

# THE UNIVERSITY OF NEW SOUTH WALES



## CONFERRING OF DEGREES AND AWARDS SCIENCE AND ENGINEERING

**Wednesday 11 December 1996—4.00 p.m.**

AUSTRALIAN DEFENCE  
FORCE ACADEMY



# THE BAND OF THE CORPS OF OFFICER CADETS

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BANDMASTER: Warrant Officer Class 2 G. S. Grey, Dip Mus Mgt

BAND CADET CAPTAIN: Officer Cadet A. G. Gehrke

When the Australian Defence Force Academy was in the early stages of construction, the then Commandant, RADM P.R. Sinclair AO, RAN recommended the establishment of the Academy's own volunteer band in accordance with the practices of Defence Academies he had visited overseas. Once established, the band would provide the music for all ceremonial activities and many of the functions held at the Academy. Consultation with the Directors of Music for the three services ensued and consequently, due to its larger size and broader experience base, the Australian Army Band Corps was tasked with providing a Warrant Officer Bandmaster.

The Corps Band became functional early in 1986, at first consisting of a Drum Corps incorporating four side drums and a bass drum. With the arrival of the Bandmaster in July of that year, a fully operational Military Band was soon established. The instruments used then, and chiefly still in use today, were donated by the professional bands of all three services.

The band organisation now encompasses eleven differing ensembles, tailored to cater for the variant tastes and needs of the Corps of Officer Cadets. Since inception, the Band's ranks have included bagpipers, making it the only military unit in Australia that combines Pipes and Band on a continuous basis. The Drum Corps continues to provide support for the morning drill routines, as it has done since the Academy's establishment.

The Band of today continues to fulfil the diverse ceremonial and musical requirements of the Academy, with no concessions being given for the extra time commitment necessary. The professionalism and enthusiasm injected by its members will guarantee the high standard of the Corps Band is maintained and further developed for many years to come, ensuring its reputation as a model of Academy Bands world wide is warranted.

# AUSTRALIAN NATIONAL ANTHEM

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Australians all let us rejoice  
For we are young and free;  
We've golden soil and wealth for toil,  
Our home is girt by sea;  
Our land abounds in nature's gifts  
Of beauty rich and rare;  
In history's page, let every stage  
Advance Australia Fair.

In joyful strains then let us sing  
Advance Australia Fair.

# ORDER OF PROCEEDINGS

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The Academic Procession proceeds to the dais, the Assembly standing

**National Anthem:** Advance Australia Fair

Professor J. A. Richards, BE PhD *UNSW*, FTSE, FIREE, FIEAust, FIEEE,  
Rector of the University College

The Acting Chancellor, the Hon. Justice Jane Mathews,  
LLB *Syd.*, Hon. LLD *W'gong.*,  
extends a welcome to those present

Mrs S-A Phillips, BA *Monash*,  
Director, Student Administration

Professor I. R. Young, BE MEngSc PhD *James Cook*, MAGU, CPEng, FIEAust,  
Presiding Member of University College Academic Board, presents to the Acting  
Chancellor candidates from the University College

Ann Moyal, AM, BA *Syd.*  
delivers the Occasional Address

Professor John Niland, AO, MCom *UNSW*, PhD *Ill.*, FASSA,  
Vice-Chancellor and Principal

