

UNSW Conferring of Awards [Degrees]: Science and Engineering and
Technology

2014

Digital Proof without the cover



Welcome from the President and Vice-Chancellor



Congratulations on your graduation, and welcome to this conferral of awards, our most important of ceremonies.

Gaining a degree is a great achievement. We are proud of the achievements of all the graduates who are here today, and recognise the special contribution each has made to the life of the University.

The University also recognises the indispensable role of families and friends who have helped to bring the new graduates to this day of triumph.

UNSW Australia is considered by many to be Australia's premier university and we are very proud of the quality of our students. The University attracts the best that Australia can offer, and we also bring to our campus a wonderful and diverse cohort of students from throughout the region and the world.

Today you will be admitted into your degree, and become a member of the University. I encourage you to maintain a connection with the University through the various alumni activities and programs held around Australia and internationally. This creates opportunities for you to play a part in building one of the great universities of the world.

On behalf of the University, I congratulate you and trust that you will find today's graduation ceremony a celebration of your achievement.

Professor FREDERICK G HILMER AO
President and Vice-Chancellor

UNSW Australia

UNSW was established in 1949 and has been defined since its inception by strong industry links and a global outlook. One of Australia's leading research and teaching universities and foremost international universities, UNSW attracts outstanding scholars and students from around the world. The University's broad range and high quality of teaching programs gains strength, vitality and currency both from our research activities and from our international nature.

UNSW has an extraordinarily strong regional and global engagement and commitment. The University's more than 250,000-strong alumni, many now scattered throughout the world in influential positions, are a testament to UNSW's leadership and excellence in teaching and research.

UNSW is proud to be a foundation member of the Group of Eight leading research universities in Australia and the prestigious Universitas 21 international consortium.

UNSW Canberra at the Australian Defence Force Academy

UNSW Canberra graduates shape Australia, the region and the international community as leaders in defence, government, and industry.

Working at the intersection of a leading university and a military academy, UNSW Canberra has been educating defence leaders for half a century.

Through our experience in education and our achievements in research, we excel in teaching undergraduate, postgraduate and doctoral research students across arts, business, engineering, IT and science.

Our undergraduate programs are tailored to the educational needs of members of the Australian Defence Force, while our graduate and doctoral research programs attract students from all walks of life and all parts of the world.



Australian National Anthem

Advance Australia Fair

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

Wednesday 10 December, 2.00pm

ACADEMIC PROCESSION

The Academic Procession proceeds to the dais, the Assembly standing. The University Mace is carried by Emeritus Professor Roger McLean, MA N.Z., PhD *McG*

NATIONAL ANTHEM

Advance Australia Fair

WELCOME

The Rector of UNSW Canberra, Professor Michael Frater, BSc BE *Syd*, MHEd *UNSW*, PhD *ANU*

The Chancellor of UNSW, Mr David Gonski, AC, BCom LLB *UNSW*, FCPA, FAICD

ADMISSION TO AWARDS

The Presiding Member of the UNSW Canberra Academic Board, Professor Grant Collins, BSc *ANU*, PhD *ANU* requests the Chancellor, on behalf of the University Council, to admit candidates to awards.

HONORARY FELLOWSHIP

The Rector of UNSW Canberra, Professor Michael Frater, BSc BE *Syd*, MHEd *UNSW*, PhD *ANU*, presents the award recipient.

OCCASIONAL ADDRESS

Dr Michael Easson AM, BA (Hons) *UNSW*, MSc *Oxford*, PhD *UNSW*, FAICD, FRICS, Chairman, ACTEW; Deputy Chairman, ACTEW (AGL); independent Director of ANZ Stadium, and co-founding Director and Chairman of Ridley & Co.

CONCLUDING REMARKS

The Presiding Member of the UNSW Canberra Academic Board, Professor Grant Collins, BSc *ANU*, PhD *ANU*

Following the Concluding Remarks, the Assembly will stand while the Academic Procession retires. Refreshments will be served in the Academy Cadets' Mess at the conclusion of the ceremony. Photography and framing services will also be available.

