A photograph of two men, one with glasses, looking intently at a laptop screen. The man on the left is wearing a purple and white striped sweater, while the man on the right is wearing a dark jacket. The background is a plain, light-colored wall.

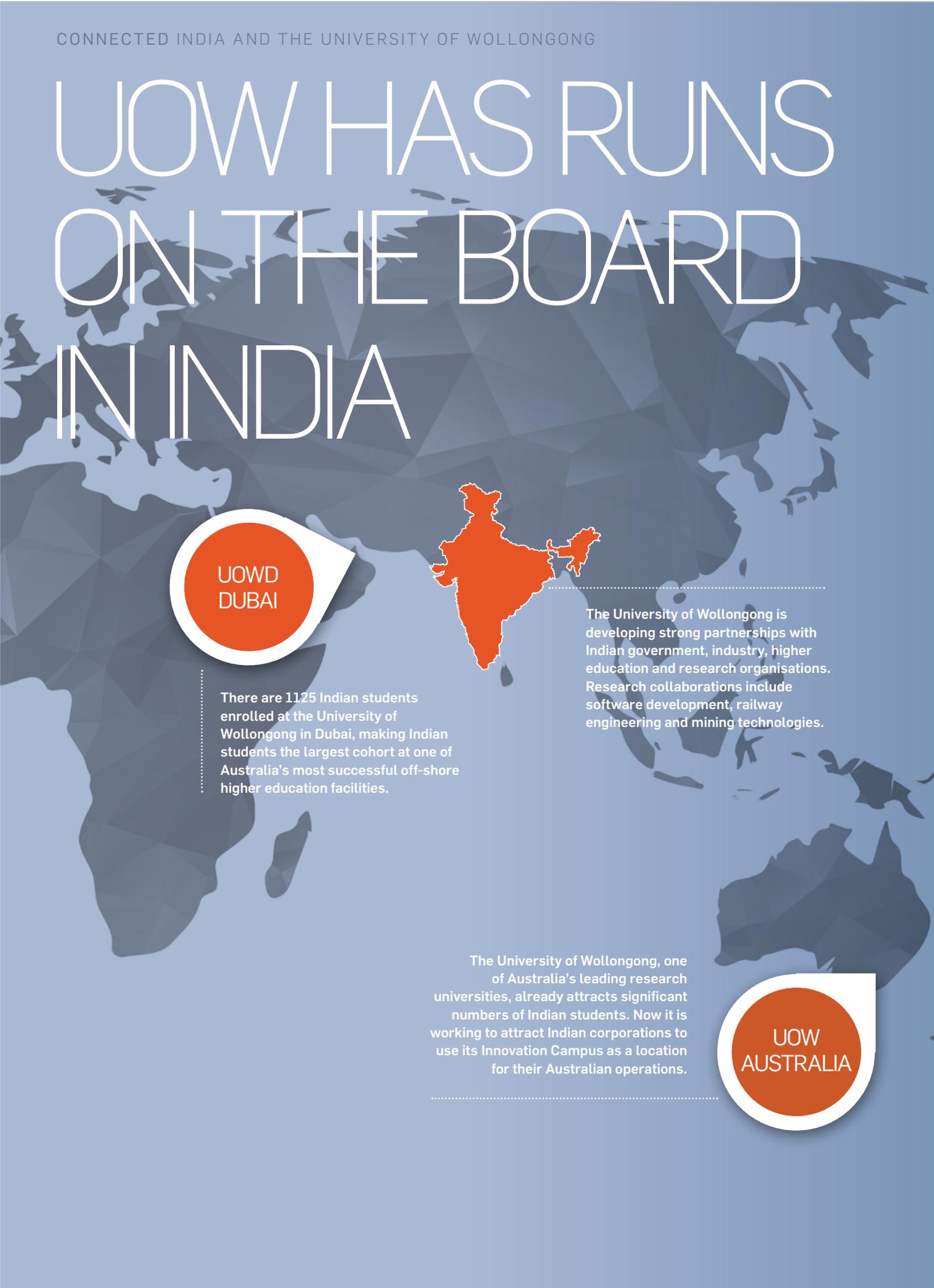
# CONNECTED INDIA AND THE UNIVERSITY OF WOLLONGONG

RESEARCH | STUDY | COLLABORATIONS | PARTNERSHIPS

**UNIVERSITY OF  
WOLLONGONG**  
AUSTRALIA



# UOW HAS RUNS ON THE BOARD IN INDIA



UOW  
DUBAI

There are 1125 Indian students enrolled at the University of Wollongong in Dubai, making Indian students the largest cohort at one of Australia's most successful off-shore higher education facilities.

The University of Wollongong is developing strong partnerships with Indian government, industry, higher education and research organisations. Research collaborations include software development, railway engineering and mining technologies.

The University of Wollongong, one of Australia's leading research universities, already attracts significant numbers of Indian students. Now it is working to attract Indian corporations to use its Innovation Campus as a location for their Australian operations.

UOW  
AUSTRALIA

## ADAM GILCHRIST AM UOW BRAND AMBASSADOR FOR INDIA

India has always been one of my favourite places to play cricket and to visit.