**The Mace Bearer:** Emeritus Professor E. C. Daniels,  
MArch *UNSW*, ASTC(Hon.), LFRAIA, Hon MIES

The Academic Procession retires, the Assembly standing



# CONFERRING OF DEGREES

## UNIVERSITY COLLEGE

PRESENTED BY PROFESSOR I. R. YOUNG

PRESIDING MEMBER OF UNIVERSITY COLLEGE ACADEMIC BOARD

## BACHELOR OF SCIENCE BSc

Paul Christian ANSTEE  
Peter Alexander BAIRD  
Jessamine Joy BARKER  
Jan Michel BELZA  
Adrian Nathan James BUCKLEY  
Glenn William CANFIELD  
Nicole Ann CARN  
Benjamin George CARTWRIGHT  
Stuart Frank CAYZER  
Andrea Frances CHOPPING  
Eugene Vladimir CLEARY  
Grant Marcus COLLIE  
Stuart Nolan CREE  
Russell Mark CROKER  
Lisa Gayle Maree CROSS  
Andrew James DEIGNAN  
Brett DIXON  
Tracy Maree DOUGLAS  
Patrick John DUNN  
Natasha Kristie EDGAR  
Scott Peter EGAN  
Lorraine Eileen EVERY  
Zan GAMBLE  
Craig Anthony GIBBONS  
Mathew Ross GRANT  
Matthew Peter HANLON  
James Aaron HAWKING  
David Reid JACKSON  
Susan Meriee JOHNSON  
Brendan KELLAWAY  
David Leslie KERSHAW  
Benjamin Thomas KING  
David Anthony KINKEAD  
Belinda Ann LANCE

Jesse Deya Ryan LAROCHE  
Kirsten Lee LATHAM  
Jason Christopher LEEMING  
Kelly MANSFIELD  
Natalee Joy MCDUGALL  
Timothy Ian MCDOWELL  
Darryl Lindsay MORPHETT  
Martin MOUS  
Mark Peter NAGLOST  
Simon John OHMSEN  
Antonio PAGAN  
Sean Owen PEARCE  
Nicholas Leon PELHAM  
Karly Michelle PIDGEON  
Samuel Hillary PONS  
Taryn Renee POWER  
Malcolm Douglas PURCELL  
Nicholas Peter ROSE  
Nigel Phillip ROWAN  
Michael Andrew SAY  
Damien Lyle SCULLY  
Scott Edward SEEFELD  
Anita Louise SELICK  
Andrew David SLEEMAN  
Derek Scott SNIPE  
Scott David SPARGO  
Matina Lee STANFIELD  
Michael Durant THOMAS  
Patricia THOMPSON  
Braith Morgan TOMLINSON  
Phillip Christopher WADE  
Dominic Philip WALKER  
Steven Edward WALL  
Martin Christopher WHITE

Andrew Martin WILLIAMS  
Christopher James WILLIAMS  
Edmund Francis WUNSCH  
Eric Stephen YOUNG

## **Honours Class 2 Division 2**

### **COMPUTER SCIENCE**

Craig Anthony BYCROFT  
Michael Lawrence  
Chamczuk O'SULLIVAN  
Supachai UPAN

## **Honours Class 2 Division 1**

### **CHEMISTRY**

Kenneth Royston MARTIN

### **COMPUTER SCIENCE**

Adam Thomas HALL

### **GEOGRAPHY**

Andrew William BLACK  
Shannon Lee TUCKWELL

### **MATHEMATICS**

Jayson Todd LIVINGSTONE

### **PHYSICS**

James Leonard COLLISON

## **Honours Class 1**

### **CHEMISTRY**

John Victor FRY

### **GEOGRAPHY**

Tyron Israel GIULIANI

### **MATHEMATICS**

Will Chanter BEAUMONT

## **Honours Class 1 and University Medal**

### **PHYSICS**

Paul Michael O'NEILL

## **BACHELOR OF TECHNOLOGY BTech**

### **AERONAUTICAL ENGINEERING**

Anthony Michael CHARLES  
David Rex CHILD  
Darren McLeod CLARE  
Richard Joseph DRUM  
Ruben Simon DUERR  
Daniel Lawrence GODDE  
Clinton James HALLAM  
Chris POUNCEY  
Scott Andrew STEWART  
Daniel Grant Kerin WILSON  
Krishaan David WRIGHT

