broken Hill Proprietary Co. Ltd.	 10	0	0
Macdougalls Ltd.	 20	0	0
Business Equipment Pty. Ltd	 20	0	0
Peacock Bros. Pty. Ltd.	 10	0	0

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The National Health and Medical Re	search Council made grants
totalling £7,931 10s. for researc	h in the Faculties of Science
and Medicine:	

£1,500	0	0
	0	0
600	~	0
	0	0
	0	0
260	0	0
915	10	0
200	0	0
	699 600 2,757 1,000 260	699 0 600 0 2,757 0 1,000 0 260 0 915 10

National Heart Foundation: The Foundation has made grants totalling £17,977 for research in the following Schools and Departments:

Department of Biochemistry (Dr. A.			
Snoswell)	£1,215	0	0
School of Medicine (Dr. D. Wilcken)	1,130	0	0
School of Medicine (Senior Research			
Fellowship)	3,286		
School of Medicine (Dr. H. Colebatch)	2,361	0	0
School of Physiology (Professor P. I.			
Korner)	2,050	0	0
School of Physiology (Dr. G. D. Thor-			
burn)	3,400	0	0
School of Physiology (Dr. A. W. T.			
Edwards)	1,480		0
School of Physiology (Dr. G. S. Stokes)	1,285	0	0
School of Physiology (Dr. R. A. B.			
Holland)	1,770	0	0

New South Wales State Cancer Council: The Council has made grants totalling £2,045 for research in the following Schools: School of Anatomy (Dr. B. R. O'Brien) £1,045 0 0 School of Biological Sciences (J. Wil-

	Diological	SCICI	(J)	AA 11-			
liams)			••••		1,000	0	0

The New South Wales State Government made grants totalling £100,000 for the following purposes:

Establishment of the W. S. & L. B.		
Robinson University College,		
Broken Hill £ 50,000	0	0
		-
Alleviation of drainage problems on	-	-
Kensington site 50,000	0	0

- Oakleigh Colliery Pty. Ltd. donated £5 towards the purchase of an X-ray generator for the School of Mining Engineering.
- F. T. S. O'Donnell Griffin and Co. Pty. Limited donated £100 towards the School of Electrical Engineering Research Fund.

School of Paediatrics: Donations of  $\pounds 60$  10s. were made towards the Special Purposes Fund of the School:

Mr. J. F. Cohen	 	£10	10	0
Mead Johnson Pty. Ltd.	 ••••	50	0	0

- Parke Davis and Company donated £25 towards the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics.
- The Permanent Trustee Co. Ltd. has made grants of £1,120 from the Bowling Bequest.
- Public Accountants Registration Board: The Board made a donation of  $\pounds 250$  to the Graduate and Honours Library of the School of Commerce.
- Professor B. Ralph made a donation of  $\pounds 5$  5s. to the School of Biological Sciences Fund.
- Refrigeration and Air Conditioning Research Fund, School of Mechanical Engineering: The undermentioned firms contributed £950 to the Fund:

Email Limited	£500	0	0
Kelvinator (Aust.) Limited	100	0	0
Kirby Refrigeration Units Pty. Limited	250	0	0
W. C. Stevens Pty. Limited	50	0	0
J. Wildridge & Sinclair Pty. Limited	50	0	0

- Research Corporation (U.S.A.): The Corporation made a grant of  $\pounds 1,203$  4s. 11d. for hydraulics research in the School of Civil Engineering.
- The Reserve Bank of Australia donated a total of £15,869 from its Rural Credits Development and Economic and Financial Research Funds for research within the University.

Rural Credits Development Fund			
Isotope studies of ground water re-			
sources of alluvial formations			
(School of Chemistry)	£1,000	0	0
Modification of natural fibres by			
radiation copolymerization			
with synthetics (School of			
Chemistry)	1,000	0	0
Storm analysis for dam design			
(School of Civil Engineering)	2,000	0	0
Research into the sealing of catch-			
ments to increase runoffs			
(School of Civil Engineering)	1,500	0	0
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REPORT OF COUNCIL—1964		1	21
Chemical and botanical analysis and research on feed intake of ewes on pasture at Canberra			
(School of Wool Technology) Survey of streptomyces species from agricultural soils (School of	1,200	0	0
Biological Sciences) Study of microbial response to the physio-chemical environment	3,700	0	0
(School of Biological Sciences) Study of forced and free flow of granular materials through	4,119	0	0
open and closed conduits (Wollongong University Col- lege) Economic and Financial Research Fund Impact of automation on a section	500	0	0
of Australian "white collar" work force (School of Econ- omics) Cessnock problem in adapting en- vironment to changing econ-	300	0	0
omic circumstances	550	0	0

Associate Professor G. H. Roper donated £40 18s. 8d. to the Chemical Engineering Research Fund.

- Rural Bank of New South Wales: The Rural Bank contributed £200 to the oversea travel expenses of Associate Professor W. R. Pitney of the School of Pathology.
- Sandoz Australia Pty. Limited: This Company provided £4,227 4s. 2d. for a Research Fellowship in Medicine.
- Schering Pty. Limited contributed a total of £230—£100 towards the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics and £130 for a study of progestogens by the School of Wool Technology.
- School of Physics and Optometry Research Fund: Donations of  $\pounds 42$  14s. were made towards the Research Fund.

A.W.A. Pty. Limited		• • • •	£5	0	0
Mr. J. E. Brown			2	2	0
Mr. S. A. Chandler	••••		1	0	0
Chicken Sexers' Assoc. of N.S.	S.W.		14	14	0
Mr. D. Izak	• • • • •		3	3	0
P.M.G. Department			6	5	0
St. Patrick's College, Manly	••••	••••	10	10	0

Shalimar Investments Pty. Limited contributed £300 to the oversea travel expenses of Associate Professor W. R. Pitney of the School of Pathology.

- The Shell Company of Australia Limited contributed  $\pounds 100$  towards the cost of publishing a Chemical Data Book.
- Associate Professor E. M. Stephenson donated £10 10s. to the School of Biological Sciences Fund.
- Stewarts and Lloyds (Aust.) Pty. Limited contributed £26 5s. to the School of Electrical Engineering Research Fund.
- Summer School for Teachers of Chemistry, 1965: Donations totalling £2,157 5s. have been received from the following organizations towards the expenses of the 1965 Summer School:

B.A.L.M. Paints Limited		£5	5	0
Bank of New South Wales		100	0	0
Broken Hill Pty. Co. Limited		800	0	0
Chemical Materials Limited		10	0	0
Colonial Sugar Refining Co. Limited		150	0	0
Drug Houses of Australia		15	15	0
General Motors-Holden's Pty. Limited	1	50	0	0
Imperial Chemical Industries of A. & N	.Z.	100	0	0
John Lysaght (Aust.) Limited		100	0	0
Metal Manufactures Limited		50	0	0
Moreland Metal Co. Pty. Limited		5	5	0
Monsanto Chemicals (Aust.) Ltd.		100	0	0
Parke Davis & Company		21	0	0
Shell Coy. of Australia		100	0	0
Stewarts & Lloyds (Aust.) Pty. Ltd.		100	0	0
Unilever (Aust.) Pty. Limited		200	0	0
W. D. & H. O. Wills		250	0	0

Summer School for Teachers of Mathematics, 1964: Donations totalling £1,250 have been received from the following organizations towards the expenses of the 1964 Summer School:

Anthony Hordern & Son Limited	£25	0	0
Ampol Petroleum Limited	100	0	0
Australian Consolidated Industries	100	0	0
Broken Hill Pty. Co. Limited	100	0	0
G. J. Coles & Čo. Limited	100	0	0
Colonial Sugar Refining Co. Ltd.	50	0	0
Grace Bros. Pty. Limited	25	0	0
Imperial Chemical Industries of A. & N.Z.	50	0	0
Mutual Life & Citizens Assurance	50	0	0
Nestlé Co. (Aust.) Limited	25	0	0
Rheem (Aust.) Pty. Limited	25	0	0
Rothmans (Aust.) Limited	100	0	0
Rural Bank of N.S.W.	100	0	0
Standard Telephones & Cables Pty. Ltd.	100	0	0
Sydney County Council	100	0	0
Unilever (Aust.) Pty. Limited	100	Ō	Ō
Woolworths Limited	100	Ō	0

- Sydney County Council: The Sydney County Council made a donation of £1,000 in connection with the Measurements Laboratory in the School of Electrical Engineering.
- Tooheys Limited made a donation of  $\pounds 250$  for studies on the continuous fermentation of micro-organisms by the School of Biological Sciences.
- *Estate of the late Ivy P. Trevillion*: An amount of £134 14s. 8d. was donated to the University Special Purposes Fund.
- Union Carbide Aust. Limited donated  $\pounds 300 \pounds 100$  towards the cost of publishing a Chemical Data Book and  $\pounds 200$  towards the oversea travel expenses of Professor S. J. Angyal.
- United States Air Force: Grants totalling  $\pounds$ 7,602 19s. 3d. have been received from the United States Air Force for research on the following projects:

Positronium (School of Chemistry) .... £1,652 9 0 The nuclear three body problem (School of Mathematics) .... 5,950 10 3

- United States Army: An amount of  $\pounds 6,673$  9s. 9d. was received for research by the School of Chemistry on the preparation of some new chelating ligands and for the investigation of their metallic complexes.
- United States Department of Health Education and Welfare: The Department has donated £27,602 17s. 2d. for the following purposes:

Synthesis of phosphoinositides (School of Chemistry)	£4,599	15	0
Insect venoms attractants and repellents (School of Chemistry)	6,713		9
The electrical properties of psychotropic substances (School of Chemistry)	5,098	5	7
Research instrumental control of respira- tion (School of Applied Psychology)	3,298	17	9
Research Fellowship—Dr. W. Corpe (School of Biological Sciences)	222	9	11
Research on mediation of vascular re- sponses in inflammation (School of Pathology)	7,669	16	2
University Prizes and Awards: Donations were re following persons and organizations:	ceived fro	om	the
A.E.I. Engineering Pty. Ltd.	£2	2	0
Assoc. of Consulting Structural Engineers	50		-
Miss R. Atkins		10	0
Mrs. M. Austin	10	0	0
Austral Bronze Co. Pty. Ltd		0	0
Australian Aluminium Co. Limited	5	5	0

Australian Chemical Holdings Ltd.	10 1	10	0
Australian Gas Light Co. Ltd.—Prize in			-
Department of Industrial Engineer-			
ing	5	5	0
Australian Glass Manufacturers Co. Pty.	-	-	•
Ltd	2	2	0
Australian Institute of Builders	50	0	0
Australian Institute of Cost Accountants		10	Ó
Australian Institute of Metals		12	Ō
Australian Institute of Metals, Port			-
Kembla Branch—Prize, Wollon-			
gong University College	20	0	0
Australian Optical Association	21	0	0
Australian Paper Manufacturers Ltd		10	0
Australian Welding Institute	5	0	0
Babcock & Wilcox (Aust.) Pty. Ltd		10	0
Board of Architects	21	0	0
Boiler Inspection Association		10	Ō
Borden Chemical Co. (Aust.) Pty. Ltd.	125	0	Ō
Broken Hill Pty. Co. Ltd.	15	Õ	Ō
S. R. Brown Pringle, Wolff & Co.	10	Ŏ	Õ
Business Equipment Pty. Ltd.	20	Õ.	Ŏ
Chamber of Manufactures of N.S.W.	<b>5</b> 0	ŏ	ŏ
Chemical Society of University of N.S.W.	24	Ŏ	ŏ
Cockatoo Dock & Engineering Co. Pty.	- ·	Ŭ	v
Ltd	2	2	0
Arthur Cocks & Co. Ltd.	5	2 5	Ŏ
Colonial Sugar Refining Co. Ltd.	71	Õ	ŏ
Conzine Ltd		10	ŏ
Corneal Lens Corp. Pty. Ltd		10	ŏ
G. E. Crane & Sons Ltd.	155	Õ	ŏ
Data Control Business Systems	10	ŏ	ŏ
Department of Education, N.S.W.	21	ŏ	ŏ
Drug Houses of Australia Ltd.	5	5	ŏ
Duly & Hansford Ltd	5	5	ŏ
Dunlop Rubber (Aust.) Ltd	105	ŏ	ŏ
Eagle & Globe Steel Co. Ltd	5	š	ŏ
Edwin V. Nixon & Partners		10	ŏ
Electrolytic Zinc Co. (Aust.) Ltd.	5	5	ŏ
English Electric Co. (Aust.) Pty. Ltd		10	ŏ
Esso Standard Oil (Aust.) Pty. Ltd	50	Õ	ŏ
Mrs I M Falls	10	ŏ	ŏ
Ford Motor Co. of Aust.	10	ŏ	ŏ
General Electric Co. Aust. Pty. Limited	10	ĭ	ŏ
Greenwood Challoner & Co	-	10	ŏ
Hoover (Aust.) Pty. Ltd.	20	0	ŏ
Inglis Hudson Trust		11	1
Institute of Diesel Engineers		10	0
Transformed and Transf		15	ŏ
Institute of Quantity Surveyors	26	5	ŏ
institute of Quality Surveyors	20	5	U

REPORT OF C	COUNCIL—1964
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KEIOKI OI COONCIL-1904	1	125
Institute of Radio & Electronic Engineers	30 0	0
James Hardie & Co. Pty. Ltd	70 0	0
John Fairfax Ltd.	42 0	0
Manual Arts Teachers' Association	10 10	0
Marley Reliance Industries Pty. Ltd.	25 0	0
Master Builders' Association	200 0	0
Merck Sharp & Dohme (Aust.) Pty. Ltd.	52 10	0
Morganite Pty. Ltd.	50 0	0
Professor R. H. Myers	10 0	0
MacDougalls Ltd.	20 0	0
F. MacLurcan	55	0
Nestlé Co. Limited	$ \begin{array}{ccc} 2 & 2 \\ 5 & 5 \end{array} $	0
North Shore Gas Co	$ \begin{array}{ccc} 2 & 2 \\ 5 & 5 \end{array} $	0
N.S.W. Geological Society	12 12	0
N.S.W. Geological Society Optical Products Pty. Ltd. Opticians & Optometrists Assoc. of	21 0	0
Opticians & Optometrists Assoc. of		
N.S.W	10 10	0
Parkes Wool Promotion Committee	25 0	0
Petroleum Refineries (Aust.) Pty. Limited	31 10	0
Mr. S. W. G. Ratcliff	10 10	Ō
Royal Australian Institute of Architects	25 0	0
Shakespeare Dinner Sponsors and Organ-		-
izers—Shakespeare Prize in Depart-		
ment of Drama	125 0	0
Smith Kline & French Laboratories	25 0	Ŏ
Standard Telephones & Cables Pty. Ltd.	$\frac{1}{2}$ $\frac{1}{2}$	Ŏ
State Public Service R.S.S.A.I.L.A.		v
Branch	10 10	0
Statistical Society of Australia	6 6	Ŏ
Stauffer Chemical Co	10 10	Ŏ
Taxation Institute of Australia	10 10	ŏ
Tooheys Ltd		ŏ
Tooth & Co. Ltd	$\frac{1}{2}$ $\frac{1}{2}$	ŏ
Unilever (Aust.) Pty. Ltd.	63 0	ŏ
(Mr. J. Watson) Wollongong Pastoral Co.	66	ŏ
F. W. Williams	21 0	ŏ
	$10 10^{21}$	ŏ
	25 0	ŏ
Henry H. York & Co. Pty. Ltd.	25 0	0

University Sports Association: A total contribution of £2,550 was made—£800 for the clubhouse at the David Phillips Field, Daceyville, £1,500 for floodlights at Kensington, and £250 for the maintenance of sporting facilities.

Upjohn Pty. Limited: This Company donated £1,675 for the study of controlled breeding of sheep using "Repromix".

Professor H. R. Vallentine contributed an amount of  $\pounds 50$  to the Hydraulic Research Trust Fund in the School of Civil Engineering,

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- Visiting Professor L. F. Urwick donated £210 for a prize in Business Administration.
- Dr. Werner von Bergen donated  $\pounds 25$  7s. 2d. to the School of Wool Technology flock testing research.
- Dr. G. Wallwork donated  $\pounds 2$  12s. to the School of Metallurgy Research and Special Activities Fund.

Water Research Foundation of Australia Limited: The Foundation made available an amount of  $\pounds 12,050$  for the following projects:

hojeets.			
Nuclear chemical study of the age and renewal rate of the Great Artesian Basin (School of Chemistry) Research into the problems associated	£900	0	0
with sealing control in distillation processes (School of Chemical En- gineering)	500	0	0
Research into improved methods for the design and construction of farm			
dams (School of Civil Engineering)	2,250	0	0
Study of flow characteristics of semi- circular side-channel spillways			
(School of Civil Engineering)	750	0	0
Study of measurement of time of concen-			
tration and hydrographic character- istics of small rural catchments			
using radio-active tracers (School			
of Civil Engineering)	500	0	0
Research on the effects of exotic soft-			
wood afforestation on water yield (School of Civil Engineering)	2,500	0	0
Research into the derivation of initial	2,500	U	U
loss (School of Civil Engineering)	750	0	0
Research on desiccation failures in small	1 0 5 0	~	~
dams (School of Civil Engineering)	1,050	0	0
Review and analysis of the use of plastic in the field of water engineering			
(School of Civil Engineering)	850	0	0
Maintenance Water Research Reference	2 000	^	0
Library at Manly Vale	2,000	0	0

The Wellcome Trust: A grant of £3,750 was received for studies on anaemia in New Guinea by the School of Pathology.

Wheat Industry Research Council: The Wheat Industry Research Council made a grant of  $\pounds 7,130$  to the School of Mechanical Engineering for research in the following fields:

Soil tillage investigation	£3,855	0	0
Scarifier and combine drill points	2,215	0	0

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REPORT OF COUNCIL-1964	1	27
Comparative performance of different systems of tine mounting 910 Bulk handling of wheat (Wollongong	0	0
University College) 150	0	0
<ul> <li>W. D. and H. O. Wills (Aust.) Limited: The Company made totalling £1,775 for the following research projects:</li> <li>High-vacuum diffraction study in the</li> </ul>	grai	nts
School of Physics £1,400 Research in the School of Sociology by Associate Professor A. A. Con-	0	0
galton 375	0	0
The Wool Research Committee and Australian Wool Board available a total amount of £117,499 for research i School of Wool and Textile Technology: School of Wool Technology		
Flock testing £16,156	0	0
Anomalies in fibre processing 7,553 Competition between wool and	0	0
other fibres 3,226		
Ram wastage—urinary calculi 2,927 The selection efficiency of 2- and	0	0
4-tooth merino rams 2,575 The impact of nutritional factors—	0	0
Yass River Valley 420	0	0
School of Textile Technology		
Complexes of dyes and surface- active agents 4,150	0	Δ
Accelerated ageing of worsted	U	U
manufactures 3,200 Development of a weft tension	0	0
regularity device 2,700	0	0
Investigation of:	U	U
<ul> <li>(a) Significant wool properties in processing and end use</li> <li>(b) effects of ionising radiation on wool</li> </ul>	0	0
(c) relationship between yarn and fibre irregu- larity		
Investigation of:		
(a) the permanence of wool bleaches (b) blowing at temperatures (11,100	0	0
(b) blowing at temperatures (11,100 near 100°C.	~	2
Improvements in wool scouring 15,030	0	0

X-ray and wave diffraction	in			
keratin		1,850	0	0
Wool polymer reaction		4,200	0	0
		17,000	0	0
Continuous chemical processing	3	7,487	0	0

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Wollongong University College Library Appeals Fund: An amount of  $\pounds 459$  4s. 9d. was received from various donors.

Wyeth Pharmaceuticals Pty. Ltd.: This Company donated an amount of £100 towards the oversea travel expenses of Professor J. Beveridge of the School of Paediatrics.

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## **REPORT OF COUNCIL—1964**

# Finances of the University, 1964

During 1964 income received from all sources totalled £9,020,736 while aggregate expenditure incurred totalled £8,176,228.

Income was received from the following sources, and comparison is made with 1963 and 1962 in amount and percentage of total:

	196	1964		1963		1962	
Source of Income	Amount	%	Amount	%	Amount	%	
1. State Government Grants—	£		£		£		
Recurrent Expenditure	3,182,175		2,768,000		2,340,000		
Schedule Projects	933,800		826,585		1,456,000		
General Research	62,500						
Non-schedule Projects	134,615				20,000		
Total	4,313,090	47.81	3,594,585	45.28	3,816,000	49.03	
2. Commonwealth Government Grants-	-						
Recurrent Expenditure	2,212,000		1,715,000		1,528,000		
Schedule Projects	585,058		826,585		1,111,000		
General Research	62,500						
Total	2,859,558	31.70	2,541,585	32.02	2,639,000	33.90	
3. Special Purposes Funds—							
Research	437,207		306,697		267,308		
Scholarships, Prizes, etc	37,895		44,067		33,643		
Other	368,857		575,540		347,666		
Total	843,959	9.36	926,304	11.67	648,617	8.33	
4. Students' Fees	909,833	10.09	802,232	10.11	590,924	7 · 59	
5. Other General Income	94,296	1.04	72,991	0.92	89,436	1.15	
Total Income	9,020,736	100.00	7,937,697	100.00	7,783,977	100.00	

Expenditure was incurred from the following sources for the purposes indicated, and again comparison is made with 1963 and 1962 in amount and percentage of total:

	1964 1963		1962			
Expenditure Headings	Amount	%	Amount	%	Amount	%
1. Salaries and Staff Charges—	£		£		£	
Recurrent Expenditure	4,836,193		3,941,351		3,367,574	
General Research Grants	. 25,453					
Special Purposes—Research .	. 220,065		169,574		124,120	
Special Purposes-Other	. 41,127		40,968		56,539	
Total	. 5,122,838	62.66	4,151,893	55.08	3,548,233	45.13

Even diture Handings	196	4	196	1963		52
Expenditure Headings	Amount	%	Amount	%	Amount	%
2. New Buildings( including Sites)	£		£		£	-
Grants for Building Projects etc. under States Grants (Universities) and Universities (Financial Assist- ance) Acts	853,162		1,276,063		2,555,738	
Grants—Non-schedule Projects	79,907		7,021		4,490	
Special PurposesResearch			1,988		42,478	
Special Purposes—Other	11,744		53,936	1	61,125	
Total	944,813	11.56	1,339,008	17.77	2,663,831	33.88
3. Maintenance Expenses—						
Recurrent Expenditure	1,096,037		1,055,459		792,389	
General Research	11,556					
Special Purposes—Research	62,491		42,074		24,528	
Special Purposes—Scholarships etc.	38,694		40,447	1	43,960	
Special Purposes—Other	117,952		118,657	ļ	83,859	
Total	1,326,730	16.22	1,256,637	16.67	944,736	12.01
4. Major Plant and Equipment, Furni- ture and Library—						
Recurrent Expenses	404,260		479,501		352,506	
General Research	54,566	:				
Grants for Building Projects etc. under States Grants (Universities) and Universities (Financial Assist-						
ance) Acts	102,881		157,514		201,750	
Grants-Non-schedule Projects	20,071					
Special Purposes—Research	96,376		88,524		80,200	
Special Purposes—Other	103,693		64,554		71,890	
Total	781,847	9.56	790,093	10.48	706,346	8.98
Total Expenditure	8,176,228	100.00	7,537,631	100.00	7,863,146	100.00

The aggregate funds held at the close of 1964 amounted to  $\pounds 2,808,706$  comprising the following funds, and comparison is made with 1963 and 1962.

Funds	1964	1963	1962
Recurrent Purposes General Research Special Purposes—Research Special Purposes—Scholarships etc Special Purposes—Other State Government Non-schedule Projects State and Commonwealth Government Grants for	£ 73,189 33,425 266,886 23,161 1,490,190 100,127	£ 11,375 208,612 23,960 1,395,849 65,490	£ 129,463 204,074 20,341 1,098,424 72,510
Schedule Projects under States Grants (Universities) and Universities (Financial Assistance) Acts Total Funds	821,728 2,808,706	258,913 1,964,199	39,320 1,564,132

The operating income and expenditure in 1964, excluding income and expenditure on capital items (Universities (Financial Assistance) Act definition), general research grants, special purposes and schedule and non-schedule building projects and equipping, are shown below and compared with 1963 and 1962.

a 61		1964		1963		1962	
Source of Income		Amount	%	Amount	%	Amount	%
1. State Government Grants—		£		£		£	
Consolidated Revenue Fund		3,182,175	50·38	2,768,000	51-95	2,340,000	51.66
2. Commonwealth Government Grant	rs—						
Recurrent		2,212,000	35.02	1,715,000	32 · 19	1,528,000	33.73
3. Students' Fees		909,833	14•41	802,232	15.05	590,924	13.04
4. Other General Income		11,997	0 · 19	43,019	0.81	71,697	1 · 57
Total Income		6,316,005	100.00	5,328,251	100.00	4,530,621	100.00

Income was received from the following sources:

## Expenditure was incurred as follows:

	1964		1963		1962	
Expenditure Headings	Amount	%	Amount	%	Amount	%
1. Salaries and Staff Charges	£ 4,836,193	77.33	£ 3,941,351	72.37	£ 3,367,574	74.92
2. Maintenance Expenses	1,045,190	16.71	1,033,126	18.97	779,007	17.33
3. Major Plant and Equipment, Furni- ture and Library	372,808	5.96	471,862	8.66	348,149	7.75
Total Expenditure	6,254,191	100.00	5,446,339	100.00	4,494,730	100.00

The charts which follow show as part of each  $\pounds 1$  of income, the amounts received from each source of income, and as a part of each  $\pounds 1$  of expenditure, the amounts expended on each purpose in respect of (1) the aggregate income and expenditure, and (2) the operating income and expenditure of the University for 1964.

## Chart 1

Showing in Respect of 1964 the Aggregate Amounts of Income and Expenditure

A. The amounts received from the various sources of income and incurred on the various purposes of expenditure.

B. The percentage which each source of income or purpose of expenditure represents of total income or expenditure.

C. The proportion which each source of income or purpose of expenditure represents of each  $\pounds 1$  of total income or expenditure.

Aggregate Income £9,020,736 Aggregate Expenditure £8,176,228



Y Other General Income, £94,296. Z Plant, Furniture and Library, £781,847.

## Chart 2

## Showing in Respect of 1964 the Income Received and Expenditure Incurred on University Purposes Exclusive of Capital\* and Special Purposes.

A. The amounts received from the various sources of income and incurred on the various purposes of expenditure.

B. The percentage which each source of income or purpose of expenditure represents of total income or expenditure.

C. The proportion which each source of income or purpose of expenditure represents of each  $\pounds 1$  of total income or expenditure.



<sup>\*</sup> In terms of Definition Universities (Financial Assistance) Act.

# SUMMARY OF RESEARCH IN 1964

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## Foreword

It is again my pleasure to write the foreword to the Research Report.

As in the past, the research carried out in each School has been summarized in order to present a concise picture of the overall research effort at this University in 1964. A more detailed report will be made available later in the year for members of other universities and research institutions who require additional information and titles of published research papers.

The year 1964 was a significant one for all Australian universities. In that year the Australian Universities Commission, for the first time, allocated relatively large amounts of money to be used specifically for research. The funds made available, though not sufficient to meet all needs, have permitted a number of worthwhile projects to be accelerated and some new and important studies to be initiated. The momentum given to research has not yet manifested itself in the projects and publications appearing in this Report, but its results, I am sure, will become obvious in the near future.