Science, Engineering and Technology Awards

The candidates are presented by Professor Grant Collins.

BACHELOR OF TECHNOLOGY BTech

Aeronautical Engineering

Anup Ajay Bhavsar

Zachariah Ulric Emms

Storm Coen Fenech

James Mark Highfield

Nicholas William Hill

Samuel Christopher Judd

Lachlan James Nathaniel Newbery

James Antonio Versace

Distinction

Ryan Anthony Anderson

Zachariah Davis

Connor Robert McArthur

Aviation

Kristen Markley Crick

Joshua David Daish

Brendan James Everson

William Henry Hoffman

William Joshua Daniel Maidens

Matthew Nicholas Noonan

Jake Christopher James Proctor

Sean Edward Purtell

BACHELOR OF ENGINEERING BE

Aeronautical Engineering

James Anthony Brennan
Mumtaz Husain Jafari
Simon John Kube
Sarah Judith McIlwain
Dhana Ezekiel Narayanasamy
Alexander Voudiotis
Alastair James Walsh
Mitchell Thomas Woodward

Honours Class 2 Division 2

Alison Cranston
Samyukta Sadanand More
JJ Wang

Class 2 Division 1

Benjamin Thomas Flood
Christopher Garrett
Timothy Michael Laughlan
Curtis Paul McAlister
Samuel Cruz Stockdale
Benjamin James Wood

Honours Class 1

Torin Jonty Kelderman
Adam Travis Lachlan
Joseph Anthony O'Gara
Cameron Joseph Sheridan
Amy Sturrock

Civil Engineering

Amrinder Singh Ghuman

Honours Class 2 Division 2

Shaun James Azzopardi

Lincoln James Babare

Taya May Cropper

Callum Thomas Johnston

Brendan Kelleher

Ryan Timothy Malone

Joshua Patrick An Nguyen

Luke Thomas Staples

Simeons Svilans

Honours Class 2 Division 1

Phillip David Kennedy

Jack Fullarton Lush

Indi Eleanor Pain

Honours Class 1

Mohamad Fahrul Saaid

Electrical Engineering

Trahern Daniel Griffiths

Honours Class 2 Division 2

Dylan Michael Banning

Scott Edward Johnson

Mark Stuart Robson

Korey Nicholas Rouse

Morgan John Rush

Lincoln Wade Smythe

Miriam Strmecki

Honours Class 2 Division 1

Brendan Paul Wesley Adam

Alec Timmothy Beerens

Jordan David Brown

Lincoln John Sadler

Nathan Softley

Russell Charles Stone

Honours Class 1

Kieran Matthew Davis

Joshua William Friend

Laura Ashleigh Haws

Dylan Stevenson

Fergus David Reed Symon

Mechanical Engineering

Matthew James Barnes

Stephen Mark Venning

Honours Class 2 Division 2

Alex Mitchell Goddard

Rayne Stibbard

Honours Class 2 Division 1

Dean James Dvornicich

Elizabeth Patricia Ringrose-Voase

Honours Class 1

Roger Paul Dudziak

Matthew John Grieshaber*

Oliver Ambrose Oakman

Jack Joseph Robert Williams



Mechanical Engineering (Chief of Defence Force Students Program)