## **BACHELOR OF ENGINEERING BE**

### **AERONAUTICAL ENGINEERING**

Clinton James BEBB

## **Honours Class 2 Division 2**

Aaron James MACMICHAEL

## **Honours Class 2 Division 1**

SOH Yip Thian  
Scott William YATES

## **Honours Class 1**

NG Wei-Jin  
TAN Boon Kiat Joseph  
Nyree Joy TUCKER  
Allan Bruce WHERRETT

### **CIVIL ENGINEERING**

Robert Leigh Eugene BOSWORTH

## **Honours Class 2 Division 2**

Michael Charles DREWS  
Kirsty Ann HYDE

## **Honours Class 2 Division 1**

Matthew Darren CLEVERLY  
Ferdinand Antonious GRIMMINCK  
John Justin MCCARTHY  
Brett James THIELE

## **Honours Class 1**

Julie Ann GREEN  
Leonard Putu Hendrick ROUWHORST

## **Honours Class 1 and University Medal**

Niall Geoffrey PIGOTT

## **ELECTRICAL ENGINEERING**

Sharon Maree BLAIR  
Aaron LOW  
Bradley Reed WARREN  
YEO Howe Chien

## **Honours Class 2 Division 2**

Simon John CARDIFF  
Matthew James COOPER  
Andrew Christopher EDEN  
Mathew Brian GREEN  
Michael Leslie HOLZL  
Brookelyn Louise LETT

## **Honours Class 2 Division 1**

Aaron Edward MACKS  
Scott Matthew PARRY  
Mark Anthony SEARLE

## **Honours Class 1**

Matthew John PAPAPHOTIS  
Christopher James RULE

## **MECHANICAL ENGINEERING**

LEE Meng Li Adrian  
Bronwyn Clare THOMAS  
Craig Philip TUFFLEY  
Peter YOUNG

## **Honours Class 2 Division 2**

Rachel Ann CLARKE  
Amanda Louise JOHNSON

## **Honours Class 2 Division 1**

Douglas Donald Esplen MAIN  
Nicola Louise SANDERS

## **Honours Class 1 and University Medal**

Mark Lea DRUMMOND, BSc *UNSW*,  
DipEd *C.Sturt*



## **GRADUATE DIPLOMA GradDip**

### **ELECTRICAL ENGINEERING**

Hei-Yuen CHAU, BAppSc *Canberra*

### **INFORMATION SCIENCE**

Sheldon John KIDD

James Frederick YOUNG, BE *UNSW*

Felicia Margaret ZERBES

## **MASTER OF ENGINEERING SCIENCE MEngSc**

### **CIVIL ENGINEERING**

Bizhan IZADIAN, BSc *Tehran*

Sornalingam JATHEENDRAN, DipEng *Mor'wa*, GDipCompStud *Canberra*

Ian Richard MCCOMB, BE *Footscray I.T.*

### **ELECTRICAL ENGINEERING**

Christopher Mark CLACHER, BE *Q'ld.*

## **MASTER OF INFORMATION SCIENCE MInfSc**

Jennifer Mary BACKHOUSE, BA DipEd *Syd.*

David BINGHAM, BSc PhD *Monash*

Peter Francis BROWN, BAppSc *Canberra*

Andrew Eric DOWSE, BE *R.M.I.T.*

Jonathan Saville GOUGH, BSc *Brighton Poly*

John Paul HARVEY, BSc *UNSW*, BA MLitt *N.E.*

Eric KIEM, DipEng *R.M.I.T.*, GDipCompStud *Canberra C.A.E.*, GDipMgtStud *A.C.T.A.A.*