It is appropriate that I should express the delight of all my colleagues with the support received, and my personal belief that the investment in university research will produce manifold dividends for the nation.

There is another matter I should mention. This is the decision of the Council to increase the responsibilities of the Faculties. The Faculties were, *inter alia*, made responsible for higher degrees and post-graduate research. This in itself is important, but what is more important is that the re-constituted Faculties are now in a position to establish post-graduate schools on a faculty-wide basis. The establishment of a graduate school within the Faculty of Engineering has already been announced, and the establishment of other graduate schools will, no doubt, follow. Such developments will accelerate the dissemination of advanced knowledge—the important by-product of fundamental research—and thereby assure the strengthening of our growing industries.

The research activities of the Newcastle University College are included in this Report for the last time. As Newcastle has now been granted autonomy, the research of the University of Newcastle will be reported independently in the future. On behalf of my colleagues on the Research and Higher Awards Committee, and indeed on behalf of all members of the University of New South Wales, I extend our very best wishes for the successful pursuance of research at "Newcastle".

> R. A. A. BRYANT, Nuffield Professor of Mechanical Engineering. Chairman, Research and Higher Awards Committee of the Professorial Board.

## FACULTY OF APPLIED SCIENCE

## School of Applied Geology

In pursuance of the policy of developing the applied aspects of the geological sciences, a substantial part of the research activity of this School is concerned with metallic and non-metallic deposits, applied geophysics and engineering geology.

Long-term major research projects in the School of Applied Geology included the following: (i) the mineralization and genesis of important Australian ore deposits (Broken Hill in particular); (ii) studies of the mineralogical constitution and economic application of clays and allied deposits, and rock weathering phenomena; (iii) phase equilibria studies among the metallic sulphide systems; (iv) mineralogical and petrological studies furnishing identifying data and solution of petrogenetic problems; (v) stratigraphic correlative studies of New South Wales sediments and their use in coal seam correlation; and (vi) micropalaeontological investigations which may have a bearing on oil-field problems and conditions of deposition of recent as well as more ancient sediments. Oceanographic studies continued, and two staff members again participated in research cruises off the Australian coast.

Forty new student petrological microscopes, a Philips X-ray diffractometer, a 12 channel refraction seismograph, and an electronic point counter were purchased.

Four students were registered for the degree of Doctor of Philosophy, and fifteen for the degree of Master of Science.

During the past twelve months papers covering a wide range of research activity were published.

#### School of Chemical Engineering

The School of Chemical Engineering, which includes the departments of Chemical Engineering, Fuel Technology and Food Technology, has been actively engaged in recent years in the following fields of research: (i) mass transfer in gas/liquid systems; (ii) gas/solid, gas/liquid systems, especially in the fields of pneumatic and hydraulic conveying and fluidization; (iii) thermodynamics and kinetics in binary and ternary systems; (iv) instrumentation and automatic control of chemical processes; (v) low temperature coal carbonization, and the examination and utilization of liquid and gaseous by-products; (vi) the phenomenon of combustion of solid, liquid and gaseous fuels; and (vii) studies in the re-processing of food, and the chemical and physical properties of colour in foodstuffs.

On behalf of the Faculty of Applied Science the School operates an

IBM 1620 digital computer, and uses this machine for both undergraduate teaching and post-graduate research.

Thirty-nine post-graduate students were registered in 1964.

Fourteen papers by members of staff were published during the year, and Dr. R. H. Buchanan edited two books.

## School of Chemical Technology

The research activities of the School of Chemical Technology are distributed over its three Departments—Industrial Chemistry, Ceramic Engineering and Polymer Science.

The research activities of *Industrial Chemistry* centre on the use of an analogue computer to simulate process control problems of the kind encountered in the chemical industry. Significant progress has been made in this work, which is being continued by a member of staff while on sabbatical leave at the Battelle Institute in Zurich. The other major research activity in this Department is concerned with a variety of studies on the electrolysis of high temperature salt systems.

Significant new items of research equipment included an electronic digital voltmeter and automatic print-out facility, a gas phase partitioner complete with integrator, high-speed temperature recorders and high temperature furnaces capable of being controlled in a precise and stable fashion.

Eight publications were accepted during the year.

In the *Department of Ceramic Engineering*, research continued on the fundamental studies of the mechanism of crystallization from aqueous solutions and from glasses at high temperatures. As a result of this work, two papers were published and one paper was accepted for presentation to the International Symposium on Autoclaved Calcium Silicate Building Products, the proceedings of which will be published by the Society of Chemical Industries. The basic research programmes are giving a better understanding of the factors governing such processes as the crystallization of calcium silicates from solutions, the reactions in basic bricks at high temperatures and the colour development of clay products. The Department also conducted research into the mechanism of moisture improvements and the effects of capillary forces during drying.

Equipment received included a high temperature X-ray diffractometer and a thermogravimetric balance.

There were seven Master of Science candidates in the Department.

The research activities of the *Department of Polymer Science* continued to increase in these fields: (i) the use of infra-red spectroscopy for the analysis of the structure of high polymers; (ii) the use of gas phase chromatography in a study of transesterification reactions; (iii) the study of the properties of blends of natural rubber—stereospecific polymers; (iv) studies in the extrusion plastimetry with special reference to thermoplastic materials; (v) the effect of ultrasonic vibrations on the polymerization of vinyl compounds; and (vi) an investigation of the effect of zinc alkoxides on the polymerization of alkylene oxides.

During the year, this Department received an F & M Model 810 gas phase chromatograph and a base-sledge microtome for use in its research programmes.

One Doctor of Philosophy and two Master of Science candidates were registered.

## School of Metallurgy

Research activities in the School of Metallurgy cover a substantial range of topics of scientific and technological interest. Many metallurgical operations and phenomena are controlled essentially by the processes going on at the interfaces between different phases and a large part of the research effort is directed towards the elucidation of these processes.

A project on mass transfer across gas/liquid and liquid/liquid interfaces, and studies of gas/solid reactions, such as oxidation and reduction, and of phase transformations in the solid state are all part of the research programme.

Other basic research activities relate to various aspects of plastic deformation in metals. Such projects include the study of the effects of inhomogeneities of plastic deformation.

In addition, there are a number of projects of more direct technological interest, including studies of hot cracking in steel; strain ageing in weldments and the effects of restraint on underbead cracking; stress corrosion cracking; plastic flow during extrusion; thermal cracking of lead; refining of lead bullion and the uses of metals in surgery.

During the year about fifty-five minor investigations and research projects were conducted by various members of the School in association with Unisearch. Technical assistance was given to the New South Wales Police Department on a number of occasions.

Twenty-four post-graduate students were working in the School towards the degree of Master or Doctor.

Members of staff published eighteen papers in Australian and overseas journals.

## **School of Mining Engineering**

Research work in the *Department of Mining Engineering* during 1964 could be classified under three main categories:

(i) Wire ropes: An important improvement was made in methods of testing wire ropes and a provisional patent filed. In association with A.M.I.R.A., a Senior Project Scientist was appointed. This officer is currently overseas.

(ii) Rock mechanics and rock properties: Work on the high pressure triaxial load cell proceeded and test work was projected, a member of staff continuing with field work. Co-operation with industry was maintained. A special lathe, a rock saw and dynamic strain recording equipment were obtained.

(iii) Mine programming: Work on this phase of mining research

continued, and laboratory facilities were improved. Factors of importance in the control of materials handling, especially in relation to bins and stopes, were studied.

In the *Department of Mineral Processing* research work continued in the following fields:

(i) Processing particulate material: The micro-electrophoresis cell has been used to study the physico-chemical reactions for flotation systems, particularly in the field of iron ore beneficiation. Work on the influence of particle size and aeration on the rate of flotation continued, using batch and continuous flotation tests. A pilot plant York Separator was installed for work on gravity concentration.

(ii) Particle size analysis: A Haultain Infrasizer has been installed and a metal ore microscope obtained to study liberation and particle size distribution.

(iii) Suction dredging: Using the experimental pumping circuit, work has continued on the study of factors influencing the efficiency of suction dredging.

(iv) Coal preparation: Important work on the utilization and washability characteristics of coal from southern coal-fields continued.

In the School six higher degree students were working towards the degree of Master or Doctor.

Eight papers by members of staff were published.

## School of Textile Technology

The research activities of the School of Textile Technology during 1964 encompassed the physics and chemistry of protein, cellulosic and synthetic fibres. In particular, considerable emphasis was placed on investigations concerned with wool. For this programme generous funds were supplied by the Australian Wool Research Advisory Committee.

In the wool chemistry field work proceeded on the interaction of dyes and dye auxiliaries, the high temperature setting of wool, the bleaching of wool and the grafting of preformed polymers to the wool surface to modify fibre surface properties. In addition, detailed studies were undertaken to determine the chemical reactions involved when wool is yellowed by heat, light or alkali; when wool is treated with oxidizing agents in bleaching and shrinkproofing; and when dyed wool fades in sunlight. Physical studies were concerned with the rheological behaviour of textile fibres and assemblies in processing and end use; the thermal properties of textile fabrics; the interaction of ionizing radiation with textile materials and structural changes within fibres on stretching.

The School was also engaged in engineering studies to improve the efficiency of wool textile processing operations such as scouring, drying and carbonizing, and in developing improved methods for wool top production.

The major items of equipment acquired during the past year included an infra-red spectrophotometer and a 40 channel analyser for attachment to the electron spin resonance spectrometer.

Eight students were engaged in research work for the degree of Doctor of Philosophy and two students were registered for the degree of Master of Science.

During the year three papers were published by members of staff and a further ten papers were submitted for presentation at the forthcoming International Wool Textile Research Conference.

## School of Wool Technology

The School's sheep breeding work, in co-operation with leading stud breeders, continued to expand. As a project of operational research, production flocks were established in four leading "parent" studs. These promise to establish firmly in the sheep industry the technique of using measurement to increase the rate of improvement in flocks throughout the country.

Associate Professor I. L. Johnstone organized a particularly active group of workers to study internal parasites, and secured substantial grants from external organizations in support of the work.

Dr. K. J. Whiteley and his group made an important breakthrough in the understanding of felting and the shrinkage of wool goods.

The work of a post-graduate student, Mr. W. B. Osborne, supported by the Boots Pure Drug Company, yielded results which are likely to have considerable practical application in the sheep industry.

Dr. W. R. McManus studied problems of rumen physiology and energy storage during his sabbatical leave. His work on sheep nutrition has been supported by a substantial grant from the Commonwealth Rural Credits Development Fund.

Advice was received that an area of some 600 acres of land close to Wellington in New South Wales had been allocated to the University for use as a research station. A good start was also made on Research Unit No. 1 in the Riverina, based on an area of some 3,000 acres made available to the University by Mulberrygong Ltd.

Dr. Whiteley's Fibre Science Group took delivery of an automatic amino acid analyser.

Eight students were working towards their Doctor of Philosophy and fourteen for the degree of Master of Science.

In addition to the annual two volumes of the School's journal *Wool Technology and Sheepbreeding*, some twelve papers were published in scientific and technical journals.

# FACULTY OF ARCHITECTURE

#### School of Architecture and Building

During 1964 the School of Architecture and Building established a research laboratory at King Street, Randwick, and embarked upon three research programmes of importance to the building industry. One of these involved an examination of structural plywoods to determine the structural properties of various timbers used in its manufacture with particular reference to performance as bulkhead sheeting under open sea conditions.

A further activity which is worthy of comment is the School's continued participation with the State Planning Authority in the accurate documentation of historic buildings in the Sydney district: in 1964 the following buildings were recorded for this purpose:

- (1) Houses facing Argyle Place;
- (2) Glenfield Farm, Casula;
- (3) Liverpool Technical College;
- (4) Denbigh, Narellan;
- (5) Macquarie Fields House;
- (6) Victoria Barracks.

During the year two candidates were registered for the degree of Doctor of Philosophy, ten for the degree of Master of Architecture and five for the degree of Master of Building.

Members of staff published ten articles in professional and scientific journals.

## FACULTY OF ARTS

## School of English

Members of the School continued to be very active in research and publication. Three members of the English staff contributed chapters to the new Pelican volume *The Literature of Australia*, edited by Geoffrey Dutton. Dr. H. P. Heseltine wrote the chapter "Australian Fiction since 1920"; Professor H. J. Oliver wrote on "Lawson and Furphy"; and Associate Professor Leonie Kramer on "Henry Handel Richardson". In addition, several articles on Australian literature were published, including R. G. Geering's on Hal Porter and Professor Kramer's on Randolph Stow in Southerly, No. 2, and O. N. Burgess's on Stow in *The Australian* Quarterly.

The revised form of Professor Oliver's New Arden edition of "Timon of Athens" was published by Methuen in London during the year; and Professor Oliver was commissioned by the same publisher to edit "Dido Queen of Carthage" and "The Massacre at Paris", as part of a new collected edition of Christopher Marlowe's plays in the Revels series.

Research work on Language continued to be an important part of the work of the School, and publications in 1964 included N. R. Cattell's "New Approaches to Grammar" in *The English Teacher*, No. 5. O. N. Burgess's "Fifty Years of 'Granny'" in *The Australian Quarterly*, No. 3, represents work of a more general kind.

As yet, there are no post-graduate students in the School of English.

## **School of History**

Research in the following general fields was conducted in 1964: early modern French history; Australian, Irish, African and Indian history;
seventeenth and nineteenth century English history and nineteenth century anarchism.

Research material for the School and the Library was obtained by Professor Salmon while on study leave in France and England, and by A. T. Yarwood on leave in India. A microfilm copy of a valuable manuscript source in seventeenth century legal history was obtained from the British Museum.

Four students were registered for the Master of Arts degree and one for the degree of Doctor of Philosophy.

Two books and four articles were published by members of the staff.

#### School of Librarianship

In December the University received a grant of \$7,500 from the Council on Library Resources, Inc., Washington D.C., U.S.A. for research on alphabetical subject indexing in the School of Librarianship under the direction of Mr. John Metcalfe, the Head of the School.

In March, Mr. Metcalfe attended the third of the Rutgers Seminars on Systems for the Intellectual Organization of Information, organized by the Graduate School of Library Service, Rutgers, the State University, New Brunswick, New Jersey. The subject of this Seminar was a paper by Mr. Metcalfe, "Alphabetical Subject Indication of Information".

While in England and the United States Mr. Metcalfe was able to buy for the Library a number of out-of-print works dealing with bibliography and librarianship. In view of the recent establishment of the Library, the material bought in this way forms an unusual group of items which will strengthen opportunities for research.

The Master's Degree of Librarianship was open to candidates for the first time this year. Of those registered, eight sat for the examination at the conclusion of the formal course, and five passed.

Two papers were published by Mr. Metcalfe in 1964.

#### **School of Philosophy**

In the *Department of Philosophy* research topics included the foundations of the theory of probability; one-valued logic and its interpretation; simplification of the decision procedure for real-number algebra; the logic of questions; philosophical method; preparation of a commentary on Aristotle's ethics; laws of science and law-like statements; contrary-tofact conditionals; limiting or meaningless questions; compossibility and possible worlds; and the political philosophy of Hooker.

One candidate was registered for the degree of Doctor of Philosophy.

During the year members of staff contributed articles to an internationally-prepared *Encyclopaedia of Philosophy*, and published four papers.

In the Department of History and Philosophy of Science further progress was made in the preparation of source material for use in courses on the history of chemistry. Preliminary work was completed

on a project designed to lead to the preparation of a Union Catalogue for Australian libraries of holdings in the history and philosophy of science.

Several critical works on the history of chemistry by Helen Metzger were translated and annotated; a star map, oriented for southern hemisphere observers, was prepared for publication; and study begun on some hitherto unexplained errors in Sir William Herschel's account of the discovery of Uranus.

Three candidates were registered for higher degrees: one for the Doctor of Philosophy degree, two for the degree of Master of Arts.

Six articles by members of staff were published during the year.

#### **School of Political Science**

During 1964 the standing of the Department of Political Science was raised to that of a School.

Fields of research investigated by Professor Douglas McCallum included: (i) -recent and contemporary social and political theory, especially work on political sociology and "behaviourism"; (ii) Russian government and politics; and (iii) the concepts of "power" and "influence".

Professor Ruth Atkins was engaged on research into: (i) comparative urban government, especially government of capital cities and (ii) courts and court processes. With the help of Miss C. McSullea, she has undertaken the production of a descriptive and critical summary for the layman of the main features of Australian legal systems, courts and their personnel, procedures et cetera.

The precise causal role of ideologies in politics, and developments in the study of Russian government and politics were studied by Dr. P. D. Marchant.

Mr. A. C. Palfreeman carried out research in the fields of international relations and White Australia policy.

Members of the School of Political Science published a number of papers, including a paper on "Polycentrism in Communism" (to be published in book form) by Professor Douglas McCallum; and a translation by Professor Ruth Atkins of a thesis from the French, "Capital Cities and their Constitutional Status" (with the permission of the author, Dr. Simone Dreyfus of the University of Paris) for limited circulation by the National Capital Development Commission, Canberra.

#### School of Sociology

The following research projects were undertaken or completed by members of the School of Sociology during 1964: Professor M. S. Brown, Head of the School, continued studies of migrant crime in Australia, and assisted the Commonwealth Immigration Advisory Committee in various projects. He also made several studies of the administration and functioning of community development programmes in Ceylon.

#### APPENDIX 3

Associate Professor A. A. Congalton conducted an investigation of the public image of the hospital matron, and also examined tensions in the hospital ward, continuing his previous studies of the nursing profession.

Professor J. B. Montague, Visiting Professor during 1964, undertook stratification studies in Australia, in line with research previously conducted in the United States and the United Kingdom.

G. Audrey Rennison extended her investigation of country towns in Australia through demographic studies and an examination of functional aspects of towns in wheat-producing areas.

Dr. E. H. R. Dowdy was engaged in an examination of the political and religious sociology of Max Weber.

R. A. Nies concluded a case study of socio-cultural change through time, using a community system as the basis, and continued a structuralfunctional analysis of the community structure.

P. A. Vinson, in association with Gillian Lupton, examined role expectations and role conflicts with particular reference to hospital matrons and their deputies, and Gillian Lupton, currently registered for a higher degree, continued research into adult socialization and occupational values.

A number of papers were published, including "The Organizational Teacher" by Professor M. S. Brown; "Service and Status" and "Is Australia a Classless Society?" by Associate Professor A. A. Congalton; and "Training for Social Work in Australia" by G. Audrey Rennison.

#### School of Western European Languages

During the year 1964, in the Department of French, Professor Judith O. Robinson collaborated with Dr. A. A. Martin, Lecturer in French at the University of Sydney, in the publication of a book for high school and university students entitled "France Today, Background to a Modern Civilisation" (Ian Novak, Sydney, 1964). She also carried out research work on the thought of Paul Valéry, leading to the publication of an article: "Valéry's Conception of Training the Mind" (*French Studies*, Vol. XVIII, July, 1964). In addition, she delivered a paper on "Valéry critique de Bergson" to the 1964 Congress of the Association Internationale des Études Françaises in Paris. In the latter part of the year, Professor Robinson commenced research work on an anthology of Valéry's personal notebooks for the French Pleiade edition.

L. R. Chambers, Senior Lecturer, continued his research work for a doctorate of the University of Grenoble on the subject "Gérard de Nerval et la poétique du voyage". His article "Speed and Delay in Nerval" was published in the *Australian Journal of French Studies* (Vol. 1, No. 1, 1964), and he delivered a paper entitled "Nerval and Héloise: the Dialectic of Identity" to the 1964 A.U.L.L.A. Congress in Melbourne. His research on recent trends in the French theatre led to articles on this subject, one of which, "The French Theatre of Today", was published in *Esprit and Geist* (No. V, 1964).

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#### FACULTY OF COMMERCE

#### **School of Accountancy**

Research projects undertaken by members of the School of Accountancy during the year were: government superannuation fund accounting in New South Wales; the development and trend of public hospital accounting in New South Wales and Victoria; measurement of profit in life assurance companies; Australian finance companies—analysis of funds and profits; a theory of business budgeting; the impact of organization and communication theory on accounting; the theory and practice of trade discounts; capital investment-an analysis of the application of profitability tests in capital budgeting and in appraising performance; accounting for long-term projects in the development and construction industries; measurement and reporting of company performance; comparative study of accounting and taxable concepts of income; accounting for overhead costs in multi-product firms; field problems relating to the use of statistical sampling in auditing; the role of the Auditor-General with special reference to the Commonwealth of Australia; and the application of mathematical models to inventory control.

Five candidates were enrolled for the degree of Master of Commerce.

During the year, members of the staff contributed five articles to Australian and overseas accounting journals.

#### School of Business Administration

The Graduate School of Business Administration entered upon its second year of teaching in 1964. The first course leading to the degree of Master of Administration has now been completed. The School hopes to graduate its first Master's candidates in 1965.

Research activities in the School increased in 1964. A survey of marketing education in Australia was completed and sent to the International Marketing Federation in the United States, which is conducting a world survey of marketing education. The survey was based on a widely-disseminated questionnaire and on personal visits and discussions. Some progress was recorded in the collecting of information for a business history of Nuffield (Australia) Pty. Ltd. The death of Mr. V. Molesworth, senior tutor in the School and a Ph.D. candidate in business administration, terminated two projects he was undertaking. One of these, a review of the efficacy of company house magazines, was taken up by D. Graham, a lecturer in the School. The latter also undertook research into business games.

Two candidates for the degree of Doctor of Philosophy were registered.

The late Mr. Molesworth published, early in 1964, a book entitled "Factors in Effective Communication" (West). Professor Wills was the author of a number of articles.

#### **School of Economics**

Research by members of the School of Economics covered a wide variety of topics in pure and applied economics, statistics, industrial

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relations and economic history. During 1964 the following research projects were undertaken: competition monopoly and the law; Australian economic growth 1788-1821; growth and fluctuations in the Australian economy since 1945; a biography of Captain Anthony Fenn Kemp; the theory of economic growth; optimal tariffs and optimal taxes; the terms of trade; the concept and measurement of world liquidity; equilibrium in world trade; the gains from trade; the estimation of stochastically dependent equations; regressions of the second kind; the consistency of k-class estimators in the presence of auto-correlated errors; the Australian building industry; the Australian balance of payments; inflation in Australia since 1953; the immigration of non-Europeans to Australia; problems of aggregation in the theory of inventory investment; a survey of the needs among the old; the movement for an eight hour day in N.S.W.; and hire purchase in Australia.

Four candidates were registered for the degree of Master of Commerce, six for the degree of Master of Arts in Economics and three for the degree of Doctor of Philosophy.

Thirteen articles were published on the basis of research on the above topics.

### School of Hospital Administration

During the year the syllabus of the Master's degree course and the conditions for the award of this degree were extensively revised. A new diploma course was designed and will be offered in March 1965.

Three major research projects continued throughout the year: (i) on hospital administrative and clerical staff and staffing structure of all hospitals in Australia; (ii) on the extent and nature of hospital and health service provision in Australian States and Territories; and (iii) on medical recording as a means of communication.

Three candidates were registered for the degree of Master of Hospital Administration.

There were seven publications during the year.

#### FACULTY OF ENGINEERING

### School of Civil Engineering

Research in the School of Civil Engineering in many cases is financed by grants from other institutions such as the Department of Main Roads, State Electricity Commission, Australian Road Research Board, C.S.I.R.O., the Water Research Foundation of Australia and private firms.

Some of the research projects undertaken by the staff of the School include: (i) model and computer analysis of stresses in the proposed Australia Square Tower, Sydney: a plastrene model to a scale of one in twenty-five has been constructed and subjected to loading tests; (ii) optimum design of water storage reservoirs; (iii) critical storm duration for flood estimation; (iv) new techniques in prestressed concrete con-

struction; (v) precise measurements of subsidence in Opera House foundations; (vi) experimental determination of stresses and deflections in double deck railway carriages; (vii) adhesion tests of tiles for Sydney Opera House; (viii) barometric height determination; (ix) improved methods of design and construction of farm dams; (x) cooling water intake investigations for new power stations in New South Wales; (xi) development of new surveying instruments and techniques; (xii) probable fatigue life of prestressed concrete beams; and (xiii) waterway studies for road bridge at Gundagai.

The major equipment item installed during the year was a Wild A8 stereoplotter which makes a substantial addition to the facilities available for research in photogrammetry.

Sixteen candidates were registered for their doctorate, thirty for the Master of Engineering degree, four for Master of Science and four for Master of Surveying.

Thirty-two papers were published by staff members. One text book was also published. Two Water Research Foundation Bulletins, three Water Research Laboratory Reports and a number of Uniciv reports were issued, as well as a number of reports on special investigations.

### **School of Electrical Engineering**

Research was concerned with the problem of applying digital computers to the automatic control of complex processes. One group of students studied the problem of determining mathematical models of the processes to be controlled, another group the various types of optimum control methods, and the remainder investigated hybrid computer simulation techniques.

During the year the Department's work was aided by the generous loan of a PDP 5 digital control computer by Digital Equipment Australia Pty. Ltd. This computer was successfully operated in hybrid connection with the Department's analogue computer UTAC. The hybrid system has proved to be of particular value in the simulation of optimal control systems and in the on-line analysis of data generated in the analogue computer. These experiments demonstrated the paramount importance of adequate hybrid computing facilities to the research work in automatic control systems in the Department.

During 1964 an acoustic impedance measuring tube suitable for lowfrequency measurements was completed. The only other such tube in Australia of comparable frequency range is at Highett in Victoria. With this tube the first series of measurements was conducted on absorbing wedges to be used in the anechoic chamber. A novel scheme for extending the low-frequency range of these wedges was devised.

Plasma research continued. A spectrometer was acquired and photomultiplier measuring units to make it into a spectrograph are under construction. A study of the bandspectra in nitrogen at atmospheric pressure was undertaken.

During 1964 thirty-three students were enrolled in post-graduate courses in Automatic Control Systems.

Members of staff were responsible for fourteen publications, one book and thirteen articles.

#### School of Highway Engineering

The big task of setting up the research laboratories at the new premises of the Institute of Highway and Traffic Research at Randwick continued throughout the year. Close collaboration was maintained with the Institute of Highway and Traffic Research in the projects it carried out for the New South Wales Department of Main Roads, the Australian Road Research Board and the New South Wales Department of Motor Transport.

Work on the following research projects continued: effects of dynamic loading of structures composed of large prestressed concrete elements; the abrasion testing of road stones; the analysis of stresses and displacements in a finite unsymmetrically loaded flexible beam on a heavy medium liquid subgrade by a numerical integration method; and a study of the propagation of torsional vibrations through soils.

Further projects initiated during the year were: an experimental investigation of a method of strengthening box culverts; the effect of town development on the design of urban road systems; the binding properties of road base materials; development of a viscometer for high viscosity bitumens; the elasticity of certain materials and its relationship to their creep; a study of the effects of repeated loading on some road materials; the measurement of strain due to alternating stress with special reference to road binders; and the compaction characteristic of bituminous concrete under the influence of some important factors.

Notable items of equipment acquired during the year were: oscillograph; automatic recording camera; micro comparator; scintillation probe and collimator; universal measuring bridge; and a vibration generator.

The number of candidates registered for higher degrees was: Doctor of Philosophy three; Master of Engineering four; Master of Technology fifteen.

Eight papers by students and members of staff were published during the year.