Honours Class 1 and The University Medal

Nathan Robert Gilfillan

BACHELOR OF INFORMATION TECHNOLOGY BIT

Adam Jared Aprahamian

Matthew Steven Gaudie

Patrick Scott Holmes

Anthea Emmaline Smyth

BACHELOR OF SCIENCE BSc

Ryan James Abil

Mitchell Edward Apted

Stuart Nivison Atkin

Luke Charles Batten

Ayden Bauer

Alexandria Mollie Bisson

Thomas John Black

Thomas Aaron Henry Boase*

Oliver William Bohling

Essie Broadbent

Joshua Ryan Callan

Daniel Andrew Cateley

Lachlan John Connell

Cameron Coppo

Jeremy James Costello

Tobias Sam Crothers

Myles Thomas Darwin

Trent Ryan Edwards

Paul Dean Fencaros

Ian William Gillespie

Matthew Dean Goodridge
Daniel Ha
Jessica May Hampton
Taylor Robert Hick
Michael Brian Holding
David William Holmes
Mitchell James Hosking
Gordon James Hutcheon
Michael Hutchesson
Simon Bernard Jeffery
Brodie Brian Jones
Sean Edward Joyce
Adam Stephen Lane
Samantha Lorenz
Kyle Peter Maher
Samantha McKay
Mitchell James McKone
Alastair John McLean
Bradley Allan McMaster
Ryan James Hintz Melville
Joseph Francis Murphy
Barend Jacobus Nieuwoudt
Jacob Daniel Osborne
Fiona Mary Pow
Jirot Prasoetampaisakul
Jacob Leonard Pratten
Luke Walter Quinn
Campbell James Rogan
Benjamin William James Rowe
Zachary John Segger
Jack Jorgen Thompson
Gary Arthur Tyler
Daniel John Tyson

Patrick Charles Verdich
Jason Tomislav Vujcic
Hamish William Wallace
Finbar Walton
Jordan James West
Watcharapol Wicha
James Scott Wilcox

Honours Class 1

Oceanography

Jacqueline Clements

BACHELOR OF SCIENCE **BSc (Chief of Defence Force Students Program)**

Honours Class 1 and The University Medal Mathematics and Statistics

Hannah Louise Phelps

MASTER OF CAPABILITY MANAGEMENT MCapMgt

Andrew Nicholas Abbott
Jeremy Bechtel
Darren Stuart Bentley
Trevor Raymond Blake
Paul James Bradford
Daniel Joseph Clark
Jonathan Henry Corker
David Faulkner
Duncan John Foster
Andrew Lynton Foulkes
Roy Philip Henry
Mitchell Manfield Higbed
Benjamin John Howard

Peter John Ketton
Vanessa Rebecca Laddrak
Antony George Moor
Richard Alexander Mouthaan
Darren John Murphy
Akhmad Mustofa
Thy Nhat Thuy Nguyen
MD Zaini Bin Osman
Mandom Paje
Michael Anthony Parker
Danielle Carolyn Radnidge
Teguh Rumiarto
Joel Anthony Saunders
Shanker Singh
Kenneth John Steinman
Andrew Gregory Sturgess
Lena Marie Thompson
Nicholas Ullin
Anthony Clive Wennerbom
Dane Reid Wilson

