

University of
Western Sydney



School of Computing,
Engineering and
Mathematics

**Prize Ceremony
2013 Academic Year**





Message from the Dean School of Computing, Engineering & Mathematics



Welcome to the 2014 Prize Ceremony of UWS School of Computing, Engineering and Mathematics. Our academic programs integrate the core disciplines that drive technological innovation and entrepreneurship. The School offers technology-enabled learning environments, which support creative problem solving at all stages of the degree – from the outset of the discovery to the engineered product and software design. Equipped with the ability of synergetic analytical, computational, engineering and design thinking, our students can tackle problems and develop systems with capabilities limited only by their creativity, imagination and desire for innovation. Student achievements demonstrate the high level of these abilities at different forums, projects and competitions.

The Prize Ceremony recognises excellence and outstanding achievements. Our students have set very high standards during their studies, including academic professionalism, dedication and integrity. The prizes recognise the very best among the best. On the behalf of UWS School of Computing, Engineering and Mathematics, I would like to acknowledge and thank deeply our generous prize sponsors, who have made possible this recognition of student excellence.

We wish all our students success in their endeavours.

Simeon Simoff
Dean
School of Computing, Engineering and Mathematics

Order of Proceedings

Welcome

Associate Professor Paul Wormell
Master of Ceremonies

Address by Dean of School of Computing, Engineering and Mathematics

Professor Simeon Simoff
Dean, School of Computing, Engineering and Mathematics

Dean's Medals and Donor Awards Presentation

Professor Simeon Simoff
Dean, School of Computing, Engineering and Mathematics

Associate Professor Surendra Shrestha

Director of Academic Programs, Undergraduate Engineering,
School of Computing, Engineering and Mathematics

Address by Student

Andrew Gleeson

Concluding Remarks

Associate Professor Surendra Shrestha
Director of Academic Programs, Undergraduate Engineering,
School of Computing, Engineering and Mathematics



Dean's Medals

Hugo De Castro

Bachelor of Information and
Communications Technology

Troy Haddon

Bachelor of Information and
Communications Technology

Andrew Norrington

Bachelor of Information and
Communications Technology

Johnson Yi

Bachelor of Computer Science
(Advanced)

Nicholas Leverett

Bachelor of Computing

Andrew Gleeson

Bachelor of Computer Science
(Advanced)

Matthew Eyre

Master of Fire Safety Engineering

Clynton Halstead

Master of Fire Safety Engineering



AAS NSW Division Vibration Prize

Criteria This prize is awarded to the most outstanding student in unit Dynamics of Mechanical Systems (300480).

Donor The Australian Acoustical Society

The NSW Division of the AAS is proud to sponsor the Vibration Prize to the most outstanding student in unit 300480 Dynamics of Mechanical Systems at the University of Western Sydney. The Australian Acoustical Society aims to promote and advance the science and practice of acoustics in all its branches to the wider community and provide support to acousticians. The Society was formed in 1964 when meetings were held of people interested in acoustics and vibration. The Society was incorporated on 1 April 1971 as a public company. Divisions are active in all Australian states. Its members practise or study acoustics across a wide range of fields including: Architectural Acoustics – Environmental Noise – Marine Acoustics – Engineering Noise Control – Occupational Noise Management – Physiology of Hearing – Audiology Studies – Musical Acoustics. The Society provides a source of expertise in acoustics to the public, private corporations, small business, the legal system, standards organisations and government and encourages interaction between practitioners of the various branches of acoustics. It arranges for its members a variety of activities including divisional meetings, technical talks, on-site visits, seminars, equipment demonstrations and social functions.

Recipient **Lukas Reicken**



Ashraf Zaman Memorial Prize

Criteria This prize is awarded to the most outstanding student in the unit Fluid Mechanics (300762).

Donor The Ashraf Zaman Prize has been set up in memory of Mohammed Zaman a UWS Phd Student and tutor who suddenly passed away in January 2013.