#### School of Mechanical Engineering

During 1964 all laboratories in the new buildings, with the exception of the Aerodynamics and Hydraulics laboratories, were commissioned. An unfortunate delay in the supply of the main pumping equipment upset the programme of developmental work in Hydraulics, and due to pressure of other commitments, design work on the low speed 4' x 3' wind tunnel for Aerodynamics had to be suspended during part of the year.

The main areas of research were: agricultural engineering; fluid mechanics; refrigeration and air conditioning; heat transfer; lubrication; industrial engineering; bio-engineering and applied mechanics.

In agricultural engineering, work continued on soil tillage, the wear of tillage tools, and the flow of grain. A number of subjects were pursued in fluid mechanics, including further work on the gasdynamics hydraulic analogy, studies of shock propagation in and flow of bubbly fluids, pure fluid amplification, flow in turbomachines, hypersonic flow over blunt bodies, ship slamming and fluid flow through wire screens. Contract research was undertaken on three-dimensional flow in power house ducting and on pump design data.

Studies in refrigeration, air conditioning and heat transfer included work on the flow of an evaporating refrigerant and non-laminar flow in pipes together with studies of heat transfer in cooling towers, in separated regions and in boundary layers. Contract research was undertaken on the problem of heat transfer in enclosed cavities. The research programme on solar energy utilization, commenced some years ago, was continued.

In the field of lubrication an experimental study of the "Reiner effect" was completed, and further theoretical work was done on elastohydrodynamic lubrication and numerical solutions of the Navier Stokes and Energy equations.

Staff of the Department of Industrial Engineering carried out a variety of operations research and methods engineering studies. Research on twist drill geometry was continued.

Two new bio-engineering investigations were undertaken in conjunction with the School of Medicine. One concerned the lubricating properties of the fluids in the knee joint; the other in distribution of body fluids during surgery. Work on human power output was continued.

In applied mechanics, research was conducted on the design of machine elements, particularly springs; on the friction between a belt and pulley; on kinematics of mechanisms; and on transfer functions for control system elements. Research on the mechanics of the metal extrusion process was carried out in conjunction with the School of Metallurgy.

The School acquired two large air compressors which are to form the basis of new facilities for research in gasdynamics. The installation of these machines was essentially complete by the end of the year. A PACE TR48 analogue computer was obtained for use in Automatic Control studies. Additional items of instrumentation were acquired and an Instrumentation Laboratory established.

Thirty candidates were pursuing research leading to Master of Engineering or Doctor of Philosophy degrees.

Fourteen papers were published by members of staff.

#### School of Nuclear Engineering

The scope of research activities within the School was wide. Work continued on the further development of the double spherical harmonics expansion method for obtaining analytical and numerical solutions to neutron transport problems in slab, and in applying the method to cylinders, taking into account anisotropic scattering. An experimental and theoretical project was in progress to predict velocity profiles in a nuclear pebble bed reactor, such as that under study by the A.A.E.C. at Lucas Heights. The problem of thermal stresses in pebbles led to theoretical studies of balls with non-uniform surface heat transfer and internal heat generation. Transient heat flow in random arrays and neutron transport in random mixtures were investigated theoretically from the general viewpoint of transport processes. Previous work on the dynamics of flow coast down in reactor circuits with free convection was extended for detailed digital computer studies.

Close contact was maintained with the work at Lucas Heights where an IBM 7040 computer was used under contract, and assistance was given, on a consultative basis, with some of the engineering research problems. Many of the student projects required in the Master of Technology course arise out of such problems. During the year the PACE TR48 analogue computer within the School was expanded to its full capacity with assistance from the Atomic Energy Commission. Additional items acquired during the year included a transport delay simulator in a coupled TR10 analogue computer console, permitting a more complete simulation of a nuclear power system. This analogue computer equipment was used particularly by graduate students studying for the degree of Master of Technology, typical projects being the study of internal dynamics of a boiling water reactor, an analogue model of a heat exchanger for a gas cooled reactor, and transient studies of a gas cooled reactor core.

A power supply, scaler, ratemeter and pulse height analyser were purchased, initially for a Doctor of Philosophy project, but this equipment was also available for general nucleonics measurements.

There were three students registered for the degree of Doctor of Philosophy, two for the degree of Master of Engineering, and twelve students were in various stages of completing requirements for the degree of Master of Technology.

Four research papers and several journal articles were published.

#### School of Traffic Engineering

During 1964 progress in the research activities of the School of Traffic Engineering continued. The principal fields of research were Traffic Flow and Transport Planning. In both these areas increasing use was made of the IBM 1620 digital computer for the simulation of traffic and transport phenomena. Among the more interesting projects were: (i) the simulation of traffic flow through intersections and toll barriers with the object of determining how flow rates, vehicle intervals and randomness of service, influence the delay suffered by vehicles; (ii) a computer study of the shortest travel path between any pair of intersections in the central area of Sydney, taking into account various arrangements of one-way streets; and (iii) the study of the distribution of traffic desire lines for various land uses and street systems. Three Doctor of Philosophy students were registered together with five Master of Engineering, and seven Master of Technology students.

Six papers were presented at conferences and symposia during the year by staff and graduate students.

#### FACULTY OF MEDICINE

#### **School of Anatomy**

Research within the School of Anatomy employs the techniques of cytology, histochemistry and electron microscopy. The main fields of work included an investigation of the fine structure of cellular membrane systems, an investigation of the distribution and fine structure of arteriovenous anastomoses, and research into the ultrastructure and histochemistry of nerve fibre-satellite cell relationships in the central nervous system.

One candidate was registered for the degree of Doctor of Philosophy.

Members of staff were responsible for nineteen publications during the year.

#### School of Medicine

The following research was carried out in the School of Medicine in 1964: epidemiological and mortality factors in gastric ulcer; iron absorption and metabolism in patients with haemochromatosis and cirrhosis of the liver; studies of iron metabolism in normal rats and rats with pancreatic injury; the effect of dietary modification and certain drugs on the cholesterol, triglyceride and phospholipide pattern in man; the metabolism of lipide substances in the perfused liver of normal and choline deficient rats; the adrenocortical steroid hormone assay in plasma and urine; clinical trial of an oral hypoglycaemic agent (SH717); bronchodilator compounds and the functional disturbances in bronchial asthma; the metabolism of serotonin and noradrenaline in migraine; clinical trials of drugs used in the treatment of headache; the regeneration of nerve fibres following acute idiopathic radiculitis and polyneuritis; neuro-muscular conduction in myasthenia gravis and its simulators; renal hypertension and renal vasco-depressor substances in the rabbit; ventricular work volume and efficiency in man.

Three candidates were registered for higher degrees.

Thirty-four papers and one book were published during the year.

### School of Obstetrics and Gynaecology

The following research activities were carried out during 1964:

(i) Clomiphene was employed for the first time in Australia to stimulate ovulation in patients infertile because of ovulatory failure. About half the patients treated became pregnant. The remainder showed varying degrees of response to this drug.

(ii) It was discovered during 1964 that barbiturates used in the

treatment of cases of pre-eclampsia during the latter part of pregnancy were interfering with the urinary oestrial determinations used in the assessment of placental insufficiency. By introducing a saponification step into the short method of oestrial determination more reliable results were obtained.

(iii) The work on mammography for the early detection of breast carcinoma and the study of the plasmin-plasminogen system of the mother and neonate which began in 1963 were continued during 1964.

(iv) Injections of spartein sulphate were used as a test to determine the uterine response to oxytocics and as an index of the readiness with which the patient can be expected to commence labour following artificial rupture of the membranes.

(v) A further series of cases was investigated by lymphangiography to determine the reliability of this technique in detecting metastases of cervical carcinoma to the lymph nodes on the lateral wall of the pelvis. The technique was also employed to determine whether lymph node removal at the time of Wertheim operation was complete.

(vi) The factors influencing the outcome of surgical induction of labour were studied in 2,000 patients.

(vii) The penetration of antibiotics into the amniotic fluid during labour was investigated.

#### School of Paediatrics

During 1964 the clinical department at the Prince of Wales Hospital was commissioned and by the time of its official opening in June all beds were occupied. Laboratories were furnished from Hospital and University funds with a wide variety of equipment for micro-chemical studies on small children and most of the year was devoted to perfecting techniques of analysis of blood, urine, faeces, cerebrospinal fluid et cetera. Histological laboratories were also equipped and commissioned.

A small laboratory for research into biochemical disorders in newborn babies was provided by the Royal Hospital for Women and equipped by the University.

Research projects in cytogenetics and hepatitis continued; an investigation into gastroenteritis in infancy was completed; studies were initiated in bone marrow hypoplasia, in the action of chloramphenicol on bone marrow function, and in the biochemical changes occurring in new-born babies with congenital defects requiring surgical intervention.

There were seven publications by members of staff during the year.

#### School of Pathology

Research work performed in the School of Pathology included investigations of vascular responses in injury, the mechanism of the phagocytosis of lipids, the mechanism of haemostasis and the identification of aromatic metabolites.

Research projects undertaken by members of staff during the year included: the vascular responses in chemical injury; the evaluation of

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techniques for assessing increased vascular permeability; the permeability effects of clostridial toxins; the effects of cadmium salts on testes; the role of phagocytes in an oil granuloma; the flow of blood in the normal and abnormal spleen; clinical syndromes related to catechol amines; the analytical application of colour changes produced by proteins in indicators; and the relation of gout to uric acid metabolism.

One candidate was registered for the degree of Doctor of Philosophy. Four papers were published by members of staff.

#### **School of Physiology**

During 1964 the first three medical students to complete a Bachelor of Science (Medicine) course spent their additional year in this school. In addition, the first M.D. degree was awarded to Dr. G. S. Stokes, a National Heart Foundation Research Fellow.

Research proceeded along two main lines. In the cardiopulmonary laboratories work continued on problems related to circulatory control in hypoxia. The role of the arterial chemoreceptors and baroreceptors was defined in relation to cardiac output control. Work began on local and central control mechanisms in skeletal muscle, and also on the circulatory changes occurring in the skin during the hairgrowth cycle.

In the neurophysiology laboratories analysis of the primary afferent depolarization of trigeminal afferent nerve fibres produced by stimulation of skin and of various parts of the cerebral cortex was carried out. Attention was directed particularly to the topographical organization of this negative feedback. The detailed identification of different neurone types within the brainstem trigeminal subnuclei, with particular reference to the effects of cortical stimulation, also continued. Following the completion of the new electrically screened room, work was begun using intracellular recording techniques. Dr. T. Yokota, of Hokkaido University, Japan, spent six months in the neurophysiology laboratory, during which time he gave great impetus to the work.

Sixteen articles were published during the year.

#### **School of Psychiatry**

The fifty bed in-patient psychiatric unit was handed over on 23rd March, 1964, and was officially opened by the Hon. W. Sheahan, Minister of Health, on 26th February, 1965. Owing to the difficulty in recruiting sufficient numbers of trained nursing staff, it was only possible to utilize twenty-five beds until the latter part of the year, but the whole unit is now in use. From the date when the first in-patients were accepted, in June, 1964, until the end of the year, 204 patients were admitted, and during the whole year 377 consultations were held in the general wards. The number of out-patient clinics held at the Prince Henry and Prince of Wales Hospitals increased to eleven.

The staff of the School of Psychiatry moved into its new building at the Prince Henry Hospital at the end of September. The building houses offices for University medical and non-medical staff; teaching areas where instruction in psychiatry to undergraduate and post-graduate students is given; and psychology, electronics and neurohistology laboratories.

Plans were made for the establishment of a psychiatric service at the Prince of Wales Hospital, the expectation being that this will take the form of a 100 bed in-patient unit, with day hospital and out-patient facilities.

Major research projects were: (i) studies in depressive illness; (ii) Australian ethnopsychiatry; (iii) psychiatry in New Britain; (iv) health of the La Perouse community; (v) studies in stuttering; (vi) the assessment and therapy of homosexuality; and (vii) the effect of stimulants on enuresis conditioning.

Members of staff were responsible for eleven publications during the year.

#### School of Surgery

In the Animal Experimental Laboratories work continued on experimental portal hypertension and on the homo-transplantation of mitral valves. New studies have been established on the relation between trauma and reflux of pancreatic juice in the production of biliary strictures. A technique of autoradiography of kidney slices is being developed. Methods of producing spinal scoliosis are being tested in various species.

Clinical research continued on electrolyte and acid base disorders in patients undergoing prolonged artificial ventilation or cardiopulmonary by-pass. New work commenced in at least three fields. Aspects of surgical gastroenterology were examined, with particular reference to pancreatic function. A detailed study was begun on the effects of anaesthetic agents on the magnitude and distribution of limb blood flow, and factors affecting collateral artery resistance in patients with arterial disease were appraised.

#### Human Genetics

Most of 1964 was spent in developing and applying techniques for detecting polymorphisms of human blood. Apart from the numerous blood groups it is now possible to investigate the haptoglobin, transferrin, Gm and Gc groups of serum proteins. Dr. L. Y. C. Lai was also able to determine the polymorphic pattern of acid phosphatase in red cell haemolysates. The Gc groups were detected by technical advances in immuno-electrophoresis. Mr. Sardool Singh worked on population genetics of dermatoglyphs. Apart from various ethnic groups, he determined the pattern in a series of schizophrenic subjects.

Analyses of results of skin pigmentation measurements in New Guinea natives proceeded and the C.S.I.R.O. assisted by providing measurements of the fibre diameter and medullary diameter of hair from New Guinea, Australian and Japanese subjects.

On the clinical side an extensive study was undertaken of the genetics of idiopathic haemochromatosis, and it is probable that two modes of

inheritance of this disease will be established. Dr. E. M. Nicholls studied the genetics of pigmented moles of the skin in school children.

The Human Genetics group visited the Wild Life Division of the C.S.I.R.O. in Canberra and tested the blood of red and grey kangaroos for the genetic polymorphisms that are known to occur in man.

There was one doctoral candidate.

Four papers were prepared for publication during 1964.

### FACULTY OF SCIENCE

#### School of Applied Psychology

Research was carried out in the School of Applied Psychology during 1964 in the following areas: personality change with psychotherapy; projective techniques and personality tests; intellectual change and its assessment; personality change and its assessment; psychology of gambling; personality and sociological correlates of heart disease; interrelations between motor functioning and psychological activity; individual differences in motor functioning, and physiological indices of psychological activity; physiological basis of motivation and learning; regulatory behaviour of animals with respect to pressure, temperature and respiratory gases; learned control of breathing rate in lower animals; dentist-patient relation; role of the manager in Australian industry; therapeutic community in action; person constructs studied by means of semantic differential; and personal and social adjustment of Indonesian students as they relate to examination success.

The number of candidates registered for higher degrees was: Doctor of Philosophy seven; Master of Arts two; Master of Science two.

Three papers were published by members of staff during the year.

#### **School of Biological Sciences**

During the past year the tempo of research activity in all departments of the School quickened, a pleasing feature being the considerable increase in the support from outside funds. The assistance to postgraduate activities made possible by the General Research Fund was most welcome.

In the *Biochemistry Department* significant progress was made in the group of projects concerned with the quantitation of pathways of carbohydrate metabolism in liver tissue and the biosynthesis of cartilage constituents. Rigorous demonstrations of the structure of polysaccharide components of fungal cell walls were made, and some progress achieved in the studies on the chemistry and biochemistry of Australian seaweeds. Work on the metabolism of anaerobic bacteria was expanded. A number of sophisticated tissue culture machines were constructed in the University workshops, and were used in a group of projects concerned with enzyme induction and the conditions of production of various microbial metabolites. The effect of various toxic constituents of polluted air on the respiratory systems of yeasts was studied. In a joint project

between the Departments of Organic Chemistry, Biochemistry and Zoology extensive studies were made on the chemistry, biology and mechanisms of action of the venom of the bore ant.

The considerable expansion in the staff of the *Botany Department* was reflected by the upsurge of research activity, new projects including studies of the energy balance of plants and of wax formation in a number of mutants of cauliflower, peas and maize. A survey of variations of wax components in grasses and eucalypts was also being carried out. Work commenced on the cytogenetics of wheat and related genera. A theoretical analysis of the cost of selection in populations with density-dependent death rates was initiated. Studies continued in mycology and plant pathology as did the investigations relating to the nitrogen-fixing properties of native legumes. Progress was made on the taxonomy of Australian grass trees and related genera.

Continued support from outside bodies enabled further progress to be made in the *Department of Microbiology* on the projects concerned with the degradation of naturally-occurring polymers by actinomycetes and the mechanisms of control of enzyme biosynthesis in micro-organisms. Further funds were made available to permit the study of the response of micro-organisms to the physico-chemical environment and this work was linked with studies of the physico-chemical properties and molecular structure of lipo-protein membranes.

In the Department of Zoology research activities embraced a number of fields including investigations on the albumin gland of the snail, and studies on the physiology of the Eastern Australian lamprey. In the field of Cytology research continued in two areas, namely, the interaction between embryonic epithelial cells of chickens grown together in tissue culture and on the structure and behaviour of chromosomes of an acanthocephalan worm under normal conditions and after exposure to strong X-irradiation. In the field of Systematics, studies on jawless fishes, various insect species and the parasites of fishes continued to yield publications of importance. Ecological studies on marine and estuarine molluscs, of the Port Jackson shark and the Eastern Australian lamprey were in progress. In the Entomology group of the Department particular attention was paid to the effect of toxins on the nervous system of insects which was followed by continuous monitoring with a view to developing new methods of assay of insecticides, and sexual stimulation of sugar cane leafhoppers by irradiation was explored as a means of control of this insect in Fiji.

Fifteen students were registered for the degree of Doctor of Philosophy and twenty-two for the degree of Master of Science.

Thirty-one papers and articles were published during the year.

#### **School of Chemistry**

Research activities in the School of Chemistry continued over a wide area. There were some fourteen different research groups, each active in a specific field.

In 1964 the School of Chemistry departed from its custom of holding

a Summer School for Teachers of Chemistry, to prepare a Chemical Data Book for use by teachers, which was published by the University.

The study of metal complexes continued to occupy a major place in the research programme, and several members of the Department of Inorganic Chemistry contributed to a new book "Chelating Agents and Metal Chelates", edited by the late Dr. F. P. Dwyer and Professor D. P. Mellor (Academic Press, New York and London, 1964). Studies in X-ray crystallography, chemical kinetics, polarography, spectroscopy, catalysis chromatography, auto-oxidation and acid-base equilibria were among the active interests of the research teams.

The Department of Organic Chemistry made numerous advances in the structures and synthesis of products of biological significance. Carbohydrates, natural insecticides, attractants and repellents of insect origin were among the other research interests of the Organic Chemistry Department.

The Petroleum Research Fund of the American Chemical Society gave a grant of \$12,300 for the establishment of a scholarship for either pre- or post-doctoral fellows for the development of a theory of chargetransfer radiation catalysis in the Department of Physical Chemistry.

During the year 125 students were registered for higher degrees (forty-nine Doctor of Philosophy and seventy-six Master of Science); eighteen students were enrolled in the Honours course.

The School was honoured that the first degree of Doctor of Science conferred in the history of the University for research work was given to Professor S. J. Angyal for work carried out in the School of Chemistry.

As well as the publications mentioned above, about one hundred research papers by members of staff were published during the year.

#### **School of Mathematics**

Research conducted in the four Departments of the School is outlined below:

(i) Department of Applied Mathematics: Superconductivity; three body problems (Professor J. M. Blatt was awarded a research contract by the United States Air Force for work in this field); statistical mechanics; astrophysics; quantum field theory; elementary particle theory; electromagnetism; acoustics.

(ii) Department of Mathematics: Boundary value problems; induced polarization and wave propagation; hydrodynamics and aerodynamics; elasticity; nuclear reactor theory (Mr. M. H. McKay was awarded a grant by the Australian Institute of Nuclear Science and Engineering for research in this field and was also awarded a contract by the Australian Atomic Energy Commission for work on reactor calculations); nonlinear differential equations; numerical quadrature in many dimensions.

(iii) Department of Pure Mathematics: Continuous iteration of single valued analytic functions; simultaneous rational approximations to pairs of real numbers; analytic matrix functions; maximal extension of analytic Riemannian and more general manifolds; multidimensional Fourier and Mellin transforms; Kronig-Kramer transforms.

(iv) Department of Statistics: Contagious distributions; multivariate analysis; selection procedures; truncated distributions; experimental design; ranking procedures; stochastic processes in carcogenesis; mathematical programming; regression models.

A total of twenty candidates enrolled for higher degrees.

Members of staff were responsible for thirty-eight publications.

### School of Physics

Research projects are outlined below under the headings of the three Departments of the School:

(i) Department of Physics: Research activities continued to expand with the increasing numbers of post-graduate research workers joining the Department. The major portion of the School's activities is in solid state physics where work on dielectric breakdown, semiconductor surfaces, heavy ion irradiation damage in metals and insulators, crystal structure determination by X-rays and ultrasonic measurement of elastic constants are the fields of investigation. Other active groups carried out investigations in nuclear magnetic resonance, vacuum ultra-violet spectroscopy, plasma physics and vehicle physics.

(ii) Department of Theoretical Physics: Theoretical work continued on lattice dynamics and the quantum theory of dissipative processes, in particular dielectric breakdown and dielectric loss.

(iii) Department of Optometry: Research work in the Optometry Department of the School was chiefly concerned with binocular vision and space perception, and with studies arising from the work of the Orthoptics and Remedial Reading Clinics conducted as part of the Department's activities. In addition to the researches of the academic staff, final year students working for the Bachelor of Science degree in Optometry were required to take part in various group research projects in the above fields. A Master of Science project was also undertaken on critical flicker-fusion frequency.

Research in the School was assisted by a grant from the Australian Institute of Nuclear Science and Engineering for work on heavy ion irradiation damage in metals and by the gift of a station wagon from the Ford Motor Company for research in Vehicle Physics.

There were fourteen Doctor of Philosophy and seventeen Master of Science candidates.

Publications included fifteen research papers and one book.

#### **OTHER SECTIONS**

#### Educational Research Unit

During 1964 the Unit carried out work on the following projects: studies of student progress in the University; the use of student opinion

#### REPORT OF COUNCIL-1964

in the evaluation of university teaching; a study of problem solving procedures in physics; the structure and communication of content material in scientific subjects; problem solving types among tertiary students; the distortion of factors in batteries including reference variables and a comparison of some graphical and analytic methods of rotation; investigation of the effect of differences in visual and auditory acuity on televised programmed instruction material in chemistry; and the measurement of visual acuity using television.

#### Student Counselling and Research Unit

During 1964 staff carried out work on the following research projects: survey of student needs, Newcastle University College; some trends in vocational development research; work values of prospective university entrants; evaluation of a student counselling programme using client reports; and validation of a relationship inventory.

Other fields of research included: development of university norms for several standardized psychological tests; a survey of the quality of a large volunteer (non-representative) sample of 2,000 of the new student intake in 1962 and 1963 as measured by psychological tests and leaving certificate results; follow-up of the outcome of a variety of study skills programmes in terms of skills and attitudes acquired; and a valuation of counselling.

#### **Division of Post-graduate and Extension Studies**

The research activities of the Division in 1964 were centred in the area of mass media techniques for education, particularly that of adults including graduates. Work proceeded on PATOR (programmed automatic teaching operations by radio) and on the project of increasing television resolution for teaching purposes. A vidicon camera chain and ancillary equipment were installed during the year for this purpose.

### Institute of Highway and Traffic Research

The Institute's buildings and equipment were provided, in the main, as the result of a grant of  $\pounds 200,000$  by the Government of New South Wales from Main Roads funds. This action was taken as a result of a recommendation of the Commissioner for Main Roads.

The purpose in establishing the Institute was to expand the field of road research activity, previously the province to a large extent of the Department of Main Roads. It was decided that the research carried out at the Institute should be sponsored research, arising from road authorities and the road industry generally.

The Institute commenced its first research projects in July 1963. At that stage equipment was generally incomplete and supporting staff inexperienced. At the end of 1964, four project scientists were on duty, and all laboratories and equipment, except those concerned with bituminous research, were complete and in working order.

Research work in progress at the Institute at the end of 1964 included the following: development of more reliable methods of assessing quality

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#### APPENDIX 3

of low grade rocks, especially shales; development of apparatus to measure and record volume, headways and speeds of traffic (this data to be converted to digital form on punched paper tape that can be fed directly into a computer for analysis); collection and analysis of the necessary traffic data, and preparation of a traffic capacity manual for Australian conditions; and durability and slipperiness studies of available materials and assessment of their relative properties.

#### **BOARD OF VOCATIONAL STUDIES**

#### **Department of Industrial Arts**

Following are the research projects which were in operation within this Department in 1964: (i) the measurement of aesthetic values in an Australian urban community; (ii) the development of curricula in industrial design at the tertiary level; (iii) the development of stoneware and porcelain bodies and glazes based upon New South Wales materials: (iv) the relationship between perception and ability in rigorous and free design; (v) the industrial arts of Persia, their development, technology and influence on Eastern and Western civilization; (vi) an analysis of the systems of measurement used in work study and the significance of these for education within industry; (vii) an analysis of the effectiveness of group methods of instruction for the in-service training of graduate engineers in a large electrical undertaking; (viii) factors in the growth and structure of technical and technological education in New South Wales which influenced the development of industrial arts programmes in secondary education; and (ix) an analysis of cultural and social influences in industrial arts education.

The following items of equipment of significance for both research and teaching were acquired during the year—a de-airing pugmill, and a Wadkin Bursgreen semi-automatic wood bonding machine.

The number of students proceeding to a higher degree in 1964 was five.

There were four publications during the year.

#### NEWCASTLE UNIVERSITY COLLEGE

#### General

With the appointment during the year of Professors to the Chairs of English, Classical Studies, Physics, Mathematics and Civil Engineering, planning to intensify research activities has begun.

In the various departments of the Newcastle University College there were twelve candidates registered for the Doctor of Philosophy degree and thirty-two for Master's degrees.

Four books were published, and over sixty major articles in scientific and professional journals.

#### **Division of Applied Science**

The Division was closely concerned in the planning of the Fifth Annual Conference of the Australasian Corrosion Association, held in Newcastle in November.

In the *Department of Metallurgy* research on the heat content of beryllium oxide was completed and work on heat contents continued, using highly sensitive D.T.A. apparatus. A new heat flow calorimeter was planned.

In the Department of Chemical Engineering and Industrial Chemistry the first of a series of studies of mass transfer using laminar jets and stirred tanks was completed. The investigation of the kinetics of consecutive chlorination reactions and the measurement of interfacial areas by light transmittance continued.

An instrument for the analysis of binary mixtures by the determination of dielectric constant was developed.

#### **Division of Arts**

The variety and number of research activities of this Division increased gratifyingly and are too numerous to list. Professor Cross was appointed general editor of a series of studies in English and American Literature, which are to be published by the Sydney University Press.

Professor J. M. Ritchie of the Department of German took part in a study trip to Germany at the invitation of the Government of the Federal Republic of Germany on the occasion of the Congress of Germanists in Essen, October, 1964 and then visited various German centres of learning.

Staff members presented a wide variety of papers, including a paper on "Edmund Husserl's Ideas", read by Dr. A. M. Ritchie at King's College University of London, and a paper on "Learning", read by Dr. J. W. Staines to the Australian Conference of the Australian Pre-School Association, Brisbane, May 28th.

#### **Division of Commerce**

In the *Department of Accountancy* research continued on the analysis of the accounts of Australian public companies.

In the *Department of Economics* entry and growth in Australian manufacturing industry were studied. The Federal Government's Committee of Economic Inquiry invited a paper on "Tariffs and Australian Industry".