GRADUATE CERTIFICATE IN ENGINEERING SCIENCE GradCertEngSc

Aerospace Engineering

David John Seccombe

GRADUATE CERTIFICATE IN SCIENCE Grad- CertSc

Defence Operations Research

Jenny Doan

**GRADUATE DIPLOMA IN ENGINEERING
SCIENCE GradDipEngSc**

C4ISREW

Brett Gregory Smith

**GRADUATE DIPLOMA IN INFORMATION
TECHNOLOGY GradDipIT**

Thiong Ann See

Leslie James Bruce Young*

GRADUATE DIPLOMA IN SCIENCE GradDipSc

Defence Operations Research

Gary Wayne Hanly

Information Technology

Jason Andrew Morrison

Mathubashini Ragupathy

**GRADUATE DIPLOMA IN SYSTEMS
ENGINEERING GradDipSysEng**

Bryan Duffy

**MASTER OF ENGINEERING SCIENCE
MEngSc**

Aerospace Engineering

Zhong Fan

Tristan Foon

Benjamin Christopher Marsh

Stuart John Mattner

Karl Riedl

C4ISREW

Nathan James Cook

Ché Darren Patterson

Mark Andrew Sharpe

Data Communications and Analysis

James Lindsay Tewes

Electrical Engineering

Kurt Brown

Daniel Brenton Giacomini

Daniel Stuart Gillespie

Jayaraj Chandrabose Samuel

Christopher David Squires

Nicolaus Robert Knight Strauch

MASTER OF INFORMATION TECHNOLOGY MIT

Antoine Alexander Mahe

MASTER OF PROJECT MANAGEMENT MProjMgt

Ahmed Mohamed Abdelaziz

Kelly Michelle Alsop

Revodimir Diva Aparis

Michael Ross William Baker

James Francis Bancroft

Joshua Paul Barbetti

Karina Mary Bonniticha

Damien John Cahill

Stephen Edmund Cam

Judith Marie Carson

Alison Causley

Sivakumar Chandran

David Shlomo Chapman
Byron Charles Cocksedge
David Andrew Coleman
Matthew Colquhoun
Tarryn Nancy Lois Colquhoun
Matthew Neill Corner
Garry William Couch
Jonathan Peter Couper
Matthew James Curnow
Aaron Davis
James Robert Donnelly
Gary Allan Dunne
Craig Robert Fairweather
David John Foulds
Belinda Gay Fox
Damian Josip Fratric
James Michael Giess
Trent Ashley John Groves
Brad Hajek
Arthur Edward Hall
Andre Russell Holmes
Mark Janiszewski
Wade Clifford Jefferies
Ian David Jimmieson
Simon James Kennedy
Nigel Patrick King
Andrew Peter Lancaster
Ben Michael Lancaster
Aron Kane Looker
Daniel Peter Lord
Jason Dirk McHeyzer
Glenn Wayne McMahan*
Anthony James Menzies
Daniel Ivan Milberg

Katie Maree Miller
Glenn William Murray
John Myatt-Bocarro
Seelan James Nerio
Hao Duc Nguyen
Grant Anthony O'Loughlan
John-Paul Ouvrier
Sidney Joseph Raper
William George Raymond
Kristofer Keith Rettke
Nathan Luke Rice
Monisha Caroline Samuel
Kingsley John Scarce
Ashley Morrell Shanks
Michael Shaw
Peter Dennis Shirley
David Mark Shirvington
Michael John Stephenson
Steven Kim Teh
Richard Edward Thornley
Andrew Thorpe
Shaun Patrick Toussaint
Joseph Duy Tran
Christian Van Den Bosch
Joel Alexander Erich Von Thrum
Christine Vu
Aaron Neville Watts*
Jonathon Christopher Webb
Bruce Maxwell Whittington
Ashley Van Wright
Yong Jae Yi
Loshika Yogarajah

**MASTER OF PROJECT MANAGEMENT
MProjMgt**

and

**MASTER OF CAPABILITY MANAGEMENT
MCapMgt**

Jann White

MASTER OF SCIENCE MSc

Defence Operations Research

Daniel Bilusich

Mark Daniel Graham

Michele Ann Wilson

Information Technology

Richard Neil Barber

Thomas Ian Maynard Furber

Dean Lyle Gebert

Sarah Beth Isdale

Christopher Andrew Leedham

Jeremy George Pickel

Operations Research and Statistics

Melissa Jane Houston

**MASTER OF SPACE ENGINEERING
MSpaceEng**

Malcolm David Speke

John Yeh Truong

**MASTER OF SUSTAINMENT
MANAGEMENT MSustMgt**

Luke Joseph Meilak

MASTER OF SYSTEMS ENGINEERING

MSysEng

Electronic Warfare

Andrew Ross Bain
Samuel Sidney Ellyard
Robin Grover
Jordan Christopher Marshall
Joshua Paul Daking Rooney
Christopher Alan Thripp

Marine Engineering

Sebastian Due Madsen

Networking

Roland Andrew McGuinness
Myint Naing Soe
Preetha Kameswari Suresh

Systems Engineering

Craig William John Adams
Bernadette Leon Alexander
Carl Neil Anderson
Simon George Bacon
Ricky James Ballard
Dayong Bao
Scott James Barras
Todd Adam Bertram
Jawahar Budo Bhalla
Paul Michael Butcher
Christian Michael Cyc
Jinshan Feng
Daniel Ferguson
David Michael Fulton
Benjamin Paul Gill