Mohammad was an extraordinary PhD student. At just 38 he had published five journal papers during the two years of his candidature, including two papers in leading journals in water resources engineering. He also worked as a Research Assistant for Dr Ataur Rahman for 18 months before starting his PhD. He was also involved widely in teaching in the School of Engineering. On 15 April Mohammed's degree was awarded posthumously, received by his father. The ceremony was charged with emotion and provided a fitting tribute, recognising Mohammed's commitment to his academic career. His parents, sister and wife were all present at the ceremony. At the time of Mohammed's passing his wife Jenis, was eight months pregnant and a full-time carer for their two year old son. Jenis has since given birth to their second child.

Recipient Obaid Alsuwaidi

Australian Steel Institute Undergraduate Steel Design Award

Criteria This prize is awarded for excellence in the 3rd year of the Bachelor of Engineering degree, in steel structures and structural steel design.

Donor The Australian Steel Institute

The Australian Steel Institute is Australia's peak steel industry association promoting Australian steel in manufacturing and construction and representing the whole of the steel value chain.

Recipient **Bradley Dekruif**





Blue Mountains Youth Council Award for Skill Shortage

Criteria The prize is awarded to the most outstanding 2nd year student and Blue Mountains LGA resident completing studies in Engineering, Building, Surveying, Environmental Health, or Town Planning.

Donor Blue Mountains City Council

The Blue Mountains City Council is based in Katoomba, New South Wales, and serves 26 townships in a local government area of 1433 kilometres. The townships are situated from 50 to 120km west of Sydney, within 1,000 square kilometres of World Heritage listed National Park. A place of great natural beauty and rich cultural resources, the Blue Mountains attracts millions of visitors throughout the world, making it one of the top three tourist destinations in Australia. Blue Mountains City Council is committed to improving the harmony between urban development and the environment, while conserving cultural heritage and responding to the needs of tourists, residents, visitors and the business community.

Recipient **Lang Lin**

Cisco Systems Awards

Donor Cisco Systems

At Cisco, we use our core expertise in networking technology to improve both the delivery and quality of education and therefore better preparing students of all ages with the skills they need to succeed in a global, technology-driven society. We support education to encourage long-term, sustainable economic growth in a number of local communities around the world. Our focus is on creating scalable and self-sustaining initiatives that transform the way education is delivered, and providing the skills that people need for ICT roles. To accomplish this, we work with partners, including governments, universities, and nonprofit organisations, on education projects that support social and economic goals. Our contributions include products, expertise, and cash grants to improve the quality and delivery of education. Cisco's ongoing support for higher education is central to our goal of supporting growth and development for our communities today and in the new economy.





Cisco Systems Academic Achievement Award in Computer Networking

Criteria This prize is awarded to the highest performing student in the unit, Computer Networking (300565).

Recipient **Andrew Betrus**

Cisco Systems Academic Achievement Award in Networked Systems

Criteria This prize is awarded to the highest performing student in the unit, Networked Systems Design (300575).

Recipient **Younan Younan**

Cisco Systems Academic Achievement Award in Computer Networks and Internets

Criteria This prize is awarded to the highest performing student in the unit, Computer Networks and Internets (300095).

Recipient **Dani Bajramovic**
Stephen Esho

Prizes

Charles and Alison Scott Memorial Award for Contribution to the Environment

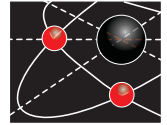
Criteria This prize is awarded for an Honours thesis which contributes significantly to the environment.

Donor Charles and Alison Scott Memorial

The prize is dedicated to the lasting memory of Charles and Alison Scott. The Charles and Alison Scott Memorial prize was funded by Kenneth Scott, the son of Charles and Alison. UWS is proud to offer this prize to a student who is actively contributing to the environment in honour of Charles and Alison Scott's dedication. Sadly, Kenneth Scott passed away in July 2010.

Recipient **Pablo Parajo**





E E S A
THE ELECTRIC ENERGY
SOCIETY OF AUSTRALIA

Electric Energy Society of Australia (NSW Chapter) Award in Energy Systems

Criteria This prize is awarded to a third year student (or part time equivalent) who has the highest mark in the unit Energy Systems (300026).