Kishor KUMAR, BE *All'd.*

Olivia Tonu LAM, BSc *Adel.*

Fuchun LUAN, BSc *Chang Chun College of Geology*, PhD *A.N.U.*

Peter Robert MCLENNAN, BEng *R.M.I.T.*

Donald Kay MUNRO, BA *A.N.U.*

Mary O'SULLIVAN, BBus *Mitchell C.A.E.*, GDipCompStud *Canberra*

Edward Peter RALSTON, BSurv *Q'ld.*, GDipInfSys *Canberra C.A.E.*

Geoffrey Owen SKELLAMS, BCompSc *N'cle (N.S.W.)*

Jonathan Nickolas SPARKS, BA *Q'ld.*, MBA *N.E.*

## MASTER OF ENGINEERING ME

### ELECTRICAL ENGINEERING

Nick Ngoc Long HUYNH, BE *S.Aust.*

Reji Kuruvilla MATHEW, BE *W.Aust.*

## DOCTOR OF PHILOSOPHY PhD

### AERONAUTICAL AND MECHANICAL ENGINEERING

Asghar NASR, BEngSc *Iran Sc. and Tech.*, MEngSc *Sharif U.T.*

**Thesis:** Two Parallel Plane Jets

Wali Mohd NOZHAT, BE BSc MSc *Kabul*

**Thesis:** Hydrodynamics and Heat Transfer of Falling Liquid Films

Wenyi WANG, BE *Wuhan I.T.*, MS *Huazhong Sc. and Tech.*

**Thesis:** An Investigation of Diagnostic Techniques for Rolling Element Bearings Under Conditions of Poor Signal to Noise Ratio and Multiple Element Faults

### CIVIL ENGINEERING

Anthony Thomas WEBB, BSc BE *Syd.*, MEngSc *UNSW*, DipHydEng *Delft*

**Thesis:** Barotropic Coastal Circulation on a Narrow Continental Shelf

### COMPUTER SCIENCE

Paul James DARWEN, BSc *A.N.U.*

**Thesis:** Co-Evolutionary Learning by Automatic Modularisation with Speciation

Peter Alexander WHIGHAM, BSc *A.N.U.*

**Thesis:** Grammatical Bias for Evolutionary Learning

### ELECTRICAL ENGINEERING

Xiuping JIA, BEng *Beijing Posts and Tel.*

**Thesis:** Classification Techniques for Hyperspectral Remote Sensing Image Data

Seyed Omid Reza MOHEIMANI, BSc *Shiraz*, MEngSc *UNSW*

**Thesis:** Guaranteed Cost Control and Robust Filtering for Uncertain Systems

Michael John RYAN, BE MEngSc *UNSW*, GDipMgtStud *A.C.T.A.A.*

**Thesis:** The Application of Vector Quantization to the Compression of Hyperspectral Images

## **GEOGRAPHY**

Sarah Jocelyn DAVIES, BA A.N.U., BA N.E.

**Thesis:** Appropriate Planning for Aboriginal Self Determination

## **MATHEMATICS**

Zlatko JOVANOSKI, BSc *Monash*

**Thesis:** Variational Analysis of Beam Propagation in Non-Linear Media

## **PHYSICS**

Xiaoli ZHAO, MSc *Shaanxi Teachers Univ.*

**Thesis:** Magnetic Properties of Rare Earth Intermetallic Compounds—  
 $\text{RCo}_{12}\text{B}_6$  and  $\text{La}_{1-x}\text{Y}_x\text{Mn}_2\text{Si}_2$

# ACADEMIC PRIZES AWARDED 1996

## BOARDS OF STUDIES PRIZES

### HUMANITIES AND SOCIAL SCIENCES

First Year (shared):

David Laurence Holt  
Yew Chuan Gerald Lee

Second Year:

Lauren Brooke Pedrotti

Third Year:

Chelsea McCubbery

### SCIENCE

First Year (shared):

Daniel James Cook  
Andrew Dirk Petrusma  
James Edward Maxwell Watson

Second Year:

Third Year:

Jan Michel Belza

### ENGINEERING

First Year:

Jeremy Martijn Elias

Second Year (shared):

James Edward Hyde  
James Richard Leitch

Third Year:

Ong Tiong Boon

### DONATED PRIZES

The E R Bryan Prize (English 1):

Andrew William Macoustra

The Alan Carter Prize (Oceanography 1):