Members of the Division published widely in academic journals in the United Kingdom, the United States and Australia, and several addresses were given to learned societies.

#### **Division of Engineering**

In the Department of Mechanical Engineering one phase of the investigations into the properties of rubber under dynamic loading was completed. Research into desalination by the wiped film technique

#### APPENDIX 3

continued, and work commenced on the mechanical plotting of data. Further investigations into the problems of static electricity in pumped fuels were made overseas preparatory to the design of a test rig.

In the *Department of Civil Engineering* research continued into the fundamental engineering properties of soils and concrete, into sediment transport, structural models, and positional astronomy.

In the Department of Electrical Engineering work continued on an introductory survey into the properties and uses of tunnel diodes at high frequencies.

#### **Division of Science**

In the *Department of Chemistry* investigations on the nature, kinetics and thermodynamics of chemical reactions were carried out.

In the *Department of Geology* the main research project was concerned with the various aspects of the geology of the Hunter Valley. Special attention was paid to coal.

In the *Department of Mathematics* research work was concentrated in the fields of group theory, mathematical statistics and numerical analysis.

In the Department of Physics work began on studies of micropulsations of the earth's magnetic field. Spectroscopic studies of pure gases continued using an Ebert spectrograph.

Studies were being made of the emission of electrons from abraded surfaces *in vacuo*.

#### WOLLONGONG UNIVERSITY COLLEGE

#### Department of Mathematics

Research covered reactor physics studies associated with the design of the high temperature gas-cooled reactor by the Australian Atomic Energy Commission.

Research equipment purchased included an IBM 1620 digital computer.

One candidate registered for a higher degree.

#### Department of Economics

A survey of the Illawarra Region on behalf of the Illawarra Regional Development Committee was undertaken by the Department.

A report on employment and unemployment was published in 1964.

#### Department of Geology

Research into the petrographic composition of coals was undertaken during the year. Some of this work was done in co-operation with local industry.

Two papers were published.

### Department of Mechanical Engineering

During the year, the following research was conducted: bulk handling and flow of granular materials; propagation of pressure waves in air through small-bore tubes; theoretical study of the thermodynamic properties of the working substance in reciprocating combustion engines; an investigation of valve behaviour in a reciprocating ammonia compressor; and erosion of metallic surfaces by dust entrained in an air stream.

Two candidates were registered for the degree of Doctor of Philosophy and one for the degree of Master of Engineering.

Four papers were published.

#### Department of Metallurgy

Research included studies of processes such as phase transformations that determine the microstructures formed during metallurgical processing and of the relationship between mechanical properties and microstructure. Another aspect of the work was concerned with high temperature reactions in metallurgically important systems such as those involved in the production of sinter for iron blast furnaces.

Two candidates were registered for higher degrees, and one paper was published.

#### **Department of Physics**

The construction of a portable transistorized rubidium vapour magnetometer with a sensitivity of 0.02 gamma was completed; work on determining the cosmic ray neutron energy spectrum was carried out; and investigations into the design of electron guns for high power X-ray tubes were conducted.

Eight papers were published.

#### Department of Chemistry

The research activities of the Chemistry Department were concerned with the alkaloidal constituents of the Tylophora and related plant species, hallucinogenic mushrooms, studies of Vanadium IV complexes, studies of acid dissociation by spectrophotometric methods, measurements of dipole moments of absorbed films on metal surfaces, hydrolysis reactions of carboxylic acid derivatives, catalytic action of ion exchange resins in organic reactions, linear free energy relationships, synthesis and magnetic properties of sulphur-bridged Copper II complexes, and synthesis and magnetic properties of Silver II, Iron II and Chromium II complexes, and synthetic studies of nitrogen heterocyclics and of compounds with anti-hydroxytryptamine activity.

Eight students were registered for higher degrees.

Six articles were published during 1964.

#### APPENDIX 3

### **BROKEN HILL DIVISION**

During 1964 the Broken Hill Division of the University accelerated its research programme, part of which was pursued in conjunction with the mining companies. Research was undertaken on the following topics: rock mechanics and underground support (a Rock Mechanics Research Sub-Committee of the Mining Managers' Association was formed to assist in co-ordination of the research programme); photoelasticity; photosynthesis of organic compounds; photochemistry of co-ordination compounds; chemical studies of indigenous plants (in conjunction with the Department of Botany at Kensington); geochemistry of Broken Hill districts and methods of geochemical prospecting; an analytical model of the operation of a lead-zinc concentration plant; mineralogy of the Broken Hill district; and X-ray diffraction studies of mine dust.

There were two candidates for the degree of Doctor of Philosophy and four for Master's degrees.

JOHN SYDNEY JAMES CLANCY, CHANCELLOR. JOHN PHILIP BAXTER, VICE-CHANCELLOR.

# FINANCIAL STATEMENTS FOR THE YEAR ENDED 31st DECEMBER, 1964

## THE UNIVERSITY OF NEW SOUTH WALES

STATEMENT OF BALANCES AS AT 31st DECEMBER, 1964

	Other than Newcastle University College	Newcastle University College	Total		Other than Newcastle University College	Newcastle University College	Total
DAT ANOTE	£ s. d.	£ s. d.	£ s. d.	BANK ACCOUNTS—THE RURAL	£ s. d.	£ s. d.	£s.d.
BALANCES— General Funds—(as per Annexure "A" attached)	69,261 0 9	3,928 0 10	73,189 1 7	BANK OF NEW SOUTH WALES			
Special Purposes Funds (Research)— (as per Annexure "B" attached) Special Purposes Funds (Scholarships	267,069 10 6	Dr. 183 5 9	266,886 4 9	of New South Wales Account Newcastle Branch—The University of New South Wales Newcastle	1,877,312 5 0		-
Bursaries and Prizes)—(as per Annexure "C" attached)	20,600 0 11	2,561 1 8	23,161 2 7	College Account	6,711 10 6	26,153 0 9	1,903,465 5 9 6.851 10 6
Special Purposes Funds (Other Pur- poses)—(as per Annexure "D" attached)	1,468,623 1 2	21,566 11 9	1,490,189 12 11	SUNDRY ADVANCES INVESTMENTS (AT COST)—(as per Annexure "F" attached)	882,415 13 6	4,150 0 0	886,565 13 6 11,823 12 2
	1,756,292 12 7	23,944 7 8	1,780,237 0 3	SUNDRY DEBTORS	11,623 12 2	_	11,025 12 2
State Government-General Loan Grants - Miscellaneous - (as per Annexure "E" attached) Grants for Building Projects, Furnish- ings and Equipment and Capital Equipment under the State Grants	100,126 17 2	_	100,126 17 2				
(Universities) Act 1960-1964-(as per Annexure "H" attached) Grants for Building Projects, etc. and for Buildings for Halls of Residence	111,001 18 3	-	111,001 18 3				
and Affiliated Residential Colleges under the Universities (Financial Assistance) Act 1963-1964-(as per Annexure "I" attached) Grants for Special Research Purposes under the Universities (Financial	710,725 18 9		710,725 18 9				
Assistance) Act 1963-1964—(as per Annexure "J" attached)	30,854 13 8	2,570 12 3	33,425 5 11				
	£2,778,263 1 2	£30,443 0 9	£2,808,706 1 11		£2,778,263 1 2	£30,443 0 9	£2,808,706 1 11

#### J. P. BAXTER,

J. O. A. BOURKE, Bursar.

Vice-Chancellor.

The books and accounts of the University of New South Wales for the year 1964 have been audited in accordance with the provisions of Section 43 of the Technical Education and University

In my opinion the above Statement of Balances, together with Annexures "A" to "J" inclusive, sets out a true and correct view of the financial position of the University as at 31st December, 1964 and the transactions for the year then ended, according to the best of my information and the explanations given to me and as shown by such books and accounts. W. G. MATHIESON, SYDNEY, 8th September, 1965. Auditor-General of New South Wales.

REPORT OF COUNCIL-1964

Accountant.

## THE UNIVERSITY OF

## STATEMENT OF INCOME

## 1st JANUARY, 1964 TC

## GENERAL

Expenditure					
	Other than Newcastle University College	Newcastle University College	Total		
Salaries and Wages Employer's Contribution to Superannuation Fund Payroll Tax	£ s. d. 4,019,815 11 10 143,815 10 0 103,539 12 10 14,298 19 8	£ s. d. 519,873 10 2 20,098 11 7 13,681 4 3 1,070 6 7	£ s. d. 4,539,689 2 0 163,914 1 7 117,220 17 1 15,369 6 3		
Total Salaries and Associated Charges	4,281,469 14 4	554,723 12 7	4,836,193 6 11		
Teaching and Research—Departmental Maintenance and Minor Equipment	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c} 57,752 \ 16 \ 0\\ 20,402 \ 14 \ 10\\ 7,932 \ 13 \ 2\\ 35,651 \ 1 \ 10\\ 4,273 \ 6 \ 11\\ 5,763 \ 13 \ 0\\ 5,745 \ 7 \ 2\\ 6,385 \ 14 \ 8\\ 7,500 \ 0 \ 0\\ 4,542 \ 9 \ 5\\ 4,400 \ 9 \ 4\\ 1,099 \ 13 \ 2\\ 2,585 \ 18 \ 5\\ 460 \ 0 \ 8\\ \hline\\ 50 \ 0 \ 0\\ 1,361 \ 18 \ 10\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		
Total Expenditure	5,615,858 19 7 69,261 0 9	720,631 10 0 3,928 0 10	6,336,490 9 7 73,189 1 7		
	£5,685,120 0 4	£724,559 10 10	£6,409,679 11 2		

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171 Annexure "A"

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## EW SOUTH WALES

### D EXPENDITURE

### DECEMBER, 1964

## NDS

In	COME			
		Other than Newcastle University College	Newcastle University College	Total
-		£ s. d.	£ s. d.	£ s. d.
Fees—         Students' Fees	 	768,936 4 7 45,443 6 8	88,068 18 6 7,385 0 0	857,005 3 1 52,828 6 8
		814,379 11 3	95,453 18 6	909,833 9 9
State Grants for Recurrent Expenditure—         Received          Accrued		2,579,636 0 0 236,903 18 6	322,439 0 0 43,196 1 6	2,902,075 0 0 280,100 0 0
		2,816,539 18 6*	365,635 1 6*	3,182,175 0 0
Total Fees and State Grants		3,630,919 9 9	461,089 0 0	4,092,008 9 9
Commonwealth Grants for Recurrent Expenditure— Received Accrued		1,770,439 0 0 192,210 0 0	224,561 0 0 24,790 0 0	1,995,000 0 0 217,000 0 0
		1,962,649 0 0*	249,351 0 0*	2,212,000 0 0
Commonwealth Grants for Residential Colleges Less Paid to Residential Colleges	 	11,805 0 0 11,805 0 0		11,805 0 0 11,805 0 0
			_	
Other Income		84,374 12 2	9,921 10 10	94,296 3 0
Total Income Balance brought forward 1st January, 1964	 	5,677,943 1 11 7,176 18 5	720,361 10 10 4,198 0 0	6,398,304 12 9 11,374 18 5
		£5,685,120 0 4	£724,559 10 10	£6,409,679 11 2

Notional distribution only.

## THE UNIVERSITY C SPECIAL PU (Re

## STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR T

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
OTHER THAN NEWCASTLE UNIVERSITY	£ s. d.	£ s. d.	£ s. d.
American Chemical Society Petroleum Research Fund	ļ		
Grant—Research on Complexes in Catalysis		2.094 11 4	2.094 11 4
The Asthma Foundation of New South Wales Grants-	1	2,05111	<b>2,0</b> 27 11 7
Research Fellowship—Dr. G. B. Field		2,290 0 0	2,290 0 0
Research in School of Pathology		3,232 0 0	3,232 0 0
Atmospheric Pollution Research Fellowship	4,028 18 4	100 0 0	4,128 18 4
Australian Atomic Energy Commission Grants— Study of Surface Properties of Beryllium Oxide		700 0 0	700 0 0
Radiation Stability of Chemical Compounds	497 15 1	1,000 0 0	1,497 15 1
Research Studentship—R. M. Hoskinson	40 8 1	1,000 0 0	40 8 1
Graduate Teaching Programme in Nuclear Sciences	149		149
Research into High Temperature Uranium and			
Thorium Fuel Elements	156 12 10		156 12 10
Heat Transfer between Solids and Gases at High	0.49 1 10		040 1 10
Temperatures Study of HIFAR Fuel Processing in Australia	948 1 10 4,451 14 11	•••••	948 1 10 4.451 14 11
Reaction of Metals with Compound Gases	881 6 6		881 6 6
Reaction of Ferrous Alloys and Certain Other			
Materials of Construction with Complex Gases at			
High Temperatures Research Studentship—L. A. Baker		5,450 0 0	5,450 0 0
Research Studentship-L. A. Baker	653 18 0		653 18 0
Investigation into the Insulation of Enclosed Cavities in which Heat Transfer occurs by Natural Con-			
vection		5,100 0 0	5,100 0 0
Resonance Absorption and Temperature Dependence	1.145 2 7	2,100 0 0	3,245 2 7
Effect of Radiation upon Multi-component Model		-,	
Systems of Biological Relevance	18 4 4		18 4 4
Research into Punched Card Storage and Retrieval of			
Nuclear Engineering Information Optimisation of the Factors Governing Production of	201 7 2	Dr.201 7 2†	•••••
Cobalt-60	1,671 12 10		1.671 12 10
Australian Automobile Association Grants-	1,011 14 10		1,071 12 10
Study on Road Use and Road Financing in Australia	222 18 0		222 18 0
Fellowship in School of Traffic Engineering	506 0 8	2,000 0 0	2,506 0 8
Australian Broadcasting Control Board Post-Television	234 16 5		004.16 6
Social Survey Social Survey Australian Dairy Produce Board Grant—Studies on	234 10 5	•••••	234 16 5
Casein and Cheese		650 0 0	650 0 0
Australian Institute of Nuclear Science and Engineering			
Grants-			
Investigation of the Mechanism of Recoil Carbon-14			
and Recoil Labelling of Organic Molecules Application of Electron Spin Resonance (ESR)	9 8 11		9811
Spectroscopy to the Study of Radiation Stability			
of Organic Compounds	3 1 8		3 1 8
Facilities for Research into Radio-Chemical Aspects of			
the Separation of the Higher Actinide Elements by			
Solvent Extraction and Ion Exchange Process Research on Radiation Catalysis	189 15 4 46 9 11	100 0 0	189 15 4
Post-doctoral Fellowshin-Dr D I Corderov	40 9 11	100 0 0 1,234 8 9	146 9 11 1.726 9 7
Post-doctoral Fellowship—Dr. D. J. Corderoy Post-doctoral Fellowship—Dr. R. J. Hussey	772 0 10	2.817 16 0	2,817 16 0
Post-graduate Research Studentship—A. J. Morton	26 9 8	2,017 10 0	26 9 8
Carried Forward:	16,427 8 8	28,667 8 11	45,094 17 7
	[		

†Refund of balance of grant.

ANNEXURE "B"

## NEW SOUTH WALES OSES FUNDS :ch)

# ALENDAR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964

	Paymen	uts 1964		Balances Carried Forward
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	31st Dec., 1964
£ s. d.	£s.d.	£ s. d.	£ s.d.	£ s. d.
1,085 8 10			1,085 8 10	1,009 2 6
2,155 0 3 1,249 3 7 2,838 18 5	181 11 6 20 18 3	57 12 6 250 0 0	2,155 0 3 1,488 7 7 3,109 16 8	134 19 9 1,743 12 5 1,019 1 8
899 1 11	660 9 2  1 4 9	······	660 9 2 899 1 11 1 4 9	39 10 10 598 13 2 40 8 1
				156 12 10
599 16 3 523 1 9	306 3 6 77 19 1 	3 6 17 4	306 7 0 678 12 8 523 1 9	641 14 10 3,773 2 3 358 4 9
156 9 2 155 17 9	3,138 15 2 404 18 9		3,295 4 4 560 16 6	2,154 15 8 93 1 6
46 0 6 1,298 8 11	1,889 3 10 95 16 0	92 14 9	1,935 4 4 1,486 19 8	3,164 15 8 1,758 2 11
	18 4 4		18 4 4	
Cr. 50 14 10	388 17 5		338 2 7	1,333 10 3
1,694 11 7		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	222 18 0 1,785 4 7	720 16 1
174 19 7		4 4 10	179 4 5	55 12 0
379 14 6		14 10 4	394 4 10	255 15 2
	9811		9 8 11	
	3 1 8		3 1 8	
1,651 7 9 763 19 8	20 4 2 64 1 5 	75 1 10 610 5 6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	169 11 2 82 8 6 1,443 10 10 Dr. 9 2 5
15,621 5 7	7,316 10 0	1,419 1 7	24,356 17 2	20,738 0 5

## STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CA

Fund	Balances Brought Forward Ist Jan., 1964	Receipts 1964	Total
Brought Forward: Australian Institute of Nuclear Science and Engineering Grants—(contd.)—	£ s. d. 16,427 8 8	£ s. d. 28,667 8 11	£ s. c 45,094 17
Post-graduate Research Studentship—G. W. Cox Neutron Diffraction Studies of Reactive Metals Rates of Heat Transfer between Fins and in Slots of	425 19 0 368 15 10	Dr. 118 19 4* 1,467 0 0	306 19 1,835 15 1
Cylindrical Surfaces Slowing Down and Resonance Absorption in Nuclear		950 0 0	950 0
Reactors	46 10 11		46 10 1
Related High Polymers The Effect of Irradiation on Endoparasite Develop-	42 16 11	500 0 0	542 16 1
ment Research on Fast Neutron Spectrometer An Investigation of Pulsed Neutron Techniques in	106 4 0	260 0 0	260 0 106 4
Australian Mineral Industries Research Association		1,050 0 0	1,050 0
Grant— Wire Rope Research Project Australian Paper Manufacturers' Research Fellowship Australian Road Research Board Grants—	Dr. 11 8	3,935 6 8	3,935 6 Dr. 11
Reinforced Concrete Beams in Combined Bending, Shear and Torsion	Dr. 918 0 4	2,275 0 0 4,363 8 4	2,275 0 3,445 8 0
The Selection Efficiency of 2- and 4-Tooth Merino Rams		2,575 0 0	2,575 0 0
Impact of Nutritional Factors, Yass River Valley Continuous Wool Processing		420 0 0 7,487 0 0	2,575 0 0 420 0 0 7,487 0 0
Banana Growers Federation Co-operative Ltd. Grant	137 16 0		137 16
Adolph Basser Trust Scholarship in Nuclear Engineering Boots' Research Fellowship in Wool Technology	13 4 21 15 5	4,068 13 2	13 4,090 8
CIBA Limited Grant—Research on Phosphoinositides Coal Carbonisation Research Fund	1,075 5 2 1 4 5	3,738 0 0	4,813 5 2
Colonial Sugar Refining Co. Ltd. Grants— Research into the Fluidised Bed-burning of Australian			
Gypsums Evaluation of the Efficacy of Calcium Sucrose Phos-	160 4 2	•••••	160 4 1
phate as an Inhibitor of Dental Caries Commonwealth Post-graduate Awards to 1962	2,841 5 11	1,000 0 0 Dr2,841 5 11†	1,000 0 0
Commonwealth Post-graduate Awards, 1963 Commonwealth Post-graduate Awards, 1964 Commonwealth Post-graduate Research Awards for Over-	12,688 14 10	Dr3,899 14 10‡ 72,400 0 0	8,789 0 0 72,400 0 0
seas Students	3,606 15 2	5,200 0 0	8,806 15 2
ganisation Grants— Drying Shrinkage of Concrete		1,850 0 0	1 950 0 4
The Strength and Durability of Epoxy-bonded Con- crete Members		1,850 0 0	1,850 0 0 1,850 0 0
Commonwealth Scientific and Industrial Research Or- ganisation Project and Reserve Bank of Australia Grant from Rural Credits Development Fund—Research into		1,000 0 0	1,850 0 0
H. G. Conde Memorial Research Fellowship	$35 \ 2 \ 3$ 1.012 11 10	1,100 0 0	$35 \ 2$ 2,112 11 10
Council on Library Resources Inc., (U.S.A.) Grant- Alphabetical Subject Indexing Especially in Relation	,	.,	-,
to the Relative Indexing of Classifications Dental Health Education and Research Foundation Grant—		3,346 8 5	3,346 8 5
The Dentist/Patient Relationship Department of Civil Aviation Grant—Study of the Effici-		2,000 0 0	2,000 0 0
ency of Departmental Airways Operations Staff Department of Main Roads, N.S.W. Grants—	57 3 0	500 0 0	557 3 0
Contribution to Highway and Traffic Research	22,547 1 3	50,000 0 0	72,547 1 3
Carried Forward:	60,684 16 1	194,143 5 5	254,828 1 6

\*Refund of balance of grant. †Transfer of previous year's balance to General Funds. ‡Transfer of balance to General Funds.

REPORT OF COUNCIL-1964

#### ANNEXURE "B"—continued

## DAR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

	Paymen	ts 1964		Balances
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	- Forward 31st Dec., 196
£ s. d. 15,621 5 7	£ s. d. 7,316 10 0	£ s. d. 1,419 1 7	£ s. d. 24,356 17 2	£ s. d 20,738 0 5
136 19 8 1,129 18 6	170 0 0 300 7 10	41 6 5	306 19 8 1,471 12 9	364 3 1
		••••••		950 0 0
		•••••		46 10 1
	248 13 3	•••••	248 13 3	294 3 8
	17 9 4 62 16 0	•••••	17 9 4 62 16 0	242 10 8 43 8 0
	617 0 0		617 0 0	433 0 0
1,133 18 7 Cr. 11 8	175 12 1	44 0 5 	$Cr. \begin{array}{c} 1,353 & 11 & 1\\ 11 & 8 \end{array}$	2,581 15 7
2,486 1 11 2,509 4 10	120 11 6	52 6 0 61 19 10	2,658 19 5 2,571 4 8	Dr. 383 19 5 874 3 4
•••••	1 14 3	84 13 8	86 7 11	2,488 12
2,333 12 2	165 0 0	22 7 3	2,520 19 5	420 0 ( 4,966 0
		•••••	13 4	137 16 (
13 4 2,865 12 2	800 18 8	131 16 8	3,798 7 6	292 1 1
1,271 12 8	1 4 5	55 4 1	1,326 16 9 1 4 5	3,486 8
	104 0 0		104 0 0	56 4 2
•••••		******		1,000 0 0
8,789 0 0 53,764 5 2			8,789 0 0 53,764 5 2	18,635 14 10
1,467 14 8	1,379 16 5	99 11 3	2,947 2 4	5,859 12 10
	13 15 3	•••••	13 15 3	1,836 4 9
1,171 7 4			1,171 7 4	678 12 8
980 6 11	35 2 3		35 2 3 980 6 11	1,132 4 11
	•••••			3,346 8 5
45 14 0	705	2 5 10	55 0 3	1,944 19 9
198 12 6		527	203 15 1	353 7 1
	34,762 7 6	3,739 19 9	38,502 7 3	34,044 14 0
95,905 8 4	46,299 19 2	5,759 15 4	147,965 2 10	106,862 18 8

## STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALE

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total	
Brought Forward:	£ s. d. 60,684 16 1	£ s. d. 194,143 5 5	£ s. d. 254,828 1 6	
Department of Main Roads, N.S.W. Grants-(contd.) Research on Mild Steel Structural Members	3,692 4 8		3,692 4 8	ł
Department of Nuclear and Radiation Chemistry Research Fund	500 0 0		500 0 0	
Department of Public Health Grant-Research into Chest X-ray Survey Campaign, N.S.W.	1,204 8 5	500 0 0	1,704 8 5	
Department of Public Works Grant— Research in Industrial Ceramics	24 16 6		24 16 6	
Elanco Products Company Grant- Studies on Sheep Breeding Research		550 0 0	550 0 0	
Farm Management Study Groups Account	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	374 0 6	574 0 6	
General Motors-Holden's Grants-	1,190 5 0	-,		
Post-graduate Research Fellowship—D. P. Dunne Post-graduate Research Fellowship—B. J. Restall	924 17 3	1,400 0 0	1,400 0 0 924 17 3	L
Post-graduate Research Fellowship—R. G. Mitchell Post-graduate Research Fellowship—B. L. Gulson	904 8 9	Dr. 378 1 9* 1,500 0 0	526 7 0 1,500 0 0	
Graziers Association of N.S.W. Grant— Burdekin Trust Fellowship in Parasitology	576 16 8	2,516 5 0	3,093 1 8	
Imperial Chemical Industries of Australia and New Zealand Ltd. Research Fellowship	229 17 3	1,100 0 0	1,329 17 3	
Impulse Generator Research Fund Joint Coal Board Research Fellowship—S. St. J. Warne	2,692 15 5 100 11 5		2,692 15 5 100 11 5	
The Leukemia Research Foundation Grant Life Insurance Medical Research Fund of Australia and	250 0 0		250 0 0	l
New Zealand Grants- Research in School of Physiology—Professor P. I.				
Korner	1,249 3 2	3,240 0 0	4,489 3 2	ļ
Research in School of Physiology—Dr. Mary J. Scott Long Range Weather Forecasting Trust Research Grant	135 11 6	600 0 0	600 0 0 135 11 6	
Merck, Sharp and Dohme (Aust.) Pty. Ltd. Research Fellowship in Medicine	2,961 15 2	2,255 16 0	5,217 11 2	
Mobil Oil Australia Pty. Ltd. Grants- The Mobil Lubrication Research Project	1.000 0 0	500 0 0	1,500 0 0	
The Mobil Highway Engineering Fellowship Mohair Advisory Board (South Africa) Grant—		1,150 0 0	1,150 0 0	
Research in Various Aspects of Mohair Monsanto Chemicals Australia Ltd. Grant for Research	133 0 8	1,250 0 0	1,250 0 0	
National Gas Association of Australia Grant-		•••••	133 0 8	
Removal of Organic Sulphur from Town Gas National Health and Medical Research Council Grants—	48 14 11		48 14 11	
Post-graduate Scholarship, Department of Micro- biology	1,350 8 6	927 8 6†	2,277 17 0	
Research in Department of Biochemistry-Dr. K. G. Rienits		699 0 0	699 0 0	
Research in Department of Microbiology—Dr. C. H. Doy		600 0 0	600 0 0	
Research in School of Medicine-Prof. A. W. Stein- beck	232 13 11	2,614 0 1†	2,846 14 0	
Training Grant-School of Medicine	825 0 0	1,500 0 0	2,325 0 0	
Research in School of Anatomy—Prof. M. J. Blunt Research in School of Anatomy—Dr. G. S. Molyneux	223 7 10	260 0 0	1,210 13 6 260 0 0	
Studies on Anaemia in New Guinea Research in School of Physiology—Prof. I. Darian-	•••••	915 10 0	915 10 0	
Smith	437 0 8	Dr. 135 11 11†	301 8 9	ļ
Carried Forward:	81,772 13 9	220,768 3 9	302,540 17 6	

\*Transfer of portion of grant to Post-graduate Research Fellowship—B. L. Gulson, †Includes adjustment of portion of previous grant.