Australia and India have many strong ties, and I consider it a privilege to be helping one of Australia's best universities build stronger ties with India.

The University of Wollongong already has many strong connections with India, and has much more to offer Indian government agencies, corporations and students. These include:

- partnerships with UOW's outstanding research institutes
- an ideal location at UOW's Innovation Campus for establishing operations in Australia
- world-rated degree courses
- outstanding Masters and PhD research opportunities.

There is so much more that we could do together. For example, India has a global reputation for the strength of its IT sector, which is also one of the strengths of the University of Wollongong. So it is only natural that we should be highlighting the potential for IT partnerships between UOW and India corporations.

This brochure is designed to provide a snapshot of some of UOW's relationships with India, and to introduce you to some of the people and programs that are strengthening those connections.

We hope that reading this brochure encourages you to seek more information about UOW.



CHAMPION CRICKETER  
ADAM GILCHRIST HAS  
BEEN UOW'S BRAND  
AMBASSADOR TO INDIA  
SINCE 2008.

## THIS BROCHURE IS DESIGNED TO PROVIDE A SNAPSHOT OF SOME OF UOW'S RELATIONSHIPS WITH INDIA...

Adam Gilchrist AM (left) with UOW Vice-Chancellor  
Professor Paul Wellings CBE



OVER the past six years the Test and Limited Overs star, who captained Australia to a Test series win in India in 2005, has visited India on numerous occasions. Working closely with Vice-Chancellor Paul Wellings, Adam has assisted UOW delegations at meetings with Indian government and business leaders, hosted corporate functions and met prospective students and the Indian media.

Adam has played a key role in UOW's successful engagement with Indian corporations, especially those involved in India's IT sector. UOW has one of Australia's largest university-based IT research facilities and Adam has focussed on encouraging Indian IT companies to consider establishing Australian operations at UOW's Innovation Campus, a research and development precinct close to the University's main campus in Wollongong.

UOW's Director, Corporation Relations Craig Peden has also worked closely with Adam on this business-attraction strategy, which has been successful in attracting a major Indian IT business to Wollongong with at least three others under negotiation.

THE UNIVERSITY OF WOLLONGONG HAS TAKEN A LONG-TERM STRATEGIC APPROACH TO DEVELOPING PARTNERSHIPS IN INDIA, FORGING RELATIONS ACROSS GOVERNMENT, INDUSTRY, ACADEMIA AND THE NGO/NOT FOR PROFIT SECTOR.

UOW'S CONNECTIONS WITH INDIA INCLUDE:

STUDENTS

THE University of Wollongong (UOW) in Australia and the University of Wollongong in Dubai (UOWD) are both popular destinations for Indian students, particularly for post-graduate study.

In 2014 UOW in Australia had 441 Indian students at its campuses in Wollongong and Sydney, a 40% increase on the previous year. In Dubai, UOWD had 1125 Indian students making them the largest cohort in campus.

UOW and UOWD both offer an extensive range of undergraduate and postgraduate degree courses as well as PhD research programs, providing opportunities for Indian students to gain internationally-recognised qualifications.

MINING

UOW has signed a Memorandum of Understanding to help form a Centre of Mining Excellence in the northwestern Indian state of Gujarat.

UOW, which has considerable history and expertise in Mining Engineering, is the Knowledge Partner in the proposed Centre of Mining Excellence which will be established in the city of Ahmedabad by the the Gujarat State Government with support from industry partners, Gujarat Mineral Development Corporation Ltd, IIT Kharagpur and Pandit Deendayal Petroleum University (PDPU).

The Centre for Mining Excellence will establish a strong presence in the key areas of mining technology and services, with a focus on automation, health and safety, mine planning and mining efficiency. It will look to identify and develop emerging global best practices and tailor them to the Indian environment.

The centre will act as a combined technology and technical centre with a focus on research and innovation. It will also serve as an educational establishment for skill development for people working in the mining industry in India and across Asia.

INDUSTRY

UOW's key industry links in India include relationships with major players in India's IT industry, including Infosys and IBM Research which share research partnerships with the University's School

of Computer Science and Software Engineering. UOW is also a participant in Vibrant Gujarat 2015 – a Summit designed to boost Gujarat State's efforts to become a global business hub.

UOW is also negotiating with a number of Indian businesses interested in establishing Australian operations at UOW's Innovation Campus.

ACADEMIC

UOW has forged a strong suite of academic and research partnerships with Indian universities and academic institutions.

Partners include the Indian Institute of Technology Kharagpur, where we are involved in Rail and Logistics and Mining Engineering research, the Indian Institute of Technology Bombay in Mumbai (Electrical Power Systems), the University of Calcutta in Kolkata and University of Burdwan.

UOW also has a multi-layered agreement with Pandit Deendayal Petroleum University in Gandhinagar, the capital of Gujarat state, for collaborations ranging from research partnerships to student exchanges. UOW is also working with PDPU and other partners to help establish the Centre for Mining Excellence in Gujarat.