Sarah Jane Giles

The Sir Leslie Martin Prize

(First Year Physics):

David Laurence Holt

The Rockwell Australia Limited Award

(Electrical Engineering 1):

Stuart William McLaren

The Australian Institute of Physics Prize

(Second Year Physics):

Derek Edgar Thresher

The Second Year Computer Science Prize,  
donated by Ansett:

Daniel David James Rich

The Second Year Information Systems Prize,  
donated by the Australian Computer Society:

Lauren Brooke Pedrotti

The Barry Andrews Shakespeare Prize (shared):

Clare Dione Swiderski  
Stuart James Watters

The Professor Grahame Johnston Prize  
(Australian Literature):

Chelsea McCubbery

The Australian Institute of Management Prize:

Dean Andrew Herpen

The Royal Australian Chemical Institute Prize (Third year Chemistry):	Nicholas Peter Rose
The Most Outstanding Computing Project Prize, donated by Cisco Systems, (shared):	Brendan Kellaway Timothy McDowell
The Highly Commended Computing Project Prize, donated by Cisco Systems, (shared):	Benjamin James Hemphill Nathan Edward Juchniewicz
The Commended Computing Project Prize, donated by Cisco Systems, (shared):	Glenn William Canfield Susan Louise O'Grady Narelle Melanie Rosser
The Science Prize, donated by British Aerospace Australia:	Jan Michel Belza
The L W Gairns Memorial Prize (Final Year Bachelor of Technology):	Ruben Simon Duerr
The Dorothy Green Prize (Australian Literature):	Jane Christine Bekema
The L C F Turner Prize (History) (shared):	Melanie Jane Carins Malcolm Dalziel Wells
The Institution of Radio and Electronic Engineers Australia (Canberra Division) Prize (shared):	Christopher James Rule Scott Matthew Parry
The AISC Undergraduate Steel Design Award:	Michelle Anne Wynn
The Institute of Explosives Engineers Prize (Engineering Explosives):	Niall Geoffrey Pigott
The Wing Commander John Yeaman Prize (Transportation Engineering):	Niall Geoffrey Pigott
The Air Vice Marshal Noble Prize (Fourth Year Aeronautical Engineering):	Nyree Joy Tucker
The Siemens-Plessey Award in Electrical Engineering (Communications and Electronics) (shared):	Christopher James Rule Matthew John Papaphotis
The A H Corbett Prize (Top Graduate in Engineering):	Niall Geoffrey Pigott

# ACADEMIC SCHOOL PRIZES

## AEROSPACE AND MECHANICAL ENGINEERING

Second Year Aeronautical Engineering  
(including BTech):

James Edward Hyde  
Mark Andrew Sweetman  
Peter Nicholas Winnall

Second Year Mechanical Engineering (shared):

Mark Lea Drummond  
Nicola Louise Sanders

## CHEMISTRY

First Year:

Thomas Edwin Gould

## CIVIL ENGINEERING

First Year:

Scott Francis D'eresby Davidson

Second Year (shared):

James Colin Dugdell  
John Paul Force

Fourth Year:

Niall Geoffrey Pigott

Top Graduate in Civil Engineering:

Niall Geoffrey Pigott

## COMPUTER SCIENCE

First Year Information Systems:

Yew Chuan Gerald Lee

Third Year Information Systems:

Susan Louise O'Grady

First Year Computer Science:

Daniel James Cook

Third Year Computer Science:

Jan Michel Belza

## ECONOMICS AND MANAGEMENT

First Year Economics:

Yew Chuan Gerald Lee

Third Year Economics:

Harold Sim Tech Chye

Third Year Management (shared):

Brooke Fiona Chivers  
Naomi Anne Easterling

## ENGLISH

Fourth Year English (The H P Heseltine Prize):

Jane Christine Bekema

## GEOGRAPHY AND OCEANOGRAPHY

Third Year Geography (shared):