### REPORT OF COUNCIL—1964

## ANNEXURE "B"—continued

## DAR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

	Payments	1964		Balances Carried
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	- Forward 31st Dec., 1964
£ s. d. 95,905 8 4	£ s. d. 46,299 19 2	£ s. d. 5,759 15 4	£ s. d. 147,965 2 10	£ s. d. 106,862 18 8
2,600 11 1	11 10 8	26 13 10	2,638 15 7	1,053 9 1
	500 0 0	•••••	500 0 0	
1,002 9 5	47 15 0	31 14 11	1,081 19 4	622 9 1
				24 16 6
 179 7 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	335 13 2 236 12 11 461 12 0	457 13 2 421 5 7 2,163 3 2	92 6 10 152 14 11 726 8 1
904 6 8 703 2 1 1,048 16 5	$\begin{array}{c} 221 & 15 & 2 \\ 284 & 7 & 4 \\ 252 & 9 & 6 \end{array}$		904 6 8 924 17 3 284 7 4 1,301 5 11	495 13 4 241 19 8 198 14 1
1,048 10 5	767 10 6	420 2 3	3,162 3 2	Dr. 69 1 6
1,100 4 3	1,640 15 0		1,100 4 3 1,640 15 0	229 13 0 1,052 0 5 100 11 5 250 0 0
1,004 3 0	2,911 0 7 65 18 0	43 12 4 9 6 8	3,958 15 11 65 18 0 9 6 8	530 7 3 534 2 0 126 4 10
1,786 19 5	74 16 2	78 9 5	1,940 5 0	3,277 6 2
1,150 0 0	338 0 3		338 0 3 1,150 0 0	1,161 19 9
•••••	70 19 4		70 19 4	1,250 0 0 62 1 4
•••••				48 14 11
1,080 2 10	1,137 3 5		2,217 6 3	60 10 9
	539 0 0		539 0 0	160 0 0
237 14 5		872	246 1 7	353 18 5
1,361 17 8 795 0 0 788 5 9 875 3 11	371 5 10 452 6 6 217 13 10 40 5 7	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,075 8 6 837 13 6 181 12 2 219 14 5 18 8 6
Cr. 34	200 8 9	••••••	200 5 5	101 3 4
114,498 0 0	58,273 16 9	7,735 1 4	180,506 18 1	122,033 19 5

## STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALL

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
Brought Forward: National Heart Foundation of Australia Grants- Research in Department of Biochemistry-	£ s. d. 81,772 13 9	£ s. d. 220,768 3 9	£ s. d. 302,540 17 6
Dr. A. M. Snoswell	65 9 4 1,470 14 1 158 5 10	1,170 5 11* 1,130 0 0 3,250 18 8* 2,361 0 0	2,600 14 1
Johnston Research in School of Pathology—Dr. I. A. Carr Research in School of Physiology—Prof. P. I. Korner Research in School of Physiology—Dr. G. D. Thor- burn	296 7 2 217 12 3 728 15 3 2,235 0 0	Dr. 296 7 2+ Dr. 1 15 2• 1,321 4 9•	2,050 0 0
Research in School of Physiology—Dr. A. W. T. Edwards Research Fellowship—Dr. G. S. Stokes	2,233 0 0 22 16 4 Dr. 109 6 5	3,400 0 0 1,480 0 0 1,248 0 8*	5,635 0 0 1,502 16 4 1,138 14 3
Research in School of Physiology—Dr. R. A. B. Holland National Union of Australian University Students Grants— Research on Problem Solving in Mathematics and	2,100 10 9	303 9 3*	
Physics	1,720 17 1	Dr1,475 0 0‡	245 17 1
Appraisal of University Teaching N.S.W. State Cancer Council Research Grants-		1,475 0 0‡	
Dr. J. L. Garnett-School of Chemistry Dr. P. S. Clezy-School of Chemistry Dr. E. M. Stephenson-School of Biological Sciences J. F. Williams-School of Biological Sciences Dr. B. R. A. O'Brien-School of Anatomy	604 8 3 194 8 11 307 18 5 424 14 11 1,293 14 5	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	243 8 0 1,407 0 0
The New South Wales College of Nursing and others Grant for Research—Associate Professor A. A. Congalton Nuffield Foundation Grants—	569 8 9	375 0 0	944 8 9
Joint Research Project with the University of Sydney on Crystal Structure Analyses Using X-ray Data from a Rotating Anode Source at Low Temperature Research Chair in School of Mechanical Engineering Oil and Colour Chemists Association Research Scholar- ship-B. E. Thompson	3,395 10 1 21,997 15 8 75 0 0 1,355 8 8	 	3,395 10 1 21,997 15 8 1,437 13 2
Perpetual Trustee Company Limited Grants from Bowling Bequest—	1,555 6 6	82 4 6 1,010 0 0	1,437 13 2 1,010 0 0
Research in School of Medicine—Dr. J. W. Lance Research in School of Medicine—Prof. I. Darian-Smith Refrigeration and Air Conditioning Research Fund  Research and Other Special Purposes Fund of the School	540 13 3	1,200 0 0 950 0 0	1,200 0 0 1,490 13 3
of Surgery Research Corporation (U.S.A.) Grant— Study of Turbulent Density Currents	1,379 10 10	 1.203 4 11	1,379 10 10 1.203 4 11
Research in Industrial Relations—Donations Research Institute of Nuclear Engineering—Grant for	1,426 14 0 24,950 9 2	800 0 0	2,226 14 0 24,950 9 2
Research into Administrative Staffing Structure of Hos- pitals Service	Dr. 14 4 7		Dr. 14 4 7
Financial Research Fund— The Impact of Automation on a Section of Australia's White Collar Work Force	883 9 4 47 14 10 731 16 7	300 0 0 	1,183 9 4 47 14 10 731 16 7
Carried Forward:	150,844 6 11	243,887 16 3	394,732 3 2
	L	· 1	

\*Includes adjustment of portion of previous grant. †Refund of balance of grant. ‡Adjustment of previous years grant.

#### REPORT OF COUNCIL-1964

#### ANNEXURE "B"—continued

#### Balances Payments 1964 Carried Forward Salaries and Staff Equipment and 31st Dec., 1964 Total Other Superannuation Maintenance £ s. d. 180,506 18 1 £ s. d. 122,033 19 5 £ s. d. 58.273 16 9 £ s. d. 7.735 1 4 £ s. d. 114.498 0 0 18 2 9 1,885 0 10 5 8 0 119 7 3 49 7 4 28 15 10 94 11 1 1,235 15 3 2,489 10 8 3,283 10 5 119 7 3 1,168 5 2 575 14 0 3,183 11 4 111 3 5 125 14 1 2,241 12 9 ..... ..... 194 0 2 687 2 4 ..... 194 0 2 1,601 14 8 ..... 21 16 11 448 5 4 877 2 1 37 10 3 682 3 2 48 13 10 4,952 16 10 1,127 9 2 3,776 13 10 1,251 10 2 1,135 7 3 62 70 1,251 10 2 9 14 0 251 ..... 1,125 13 3 3 .... 25 12 2 1.414 13 4 989 6 8 794 2 8 594 18 6 Cr. 28 1 11 273 19 0 Cr. 28 1 11 ..... ..... 410 3 1 952 3 0 65 1 11 47 12 0 1,064 16 11 557 8 11 59 1 0 214 8 0 280 0 0 566 7 31 12 3 50 18 7 5 5 8 18 6 44 0 5 ..... 103 ..... 214 8 0 280 0 0 1,043 9 7 29 1.127 Õ ò ..... ..... 0 1,008 5 2 35 4 5 1.286 13 10 ..... 17 16 11 605 9 5 338 19 4 582 0 0 5 12 6 1,399 0 6 16,823 12 5 1,996 9 7 5,174 3 3 1,969 18 1 26 11 6 151 9 2 5,022 14 1 ..... 156 2 1 278 15 0 1,158 18 2 913 16 8 88 19 5 1,010 0 0 1,231 0 9 611 6 0 1,010 0 0 1,231 0 9 611 6 0 ..... ..... 31 0 879 7 Dr. 9 ..... ..... ..... ..... 1,189 18 2 36 17 4 15 2 6 189 12 8 137 12 10 1,182 0 11 1,402 14 9 21 4 0 823 19 3 21 4 0 50 8 7 756 12 8 16 18 0 23.947 5 11 1,003 3 3 1,003 3 3 ..... ..... Cr. 14 4 7 Cr 14 4 7 ..... ..... ..... 837 15 11 47 14 10 27 8 5 345 13 5 318 5 0 ..... ........ ..... .... ..... 32 6 7 699 10 0 32 6 7 ..... ..... 179.113 15 11 74,223 2 11 8,600 18 0 215,618 7 3 132,794 6 4

### AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964-continued

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### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALL

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
Brought Forward: Reserve Bank of Australia Grants from Rural Credits	£ s. d. 150,844 6 11	£ s. d. 243,887 16 3	£ s. d. 394,732 3 2
Development Fund— Isotopic Studies of Ground Water Resources of			
Alluvial Formations Modification of Natural Fibres by Radiation Copoly-		1,000 0 0	1,000 0 0
merisation with Synthetics		1,000 0 0	1,000 0 0
Relationship of Rainfall and Run-off Improved Design Techniques for Spray Irrigation	1,015 5 6 138 10 6		1,015 5 6 138 10 6
Storm Analysis for Farm Dam Design	2,000 0 0	2,000 0 0	4,000 0 0
Seepage Control in Farm Dams	44 2 5	1,500 0 0	44 2 5 2,997 3 4
Chemical and Botanical Analyses and Research on	-,		,
Feed Intake of Ewes on Pasture at Canberra Determination of the Net Energy Storage and Bio-	1,256 5 9	1,200 0 0	2,456 5 9
energetics of Sheep	2,735 16 2		2,735 16 2
A Biochemical Study of Fungal Filaments Involved in the Stability of Soil Aggregates and Other Soil			
Properties Study of Streptomyces Species from Agricultural Soils	389 13 4 3,300 0 0	3,700 0 0	389 13 4 7,000 0 0
Study of Microbial Response to the Physico-chemical	3,300 0 0		
Investigation of Grain Damage by Mechanical Bulk-	•••••	4,119 0 0	4,119 0 0
handling Equipment	1,150 0 0		1,150 0 0
Study of Forced and Free Flow of Granular Materials through Open and Closed Conduits	570 0 0	500 0 0	1,070 0 0
Rothman's University Endowment Fund Grant-Post- doctoral Research Fellowship	4 15 9		
Rural Bank of New South Wales Grant-Investigation of		Dr. 4 15 9†	
Aspects of Water Problem in Australia Sandoz Australia Pty. Ltd. Research Fellowship in Medi-	462 15 4		462 15 4
cine	277 14 0	4,227 4 2	4,504 18 2
Schering Research Grant—Study of Progestogens School of Chemical Engineering Research Fund	800 0 0 224 0 7	703 0 4 240 18 8	1,503 0 4 464 19 3
School of Civil Engineering Research Fund	86 16 0	2 0 0	88 16 0
School of Electrical Engineering Research Fund School of Metallurgy Research and Special Activities Fund	1,472 19 11 847 6 3	126 5 0 66 7 5	1,599 4 11 913 13 8
School of Nuclear Engineering Post-graduate Research		00 / 5	
Fund	1,627 16 8 24 0 0	52 14 0	1,627 16 8 76 14 0
School of Wool Technology General Research Fund	39 7 7		39 7 7
School of Wool Technology No. 1 Research Unit, Mul- berrygong	365 6 2	1,571 9 3	1,936 15 5
Smith, Kline and French Laboratories (Australia) Ltd. Grant-Research in School of Medicine	286 17 3	2,000 0 0	2,286 17 3
Social Science Research Council Grant-Study of Local		2,000 0 0	
Government in Sydney (Miss R. Atkins) Temporary Post-graduate Research Fellowship in Wool	40 0 0		40 0 0
Technology		474 8 9	474 8 9
mentation of Micro-organisms		250 0 0	250 0 0
Tritium Radiation Chemistry Research Fellowship	89 14 9		89 14 9
Tritium Research Project—Dr. J. L. Garnett Union Carbide Australia Ltd. Post-graduate Research	326 3 4	200 0 0	526 3 4
Grant Upjohn Pty. Ltd. Grant—Studies in Controlled Sheep	102 18 5		102 18 5
Breeding Using Repromix		1,675 0 0	1,675 0 0
U.S. Air Force Grants— Research on Positronium	862 5 3	1,652 9 0	2,514 14 3
Research on the Nuclear Three Body Problem	1,777 6 6	5,863 14 8*	7,641 1 2
Carried Forward:	174,659 7 8	278,007 11 9	452,666 19 5

\*Includes refund of portion of previous grant, †Refund of balance of grant.

#### ANNEXURE "B"—continued

#### Balances Carried Forward Payments 1964 31st Dec., 1964 Salaries and Staff Equipment and Other Total Maintenance Superannuation £ s. d. 179,113 15 11 £ s. d. 215,618 7 3 £ s. d. 8,600 18 0 £ s. d. 132,794 6 4 £ s. d. 74,223 2 11 1,000 0 0 . . . . . . . . . . ..... ..... ..... 1,000 0 0 670 10 5 61 10 9 1,597 8 9 1,000 0 344 15 76 19 2,402 11 44 2 1,120 0 307 7 3 61 10 9 1,597 8 9 26 4 0 19 336 19 2 . . . . . . . . . . . . . . . . . . 354 ..... .... 15 3 1 1.877 3 0 1,119 3 1 742 16 10 1,384 16 6 1,071 9 3 43 15 10 1.026 18 11 14 6 1,973 19 5 761 16 9 294 6 8 447 14 9 19 15 4 389 13 4 169 13 4 1,884 7 5 220 0 624 7 0 82 1 8 4,409 3 8 2,590 16 4 ž 4,119 0 0 ..... ..... ..... ..... 654 7 6 495 12 6 654 7 6 . . . . . . . . . ......... 1.070 0 0 ..... ..... ..... ..... ..... . . . . . . . . . 462 15 4 ..... ••••• .... ..... 1,853 0 11 603 12 2 209 10 0 34 19 6 2,651 17 27 11 231 3 209 10 1,825 9 298 9 9 2,051 17 3 899 8 2 255 9 3 53 16 6 1,599 4 11 910 2 0 3 2 3 2 0 73 19 7 7 Ò ..... . . . . . . . . . 34 19 6 . . . . . . . . . .... . . . . . . . . . 3 11 8 ..... 3 11 8 ..... ..... 582 0 57 2 8 1,045 16 0 400 0 0 645 16 n ..... 19 12 39 7 07 19 12 39 7 Ó . . . . . . . . . . ..... 7 . . . . . . . . . . . . . . . . . . ..... Dr. 112 6 11 911 6 1 2,049 2 4 28 10 0 1,109 6 3 1,974 15 9 21 10 7 312 1 6 265 6 8 25 4 3 40 0 0 . . . . . . . . . . . . . . . . . . .... ..... 474 8 9 474 8 9 ..... ..... 250 0 0 .... . . . . . . . . . 89 14 9 469 16 1 89 14 9 269 16 1 56 7 3 200 0 0 ..... 84 18 5 18 0 0 18 0 0 .... ..... 1,074 3 3 600 16 9 207 0 0 404 11 3 462 12 0 1,652 10 10 5,415 8 3 862 3 5 2,225 12 11 8 14 1.072 8 1,290 13 290 13 5 91 0 0 353 3 3 4.251 19 11 2 4 212,009 0 6 11.754 19 240,657 18 11 83,998 9 3 3 144,904 10 5

### AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

# STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CAL

Fund	Balances Brought Forward 1st Jan., 19		Receip	ts 1	964	Т	otal	
Brought Forward: U.S. Department of Army Grant-Research on the Pre- paration of some New Chalating Liganda and the	£ s. 174,659 7	d. 8	£ 278,007	s. 11	d. 9	452,660	s 5 19	. d.
paration of some New Chelating Ligands and the Investigation of their Metallic Complexes	•••••		6,673	9	9	6,673	9	9
The Synthesis of Phosphoinositides	2,024 13	10	4,599	15	0	6,624		10
Insect Venoms, Attractants and Repellents	Dr. 387 10	4	6,713	12	ğ	6,326		5
The Electrical Properties of Psychotropic Substances	776 16	8	5.098	5	7	5,875	; 2	: 3
Instrumental Control of Respiration Research Fellowship—Dr. W. Corpe	463 1	3	3,298	17	9	3,761	19	0
Mediation of Vascular Responses in Information			222		11	222		11
Water Research Foundation of Australia Grants— Nuclear Chemical Study of the Age and Renewal			7,669	10	2	7,669	16	5 2
Research Fellowship on Problems Associated with	217 5	4	900	-	-	1,117		
Sealing Control in Distillation Processes Research Fellowship on Growth of Green Algae as	920 10	9	500	0	0	1,420	10	9
Flow Characteristics of Semi-circular Side-channel	1,554 11	5		••••		1,554	11	5
Spillways	449 2	10	750	0	0	1,199	2	10
Study of Unsaturated Soil with Special Reference to Drainage and Irrigation Problems Study of Measurement of Time of Concentration and	500 0	0		••••		500	0	0
nyurographic Characteristics of Small Rural Catch-								
ments Using Radioactive Tracers Research on the Effects of Exotic Softwood Afforesta-	709 7	7	500	0	0	1,209	7	7
tion on Water Yield Research on the Optimum Design of Storage Reser-	1,441 7	6	2,500	0	0	3,941	7	6
Research on Low Cost By-wash Construction of Farm	300 0	0	•••••	••••		300	0	0
Dams	220 7	8				220	7	8
Derivation of Initial Loss			750	0	0	750		
Desiccation Failures in Small Dams Review and Analysis of the Use of Plastic in the Field of Water Engineering	••••••		1,050	0	0	1,050	-	-
Water Research Foundation of Australia and Reserve Bank of Australia Grant—	•••••		850	0	0	850	0	0
Improved Methods for the Design and Construction of Farm Dams	846 18	0	2,250	0	0	3.096	18	0
The Wellcome Trust Grant-Studies on Anaemia in New Guinea		-	,	÷	•	2,050		v
Wheat Industry Research Council Grants-			3,750	0	0	3,750		0
Soil Tillaga Investigation	560 0	0	150	.0	.0	710	0	0
Research on Scarifier and Combine Doill Deints	1,897 13	5	1,235	15		3,133	9	3
Research on Comparative Performance of Different	••••••		2,215	0	0	2,215	0	0
W. D. & H. O. Wills (Australia) Ltd. Grants-	••••••		910	0	0	910	0	0
Ultra-high Vacuum Diffraction Study	1,670 0	0	1,400	0	0	3,070	0	0
Research on Stochastic Processes at the Australian				_			-	-
National University, Canberra	400 0	0	400	0	0	800	0	0
Investigation of Properties of Thin Wool Felts and								
Compressibility Characteristics of Raw Wool	291 1	4	Dr. 291	1	4*			
Research on X-ray and Wave Diffraction in Keratin	1,382 16	9	1,830		1*	3,213	10	10
Appointment of a Senior Research Fellow	558 1	1				558	ĩ	ĩ
Carried Forward:	191,455 12	9	333,934	7	3	525,390	0	0

\*Includes refund of portion of previous grant.

# ANNEXURE "B"—continued

	Paymen	ts 1964		Balances Carried Forward
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	31st Dec., 196
£ s. d. 144,904 10 5	£ s. d. 83,998 9 3	£ s. d. 11,754 19 3	£ s. d. 240,657 18 11	£ s. d 212,009 0 d
3,642 13 9	141 14 1	806 10 4	4,590 18 2	2,082 11
4,039 18 6 3,716 13 10 5,121 9 2 	114 16 5 206 15 5 1,082 1 5 2,252 11 3 222 9 11 263 9 5	238 19 5 187 7 1 168 19 10 23 0 5	4,393 14 4 4,110 16 4 6,372 10 5 2,275 11 8 222 9 11 576 1 1	2,230 14 2,215 6 Dr. 497 8 1,486 7 7,093 15
	294 9 9		294 9 9	822 15
1,340 5 4	80 2 11	2 6	1,420 10 9	
		•••••		1,554 11
867 5 5	29 12 3		896 17 8	302 5
18 12 11	187 14 8	176	207 15 1	292 4 1
	309 11 10	16 13 2	326 5 0	883 2
1,934 12 3	1,199 3 6	253 14 10	3,387 10 7	553 16 1
	7 12 5		7 12 5	292 7
197 17 9 135 13 9	13 8 7	9 1 4 81 4 4	220 7 8 135 13 9 81 4 4	614 6 968 15
				850 0
1,920 3 0	335 7 11	285 2 8	2,540 13 7	556 4
53 2 0	4,584 9 8	131 11 3	4,769 2 11	Dr. 1,019 2
2,272 4 6 1,779 8 9	406 2 10 472 13 7 28 14 5	30 0 0 234 6 11 216 15 8	436 2 10 2,979 5 0 2,024 18 10	273 17 154 4 190 1
824 10 8	41 9 0	61 14 5	927 14 1	Dr. 17 14
	4,335 9 11		4,335 9 11	Dr. 1,265 9
10 0 0	932	313 10 8	332 13 10	467 6
572 7 4 558 1 1	2,618 6 4	22 17 2	3,213 10 10 558 1 1	
174,222 2 1	103,235 19 11	14,837 18 9	292,296 0 9	233,093 19

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### AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

# STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALE

Fund	Balances Brought Forward 1st Jan., 1964		Total
Brought Forward: Wool Research Committee and Australian Wool Board Grants—	£ s. d. 191,455 12 9	£ s. d. 333,934 7 3	£ s. d. 525,390 0 0
Flock Testing Research Investigation of Anomalies in Fibre Processing Research on Competition between Wool Fibres Research on Ram Wastage—Urinary Calculi Absorption of Acids and Alkalis in Wool and Com-	Dr6,742 11 0 Dr1,911 18 4 Dr. 869 15 1 Dr. 774 12 6	16,447 11 7* 7,553 0 0 2,842 9 7† 2,795 12 11†	
plexes of Dyes and Surface-active Agents Accelerated Ageing of Worsted Manufacture Development of Weft Tension Regularity Device Investigation of Significant Wool Properties in Pro- cessing and End Use. Effect of Ionising B adiation on	1,677 12 7 862 17 11 977 17 10	2,591 13 10† 3,200 0 0 1,986 14 5†	4,062 17 11
Studies in Wool Polymer Reactions	6,550 0 4 Dr1,965 7 3 2,032 6 9 459 14 2	17,425 4 4† 11,100 0 0 15,030 0 0 4,200 0 0	23,975 4 8 9,134 12 9 17,062 6 9 4,659 14 2
Investigation of Wool Top Manufacture	14,696 6 4 206,448 4 6	17,000 0 0 436,106 13 11	31,696 6 4 642,554 18 5
NEWCASTLE UNIVERSITY COLLEGE— Australian Atomic Energy Commission Grants— Heat Content of Unirradiated Beryllium Oxide Australian Institute of Nuclear Science and Engineering Grants—	1,371 13 3		1,371 13 3
Effect of Radiation Damage on the Mechanical Properties of Mild Steel	30 4 11	50 0 0 100 0 0	50 0 0 130 4 11
ium Alloys	332 9 1	300 0 0 100 0 0	632 9 1 100 0 0
Industrial Structure and Policy in Australia Cessnock—A Problem in Adapting Environment to Changing Economic Circumstances	428 14 9 	 550 0 0	428 14 9 550 0 0
Total—Newcastle University College	2,163 2 0	1,100 0 0	3,263 2 0
TOTAL SPECIAL PURPOSE FUNDS (RESEARCH)	208,611 6 6	437,206 13 11	645,818 0 5
*Includes transfor of £200 from English Days Inc.		[	

\*Includes transfer of £300 from Special Purpose Funds (Other) and refund of portion of previous grant. †Includes refund of portion of previous grant.