Donor The Electric Energy Society of Australia

The Electric Energy Society of Australia is a Technical Society of Engineers Australia, and is established to advance interests in electric energy. Society objectives are to provide opportunities for continuous professional development, to stimulate research and development, to influence government electric energy policy and to represent community interest on electric energy matters. The Society has some 800 members with chapters in WA, SA, NSW, QLD, VIC & Tasmania. Its annual conference provides opportunities for exchange of information and experience, and for members and others to present papers on any aspect of electricity supply or use.

Recipient Mario Moawad

Denham Constructions Awards

Donor Denham Constructions

Established in 1974, Denham Constructions is a privately owned mid-tier Construction and Development company. Denham has offices in Sydney, Newcastle and Canberra, and employs over 90 full time staff and over 200 subcontractors. With a focus on projects with a construction value of \$5M - \$50M, Denham has successfully delivered projects across all construction sectors including Residential, Commercial, Industrial, Infrastructure & Community, however Denham is particularly well known for its expertise in the Aged Care & Private Schools sectors.

Denham Constructions provides its clients and joint venture partners a myriad of project management and construction options. Clients have engaged Denham for traditional Lump Sum and Design & Construct projects to Design, Construct & Finance, Construction Management and Joint Venture arrangements, through either tendered or negotiated processes. To ensure the best possible project outcome, Denham recommends its clients and partners draw on its expertise from idea to completion to guide them on which delivery option will best suit each project. Denham is a hands-on company from cadet to CEO. In addition to the careful selection of each project team, its Construction Manager, General Manager and Chief Executive Officer are actively involved in the delivery of each and every project to ensure the best possible project outcome. It is this hands-on approach coupled with an ability to select projects around an alignment of values with its clients that has seen Denham trade successfully for in excess of 40 years.



Denham Constructions Award in Construction Management

Criteria Awarded to the student with the highest GPA in the final year of the Bachelor of Construction Management.

Recipient **Michael Johnson**

Denham Constructions Award in Construction Management

Criteria Awarded to the student with the highest GPA in the second year of the Bachelor of Construction Management.

Recipient **Kristian Plowman**

Engineers Australia Awards

Donor Engineers Australia

Engineers Australia is the national forum for the advancement of engineering and the professional development of members. With in excess of 80,000 members embracing all disciplines of the engineering team, Engineers Australia is the largest and most diverse professional body for engineers in Australia.

Engineers Australia Civil and Structural Engineering Award

Criteria This prize is awarded to the most outstanding Civil Engineering student in their final year of studies.

Recipient **Dane Griffin**

Engineers Australia Computer Engineering Award

Criteria This prize is awarded to the top graduating student in Bachelor of Engineering (Computing Engineering).

Recipient **Jason Espiritu**

Engineers Australia Electrical Engineering Award

Criteria This prize is awarded to the top graduating student in Bachelor of Engineering (Electrical Engineering).

Recipient **Kevin Carberry**



The Institution of Engineering & Technology (IET) Award

- Criteria** IET Prizes are awarded annually by the Institution of Engineering & Technology Australia to outstanding students who are pursuing or have just completed a course of study which has been accredited by the Institution or by a National Institution with which the IET has a mutual recognition agreement.
- Donor** The Institution of Engineering & Technology (IET)
- The IET is working to engineer a better world. Our heritage dates back to 1871, and today our mission is to inspire, inform and influence the global engineering community, supporting technology innovation to meet the needs of society. IET has nearly 160,000 members in 127 countries.
- Recipient** **Dane Griffin**

Ganellen Awards in Construction Management

Donor Ganellen is a successful design & construction contractor operating primarily in Sydney, Australia and Christchurch, New Zealand.

Founded in 1998, we continue to grow steadily in both size and reputation. We currently have over 120 staff completing projects up to \$120m in value. Ganellen builds for commercial, retail, residential, government, authority and education clients. These include Defence Housing Australia, Brookfield, Australand, Lend Lease, Novartis Pharmaceuticals, Woolworths, Winten Property Group and the NSW Government.