Camille Marie Lawton  
Natasha Kristie Edgar

Third Year Oceanography (shared):

Paul Christian Anstee  
Damien Lyle Scully

## **HISTORY**

First Year:

Erica May Rogers

## **MATHEMATICS**

First Year:

Lee Pritchard

Second Year:

James Richard Leitch

## **PHYSICS**

First Year:

Benjamin Paul Shuhyta

Second Year (Physics 2E):

Nicholas James Grey

Third Year:

Glenn William Canfield

## **POLITICS**

First Year:

Pinghan Chua

Second Year:

Daniel Peter Robinson

Third Year:

Kara Naomi Warner

## **GRADUATE PRIZES**

The Master of Information Science Computer  
Associates Prize:

Peter Robert McLennan

The Oxford University Press Master of Arts  
(English) Prize:

Janet Frances McLay

The Defence Studies (Petro Fedorczenko) Prize:

Anthony Peter Arnold

The Ria de Groot Prize (shared):

Frances Olivia De Groen  
Xiuping Jia

The Royal Aeronautical Society Canberra  
Graduate Prize:

Asghar Nasr







## THE UNIVERSITY MACE

The Mace is a symbol of the dignity and authority of the University. Originally it was a weapon capable of breaking through the strongest armour, and, according to the Encyclopaedia Britannica, was carried in battle by mediaeval bishops so as to conform to the canonical rule that forbade priests to shed blood. Later, maces began to have a ceremonial function, though they were still intended to provide protection, usually to the king's person, and were carried by sergeants-at-arms.

The University's Mace is of simple form, constructed of stainless steel and embellished with silver. The head, of sixteen satin-finished stainless steel ribs, is surmounted with a silver waratah, the floral emblem of the State of New South Wales, and on its horizontal bar are mounted four silver shields, two engraved with the arms of the University and two with the arms of the State. The inner core has a scarlet velvet lining.

The shaft is of eumung, a New South Wales timber, dark in colour, and terminates in a stainless steel tail.

The Mace was presented to the University on 6 December 1962 by the Broken Hill Proprietary Company Ltd.

## THE HISTORY AND SIGNIFICANCE OF ACADEMIC DRESS

The history of academic dress reaches far back into the early days of the oldest universities. A statute of 1321 required that all "Doctors, Licentiates, and Bachelors" of the University of Coimbra wear gowns. It is still a vexed question whether academic dress finds its sources chiefly in ecclesiastical or in civilian dress. Gowns may have been counted necessary for warmth in the unheated buildings frequented by mediaeval scholars, and the hood currently in use is the remnant of a garment, also a device against the cold, which could be pulled up over the head and kept in position with the tail wound around the throat. The type of academic headgear most commonly worn by graduates today is the mortar-board cap, also called the trencher cap, which dates back to the seventeenth century. It is also the custom of many universities for Doctors to be allowed to wear a distinctive type of headgear, either a round velvet bonnet or a black velvet mortar-board, with the full dress gown.

As universities developed throughout the Commonwealth countries they mostly prescribed academic costume based on that established for the members of Oxford and Cambridge Universities, where the Chancellor and often other senior members wear a distinctive official gown and hat. Graduates are identified by the wearing of a gown and hood specially prescribed for each degree and undergraduate students wear a distinctive gown and hat.

Notwithstanding the importance of the Oxford and Cambridge tradition of the gown and cap, it is the wearing of a hood by the graduate to indicate his or her degree which is the principal feature of the academic costume code.

The tradition of wearing academic dress continues in universities around the world and it is customary that on ceremonial occasions such as the Conferring of Degrees Ceremony today that the distinctive official costume of each person concerned be worn.

## UNIVERSITY MEDAL

The University Medal is a recognition by the University of outstanding academic achievement at the undergraduate level.

The Bronze Medal carries on its face an engraving of the Arms of the University and on the reverse, within a wreath of laurels, is engraved the name of the recipient.