#### REPORT OF COUNCIL—1964

#### ANNEXURE "B"—continued

	Balances Carried Forward			
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	31st Dec., 1964
£ s. d. 174,222 2 1	£ s. d. 103,235 19 11	£ s. d. 14,837 18 9	£ s. d. 292,296 0 9	£ s. d. 233,093 19 3
9,845 12 11 4,757 12 11 1,589 15 3 1,243 6 11	806 18 4 756 11 7 43 3 8 518 3 8	2,099 4 8 232 0 6 57 16 8 135 7 5	12,751 15 11 5,746 5 0 1,690 15 7 1,896 18 0	Dr. 3,046 15 4 Dr. 105 3 4 281 18 11 124 2 5
1,472 15 2 1,322 1 2 476 8 11	1,393 19 10 1,693 0 1 389 12 5	556 0 0 106 4 4 16 5 10	3,422 15 0 3,121 5 7 882 7 2	846 11 5 941 12 4 2,082 5 1
5,160 5 8	8,966 14 4	856 6 6	14,983 6 6	8,991 18 2
3,896 19 11 5,297 6 2 1,499 0 4 8,057 6 2	2,371 9 5 5,150 15 3 1,050 2 10 10,698 2 9	21 5 0 318 3 4 333 7 3	6,289 14 4 10,766 4 9 2,549 3 2 19,088 16 2	2,844 18 5 6,296 2 0 2,110 11 0 12,607 10 2
218,840 13 7	137,074 14 1	19,570 0 3	375,485 7 11	267,069 10 6
	1,371 13 3		1,371 13 3	
	47 16 1 18 7 9		47 16 1 18 7 9	$\begin{array}{rrrrr} 2 & 3 & 11 \\ 111 & 17 & 2 \end{array}$
1,066 3 1	534 13 7 98 14 5	1 4 0 9 9	535 17 7 99 4 2 1,066 3 1	96 11 6 15 10 Dr. 1,066 3 1
		28 18 0	28 18 0	399 16 9
158 12 6	31 13 5	88 1 11	278 7 10	271 12 2
1,224 15 7	2,102 18 6	118 13 8	3,446 7 9	Dr. 183 5 9
220,065 9 2	139,177 12 7	19,688 13 11	378,931 15 8	266,886 4 9

### R YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

ANNEXURE "C"

### THE UNIVERSITY OF NEW SOUTH WALES

# SPECIAL PURPOSES FUNDS (Scholarships, Bursaries, Prizes, etc.)

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964 Total	Payments 1964	Balances Carried Forward 31st Dec., 1964
OTHER THAN NEWCASTLE UNIVERSITY COLLEGE— Abbott Laboratories Pty. Ltd. Grants—	£ s. d.	£ s. d. £ s. d.	£s.d.	£ s. d.
Abbott Fellowship in Clinical Research Foundation Scholarship in Medicine	2,309 14 1		1,646 2 0 200 0 0	663 12 1
G. I. Adcock Scholarship in Food Technology	800 0 0	700 0 0 1,500 0 0	1,200 0 0	300 0 0
Wm. Arnott Pty. Ltd. Scholarship	400 0 0	400 0 0 800 0 0	400 0 0	400 0 0
Australian Estates Scholarship in Wool Technology		500 0 0 500 0 0 20 0 0 20 0 0	500 0 0	
Australian Institute of Metals, Port Kembla Branch Prize Banks and Business Houses Scholarship in Wool Technology	1,113 16 2	20 0 0 20 0 0 576 17 6* 1,690 13 8		20 0 0 1,690 13 8†
Peter Beckman Memorial Prizes in Physical Chemistry Fund	215 12 7		20 0 0	205 12 7
Bond's Industries Ltd. Grants-	210 12 /		20 0 0	205 12 1
Scholarship No. 1		500 0 0 500 0 0	500 0 0	
Scholarship No. 2		500 0 0 500 0 0	500 0 0	
Scholarship No. 3	•••••	500 0 0 500 0 0	500 0 0	
Scholarship No. 4	•••••	500 0 0 500 0 0 100 0 0 100 0 0	500 0 0 100 0 0	
Borden Chemical Company (Australia) Pty. Ltd. Award Fund	10 0 0		90 0 0	20 0 0
Bradford Cotton Mills Ltd. Grants-	10 0 0			20 0 0
Scholarship No. 1		500 0 0 500 0 0	500 0 0	
Scholarship No. 2		500 0 0 500 0 0	500 0 0	
Scholarship No. 3		500 0 0 500 0 0	500 0 0	
Scholarship No. 4		500 0 0 500 0 0	500 0 0	
R. J. Webster Prize Fund Burroughs Wellcome and Co. (Aust.) Ltd. Foundation Scholarship	1,062 3 10	50 0 0 1,112 3 10	50 0 0	1,062 3 10†
in Medicine		200 0 0 200 0 0	200 0 0	
Carnation Company Pty. Ltd. Award in Paediatrics	27 10 0	10 10 0 38 0 0	10 10 0	27 10 0

#### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALENDAR YEAR 1st JANUARY, 1964, TO 31st DECEMBER, 1964

Wool Technology	1,166 3 7	43 2 6	1,209 6 1	500 0 0	709 6 1†
Davies Coop (N.S.W.) Pty. Ltd. Grants-		500 0 0	500 0 0	500 0 0	
Scholarship No. 1	•••••	500 0 0	500 0 0	500 0 0	
Scholarship No. 2	•••••	500 0 0	500 0 0	500 0 0	
Scholarship No. 3	•••••	126 8 7	126 8 7		126 8 7†
	7 2 0	880	15 10 0	12 9 9	3 0 3
Department of External Studies General Prize Fund	73 17 Ŏ	550	79 2 0		79 2 0
Dewey and Almy Pty. Ltd. Undergraduate Scholarship in Food	75 17 0				
		400 0 0	400 0 0	400 0 0	
Donation towards Part-time Scholarship in Wool Commerce	105 0 0	Dr. 105 0 01			••••
Donations of Royalties towards a Prize or Scholarship in Mathe-		· ·			
matics	835 14 5	Dr. 45 4 4¶	790 10 1	20 0 0	770 10 1†
Drug Houses of Australia Ltd. Foundation Scholarship in Medicine		200 0 0	200 0 0	200 0 0	
Faculty of Medicine Undergraduate Scholarship Fund	21 0 0		21 0 0		21 0 0
Felt and Textiles of Australia Ltd. Grants-					
Scholarship No. 1	•••••	500 0 0	500 0 0	500 0 0	
Scholarship No. 2		500 0 0	500 0 0	500 0 0	•••••
Scholarship No. 3	250 0 0	500 0 0	750 0 0	750 0 0	•••••
Scholarship No. 4	•••••	500 0 0	500 0 0 500 0 0	500 0 0 500 0 0	•••••
Fibremakers Ltd. Scholarship in Textile Technology	•••••	500 0 0	500 0 0	500 0 0	••••••
Geigy (Australia) Pty. Ltd. Grants-		200 0 0	200 0 0	200 0 0	
Foundation Scholarship in Medicine	••••••	300 0 0	300 0 0	300 0 0	∽~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Scholarship in Wool Technology	•••••	300 0 0	300 0 0	300 0 0	
Industrial Public Relations Service of Australia Grant-	248 9 11		248 9 11		248 9 11 P
The Sydney Homes Exhibition Scholarship	246 9 11		240 9 11	•••••	
Johnson and Johnson Ltd. Grants-	52 17 6	2 17 6	55 15 0	463	51 8 9† 🏞
Prize Fund—Department of External Studies Foundation Scholarship in Medicine		200 0 0	200 0 0	200 0 0	T
	1,547 0 0	200 0 0	1,547 0 0	1,547 0 0	
Lempriere (Australia) Pty. Ltd. Scholarship in Wool Commerce	400 0 0	Dr. 400 0 01	1,517 0 0	1,017 0 0	OF OF
Mathematics Prize Fund, Wollongong University College	208 1 3	318 12 6	526 13 9		526 13 97 1
Mauri Bros. and Thomson Pty. Ltd. Scholarship		400 0 0	400 0 0	400 0 0	
May and Baker (Australia) Pty. Ltd. Foundation Scholarship in					Ő.
Medicine	50 0 0	200 0 0	250 0 0	200 0 0	50 0 0 Č
Merck Sharp and Dohme (Australia) Pty. Ltd. Foundation Scholar-					5
ship in Medicine	50 0 0	100 0 0	150 0 0	100 0 0	
Monsanto Chemicals (Australia) Ltd. Scholarship	71 13 1		71 13 1		71 13 1
National Council of Wool Selling Brokers Scholarship	•••••	500 0 0	500 0 0	500 0 0	
Parke Davis and Co. Foundation Scholarship in Medicine	50 0 0	100 0 0	150 0 0	100 0 0	50 0 0
Frank J. Peplow Prize Fund	267 0 3	11 17 6	278 17 9	12 0 0	266 17 91
Pfizer Corporation Foundation Scholarship in Medicine	50 0 0	200 0 0	250 0 0	50 0 0	200 0 0 0
	11 202 15 9	14 422 14 0	25,826 10 5	18,212 8 0	7,614 2 5 4
Carried Forward:	11,392 15 8	14,433 14 9	23,820 10 5	10,212 0 0	7,017 2 3
		<u> </u>	·		<u></u>

\*Includes £505 transferred from other Funds.

†Including investment as per Annexure "F".

Balance transferred to Banks and Business Houses Scholarship.

"Includes transfer of £300 to Mathematics Prize Fund, Wollongong University College.

### ANNEXURE "C"—continued

### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS-continued

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total	Payments 1964	Balances Carried Forward 31st Dec., 1964
Brought Forward: Pauline Price Scholarship in Dramatic Art Public Service Association of New South Wales Scholarship Raymond E. Purves /Clyde Industries Ltd. Engineering Scholarship Reserve Bank of Australia	£ s. d. 11,392 15 8 2,080 6 9	£ s. d. 14,433 14 9 110 0 0 100 0 0 900 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	£ s. d. 18,212 8 0 110 0 0 100 0 0 900 0 0	£ s. d. 7,614 2 5 2,080 6 9†
50th Anniversary Scholarship	373 14 0  100 0 0 39 9 0 275 1 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,671 9 8 889 10 10 30 0 0 5 0 0 10 10 0	296 4 4 908 9 2 500 0 0 0 140 0 0 35 18 6† X 276 8 9†
Sunbeam Corporation Ltd.—Scholarship in Wool Technology Sydney Technical College Union Prize Fund Charles V. and Jean Abbott Treloar Bequest Tyree Electrical Co. Pty. Ltd. Scholarship in Electrical Engineering Unilever Scholarship in Food Technology The University of New South Wales Prize Fund	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
University of New South Wales Students' Union Foundation Day Scholarship Fund	2,213 6 8 	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,320 16 8 200 0 0 210 19 4 232 7 8 500 0 0	315 5 6 200 0 0 10 0 0 500 0 0	2,005 11 2† 210 19 4† 222 7 8†
<ul> <li>Washington H. Soul Pattinson &amp; Co. Ltd. Foundation Scholarship in Medicine</li> <li>George Weston Foods Limited Undergraduate Scholarship in Food Technology</li> <li>W. D. &amp; H. O. Wills (Australia) Ltd. Scholarship in Medicine</li> <li>Wool Research Trust Fund Grants- Scholarship-C. A. Worthington</li></ul>	 100 0 0	200 0 0 400 0 0 200 0 0	200 0 0 400 0 0 300 0 0	150 0 0 400 0 0 200 0 0	50 0 0 100 0 0
Scholarship—R. Robson	······································	$\begin{array}{ccccc} 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \end{array}$	$\begin{array}{ccccc} 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \end{array}$	$\begin{array}{ccccc} 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \\ 400 & 0 & 0 \end{array}$	······································
Scholarship—C. G. Baker Scholarship—M. Smith		400 0 0 400 0 0	400 0 0 400 0 0	400 0 0 400 0 0	••••••

Scholarship—S. W. Duggan							400 0 0	400 0 0	400 0 0	
Scholarship-M. D. Young							400 0 0	400 0 0	400 0 0	
Scholarship-G. Hayton				•••	•••		400 0 0	400 0 0	400 0 0	
Scholarship-N. G. Child				•••			400 0 0	400 0 0	400 0 0	
Scholarship—W. E. Elson				•••			400 0 0	400 0 0	400 0 0	
Scholarship—J. R. Tait				•••			400 0 0	400 0 0	400 0 0	•••••
Scholarship—B. B. Lightfoot				• · •			400 0 0	400 0 0	400 0 0	
Scholarship-K. Lancaster							400 0 0	400 0 0	400 0 0	
Scholarship-M. Delaney					•••		400 0 0	400 0 0	400 0 0	
Scholarship-A. J. Madeley					•••		400 0 0	400 0 0	400 0 0	
Scholarship—D. R. Meek							400 0 0	400 0 0	400 0 0	
Scholarship-R. Moors				•••			400 0 0	400 0 0	400 0 0	
Scholarship—M. Pailthorpe	•••			•••	•••		400 0 0	400 0 0	400 0 0	
Scholarship—J. Whitney					•••		400 0 0	400 0 0	400 0 0	
Scholarship—V. A. Jacobs	•••	•••			•••		400 0 0	400 0 0	400 0 0	
Scholarship—G. S. Dickinson	•••	•••			•••		400 0 0	400 0 0	400 0 0	
Scholarship—P. Berry					•••		400 0 0	400 0 0	400 0 0	
Scholarship—P. Sidebottom	•••				•••		400 0 0	400 0 0	400 0 0	•••••
Scholarship—C. R. Matson			•••		•••		400 0 0	400 0 0	400 0 0	•••••
Scholarship—W. D. Ainsworth							400 0 0	400 0 0	400 0 0	
Wallace Wurth Memorial Prize in N	/ledicin	ie	•••		•••	1,639 8 8	96 7 5	1,735 16 1		1,735 16 1†
Total—Other than Newcas	tle Uni	iversity	/ Colle	ge		21,810 2 10	37,267 10 7	59,077 13 5	38,477 12 6	20,600 0 11
NEWCASTLE UNIVERSITY CO	LLEG	E								L.
The W. E. Clegg Memorial Prize Fu		<b>-</b>				119 2 6	5 5 0	124 7 6		124 7 6† 🔁
A. J. Day Memorial Prize Fund						57 13 9	2 13 9	60 7 6	2 13 9	57 13 9+
B. A. Helmore French Prize Fund						102 12 6	5 5 0	107 17 6	5 5 0	102 12 6+ 🛪
Ernest Helmore Memorial Prize Fun						102 12 6	5 5 0	107 17 6	550	102 12 61
Gertrude Helmore Memorial Prize I	Fund					102 10 0	500	107 10 0	500	102 10 0† –
Mathematics Prize Fund, Newcastle						126 4 2	350 13 9	476 17 11		476 17 11
Morison Special Economics Prize F						1.026 5 0	52 10 0	1.078 15 0	52 10 0	1,026 5 0†
Mrs. and Col. H. L. Wheeler Histor		es Fun				513 2 6	26 5 0	539 7 6	26 5 0	513 2 6† 🤆
General Prize Fund							174 10 0	174 10 0	119 10 0	55 0 0 0
Total-Newcastle Universi	ty Coll	lege				2,150 2 11	627 7 6	2,777 10 5	216 8 9	2,561 1 8
	•	-								<b>č</b>
TOTAL SCHOLARSHIPS, BURS	ARIE	S, PRI	ZES E	TC.	•••	£23,960 5 9	37,894 18 1	61,855 3 10	38,694 1 3	23,161 2 7
						1	1	1		S

†Including Investment as per Annexure "F". Total Investments—

.

Other than Newcastle University College Newcastle University College		£12,030 £2,050			
Newcastle University College	—	\$2,050	v	U	

# THE UNIVERSITY OF SPECIAL PUT

(Other Specia

STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR TH

Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
OTHER THAN NEWCASTLE UNIVERSITY	£ s. d.	£ s. d.	£ s. d.
COLLEGE Andrews Laboratories Pty. Ltd. GrantAndrews Lectures Applied Arts Fund Architectural Research Foundation Fund Sir Adolph Basser Donations towards Equipping Residen-	1,017 9 2	150 0 0 500 0 0 877 10 0	150 0 0 1,517 9 2 877 10 0
tial Colleges Biochemistry Kit Purchases and Replacements Account Biological Materials and Specimens Prepared for Depart-	44,681 5 0 21 7 0	2,102 1 8 267 15 0	46,783 6 8 289 2 0
ment of Education, N.S.W Biology Excursions Fund Broken Hill—Establishment of the W. S. and L. B.	5 5 0 143 1 5	4,097 19 4 463 10 0	4,103 4 4 606 11 5
Robinson University College	1,339 19 4 500 0 0 3,287 17 3 19,528 19 11	50,710 18 9 500 0 0	50,710 18 9 1,339 19 4 1,000 0 0 3,287 17 3 19,528 19 11
School of Chemistry	1,884 3 3 40 15 0 81 15 10 194 7 1 331 9 9	6,581 12 2* 23 1 0 Dr. 331 9 9‡ 1,361 15 0	8,465 15 5 40 15 0 104 16 10 194 7 1 1,361 15 0
Colonial Sugar Refining Co. Ltd. Grant towards Overseas Travel Expenses—Professor S. J. Angyal Commonwealth Literary Fund Grant—Lectures in	•••••	200 0 0	200 0 0
Australian Literature, School of English Continuation Studies Residential College Building Fund Council of the City of Sydney Grants—	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	100 0 0 92,977 10 3	200 0 0 94,020 5 3
Training of Health Inspectors	16 18 3 1,296 3 1 40 0 0	2,200 0 0 90 0 0	16 18 3 3,496 3 1 130 0 0
Construction of Micro-techniques Unit Building Department of Fuel Engineering—Equipment Fund Department of Main Roads N.S.W. Grant—Chair of	7,530 0 0 961 8 5	Dr. 551 9 4¶	6,978 10 8 961 8 5
Highway Engineering	5,255 17 3	5,000 0 0	10,255 17 3
Traffic Signal Lanterns Department of Nuclear and Radiation Chemistry— Special Purposes Fund		2,000 0 0	2,000 0 0 19 16 1
Design Office, School of Mechanical Engineering- Donations towards Equipment		65 0 0	65 0 0
Development of Bachelor of Commerce Course in In- dustrial Relations	969 13 3		969 13 3
Adult Education Courses Fund Donations to School of Biological Sciences Fund Donations to University Special Purposes Fund Donations towards Equipment for Entomology Section.	2,656 11 3	3,075 0 0 21 0 0 173 14 8	$\begin{array}{ccccc} 3,075 & 0 & 0 \\ 21 & 0 & 0 \\ 2,830 & 5 & 11 \end{array}$
School of Biological Sciences Carried Forward:	02 046 17 7	200 0 0	200 0 0
Carried Forward:	92,946 17 7	172,855 8 9	265,802 6 4

\*Includes transfer of £331 9 9 from Granville Division,

†Including investment as per Annexure "F".

Transferred to School of Chemistry.

TRefund of balance of previous grant,

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## VEW SOUTH WALES OSES FUNDS Furposes)

#### ALENDAR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964

	Paymen	its 1964		Balances Carried Forward
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	31st Dec., 1964
£ s. d.	£ s. d.	£ s. d.	£s.d.	£ s. d.
	71 0 0	150 0 0 	150 0 0 71 0 0	1,446 9 2 877 10 0
	4,864 12 2	4,945 8 1	9,810 0 3	36,973 6 5† 289 2 0
3,854 6 10	92 10 10 324 18 8	166 16 O	4,113 13 8 324 18 8	Dr. 10 9 4 281 12 9
 	 27 0 0 248 4 6	132 13 9  278 5 2	132 13 9  27 0 0 2,404 6 7	50,578 5 0† 1,339 19 4 1,000 0 0 3,260 17 3 17,124 13 4
······	7,281 17 6  200 9 2 	 	7,281 17 6 	1,183 17 11  40 15 0  104 16 10  Dr. 6 2 1  1.356 7 0
		200 0 0	200 0 0	
		100 0 0	100 0 0 	100 0 0 94,020 5 3†
116 7 6 	2,005 3 5	5 5 6 21 9 0	2,126 16 5 21 9 0	16 18 3 1,369 6 8 108 11 0
	168 8 0	6,978 10 8	6,978 10 8 168 8 0	793 0 5
5,602 8 11		151 9 3	5,753 18 2	4,501 19 1
		••••••	•••••	2,000 0 0
			•••••	19 16 1
	65 0 0		65 0 0	
		716 13 10	716 13 10	252 19 5
273 10 3	504 2 10	 1 15 9	777 13 1  1 15 9	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
			•••••	200 0 0
11,724 10 5	15,853 7 1	13,853 15 0	41,431 12 6	224,370 13 10

### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CAL

Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
£ s. d. 92,946 17 7	£ s. d. 172,855 8 9	£ s. d. 265,802 6 4
	15 0 0	15 0 0
5 5 0	Dr. 5 5 0*	
	222 8 7	222 8 7
		200 0 0
		600 0 0
	26 5 0	26 5 0
	•••••	750 0 0
100 0 0		100 0 0
	155 0 0	155 0 0
	550 0 0	550 0 0
••••••	759 16 5	759 16 5
67 10 0	205 0 0	67 10 0 555 0 0
9,713 2 11†	55 6 6	19,713 2 11 55 6 6
2,987 6 7	7,521 13 6	10,509 0 1
	4,545 0 0 127 4 0	4,545 0 0 127 4 0
22,810 0 0		22,810 0 0
50.0.0		
6,222 0 3		50 0 0 6,222 0 3
1,649 11 8	1,562 12 10	3,212 4 6
	28.774 2 5	547 18 0 91.542 4 10
15,856 17 10	5,068 19 5	20,925 17 3 91,323 8 4
		91,323 8 4
200 10 0	"	
		224 15 0
116 7 4	15 0 0	$\begin{array}{cccc} 218 & 0 & 1 \\ 15 & 0 & 0 \end{array}$
1,453 9 9		1,459 2 3 1,265 7 6
1,395 16 2	145 11 9	1,541 7 11
	28,126 0 0	28,126 0 0
287,336 15 8	286,899 10 1	574,236 5 9
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Brought Forward 1st Jan., 1964         Receipts 1964

\*Transferred to Donations to School of Biological Sciences Fund.

†Includes adjustment of previous year's balance in respect of Ash Precipitation Studies,

‡Transfer of balance to Mathematics Summer School, 1965,

¶Transfer of balance to General Funds,

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#### REPORT OF COUNCIL-1964

#### ANNEXURE "D"—continued

# AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

				Balances Carried
	Paymer			Forward 31st Dec., 1964
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	
· £ s. d. 11,724 10 5	£ s. d. 15,853 7 1	£ s. d. 13,853 15 0	£ s. d. 41,431 12 6	£ s. d. 224,370 13 10
	15 0 0		15 0 0	
				•••••
		222 8 7	222 8 7	
		200 0 0	200 0 0	
		600 0 0	600 0 0	
		26 5 0	26 5 0	
		750 0 0	750 0 0	
		100 0 0	100 0 0	
		155 0 0	155 0 0	
		550 0 0	550 0 0	
		759 16 5	759 16 5	
	555 0 0		555 0 0	67 10 0
8,164 9 6	4,044 17 3 44 7 0	368 4 5	Î2,577 11 2 44 7 0	7,135 11 9 10 19 6
8,293 16 9 2,811 15 3	597 13 0 45 6 10	311 16 0 890 17 5	9,203 5 9 3,747 19 6	1,305 14 4 797 0 6 127 4 0
	7,128 12 2		7,128 12 2	15,681 7 10
67 15 9	50 0 0 5,813 14 1 92 7 0	 638 19 2	50 0 0 5,813 14 1 799 1 11	408 6 2 2,413 2 7
······	124 12 0	 30 0 0	124 12 0 	423 6 0 91,542 4 10 20,925 17 3 91,293 8 4
•				
		161 17 9	161 17 9	62 17 3
55 2 1 615 15 7	74 15 0	218 0 1 4 11 5 574 16 11	218 0 1 59 13 6 1,265 7 6 751 0 1	15 0 0 1,399 8 9 
715 18 6	4 6 5	30 15 2 28.126 0 0	28,126 0 0	
				458,770 0 9
32,449 3 10	34,443 17 10	48,573 3 4	115,466 5 0	

### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CAL

Fund         Balances Forward Ist Jan., 1964         Receipts 1964         Total           Brought Forward: Ist Jan., 1964         Receipts 1964         Total           New South Wales State Government Grants—Alleviation of Drainage Problem on Kensington Site         287,336 15 8         286,899 10 1         574,236 5 9         3           New South Wales State Government Grants—Alleviation of Drainage Problem on Kensington Site         287,336 15 8         286,899 10 1         574,236 5 9         3           Account         7 19 6         719 6         719 6         719 6         719 6           Pathology Instrument Kit Purchases and Replacements Account         280 5 5         130 0         0         280 5 5           Provision for Cherr fechlogy Laboratory—Donation special Courses         280 5 5         130 0         280 5 5         130 0         280 5 5           Provision for Long Service Lawe Entitlements trans- Irovision for Repical Purpose Funds         1415 5 10         3,344 16 3         4,760 2 1           Provision for Repical Purpose Funds         139 9         250 0 0         528 3 9         258 6 0         100 0         528 3 9           Public Accountants Registration Board Grant towards Graduate and Honours Library, School of Accountands         1000 0         2,500 0         2,500 0         2,500 0         2,500 0         2,500 0         2,500 0 <t< th=""><th></th><th></th><th></th><th></th></t<>				
Brought Forward:287,336 is 8286,899 i0 i574,236 is 9New South Wales State Government Grants—Alleviation of Drainage Problem on Kensington Site287,336 is 8286,899 i0 i574,236 is 9Mew South Wales State Government Grants—Alleviation of Drainage Problem on Kensington Site287,336 is 8247,336 is 9More South Wales State Government Grants—Alleviation of Drainage Problem on Kensington Site250 050,000 050,000 0Donations towards Equipping210 5The South Wales State Government Grants—MalexAccept Wards Equipping280 5 5280 5 5Provision for Catering—Department of Industrial Engineering Special Cores15 2 016 2 2 2016 2 20 0 017 20 20 0 018 20 20 20 20 20 20	Fund	Brought Forward	Receipts 1964	Total
of Special Equipment       41,788       0       41,788       0       41,788       0       41,788       0       0         New South Wales State Government Grants-Alleviation of Drainage Problem on Kensington Site	Brought Forward:			
of Drainage Problem on Kensington Site	of Special Equipment	41,788 0 0		41,788 0 0
Paint Technology Laboratory— Donations towards Equipping Account mermanent Trustee Co. Ltd. Donation mermanent of Industrial En- mermised from Special Purpose Funds mermised from Special Purpose Funds 			50.000 0 0	50,000 0 0
AccountThe constructionThe second constructionThe construction co	Paint Technology Laboratory— Donations towards Equipping	25 3 3		
Permanent Truste Co. Ltd. Donation	Pathology Instrument Kit Purchases and Replacements Account		7 10 6	7 10 6
Plastics and Rubber Technology Laboratory—Donations Provision for Catering—Department of Industrial En- grineering Special Courses $399$ $13$ $7$ $150^{\circ}$ $0$ $540^{\circ}$ $13$ $7$ Provision for Employers' Superannuation Pension Subsidy transferred from Special Purpose Funds $15$ $2$ $0$ $15$ $2$ $0$ Provision for Long Service Leave Entitlements trans- ferred from Special Purpose Funds $1415$ $5$ $10$ $3,344$ $16$ $3$ $4,760$ $2$ $1$ Provision for Replacement of Motor Vehicles—School of Wool Technology $16$ $256$ $1$ $9$ $789$ $19$ $6$ $1,046$ $1$ $3$ Purchase of Computer for Wollongong University College relating /Orthoptic Clinic Account 	Permanent Trustee Co. Ltd. Donation 			
15201520Provision for Employer's Superannuation Pension Subsidy transferred from Special Purpose Funds1,4155103,3441634,76021Provision for Long Service Leave Entitlements trans- ferred from Special Purpose Funds1,4155103,3441634,76021Provision for Replacement of Motor Vehicles—School of Wool Technology1010613341634,76021Public Accountants Registration Board Grant towards 	Plastics and Rubber Technology Laboratory-Donations	280 5 5 399 13 7	150 0 0	
transferred from Special Purpose Funds1,4151,41551,0461Provision for Replacement of Motor Vehicles—School of Wool Technology1,0461of Wool Technology1,0461Public Accountancy Purchase of Computer for Wollongong University College Reading / Orthoptic Clinic Account 	gineering Special Courses	15 2 0		15 2 0
ferred from Special Purpose Funds256197891961,04613Provision for Replacement of Motor Vehicles—SchoolGraduate and Honours Library. School of Accountancy82956Dr.2990053056Public Accountants Registration Board Grant towardsGraduate and Honours Library. School of Accountancy27839250052839Purchase of Computer for Wollongoug University College14213925860400199Rheem Australia Pty. Ltd. Donations towards Utilisation1,000002,50002,500002,500002,500002,500002,500002,500002,500001,000001,000001,00001,00001,00001,000001,000001,00001,00001,00001,00001,00001,0000 <td>transferred from Special Purpose Funds</td> <td>1,415 5 10</td> <td>3,344 16 3</td> <td>4,760 2 1</td>	transferred from Special Purpose Funds	1,415 5 10	3,344 16 3	4,760 2 1
of Wool Technology $229$ 56 $Dr.$ $299$ 00*53056Public Accountants Registration Board Grant towardsGraduate and Honours Library. School of Accountancy $278$ $3$ $9$ $250$ $0$ $528$ $3$ $9$ Purchase of Computer for Wollongong University College $142$ $13$ $9$ $258$ $6$ $0$ $400$ $9$ Rheem Australia Pty. Ltd. Donations towards Utilisation $142$ $13$ $9$ $258$ $6$ $0$ <td< td=""><td>ferred from Special Purpose Funds</td><td>256 1 9</td><td>789 19 6</td><td>1,046 1 3</td></td<>	ferred from Special Purpose Funds	256 1 9	789 19 6	1,046 1 3
Graduate and Honours Library, School of Accountancy Purchase of Computer for Wollongong University College Reading/Orthoptic Clinic Account278 a3 9250 a0528 b3 b9Rheem Australia Pty. Ltd. Donations towards Utilisation of Materials from "Subiaco"142 139258 b00528 b3 b9Rheem Australia Pty. Ltd. Donation Sale of Sand—Daceyville Sports Area School of Chemistry Equipment Fund to fold attrice Special Purposes Fund School of Physics—Fire Replacement Account1,000 2,50002,500 2,50002,500 2,50000School of Paediatrics Special Purposes Fund School of Textile Technology Special Purposes Fund School of Textile Technology Special Purposes Fund School -196575 2,1570<	of Wool Technology	829 5 6	Dr. 299 0 0*	530 5 6
Reading /Orthoptic Clinic Account       142 13 9       258 6 0       400 19 9         Rheem Australia Pty. Ltd. Donations towards Utilisation of Materials from "Subiaco"       1,000 0 0       1,000 0 0       2,500 0 0         Rightwear Shoe Co. Pty. Ltd.—Donation       1,000 0 0       2,500 0 0       2,500 0 0       2,500 0 0         Sale of Sand—Daceyville Sports Area       14,063 7 3       8 4 4       14(071 11 7         Sale of Sand—Daceyville Sports Area       12,755 14 11       16,510 4 5       29,265 19 4         School of Chemistry Equipment Fund       12,755 14 11       16,510 4 5       29,265 19 4         School of Physics—Fire Replacement Account       400 0 0       60 10 0       100 10         School of Physics—Fire Replacement Account       600 8 5	Graduate and Honours Library, School of Accountancy	278 3 9		
Rightwear Shoe Co. Pty. Ltd.—Donation	Reading /Orthoptic Clinic Account	142 13 9		
Sale of Sand—Daceyville Sports Area14,06373284414,07117Sale of Wool—Research Project, C.S.I.R.O. Canberra2493422318947321Sale of Sand—Botany Street, Randwick site12,755141116,5104529,265194School of Chemistry Equipment Fund4000040000School of Plagitarics Special Purposes Fund4000600100100100School of Physics—Fire Replacement Account6008560085School of Veol Technology Special Purposes Fund6008580008000<	of Materials from "Subiaco"	1,000 0 0	2 600 0 0	
Sale of Sand—Botany Street, Randwick site12,755 14 1116,510 4 529,265 19 4School of Chemistry Equipment Fund400 0 0400 0 0School of Highway Engineering—Donations for Purchase75 0 073 0 0School of Paediatrics Special Purposes Fund40 0 0600 8 5School of Physics—Fire Replacement Account600 8 5600 8 5School of Postics—Fire Replacement Account600 8 580 0 0School of Postics—Fire Replacement Account600 8 580 0 0School of Textile Technology Special Purposes Donations80 0 080 0 080 0 0Science Summer School—19652,127 0200 0 02,327 0 0Special Courses—Post Graduate and Extension Studies11,138 4 024,848 6 135,986 10 11Special Ibrary Fees Transfers21 0 021 0 0Student Loan Fund20,672 0 025,500 046,172 0 0Sydney County Council Measurements Laboratory— Donations towards Statalishment200 03,200 00Union Carbide Australia Ltd.—Contribution to Overseas Travel Expenses of University Staff	Sale of Sand—Daceyville Sports Area		844	14,071 11 7
School of Chemistry Equipment Fund	Sale of Wool—Research Project, C.S.I.R.O. Canberra Sale of Sand—Botany Street, Randwick site			
of Equipment	School of Chemistry Equipment Fund			
School of Physics—Fire Replacement Account600 8 5School of Textile Technology Special Purposes Fund142 12 5School of Wool Technology—Special Purposes Donations80 0 0Science Summer School—1965Science Summer School—1964Special Courses—Post Graduate and Extension Studies2,127 0 0Special Library Fees TransfersStudent Health Services—Inoculation Account11,138 4 0Student Health Services—Inoculation Account2,617 2 10Sydney County Council Measurements Laboratory—20,672 0 0Sydney County Council Measurements Laboratory—2,200 0 0Junisearch Ltd.—Contribution to Overseas Travel Expenses of University StaffUniversity of New South Wales Residential College Building Development Account33,272 7 712,965 0 446,237 7 11	of Equipment			
School of Wool Technology—Special Purposes Donations       80 0 0 $2,157 5 0$ $2,157 5 0$ Science Summer School—1965 $\dots$ $\dots$ $2,127 0 0$ $200 0 0$ $2,327 0 0$ Special Courses—Post Graduate and Extension Studies $\dots$ $2,127 0 0$ $200 0 0$ $2,327 0 0$ Special Library Fees Transfers $\dots$ $\dots$ $11,138 4 0$ $24,848 6 1$ $35,986 10 1$ Special Purposes Fund—Professor McMahon $\dots$ $21 0 0$ $230 0 0$ $220 0 0$ $28 0 0$ Student Health Services—Inoculation Account $\dots$ $20,672 0 0$ $25,500 0 0$ $46,172 0 0$ Sydney County Council Measurements Laboratory—Contributions $\dots$ $\dots$ $\dots$ $2,200 0 0$ $1,000 0 0$ $3,200 0 0$ Union Carbide Australia Ltd.—Contribution to Overseas $\dots$ $\dots$ $123 10 5$ $\dots$ $123 10 5$ University of New South Wales Residential College $33,272 7 7$ $12,965 0 4$ $46,237 7 11$	School of Physics—Fire Replacement Account	600 8 5	-	600 8 5
Science Summer School—1965          2,127       0       2,00       0       2,327       0       0         Special Courses—Post Graduate and Extension Studies         2,127       0       200       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       2,327       0       0       0       0       0       1,43       0       24,848       6       1       35,986       10       1       45,606       16       8       91,913       14       8       0       2,617       2       0       2       2       0       0       0       0       0       2,752       2       4       5       5       0       0       0       0	School of Textile Technology Special Purposes Fund		•••••	
Special Courses—Post Graduate and Extension Studies etc.11,138 4 0 24,848 6 1 24,848 6 1 24,848 6 1 35,986 10 1Special Library Fees Transfers11,138 4 0 46,306 18 0 21 0 024,848 6 1 24,848 6 1 21,0035,986 10 1 35,986 10 1Special Library Fees Transfers11,138 4 0 46,306 18 0 21 0 024,848 6 1 24,806 16 8 21 0 035,986 10 1 21,00Special Library Fees Transfers21 0 0 28 028 0 28 0 28 0Student Loan Fund20,672 0 025,500 0 046,172 0 0Studet Loar Fund20,672 0 025,500 0 046,172 0 0Sydney County Council Measurements Laboratory— Donations towards Establishment575 0 0Unisearch Ltd.—Contribution to Overseas Travel Expenses of University Staff200 0 0200 0 0University of New South Wales Residential College Building Development Account33,272 7 712,965 0 446,237 7 11	Science Summer School—1965	•••••		2,157 5 0
Special Library Fees Transfers          46,306       18       0       45,606       16       8       91,913       14       8         Special Purposes Fund—Professor McMahon         21       0        21       0       28       0       21       0       21       0       28       0       20       20       0       20,672       0       25,500       0       46,172       0       0       3,200       0       0       3,200       0       0       3,200       0       0       3,200       0       0       10       10       10       123       10       5       123       10       5       123       10       5       123 <td>Special Courses—Post Graduate and Extension Studies</td> <td>-</td> <td>200 0 0</td> <td>2,327 0 0</td>	Special Courses—Post Graduate and Extension Studies	-	200 0 0	2,327 0 0
Special Purposes Fund—Professor McMahon111<				
Student Loan Fund $2,617$ $210$ $134$ $19$ $6$ $2,752$ $2$ $4$ Study Leave Assistance Fund $20,672$ $0$ $25,500$ $0$ $46,172$ $0$ Sydney County Council Measurements Laboratory- Contributions $2,200$ $0$ $1,000$ $0$ $3,200$ $0$ Teaching Laboratory Educational Research Unit- Donations towards Establishment $575$ $0$ $575$ $0$ Union Carbide Australia LtdContribution to Overseas Travel Expenses of University Staff $200$ $0$ $200$ $0$ University of New South Wales Residential College Building Development Account $33,272$ $7$ $7$ $12,965$ $4$ $46,237$ $711$	Special Purposes Fund—Professor McMahon		·	21 0 0
Study Leave Assistance Fund20,672025,500046,1720Sydney County Council Measurements Laboratory- Contributions20,072001,00003,2000Teaching Laboratory Educational Research Unit- Donations towards Establishment57505750Union Carbide Australia Ltd.Contribution to Overseas Travel Expenses of University Staff200002000University of New South Wales Residential College Building Development Account33,2727712,965046,237711	Student Lean Fund	2.617 2 10		
Contributions2,20001,00003,20000Teaching Laboratory Educational Research Unit— Donations towards Establishment575057500Union Carbide Australia Ltd.—Contribution to Overseas Travel Expenses of University Staff200020000Unisearch Ltd.—Donations123105123105University of New South Wales Residential College Building Development Account33,2727712,965446,237711	Study Leave Assistance Fund			
Donations towards Establishment57505750Union Carbide Australia Ltd.—Contribution to Overseas Travel Expenses of University Staff57502000Unisearch Ltd.—Donations123105123105University of New South Wales Residential College Building Development Account33,2727712,965046,237711	Contributions	2,200 0 0	1,000 0 0	3,200 0 0
Travel Expenses of University Staff          200       0       200       0       123       10       5         123       10       5        123       10       5        123       10       5        123       10       5        123       10       5         123       10       5	Donations towards Establishment	575 0 0		575 0 0
University of New South Wales Residential College Building Development Account	Union Carbide Australia Ltd.—Contribution to Overseas Travel Expenses of University Staff		200 0 0	200 0 0
Building Development Account 33,272 7 7 12,965 0 4 46,237 7 11	Unisearch Ltd.—Donations	123 10 5		
Carried Forward: 481,225 19 8 484,448 16 5 965,674 16 1	Building Development Account	33,272 7 7	12,965 0 4	46,237 7 11
	Carried Forward:	481,225 19 8	484,448 16 5	965,674 16 1

\*Transferred to Special Purpose Funds (Research).

†Including investment as per Annexure "F".
‡Includes transfer of £6,000 0 0 from Wollongong University College Appeal Fund.

Previous year's expenditure on Building transferred against Permanent Trustee Co. Ltd. and Rightwear Shoe Pty. Ltd. Donations.

### REPORT OF COUNCIL-1964

#### ANNEXURE "D"—continued

# AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

	Paym	ents 1964		Balances Carried Forward
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	31st Dec., 1964
£ s. d. 32,449 3 10	£ s. d. 34,443 17 10	£ s. d. 48,573 3 4	£ s. d. 115,466 5 0	£ s. d. 458,770 0 9
				41,788 0 0
		•••••	•••••	50,000 0 0
				25 3 3
		2,500 0 0	2,500 0 0	7 19 6
•••••	274 16 0		274 16 0	280 5 5 274 17 7
	•••••••	••••••	•••••	15 2 0
•••••				4,760 2 1†
				1,046 1 3
	530 5 6		530 5 6	
•••••	23,504 0 0 305 16 11	396 11 2 	396 11 2 23,504 0 0 305 16 11	131 12 7 Dr. 14,900 0 0 95 2 10
100 0 0	230 3 3 250 0 0	2,500 0 0 4,560 0 0 194 2 11	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
  50 0 0	47 0 0 96 0 0 91 18 7 80 0 0 27 18 6	75 0 0 	$\begin{array}{cccccc} 75 & 0 & 0 \\ 47 & 0 & 0 \\ 96 & 0 & 0 \\ 137 & 13 & 7 \\ 80 & 0 & 0 \\ 60 & 12 & 6 \\ 95 & 16 & 10 \end{array}$	$ \begin{array}{r} 53 & 10 & 0\\ 504 & 8 & 5\\ 4 & 18 & 10\\ \hline 2,096 & 12 & 6\\ 2,231 & 3 & 2\\ \end{array} $
6,554 16 6	9,361 8 2  10 19 5 	15,667 8 10 59,709 19 3  572 0 0 24,755 0 0	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
•••••	947 9 0		947 9 0	2,252 11 0
•••••			••••	575 0 0
		200 0 0	200 0 0	
••••••				123 10 5
		Cr. 5,000 0 0	<i>Cr.</i> 5,000 0 0¶	51,237 7 11†
39,154 0 4	70,201 13 2	154,827 11 4	264,183 4 10	701,491 11 3

# STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CAL

Fund	Balan Broug Forwa 1st Jan.,	ght ard	4	Receipts	s 196	64	Total
Brought Forward: Water Research Foundation of Australia Grant—	£ 481,225	s. 19	d. 8	£ 484,448	s. 16	d. 5	£ s. d. 965,674 16 1
Water Research Reference Library, Manly Vale Wollongong University College Appeal Fund Wollongong University College Library Appeal Fund Wool Research Committee Grants—	Dr. 75 39,344 1,687		2 1 2	Dr. 2,000 511		0 2* 9	1,924 4 10 35,412 5 11 2,198 7 11
Translation of Russian Literature           Purchase of Textile Machinery           Wallace Wurth Memorial Lecture Fund	7 2,949 207	5 1 9 3	6 4	Dr. 7 Dr. 2,949 217	5 1 9 0	11‡ 6‡ 5	424 3 9
Sub-Total:	525,346	5	6	480,287	13	0	1,005,633 18 6
Trust Accounts— University Union Residential College Sale of Publications—First National Instalment Credit Conference	Dr. 824 2,087		1	] .			
University Union—Radio Receiver Hire Fees University Unions' Subscriptions Biochemistry Kit Deposits Chemistry Kit Deposits Students' Union Subscriptions Students' Sports Associations' Subscriptions Key Deposits—	104 504 7,061 77 21	0 0 0 15	00004				
School of Architecture School of Civil Engineering School of Civil Engineering Tool Kit Deposits—School of Chemical Technology Orthoptic Equipment Deposits Pathology Instrument Kit Deposits Anatomy Dissection Manual and Histology Slides	29 1 5 88 14 165	0 5 0 0	000000	} 16,962	1	0	97,234 6 8
Deposits Licence Fees for Services provided at University Union	355 54	3	0 4	-			
Kensington College Ltd. (Basser College) Fund New South Wales University Press Ltd. Investment Fund	5,000		0				
University of New South Wales Union Investments for Capital Purposes Fund	5,000 60,200	-	0				
Contributions Payable for Use of Canteen, Wollon- gong University College	195	7	0				
University College	134	0	0				
Working Accounts	Dr. 12,982	6	5				
Duplicating Services Working Account Institute of Highway and Traffic Research—		••					
I.B.M. Computer Working Account Purchase of Books for Students in School of Librarianship	 7	 	2	Dr. 1,949	9	5	Dr. 15,849 3 2
Purchase of Radios for Station 2UV—Working	, Dr. 1,373						
Radio Carbon Dating Service Working Account, Department of Nuclear and Radiation Chemistry Sale of Films Produced by Educational Research Unit	448 1						
Carried Forward:	591,718 1	7 :	5	495,300	4 '	7	1,087,019 2 0

\*Includes £6,000 transferred to Special Purposes Fund "Purchase of Computer for Wollongong University Colleg †Includes investment as per Annexure "F".

‡Refund of balance of grant.

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### AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964—continued

	Paymen	ts 1964		Balances Carried
Salaries and Staff Superannuation	Equipment and Maintenance	Other	Total	— Forward 31st Dec., 1964
£ s. d. 39,154 0 4	£ s. d. 70,201 13 2	£ s. d. 154,827 11 4	£ s. d. 264,183 4 10	£ s. d. 701,491 11 3
1,973 5 7	54 3 10 26 2 5	155 0 5 205 9 7 1,647 6 8	2,182 9 10 205 9 7 1,673 9 1	Dr. 258 5 0 35,206 16 4† 524 18 10
······	······	••••••	······	424 3 9†
41,127 5 11	70,281 19 5	156,835 8 0	268,244 13 4	737,389 5 2
				$\left\{\begin{array}{cccccc} Dr. & 273 & 0 & 11 \\ 1,262 & 7 & 3 \\ 59 & 17 & 0 \\ \hline 132 & 0 & 0 \\ 772 & 0 & 0 \\ 2,913 & 0 & 0 \\ 288 & 6 & 8 \\ 134 & 13 & 4 \\ 29 & 0 & 0 \\ 1 & 0 & 0 \\ 5 & 5 & 0 \\ 88 & 0 & 0 \\ 2 & 0 & 0 \\ 270 & 0 & 0 \\ 550 & 0 & 0 \\ 80 & 3 & 4 \\ \hline \\ 5,134 & 7 & 6t \\ 85,200 & 0 & 0t \\ 327 & 10 & 0 \\ 257 & 17 & 6 \end{array}\right.$
				$\left\{\begin{array}{ccccc} Dr16,802 & 2 & 1\\ 1,810 & 5 & 10\\ Dr. & 189 & 9 & 9\\ 392 & 13 & 3\\ 19 & 18 & 11\\ Dr. & 997 & 11 & 1\\ Dr. & 167 & 0 & 3\\ 84 & 2 & 0\end{array}\right.$
41,127 5 11	70,281 19 5	156,835 8 0	268,244 13 4	818,774 8 8

#### APPENDIX 3

#### STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CAL

	and the second		
Fund	Balances Brought Forward 1st Jan., 1964	Receipts 1964	Total
Brought Forward: Working Accounts (continued)	£ s. d. 591,718 17 5	£ s. d. 495,300 4 7	£ s. d. 1,087,019 2 0
Sale of (Union) Publications, Broken Hill Division Summer School of Chemistry, Wollongong Univer-	ן ו		
sity College—1964 "Thermofax" Copying Machine Working Account.	192 3 9		
Wollongong University College "Utecom" Materials and Maintenance Working	23 11 5	Dr. 1,398 5 11	642 9 4
Account	447 5 3		
nology Wool Working Account, School of Wool Technology "Xerox" Copying Machine Working Account,	1,513 9 10 Dr. 495 10 9		
University Library	359 15 9 797,377 0 3	Dr148,170 17 1	649,206 3 <b>2</b>
Total Other than Newcastle University College	1,391,136 12 11	345,731 1 7	1,736,867 14 6
NEWCASTLE UNIVERSITY COLLEGE— Chemistry Kit Purchases and Replacements Account Commonwealth Literary Fund Grant Donation towards Purchase of Library Books	583 8 5 1,556 14 5	828 15 4 50 0 0 708 15 0	$1,412  3  9 \\ 50  0  0 \\ 2,265  9  5$
Donations towards Purchase of Major Plant for Depart- ment of Psychology	25 0 0	120 0 0	145 0 0
English Proficiency Tests for Overseas Students Joint Coal Board Grant—Differential Thermal Analysis	•••••	10 0 0	10 0 0
Equipment Royal Australian Institute of Architects-Donation for	•••••	1,500 0 0	1,500 0 0
Purchase of Library Books Supplementary Grants—Study Leave	8 6	9,250 0 0	9,250 0 0
	2,165 11 4	12,467 10 4	14,633 1 8
Trust Accounts Chemistry Kit Deposits	2,544 0 0)		
Union Subscriptions	2 0 0	10,657 18 11	13,204 18 11
Students' Sports League Subscriptions	ĩŏŏſ	10,057 10 11	15,204 18 11
Unclaimed Moneys	J		
Total Newcastle University College	4,712 11 4	23,125 9 3	27,838 0 7
TOTAL SPECIAL PURPOSES (Other Special Purposes)	1,395,849 4 3	368,856 10 10	1,764,705 15 1

†Including investment as per Annexure "F".

Total Investments— Other than Newcastle University College — £354,760 0 0 Newcastle University College — £2,100 0 0

#### REPORT OF COUNCIL-1964

#### ANNEXURE "D"-continued

#### Balances Payments 1964 Carried Forward 31st Dec., 1964 Salaries and Staff Equipment and Maintenance Superannuation Other Total £ s. d. 818,774 8 8 £ s. d. 41,127 5 11 £ s. d. 70,281 19 5 £ s. d. 156,835 8 0 £ s. d. 268.244 13 4 (Dr. 123 10 0 ..... 183 10 9 ..... ..... ..... ..... ..... 708 2 Dr. 1,336 3 3 0 1,210 9 4 649,206 3 2 ..... ..... ..... ..... 156,835 8 0 1,468,623 1 2 41,127 5 11 70,281 19 5 268,244 13 4 1,412 3 9 50 0 0 1.412 3 9 ..... . . . . . . . . . 50 0 0 ..... .... 2,265 9 5† ••••• ..... ..... . . . . . . . . . 145 0 0 ..... ..... 9 5 1 9 5 1 14 11 ..... ..... 1,500 0 0 ..... ..... ..... ..... 8 6 4,450 0 0 ..... ..... 4,800 0 0 4,800 0 0 ..... 8,361 12 10 1,412 3 9 4,859 5 1 6,271 8 10 ..... ..... ..... ..... ..... 1,412 3 9 4,859 5 1 6,271 8 10 21,566 11 9 ••••• 41,127 5 11 71,694 3 2 161,694 13 1 274,516 2 2 1,490,189 12 11

#### AR YEAR 1st JANUARY, 1964 TO 31st DECEMBER, 1964-continued

# ANNEXURE "E" 8

### THE UNIVERSITY OF NEW SOUTH WALES STATEMENT OF TOTAL RECEIPTS AND PAYMENTS FOR THE CALENDAR YEAR 1st JANUARY, 1964, TO 31st DECEMBER, 1964, AND AGGREGATE STATEMENT OF OPERATIONS SINCE THE INCORPORATION OF THE UNIVERSITY ON 1st JULY 1949, TO 31st DECEMBER, 1964

Aggregate Position for Period	Particulars	Operations 1s	ember, 1964 🐋	Aggregate Position for Period 1st July, 1949, to 31st Dec., 1964		
1st July, 1949, to 31st Dec., 1963	uly, 1949, to		Newcastle University College			
£ s. d.	Balance brought forward 1st January, 1964	£ s. d. 48,921 12 4	£ s. d. 16,568 0 11	£ s. d. 65,489 13 3	£ s. d.	
5,089,015 2 3 206,016 18 9	Receipts— Grant—N.S.W. State Treasury Vestments in N.S.W. Treasury Books	134,615 0 0		134,615 0 0	5,223,630 2 3 206,016 18 9	
5,295,032 1 0	Total Receipts	134,615 0 0		134,615 0 0	5,429,647 1 0	
	Total Receipts plus balance brought forward	183,536 12 4	16,568 0 11	200,104 13 3	· · · · · · · · · · · · · · · · · · ·	
3,811,844 4 7	Payments— Buildings—(including site development) Less Repayments previous year's expenditure	78,631 4 0 10,533 8 10	11,809 0 11	90,440 4 11 10,533 8 10		
1,795 0 0 1,194,162 10 0 213,073 11 9 8,667 1 5	Land	68,097 15 2 15,312 0 0	11,809 0 11 4,759 0 0 	79,906 16 1 20,071 0 0	3,891,751 0 8 1,795 0 0 1,214,233 10 0 213,073 11 9 8,667 1 5	
5,229,542 7 9	Total Payments Balance carried forward 31st December, 1964	83,409 15 2 100,126 17 2	16,568 0 11	99,977 16 1 100,126 17 2	5,329,520 3 10 100,126 17 2	
5,229,542 7 9	Total Payments plus credit balance carried forward	183,536 12 4	16,568 0 11	200,104 13 3	£5,429,647 1 0	

General Loan Account Grants from N.S.W. State Treasury

ANNEXURE "F"

## THE UNIVERSITY OF NEW SOUTH WALES SCHEDULE OF INVESTMENTS AS AT 31st DECEMBER, 1964

Description	Interest Rate	Face Value	;	Book V Cost		•	Maturity Date	Account
OTHER THAN NEWCASTLE UNIVERSITY COLLEGE— Special Purposes Funds Scholarships, Bursaries, Prizes etc. (See Annexure "C") Metropolitan Water Sewerage and Drainage	Per Cent.	£ s.	d.	£	s.	d.		
Board→ Inscribed Stock—Loan No. 129 Loan No. 134 Loan No. 136 Loan No. 262 Loan No. 312 Loan No. 320	4 4 4 5 5 4 5 4	600 0 250 0	0 0 0 0 0 0		0 0 0 0 0 0	0000000	1/3/1965 1/6/1965 1/9/1965 1/7/1969 1/8/1967 1/10/1967	Frank J. Peplow Prize Fund. Sydney Technical College Union Prize Fund. Simon-Carves (Aust.) Pty. Ltd. Prize Fund. Veteran Motorists of Aust. Prize Fund. Pauline Price Scholarship Fund. Donations of Royalties towards providing a Prize or Scholarship in Mathematics, Wollongong University College.
—Loan No. 385 —Loan No. 385	5 <del>1</del> 5 <del>1</del>	500 0 1,500 0	0 0	500 1,500	0 0	0 0	1/12/1968 1/12/1968	Commercial Banking Co. of Sydney Ltd. Banks' and Business Houses Scholarship in Wool Technology.
—Loan No. 385	52	400 0	0	400	0	0	1/12/1968	Donations of Royalties towards providing a Prize or Scholarship in Mathematics.
—Loan No. 400 —Loan No. 435 —Loan No. 435	51 51 51	1,500 0 230 0 300 0	0	1,500 230 300	0 0 0	0	1/2/1997 1/6/1970 1/6/1970	Wallace Wurth Memorial Prize in Medicine. Wallace Wurth Memorial Prize in Medicine. Donation of Royalties towards providing a
—Loan No. 435	5 <del>3</del>	200 0	0	200	0	0	1/6/1970	Prize or Scholarship in Mathematics. Mathematics Prize Fund, Wollongong
—Loan No. 435	53	2,000 0	0	2,000	0	0	1/6/1970	University College. Students' Union Foundation Day, 1962
Loan No. 435 Loan No. 435	5 <del>1</del> 5 <del>1</del>	30 0 100 0	0 0	30 100	0 0	0 0	1/6/1970 1/6/1970	Scholarship Fund. Staff Prize in Psychology. L. F. Urwick Prize Fund.
Carried Forward:		£9,360 0	0	£9,360	0	0		

#### ANNEXURE "F"—continued

Description	Interest Rate	Face Value	Book Value Cost	Maturity Date	Account
Brought Forward:	Per Cent.	£ s. d. 9,360 0 0	£ s. d. 9,360 0 0		
Prospect County Council- Inscribed Stock-Loan No. 58	. 57	1,000 0 0	1,000 0 0	1/8/1966	Pauline Price Scholarship Fund-National
—Loan No. 65	. 5‡	50 0 0	50 0 0	1/12/1981	Institute of Dramatic Art. Johnson & Johnson Pty. Ltd.—Prize Fund— Department of External Studies.
Sydney County Council— Inscribed Stock—Elect. Loan No. 140	. 5‡	200 0 0	200 0 0	1/3/1970	J. B. Speakman Prize Fund.
Commonwealth Loan- Treasury Bonds-Loan No. 114 Treasury Bonds-Loan No. 118 Inscribed Stock-Loan No. 149 Inscribed Stock-Loan No. 149	. 5	200 0 0 1,000 0 0 100 0 0 120 0 0	200 0 0 1,000 0 0 100 0 0 120 0 0	15/9/1974 15/12/1979 15/5/1984 15/5/1984	Peter Beckman Memorial Prize Fund. R. J. Webster Prize Fund, L. F. Urwick Prize Fund Shakespeare Prize Fund in Department of Drama and National Institute of Dramatic
Total Scholarships etc. Investments		£12,030 0 0	£12,030 0 0		Art.
Other Special Purposes (See Annexure "D") Metropolitan Water Sewerage and Drainag	e				
Board— Inscribed Stock—Loan No. 136	. 47	900 0 0	900 0 0	1/9/1965	Wollongong University College Appeal
-Loan No. 312	. 5‡	13,000 0 0	13,000 0 0	1/8/1967	Fund. University of New South Wales Residential
-Loan No. 320	. 5‡	33,300 0 0	33,300 0 0	1/10/1967	College Building Development. Wollongong University College Appeal

### SCHEDULE OF INVESTMENTS—continued

.