David Anthony Gutierrez
Damien Barry Hodges
Scott Hodson
Zaw Min Htut
Amy Rebecca Jason-Jones
Craig Anthony Johnstone
Rushikesh Shriram Kalaspurkar
George Chi Hon Lam
Joshua Leeman
Abhineet Singh Lekhi
Anthony Ian McCann
Hart McPhee
Peter John Meakin
Nishal Chandika Perera Meegama
Daniel William Milford
Donald Matthew Moloney
Christopher John Morrison
Leslie Diana Mutch
Daniel John Nailer
Leighton Ng
Adrian Neil Nugara
Sharlene Judeline Pereira
Ewan Stewart Pettigrew
Gregory Martin Rankmore
Gary Thomas Simmonds
Gregory Hilton Simon
Ravinder Singh
Alexander Sivachtchenko
Neil David Snudden
Peter Andrew Solomon
Carlee Jade Stacey
Broughton Stuart Steele
Adam Douglas Stephan-Slade
Adrian Neal Sweeney

Philip Jason Thomas
Mark Harman Thompson
Simon Phillip Vaughan
Neven Zivkovic*

Space Systems

Robert Andrew Knox
Joshua David Lamb
Brittany Levett
Russell John McGuigan
Jens Semmelroggen
Dmytriy Stepchenkov
Mark David Stibbard
Neelan Sundaralingam
Pearce Gerrad Van De Pol

Test and Evaluation

Gregory John Condon
Mitchell John Ferry
Ely Tobias Flaws
Suvineetha Ramanee Kumaranayake
Adam Dale Rawlings

Weapons and Ordnance

Brad Stanley Hall
Emma Kate Houlihan
Anne-Maree Lyn O'Mara
Kieran Hew-Hock Rogan
Matthew Jon Solon
Cameron Neil Wright

**MASTER OF SYSTEMS ENGINEERING
MSysEng**

and

**MASTER OF CAPABILITY MANAGEMENT
MCapMgt**

Tyrone Kingsley Busch

MASTER OF PHILOSOPHY MPhil

Mathematics

Yang Sun

Physics

Ouge He

MASTER OF ENGINEERING by research ME

Aerospace Engineering

Ye Naung Kyaw Kyaw

Electrical Engineering

Md Abdul Barik

Chandrama Sarker

Mechanical Engineering

Peter James Hayes

MASTER OF SCIENCE by research MSc

Computer Science

Md Mahmudul Hasan*

Hafsa Ahmed Magdy Mohamed Ismail

Mathematics

Xiao Dong Chen

DOCTOR OF INFORMATION TECHNOLOGY ITD

Information Technology

Peter John Hoek

Thesis: Visual encoding approaches for temporal social networks

Matthew John Smith

Thesis: Project manager selection: A better way forward

DOCTOR OF PHILOSOPHY PhD

Aerospace Engineering

Rishabh Choudhury

Thesis: Global surface temperature measurement for hypersonic flight vehicles

Priyanka Dhopade

Thesis: Aeromechanical modelling of rotating fan blades to investigate high-cycle and low-cycle fatigue interaction

Mohsen Habibi Tehrani

Thesis: Aircraft attitude estimation using panoramic images

Vikram Sridhar

Thesis: Computational and experimental investigation of supersonic two-dimensional and axi-symmetric shallow open cavities

Ahmed Mostafa Abdell Allah Thabet

Thesis: Investigation of shear key methodology for improving structural performance of foam-core sandwich panel

Sheila Naomi Rouli Tobing

Thesis: Numerical analysis of effects of aeroelasticity on flapping-wing propulsion: Case study of bumblebees and hoverflies

Chemistry

Mark Stephen Bali

Thesis: Novel strategies for the safe chemical degradation of organic peroxide explosives: A mechanistic investigation