The core strength of our business is our people. Founded and led by seasoned construction professionals, Ganellen has literally been “Built on Experience”. We continue to promote our people from within the business to support our ongoing, stable growth. All of our Executive Management Team and Project Managers, with the exception of one, have graduated through Ganellen’s training programme. Not only does this provide our people with a clearly demonstrated pathway to success, it ensures that our clients benefit by having their projects managed by people who truly are “Ganellen”. Our people’s passion and commitment to Ganellen is our clients’ success. We are creating a sustainable business that will perpetuate for generations to come.



Ganellan Award in Construction Management

Criteria This prize is awarded to the most outstanding student (highest GPA) in the first year of the Bachelor of Construction Management.

Recipient Gabrielle Pomeroy

School of Computing, Engineering & Mathematics Awards

Donor School of Computing, Engineering and Mathematics

This prize is supported by the University of Western Sydney, School of Computing, Engineering and Mathematics. The School offers a wide range of Engineering and Information and Communications Technology (ICT) programs at the forefront of Australian technology education, research and development. The programs offer a balance of theory and practical field studies, flexible course structures, industry-based projects, and local and international work experience opportunities. Graduates can pursue a range of exciting engineering and ICT career paths including software development and database design, computer forensics and systems security, system analysis, design and integration, computer network design and management, e-business and internet technologies, water, roads and buildings, robotics and mechatronics, and many more.



School of Computing, Engineering & Mathematics Award for Computing

Criteria This prize is awarded to the graduating student with the highest GPA in computing.

Recipient **Andrew Gleeson**

School of Computing, Engineering & Mathematics Award for Mathematics

Criteria This prize is awarded to the graduating student with the highest GPA in Mathematics.

Recipient **Tim Hart**

School of Computing, Engineering & Mathematics Award for Industrial Design

Criteria This prize is awarded to the graduating student with the highest GPA in Industrial Design.

Recipient **Lachlan Jackman**

School of Computing, Engineering & Mathematics Award for Engineering

Criteria This prize is awarded to the graduating student with the highest GPA in Engineering.

Recipient **Dane Griffin**

School of Computing, Engineering & Mathematics Award for Construction Management

Criteria This prize is awarded to the graduating student with the highest GPA in Construction Management.

Recipient **Michael Johnson**

The Railway Technical Society of Australasia (RTSA) Award

Donor The Railway Technical Society of Australasia (RTSA)

The Railway Technical Society of Australasia (RTSA) is a joint Technical Society of Engineers Australia and IPENZ New Zealand, formed to further the interests of the railway industry at large and its individual participants. The RTSA is a non-profit organization and was established in 1997 for the purpose of promoting the co-operation of academic, industrial, commercial and governmental organizations in relation to the practice and advancement of railway technology and management in Australasia.

Railway Engineering Student Thesis Award

Criteria The Railway Engineering Student Thesis Award is offered annually by the RTSA to the author of an outstanding final year undergraduate thesis on a topic in railway engineering.

The principal criteria that are used as part of the review process are as follows;

- Details in the thesis.
- Level of Research and Referencing.
- Accuracy of Research.
- Applicability and Validity of Research.
- Level of Experimentation and/or Modeling.
- Degree of Innovation.





Citation **RTSA 2014 RAILWAY ENGINEERING STUDENT THESIS
AWARD CITATION**

Thesis: Design of Precast Composite Concrete Steel Panels for Track
Support: for use on the Sydney Harbour Bridge

Place of Study: University of Western Sydney

The thesis presents theoretically determined design solutions for precast composite concrete and steel track support panels to accommodate both derailment and standard in-service rail vehicle loads while maintaining member depth and configuration limitations on the Sydney Harbour Bridge. The theoretical panel designs were modified using finite element analysis software to confirm their stability to sustain the anticipated loads. This includes potential derailment loads. The successful results from the analysis have supported the proposed designs as a viable replacement alternative to the present timber transoms that support the rails on the Sydney Harbour Bridge.