Board-(continued)					_	-		
Inscribed Stock—Loan No. 370	5 <del>1</del> 5 <del>1</del> 5 <del>1</del> 5 <del>1</del>	8,000 0		8,000	0	0	1/10/1968	University of New South Wales Union.
-Loan No. 385	51		0	4,500		0	1/12/1968	University of New South Wales Union.
-Loan No. 385	5‡		0			0	1/12/1968	Employer's Superannuation Pension Subsidy.
-Loan No. 385	5‡	3,000 0	0	3,000	0	0	1/12/1968	Donations by late Sir Adolph Basser towards
					~	•		Equipping of Residential College.
-Loan No. 385	51	3,000 0	0	3,000	0	0	1/12/1968	University of New South Wales-Residential
								College Building Development.
-Loan No. 385	5 <del>1</del>	600 0	0	600	0	0	1/12/1968	University of New South Wales-Residential
				1				College Building Development.
-Loan No. 435	51	33,100 0	0	33,100	0	0	1/6/1970	Donations by late Sir Adolph Basser towards
					_			Equipping of Residential College.
-Loan No. 435	51	23,300 0	0	23,300	0	0	1/6/1970	University of New South Wales-Residential
								College Building Development.
Loan No. 435	5 <del>1</del> 51 51		0	2,200	0	0	1/6/1970	Student Loan Fund.
—Loan No. 435	51		0	400	0	0	1/6/1970	Wallace Wurth Memorial Lecture Fund.
-Loan No. 435	51	2,000 0	0	2,000	0	0	1/6/1970	Employer's Superannuation Pension Subsidy
			-		-			Fund.
—Loan No. 435	5 <del>1</del> 5 <del>1</del> 51	5,000 0		5,000	0	0	1/6/1970	New South Wales University Press Ltd.
-Loan No. 435	51	52,000 0		52,000	0	0	1/6/1970	University of New South Wales Union.
Loan No. 435	51	900 0	0	900	0	0	1/6/1970	Wollongong University College Appeal
					-	-		Fund.
-Loan No. 530	47	50,000 0	0	50,000	0	0	1/7/1970	Broken Hill-Establishment of the W. S. &
								L. B. Robinson University College.
Prospect County Council—	_				~	~	A. /0/10/0	TT-to-tes CNT- Couth Water Desidential
Inscribed Stock—Private Loan No. 124	5	90,000 0	0	90,000	0	0	21/8/1969	University of New South Wales-Residential
								College Building Development.
Commonwealth Loan-					~	~	1/10/10/2	University of New South Wales-Residential
Special Bonds—Series B	4-5	5,000 0	0	5,000	U	U	1/10/1966	College Building Development.
				0.000	•	•	1/1/1968	University of New South Wales—Residential
Special Bonds—Series D	41-5	2,860 0	0	2,860	U	U	1/1/1908	College Building Development.
								Conege Building Development.
Tetel Otter Greetel Breeters Investments	1	£354,760 0	0	£354.760	0	0		
Total Other Special Purposes Investments	1	2334,700 0		1334,700	U	0		
	1	1		·			·	

REPORT OF COUNCIL-1964

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ANNEXURE "F"—continued

### SCHEDULE OF INVESTMENTS—continued

Description	Interest Rate	Face Value	Book Value Cost	Maturity Date	Account
General Funds	Per Cent.	£ s. d.	£ s. d.		
Metropolitan Water Sewerage and Drainage Board—           Inscribed Stock—Loan No. 60           — Loan No. 63           — Loan No. 136           — Loan No. 385           — Loan No. 200           — Loan No. 200           — Loan No. 320           — Loan No. 435           — Loan No. 435           — Loan No. 663           — Loan No. 663           — Private Loan No. 111           — Private Loan No. 1375           Prospect County Council—           Inscribed Stock—Loan No. 65           — Private Loan No. 124           The Sydney County Council—           Inscribed Stock—Loan No. 180           — Private Loan URA …	3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\left.\begin{array}{cccccccccccccccccccccccccccccccccccc$	1/3/1966 1/5/1965 1/9/1965 1/9/1965 1/10/1965 1/10/1965 1/10/1967 1/12/1966 1/12/1968 1/6/1970 1/8/1969 1/12/1979 1/9/1968 26/9/1965 1/12/1981 21/8/1969	General Investment of Funds Held. General Investment of Funds Held.
—Private Loan ORA —Private Loan DD	£3 $\begin{array}{c} 3\frac{1}{2} \\ 6 \end{array}$ 3	50,000 0 0 50,000 0 0	25,040 12 6* 49,804 9 1 49,747 16 1 516,927 15 9	1/7/1966 30/9/1965	General Investment of Funds Held. General Investment of Funds Held.
Less Investment Amortisation Accounts Total General Funds Investments		£514,340 0 0	1,302 2 3 £515,625 13 6		
Total Other than Newcastle University College		£881,130 0 0	£882,415 13 6		

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Board Inscribed Stock-Loan No. 145 $5\frac{1}{4}$ $100 \ 0 \ 0$ $100 \ 0 \ 0$ $100 \ 0 \ 0$ $1/4/1976$ B. A. Helmore Prize Fund.        Loan No. 178 $5\frac{1}{4}$ $500 \ 0 \ 0$ $500 \ 0 \ 0$ $1/4/1976$ B. A. Helmore Prize Fund.        Loan No. 178 $5\frac{1}{4}$ $1000 \ 0 \ 0$ $1000 \ 0 \ 0$ $1/4/1976$ B. A. Helmore Prize Fund.        Loan No. 178 $5\frac{1}{4}$ $1000 \ 0 \ 0$ $1000 \ 0 \ 0$ $1/7/1978$ Morison Erize Fund.        Loan No. 262 $5\frac{1}{4}$ $1000 \ 0 \ 0$ $1000 \ 0 \ 0$ $1/6/1970$ W. E. Clegg Memorial Prize Fund.        Loan No. 435 $5\frac{1}{8}$ $1000 \ 0 \ 0$ $1000 \ 0 \ 0$ $1/6/1970$ A. J. Day Memorial Prize Fund.         Mathematics Stock-Loan No. 102 $5$ $1000 \ 0 \ 0$ $1000 \ 0 \ 0$ $15/4/1976$ Gertrude Helmore Memorial Prize Fund.         Other Special Purposes (See Annexure "D") $5\frac{1}{8}$ $1,500 \ 0 \ 0$ $1,500 \ 0 \ 0$ $1/6/1970$ Donations towards Purchase of Libr         Board Inscribed Stock-Loan No. 435 $5\frac{1}{8}$ $1,500 \ 0 \ 0$ $1/6/1970$ Donations towards Pur	
Inscribed Stock—Loan No. 10251000100015/4/1976Gertrude Helmore Memorial Prize Fund.Total Scholarships etc. Investments $\pounds 2,050$ $0$ $\pounds 2,050$ $0$ $0$ $15/4/1976$ Gertrude Helmore Memorial Prize Fund.Other Special Purposes— (See Annexure "D") Metropolitan Water Sewerage and Drainage Board— Inscribed Stock—Loan No. 435 $5\frac{3}{2}$ $1,500$ $0$ $1,500$ $0$ $1/6/1970$ Donations towards Purchase of Libr	
Other Special Purposes- (See Annexure "D") Metropolitan Water Sewerage and Drainage Board- Inscribed Stock-Loan No. 435 57 1,500 0 0 1,500 0 0 1/6/1970 Donations towards Purchase of Libr	`und.
(See Annexure "D") Metropolitan Water Sewerage and Drainage Board— Inscribed Stock—Loan No, 435 57 1,500 0 0 1,500 0 0 1/6/1970 Donations towards Purchase of Libr	
	Library
Commonwealth Loan         5         100         0         15/4/1965           Treasury Bonds           5         100         0         15/4/1965           Treasury Bonds           41         150         0         15/11/1965           Treasury Bonds           32         100         0         100         0         15/12/1965           Treasury Bonds           42         100         0         15/12/1965         Donations towards Purchase of Libr           Treasury Bonds           42         150         0         15/12/1965         Books.	Library
Total Other Special Purposes Investments     £2,100 0 0     £2,100 0 0	Ċ
Total Newcastle University College Investments     £4,150     0     0	
TOTAL INVESTMENTS £885,280 0 0 £886,565 13 6	

REPORT OF COUNCIL-1964

### THE UNIVERSITY O

#### STATEMENT OF INCOM

### GRANTS FOR BUILDING PROJECTS AND EQUIPPIN

#### 1st JANUARY, 1964, 7

Ехре	NDITURE		
Particulars	Other than Newcastle University College	Newcastle University College	Total
ERECTION OF BUILDINGS-	£s.d.	£s.d.	£s.d.
Faculty of Science, Kensington Building "A" Less adjustment previous years' expen- ditureLecture Hall	7,126 16 9 5,119 2 2		
Newcastle Science and Engineering	2,007 14 7	376 4 8	2,007 14 7 376 4 8
	£2,007 14 7	£376 4 8	£2,383 19 3

J. P. BAXTER, Vice-Chancellor.

> The above statement has been checked with the accounts of the University of New South Wales and The projects included in the statement are specified in the Third Schedule of the States Grants

SYDNEY, 21st October, 1965

ANNEXURE "G"

### EW SOUTH WALES

#### **ID EXPENDITURE**

### NDER THE STATES GRANTS (UNIVERSITIES) ACT, 1958

#### T DECEMBER, 1964

וו	СОМВ		
Particulars	Other than Newcastle University College	Newcastle University College	Total
Balance brought forward 1st January, 1964	£ s. d. 2,007 14 7	£ s.d. 376 4 8	£ s d. 2,383 19 3
	£2,007 14 7	£376 4 8	£2,383 19 3

J. O. A. Bourke, Bursar.

E. H. DAVIS, Accountant.

is correct in accordance therewith. (Universities) Act, 1958 and the moneys received have been applied to the purposes intended.

W. G. MATHIESON, Auditor-General of New South Wales.

# THE UNIVERSITY O

### STATEMENT OF INCOM

# GRANTS FOR BUILDING PROJECTS, FURNI

### UNDER THE STATES GRAN

#### 1st JANUARY 1964, '

				E	<b>KPENDI</b>	TURE							
UILDING PROJEC	TS-							£	s.	d.	£	s.	d.
Science Building Schools of Medic	"A" ine an	d Biolog	ical Sc			•••	•••	778 5,673		5 11			
Installation of W	ater, l	Electricit	y, Ga	s and o	ther se	ervices	and	3,073	0	11			
preparation of Halls of Residence	sites	•••	•••	•••	•••	•••	•••	10,944		0			
Faculty of Arts			•••	•••	•••	•••	•••	26,381	7	5			
Library				···· ···	•••		•••	7,074 3,414		0			
Faculty of Arts Library RNISHINGS AND Science Building ", Schools of Medicir University College, Schools of Mechan		<b>.</b>	- ·							<u> </u>			
	Total	Building	g Proje	ects	•••	•••	•••				54,266	9	9
URNISHINGS AN	D EQ	UIPME	NT—										
Schools of Medic	A ine an	d Biolog	ioni Sa		•••	•••	•••	4,554		2			
University College	e Wal	longong			•••	•••	•••	25,918 239	.7	0			
Schools of Mecha	nical a	and Elec	trical I	Enginee	ring	•••	•••	24,250		8			
Halls of Residence	e	•••	•••				••••	12,463		6			
	Total	Furnish	ings ar	nd Equi	pment					-	67,426	12	5
CAPITAL EQUIPM	1ENT	•••	•••	•••	•••	•••	•••				23,834		8
Total Expenditure											145 527	-	10
Balance carried for	rward	31st De	cembe	r, 1964			•••				145,527 111,001	18	10
												10	
											£256,529	5	1

J. P. BAXTER, Vice-Chancellor.

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I certify that in terms of Sections 4 (1) and 7 of the States Grants (Universities) Act, 1960-1964, in grants on building projects, furnishings and equipment at the University of New South Wales including £3,274,375.

SYDNEY, 21st October, 1965.

ANNEXURE "H"

### NEW SOUTH WALES

#### AND EXPENDITURE

#### NGS AND EQUIPMENT AND CAPITAL EQUIPMENT

#### UNIVERSITIES) ACT, 1960-1964

#### 1st DECEMBER, 1964

								£	s.	d.	£	s.	4
Balance brought forw COMMONWEALTH (For Facilities in Te	I GR	ANTS	_		•••	•••					256,529	5	
Building Projects		s 1103p						254,200	0	0			
Furnishings								10,210	0	0			
Equipment		•••		•••			•••	27,550	0	0			
								291,960	0	0			
Less paid to The	Uarn	stale C.	ommie	tion of	Now S	outh V	Vales	291,960	Ó	0			

£256,529 5 1

J. O. A. BOURKE, Bursar. E. H. DAVIS, Accountant.

relation to the year 1964, the above financial statement correctly sets out expenditure from Government expenditure from Commonwealth grants for those purposes received during the triennium 1960-1963 totalling

W. G. MATHIESON, Auditor-General of New South Wales.

### THE UNIVERSITY OF

### STATEMENT OF INCOM

### GRANTS FOR BUILDING PROJECTS ETC. AND FOR BUILDINGS FOR UNDER THE UNIVERSITIES (FINAL

1st JANUARY, 1964 TO

BUILDING PROJECTS ETC.—         KENSINGTON         Faculties of Arts and Commerce and School of Mathematics         Administration         School of Civil Engineering         Library         School of Physics—Alterations         Robert Heffron Building, School of Chemistry—         Alterations         Faculty of Applied Science—Alterations         School of Physics—Alterations         School of Textile Technology—Alterations         Schools of Chemical Engineering and Chemical Technology—         Alterations         School of Metallurgy—Alterations         School of Metallurgy—Alterations         Schools of Chemical Engineering and Other Services and         Faculty of Architecture         Students' Union—Extensions         Minor Works         Installation of Sutes         Provision of Sporting Facilities—Daceyville         Halls of Residence         WOLLONGONG         Students' Union         Students' Union         Minor Metallurgy—Alterations         Administration         Kudents' Union         Teaculties of Arts, Commerce and Science, and Library and Administration         Students' Union         Students' Union         Installation of Water, Electricity, G	£ 230,778 26,660 40,615 187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024 54,015	9 15 14 11 11 0 6 16 12 8 5 19	7 0 4 11 0 3 6 7 10 8		5.	1
KENSINGTON         Faculties of Arts and Commerce and School of Mathematics         Administration         School of Civil Engineering         Library         School of Physics—Alterations         Robert Heffron Building, School of Chemistry—         Alterations         School of Textile Technology—Alterations         School of Textile Technology—Alterations         School of Architecture         School of Metallurgy—Alterations         School of Metallurgy—Alterations         School of Metallurgy—Alterations         School of Sporting Facilities—Daceyville         Minor Works         Installation of Water, Electricity, Gas and Other Services and Preparation of Sites         Provision of Sporting Facilities—Daceyville         Halls of Residence         WOLLONGONG         Students' Union         Students' Union         Minor Morks         Minor         More         MULLONGONG         Students' Union         Administration         Minor         Minor         Minor         Minor         Minor         Minor         Minor         Minor         Minor	26,660 40,615 187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	15 14 11 11 0 6 16 12 8 5 19	7 0 4 11 0 3 6 7 10 8		-	
Faculties of Arts and Commerce and School of Mathematics         Administration         School of Civil Engineering         Library         School of Physics—Alterations         Robert Heffron Building, School of Chemistry—         Alterations         Faculty of Applied Science—Alterations         School of Physics—Alterations         School of Textile Technology—Alterations         School of Metallurgy—Alterations         School of Metallurgy—Alterations         School of Metallurgy—Alterations         School of Metallurgy—Alterations         School of Softes         Minor Works         Installation of Water, Electricity, Gas and Other Services and         Preparation of Sporting Facilities—Daceyville         Halls of Residence         WOLLONGONG         Students' Union         Students' Union         Minor Metallurgy—Alterations         Minor Metallurgy—Alterations         Minor Morks         Alteration of Students' Union         Minor Metallurgy—Alterations         Students' Union         Minor Metallurgy—Alterations         Minor Metallurgy—Alterations         Minor Metallurgy         Alteration of Science, and Library and Administration         Minor Metal	26,660 40,615 187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	15 14 11 11 0 6 16 12 8 5 19	7 0 4 11 0 3 6 7 10 8			
Administration	26,660 40,615 187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	15 14 11 11 0 6 16 12 8 5 19	7 0 4 11 0 3 6 7 10 8			
School of Civil Engineering	40,615 187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	14 11 0 6 16 12 8 5 19	0 4 11 0 3 6 7 10 8			
Library School of Physics—Alterations Robert Heffron Building, School of Chemistry— Alterations Faculty of Applied Science—Alterations School of Textile Technology—Alterations Schools of Chemical Engineering and Chemical Technology— Alterations School of Metallurgy—Alterations School of Metallurgy—Alterations Faculty of Architecture Sudents' Union—Extensions Installation of Water, Electricity, Gas and Other Services and Preparation of Sites Trovision of Sporting Facilities—Daceyville Halls of Residence WOLLONGONG Students' Union Department of Metallurgy—Alterations Students' Lion Metallurgy—Alterations Students' Lion Metallurgy—Alterations Students' Lion Metallurgy—Alterations Metallurgy Metallity Metallurgy Metallurgy Alteration Metallurgy Metallurgy Metallity Metallurgy Metallity Metallurgy Metallurgy Metallurgy Metallurgy Metallity Metallurgy	187,598 173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	1 11 0 6 16 16 12 8 5 19	4 11 0 3 6 7 10 8			
School of Physics—Alterations	173 26,000 1,097 514 14,509 363 2,053 9,499 12,024	11 0 16 12 8 5 19	11 0 3 6 7 10 8			
Robert Heffron Building, School of Chemistry— Alterations	26,000 1,097 514 14,509 363 2,053 9,499 12,024	0 6 16 12 8 5 19	0 3 6 7 10 8			
Alterations Alterations Alterations Alterations Alterations Alterations Alterations Alterations School of Textile Technology—Alterations Alterations Alteration of Students' Union Alterations Alterations Alterations Alterations Alterations Alteration Alterations Alterations Alteration Alteratio	1,097 514 14,509 363 2,053 9,499 12,024	6 16 12 8 5 19	3 6 7 10 8			
Faculty of Applied Science—Alterations	1,097 514 14,509 363 2,053 9,499 12,024	6 16 12 8 5 19	3 6 7 10 8			
School of Textile Technology—Alterations	514 14,509 363 2,053 9,499 12,024	16 12 8 5 19	6 7 10 8			
Schools of Chemical Engineering and Chemical Technology— Alterations	14,509 363 2,053 9,499 12,024	12 8 5 19	7 10 8			
Alterations	363 2,053 9,499 12,024	8 5 19	10			
School of Metallurgy—Alterations	363 2,053 9,499 12,024	8 5 19	10			
Faculty of Architecture	2,053 9,499 12,024	5 19	8			
Students' Union—Extensions	9,499 12,024	19				
Minor Works	12,024					
Installation of Water, Electricity, Gas and Other Services and Preparation of Sites		17	3			
Preparation of Sites	54 015	13	- 1			
Provision of Sporting Facilities—Daceyville Halls of Residence WOLLONGONG Students' Union Department of Metallurgy—Alterations NEWCASTLE (Shortland) Faculties of Arts, Commerce and Science, and Library and Administration Students' Union Installation of Water, Electricity, Gas and other Services and	54 015					
Halls of Residence	54,015	1	8			
Halls of Residence	9,483	18	7			
WOLLONGONG Students' Union Department of Metallurgy—Alterations NEWCASTLE (Shortland) Faculties of Arts, Commerce and Science, and Library and Administration Students' Union Installation of Water, Electricity, Gas and other Services and	2,000		Ó			
Students' Union			_	617,388	15	
Students' Union						
Department of Metallurgy—Alterations	24,649	12	4			
NEWCASTLE (Shortland) Faculties of Arts, Commerce and Science, and Library and Administration						
Faculties of Arts, Commerce and Science, and Library and Administration Students' Union In Installation of Water, Electricity, Gas and other Services and	26,849	17	4			
Faculties of Arts, Commerce and Science, and Library and Administration Students' Union In Installation of Water, Electricity, Gas and other Services and				51,499	9	
Administration Students' Union Installation of Water, Electricity, Gas and other Services and						
Students' Union Installation of Water, Electricity, Gas and other Services and						
Installation of Water, Electricity, Gas and other Services and	104,139	16	6			
Installation of Water, Electricity, Gas and other Services and	1.417	0	0			
Prenaration of Sites						
	33,687	0	0			
• • • • • • • • • •			_	139,243	16	
Total Expenditure				808,132	, 1	
Balance carried forward 31st December, 1964				710,725		
Datance carried forward 51st December, 1904	•••			/10,/23	, 10	
				£1,518,858	6 1	

J. P. BAXTER, Vice-Chancellor.

I certify that in terms of Sections 2 (1), 5 and 7 of the Universities (Financial Assistance) Act, 1963-1964, grants on building projects, etc. and on buildings for halls of residence at the University of New South Wales

SYDNEY, 21st October, 1965.

#### **REPORT OF COUNCIL—1964**

ANNEXURE "I"

### **IEW SOUTH WALES**

ND EXPENDITURE

# ALLS OF RESIDENCE AND AFFILIATED RESIDENTIAL COLLEGES

#### 1st DECEMBER, 1964

		INCO	ME			_		
Commonwealth Grants State Grants	 	 	 	  	 	£ 585,058 933,800	s. 0 0	

£1,518,858 0 0

J. O. A. BOURKE, Bursar. E. H. DAVIS, Accountant.

in relation to the year 1964, the above financial statement correctly sets out expenditure from Government including expenditure from Commonwealth grants for those purposes totalling £585,058.

W. G. MATHIESON, Auditor-General of New South Wales.

# THE UNIVERSITY O

STATEMENT OF INCOM

**GRANTS FOR SPECIA** 

### UNDER THE UNIVERSITIES (FINA

#### 1st JANUARY, 1964 7

Expr	INDITURE		
Particulars	Other than Newcastle University College	Newcastle University College	Total
Salaries and Wages Pay-roll Tax Workers' Compensation	£ s. d. 20,421 8 7 523 9 10 212 7 8	£ s. d. 4,139 12 0 103 9 10 52 4 7	£ s. d. 24,561 0 7 626 19 8 264 12 3
Sub-Total           Research Publications, Books and Periodicals           Materials            Post-Graduate Scholarships            Computer Usage            Travelling Expenses	21,157 6 1 10,067 10 9 4,280 11 2 3,175 7 3 2,500 0 0 1,179 8 4	4,295 6 5 98 18 6 62 12 5  357 16 6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Total Recurrent             Equipment	42,360 3 7 40,785 2 9	4,814 13 10 3,614 13 11	47,174 17 5 44,399 16 8
Total Expenditure Balance carried forward 31st December, 1964	83,145 6 4 30,854 13 8 £114,000 0 0	8,429 7 9 2,570 12 3 11,000 0 0	91,574 14 1 33,425 5 11 125,000 0 0

J. P. BAXTER, Vice-Chancellor.

### NEW SOUTH WALES

### AND EXPENDITURE RESEARCH PURPOSES CIAL ASSISTANCE) ACT 1963-1964 31st DECEMBER, 1964

Partic	culars	 	 NCOME Other Newci Unive Colle	astl rsit	e	Newc Unive Coll	rsity		Tot	tal	
Commonwealth Grant State Grant		 	 £ 57,000 57,000	s. 0 0	d. 0 0	£ 5,500 5,500	s. 0 0	d. 0 0	£ 62,500 62,500	s. 0 0	d (
			£114,000	0	0*	11,000	0	0*	125,000	0	(

\*Internal distribution of funds.

J. O. A. BOURKE, Bursar.

E. H. DAVIS, Accountant.

### THE UNIVERSITY O

#### STATEMENT OF INCOM

#### FOR THE PURPOSES OF THE UNIVERSITI

#### **RECURRENT EXPL**

#### 1st JANUARY, 1964

					I	Expen	DITURE							
Salaries and Wage Employer's Contri Pay-roll Tax Workers' Compe	bution	•••	• • • •	uation Premi		I and	  Other	  Staff	£ 4,539,689 163,914 117,220	s. 2 1 17	d. 0 7 1	£	s.	d
Charges	•••	•••							15,369	6	3	4.836.193	6	1
Teaching and Rese Departmental M			and Mi	nor Eq	uipm	ent						536,920	10	:
D	•••		···	•••	 	 	•••		31,452 188,529		6 4	219,981	15	10
	ns and	Gene	ral Mai	ntenan	ce of	Build	ings— 		50,846	15	10			
Revenue	•••	•••	•••		•••	•••	•••	•••	98,554	1	1	149.400	14	
Books, Periodicals Power, Lighting an Administration an	nd Hea	ting			••••	 						149,400 142,094 76,514	10 8 5	1.
Materials, Tra Felephones and A	ivelling dvertisi	Expe										70,134 69,604	1 16	10
Printing and Posta Contributions, Gra		 d Sub	 scriptic	ons		···· ···	··· ···	 				45,205	14	(
Furniture Expenses of New A Rates and Propert	Appoin V Insur	tment	 s	···· ···	···· ···	•••						42,184 24,073 23,382	3 15 4	
Examination Expe	nses .	•••	••••	•••									14	1ì
Rentals		•••	····	•••		•••	•••					5,322 2,432	67	ę
Legal Fees and Sir Miscellaneous Exp			s 	····	 	 	 	 					17 18	6
Total Expendi Balance carrie		 ard 3:	ist Dec	ember,	iÿ64			 			-	6,336,490 73,189	9 1	7
											-	£6,409,679	11	2

\*As defined Section 2, Universities (Financial Assistance) Act 1963-1964.

### J. P. BAXTER, Vice-Chancellor.

I certify that in terms of Sections 2 (1) and 3 of the Universities (Financial Assistance) Act, 1963-1964, University of New South Wales and that the Commonwealth grant for recurrent purposes paid to the expenditure on special research purposes, on University purposes.

The above statement does not include the additional grant which was made pursuant to the provisions

SYDNEY, 21st October, 1965.

### NEW SOUTH WALES

#### AND EXPENDITURE

#### FINANCIAL ASSISTANCE) ACT 1963-1964

#### DITURE GRANTS

#### 1st DECEMBER, 1964

				1	INCOM	E							_
								£	s.	d.	£	s.	-
Fees-								857,005	3				
Students' Fees	•••	•••	•••	•••	•••	•••	•••	52,828		8			
Library Fees			•••	•••	•••	•••	···· 	32,828			909,833	9	
State Grants for Rec	urrent	Expen	diture-	_									
Received								2,902,075	0	0			
Accrued								280,100	0	0			
										—	3,182,175	0	
Total Fees	and St	ate Gra	ants	•••							4,092,008	9	
Commonwealth Gra	nts for	Recur	rent Ex	penditu	re				_	_			
Received							•••	1,995,000	0	0			
				•••	•••	•••	•••	217,000	0	0	2,212,000	0	
Accrued											2,212,000		
	nts for	Reside	ntial C	Colleges				11,805	0	0			
Accrued Commonwealth Gra Less paid to Re				Colleges	 	 		11,805 11,805	0 0				
Commonwealth Gra				-							94,296	3	
Commonwealth Gra Less paid to Re	sidentia 										94,296	_	-

£6,409,679 11 2

#### J. O. A. BOURKE, Bursar.

E. H. DAVIS, Accountant.

in relation to the year 1964, the above statement correctly sets out the fees and State grants received by the University in respect of that year has been applied for expenditure, not being capital expenditure or

of Act No. 40 of 1965 (Commonwealth) and brought to account in the University's books in 1965.

W. G. MATHIESON, Auditor-General of New South Wales.

1 CALENDAR OF THE UNIVERSITY OF NEW SOUTH WALES 1966 VOL 2 5378.94405/NEW/13.