Vijaybabu Mandadapu

Thesis: Combined delivery methodologies that can increase the effectiveness of existing drugs

Mallesh Pandrala

Thesis: Polypyridyl iridium(III) complexes as therapeutic agents

Civil Engineering

Mohammad Nurul Islam

Thesis: Associated and non-associated flow rule based elastic-viscoplastic models for soft clays

Mohammad Shakhaout Hossain Khan

Thesis: The role of hydrotalcite in chloride and sulphate resistant properties of ground granulated blast furnace slag concrete

Xiaodan Teng

Thesis: Nonlinear finite element analysis of FRP-strengthened concrete slabs under static and traffic loads

Jiajun Zhang

Thesis: Monotonic behaviour of pond ash

Computer Science

Md Asafuddoula

Thesis: Development of algorithms to solve different key challenges facing design optimization

Gideon Humphrey Creech*

Thesis: Developing a high-accuracy cross platform host-based intrusion detection system capable of reliably detecting zero-day attacks

Essam Soliman Yousseif Mohamed Debie

Thesis: Evolutionary rule learning for high dimensional classification problems: investigations and remedies

Erandi Lakshika Hene Kankanamge

Thesis: An exploration of the complexity-fidelity trade-off in multi-agent systems via an evolutionary framework

Md Ali Hossain*

Thesis: Sub-space detection for efficient hyperspectral image classification

Caixia Li

Thesis: Improving cooperative transportation management and route guidance systems under provision of real-time traffic information

Eman Samir Hasan Sayed

Thesis: Decomposition-based evolutionary algorithm for large scale problems

Mai Mohammed Shouman

Thesis: Prototype development of a novel heart disease risk evaluation tool using data mining analysis

Bing Wang

Thesis: Autonomous hypothesis generation for knowledge discovery in continuous domains

Electrical Engineering

Craig Richard Benson*

Thesis: Absorption in hydro-acoustic networks

Sajal Kumar Das

Thesis: Robust control for high speed atomic force microscopy

Mohammad Esmaeil Zadeh

Thesis: Using viable system model to develop principles of enterprise architecture and information management

Md Selim Hossain

Thesis: Efficient and robust beamforming algorithms for broadband antenna array processors

Md Rakibul Islam

Thesis: Near field efficient and steerable broadband beamforming with robustness against location errors

Md Abdullah Masum

Thesis: Non-invasive kinematic analysis of knee joints using ultrasound

Mahardhika Pratama

Thesis: Development of a novel evolving neuro-fuzzy system for learning in non-stationary environments

Md Shihanur Rahman

Thesis: Distributed multi-agent approach for enhancing stability and security of emerging smart grids

Md Sohel Rana

Thesis: High performance control of an atomic force microscope for faster image scanning

Xiao Tan

Thesis: Advanced stereo matching algorithms

Geography

Steven William Hobbs

Thesis: The formation and evolution of gullies on Mars and Earth: A complex interplay between multiple agent processes

Mathematics

Hamizah Mohd Safuan

Thesis: Mathematical analysis of population growth subject to environmental change

Edward Kyle Waters

Thesis: Modelling crowding effects in infectious disease transmission

Mechanical Engineering

Md Younus Ali

Thesis: Damage assessment in composite structures using system identification

Mohammad Sharif Khan

Thesis: Development of novel methods for two and three dimensional shape optimization

Min Liu

Thesis: Development of benchmarks and algorithms for realistic arc routing problems

Shah Md Mahfuzur Rahman

Thesis: Micromachining using micro-end mills

Xiaofei Wang

Thesis: Biomechanics of the human optic chiasmal compression

Oceanography

Fan Zhang

Thesis: Benefits of regional ocean and weather forecast systems: evidence from the Australian east coast

Physics

Adurafimihan Akinoye Abiona

Thesis: Palladium-defect complexes in germanium: experimental and density functional theory studies of defect pairing in group IV semiconductors

Xianglei Wang

Thesis: Characterization and optical properties of nanocrystalline alkaline earth halides of the formula MF_x:RE₂+³⁺

DOCTOR OF PHILOSOPHY PhD

Aerospace Engineering

Completed under a Cotutelle arrangement with Arts et Métiers Paristech

Karthik Ram Ramakrishnan

Thesis: Impact behaviour of sandwich composites with nanoparticle modified facesheets

* Degree previously conferred.