Recipient **Dane Griffin**

Oracle Award in Achievement in Computing

Criteria This prize is awarded to the highest achieving students in the highest achieving team in the Professional Experience (300579), in recognition of professional achievement and team work.

Donor Oracle Australia

Sun Microsystems develops innovative products and services that power the network economy. Sun Microsystems, a company that innovates, leads with actions, and shares technology to drive economic and social progress worldwide, offers students the technology, tools, and opportunity to achieve success – in school, career and life. From their training and the latest advancements delivered by industry experts and the community at large, Sun provides students the tools with which they can share and develop ideas and goals, ultimately changing their world.

Recipients **Kapish Maharaj**
Sarowar Hossain
Andrew Vella
Yushaah Ali





Steel Reinforcement Institute of Australia Award in Concrete Structure

Criteria This prize is awarded to the most outstanding student in Concrete Structures (300736), third year.

Donor Steel Reinforcement Institute of Australia

The Steel Reinforcement Institute of Australia (SRIA) is the leading non-profit national organisation providing a high quality technical support and information service to the Australian building industry on the use of reinforcing steel in concrete, primarily reinforcing bar and reinforcing mesh. The organisation actively supports and encourages the use of the Australian capability and quality in the processing and use of reinforcing steel in concrete in an increasingly competitive global market. The SRIA offers practical solutions to meet the diverse and ever changing needs of the Australian building industry.

Recipient Vivit Deo

Solar Car Team defies the odds in race across the red centre

In just their first entry into the gruelling race across Australia's red centre, the University of Western Sydney Solar Car Team has defied all expectations to finish in the top half of their class, proving that dedication, brainpower and team spirit matters more than big budgets.

The World Solar Challenge, the pinnacle of solar races, is a gruelling 3,000km race from Darwin to Adelaide – testing innovation, technology and efficiency, and attracting international entrants from prestigious universities and large corporations from around the world.

As only one of two Australian university teams in the total field of 42 entrants, the UWS Solar Car Team was pitted against heavyweight veterans including Cambridge University in the UK, Michigan University in America and Tokai University in Japan.

First conceived by Jay Manley during his final year of a Bachelor of Engineering, the journey from a rough sketch to a fully functioning car powered by nothing more than the sun involved two years of countless late nights, long weekends and pizza deliveries. As the project developed, Jay was joined by 25 UWS engineering and industrial design students, alumni and volunteers who all brought their own skills to the lab at UWS Penrith campus.

“The UWS Solar Car Team has done an incredible job for first time entrants as they had to be innovative in their design and smart considering their limited resources,” says Dr Ali Hellany, Academic Supervisor of the UWS Solar Car Team.



“Compared to the multi-million dollar budgets of our international competitors the team had very limited resources, but they did well and completed much of the work themselves rather than outsourcing.”

“They have set an outstanding example for all future UWS Solar Car teams.”



Solar Car Team defies the odds in race across the red centre



With a special thanks to the car's team:

Tony Bazouni

Craig Borrows

Carl Busch

Nathaniel Daines

Norman Diaz

Daniel Eddington

Ben Grant

Gregory Hatten

Mohamed Harmouche

Wisam Harmouche

Michael Jay

Albert Mahoney

Vincent Mangion

Jay Manley

Jessica Mitchell

Rohan Munjal

Ibrahim Nahlous

Karim Nahlous

Jo Quinn

Michael Robertson

Brett Simpson

Matthew Smith

Steven So

Matthew Stansfield

Anuj Verma

David Wales

David Waterworth

Andrew Whitney

Mohammed Zoulsikar



The University of Western Sydney would like to thank those who helped the UWS Solar Car Team on their journey to the World Solar Challenge, including:



School of Computing,
Engineering & Mathematics



Giving to UWS

The University of Western Sydney changes lives and shapes the social, economic, environmental and educational development of the world in which we live.

The gift of knowledge is one of the most effective ways of empowering a student to embrace opportunity, growth and change. Your support of UWS students through prizes, scholarships and other gifts encourages our students to strive for excellence and reach their potential.

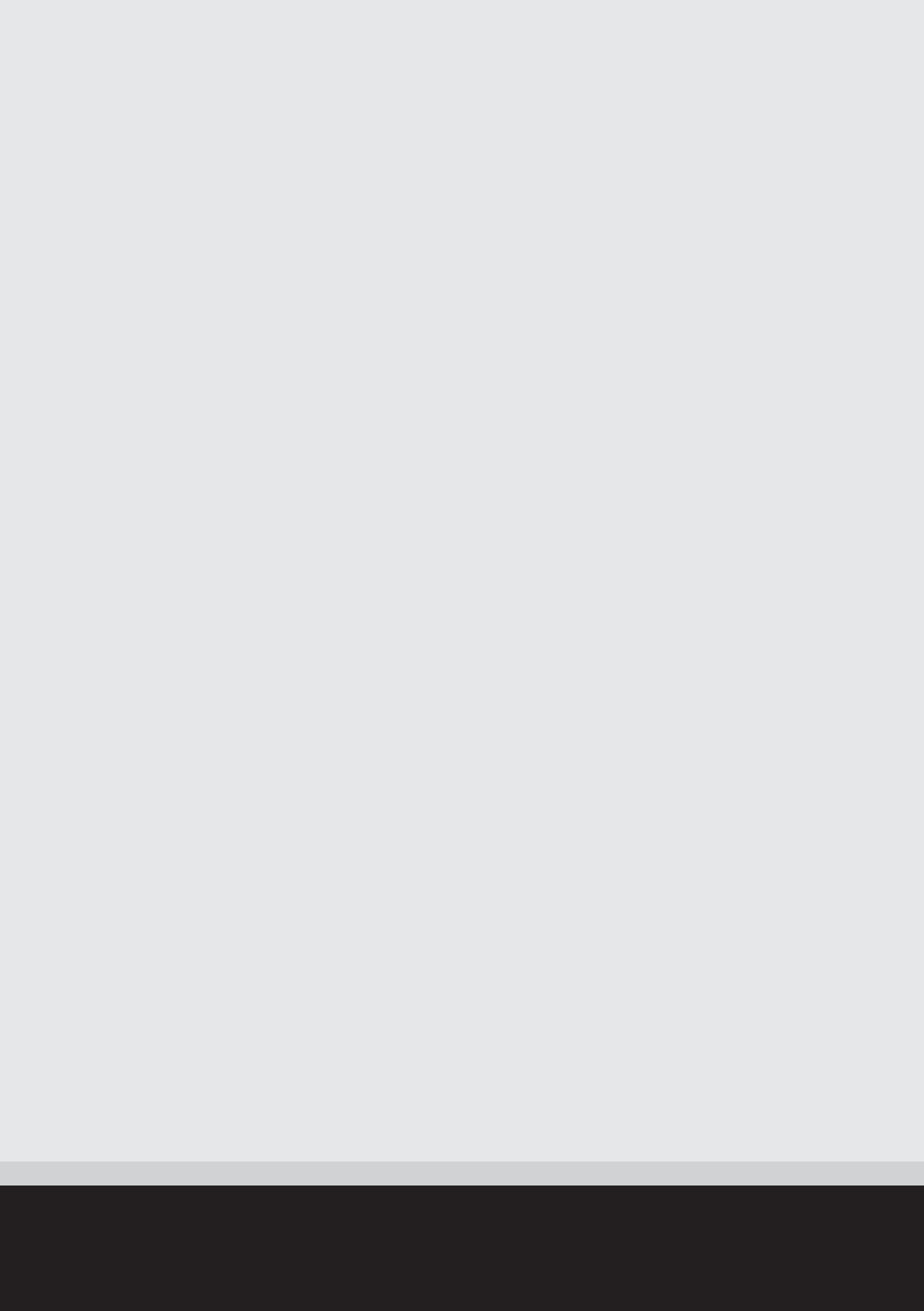
For further information on ways you can support UWS students, please contact UWS Advancement and Alumni.

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W www.uws.edu.au/give







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