HONORARY FELLOWSHIP

Leave separate page – if possible - TBC



The Music - Band, Pipes and Drums of the Australian Defence Force Academy

BANDMASTER: Warrant Officer Class Two Graeme Reynolds

When the Australian Defence Force Academy was in the latter stages of construction in 1985 the Commandant, RADM P.R. Sinclair AO, RAN recommended the establishment of the Academy's own volunteer band, which would be in accordance with the practices of military academies he had visited overseas. Once established, the band would provide the music for all the ceremonial activities and many of the functions held at the Academy. Consultation with the Directors of Music of 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 Band became functional with the arrival of the cadet population in January 1986, but at first consisted only 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 smaller ensembles, tailored to cater for the variant tastes and needs of the Academy. Since inception, the Band's ranks have included bagpipes, making it the only military unit in Australia that combines Pipes and Band on a continuous basis. Today you will see the ADFA Kilt worn proudly by the pipers and drummers. The ADFA Kilt was launched in August 2013 and the colours are indicative of the tri-service colours of the Academy.

The Band organisation of today continues to fulfil and expand the diverse ceremonial and musical requirements of the Academy, with no concessions being afforded for the extra time commitment necessary from its members. This enthusiasm, dedication and resulting excellence has seen the group earn itself the richly deserved reputation as a model for military academy bands worldwide.

The presentation today includes the concert band and bagpipers of the Academy.

UNSW's Global Alumni Community

When you graduate you immediately become an Alumnus of UNSW.

The University has more than 250,000 alumni living in Australia and in some 140 countries around the world. There are four international Chapters/Networks; two interstate Chapters; an active Pioneers Group; and the Alumni Associates, a group of friends of UNSW.

We trust your relationship with the University will continue in many ways, enhancing your personal and professional network and keeping you informed about and engaged with University achievements and developments. We are always interested in sharing alumni stories, both personal and professional, with the wider UNSW community. UNSW offers you the opportunity to stay in touch with UNSW Canberra at the Australian Defence Force Academy, the wider UNSW community as well as your fellow alumni and to benefit from that connection.

Visit the UNSW Alumni Relations website www.alumni.unsw.edu.au to update your details and remain connected with our global alumni community. The University holds regular local, interstate and international events so make sure you frequently visit the website to stay across what events are happening close to you.

Tel: +61 2 9385 3279

E: alumni@unsw.edu.au



Arms of THE UNIVERSITY OF NEW SOUTH WALES

**Granted by the College of Heralds, London 3 March 1952
In 1994 the University title was added to the Arms to create
the University Symbol, shown here.**

Heraldic Description of Arms

Argent on a Cross Gules a Lion passant guardant between four Mulletts of eight points Or a Chief Sable charged with an open Book proper thereon the word SCIENTIA in letters also Sable.

The lion and the four stars of the Southern Cross on the Cross of St George have reference to the State of New South Wales which brought the University into being; the open book with SCIENTIA across its page reminds us of its original purpose. Beneath the shield is the motto "Manu et Mente", which is the motto of the Sydney Technical College, from which the university has developed. The motto is not an integral part of

the Grant of Arms and could be changed at will; but it was the opinion of the University Council that the relationship with the parent institution should in some way be recorded.

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, on ceremonial occasions such as the Conferring of Awards Ceremony today, that the distinctive official costume of each person concerned be worn.

University Medal

The University Medal is 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.

Abbreviations of Degrees and Diplomas from UNSW

The correct abbreviations of the awards conferred at today’s ceremony are listed in the program. The abbreviation follows the name of the graduate and precedes the abbreviation of The University of New South Wales which is *UNSW*.