RESEARCH

THE University of Wollongong (UOW) and India's premier industrial research and development organisation, the Council of Scientific and Industrial Research (CSIR), are working together to advance research collaborations and establish a dedicated CSIR Research and Development Centre at UOW's Innovation Campus.

CSIR was established in 1942 and is India's largest research and development organisation with nearly 40 laboratories and 50 field stations throughout India. It has a collective staff of more than 17,000.

Under an arrangement announced in May, 2012, UOW and CSIR will develop research and development collaborations in areas including advanced steel metallurgy, lithium-ion batteries, super capacitors and polymer-based nano-composites. Both organisations will also work towards the establishment of a CSIR Research and Development Centre on the Innovation Campus to work closely with the University's research groups housed in the Australian Institute for Innovative Materials and to develop an academic exchange program for staff and students.

In another example of research collaboration, UOW Associate Professor Michael Adams from the Australian Centre for Cultural Environmental Research (AUSCCER) and the Indigenous Studies Unit has been working with colleagues at two NGOs (Dakshin and the Ashoka Trust for Research in Ecology and Environment), and the Indian Institute of Science in Bangalore to develop pilot projects to investigate tribal knowledge of animals and how this can connect to current wildlife conservation policy.

UOW's English Literature program has ongoing connections with Burdwan University in West Bengal, which is a hub for Australian Studies in India, and the two universities have had high-level discussions about increasing the range and longevity of collaborations.

# CONNECTIONS

## INNOVATION CAMPUS

**THE** University of Wollongong is seeking Indian corporations interested in establishing Australian operations at its Innovation Campus, a world-class research and commercial precinct.

iC is a centre of Australian innovation and research excellence, and home to a number of UOW's leading research institutes working to develop solutions to some of the great scientific, engineering and social issues of the 21st century. These range from the development of "intelligent" innovative materials with the potential to regenerate damaged human nerves to superconductors that make energy transmission more efficient, to new techniques for sustainable building design and the latest developments in digital media.

iC is also a centre for executive education, as the headquarters for UOW's Sydney Business School and the ANCORS law centre, an international research and training centre with a strong focus on maritime law.

iC provides high quality commercial office space at highly competitive rents. It has a well-established community of

innovative companies that have leased office space in the commercial buildings, attracted by the exceptional campus facilities and the opportunity to co-locate with some of UOW's leading research institutes. These international, national and regional companies recognise that iC is much more than an industrial park, as it offers significant commercial advantages in connecting with one of Australia's leading universities for both research partnerships and recruitment of well-trained graduates.

iC is strategically located just an hour south of Sydney International Airport, and close to the Wollongong CBD and the University's main campus.

It is situated in a beautiful coastal environment on a 33-hectare site, with high quality buildings and a Masterplan that provides the blueprint for well-planned expansion and the roll-out of more exceptional commercial office space over the next decade. Eventually it will be home to around 25 buildings.

[www.innovationcampus.com.au](http://www.innovationcampus.com.au)

# TOWARDS AN AUSTRALIAN SILICON VALLEY THE ACADEMIC

PROFESSOR ADITYA GHOSE



**UNIVERSITY** of Wollongong Computer Science and Software Engineering Professor Aditya Ghose believes Wollongong could become Australia's answer to Silicon Valley, and urges Indian IT companies to come on-board.

Professor Ghose, who was born in Santiniketan, grew up in Dhanbad (where his father was Professor and later Director of the Indian School of Mines) and graduated from Jadavpur University before moving to Canada for Masters and PhD studies, already works closely with some of India's largest IT companies including Infosys and IBM Research in Bangalore.

As Director of UOW's Decision Systems Laboratory, Professor Ghose oversees the University's corporate research collaborations with Infosys Labs and IBM Research and academic collaborations with the Indian Institute of Technology (IIT) Kharagpur and the University of Calcutta.

Professor Ghose is excited about the potential to expand relationships between India's massive IT industry and UOW, which has long been one of Australia's leading Computer Science and Information Communications Technology research universities.

"The whole world wants to engage with India's IT industry," he said. "So UOW has to demonstrate that we bring real scientific value (to any relationship). We occupy a unique niche and have skill sets no-one else can offer. And the reality is that when we engage (with a research partner), we really engage."

He pointed to recent projects with the Indian partners, such as improving the efficiency of service delivery systems for several large companies engaged in IT-enabled services, developing new software analytics technologies with Infosys and working with Indian partner universities developing an IT system for optimal water resource management with a particular application for floodwaters.

"The water resources management project was a great example of developing technology to help both countries, as India and Australia are both often affected by floods," he said.

Professor Ghose joined UOW in 1997, and said he was attracted to the University by its international reputation for research in Computer Engineering and Software Development. "I was impressed by the fact that UOW was one of the first places in the world to develop a successful Unix port (which allowed that computer operating system to be ported to other hardware systems)," he said. "It was

successful enough to spawn a company in Silicon Valley called the Wollongong Group, made up of people who had come through UOW.

"I wanted to be part of that kind of research environment."

He says Wollongong has the potential to follow California's experience with Silicon Valley by developing Australia's biggest IT research and development community on UOW's Innovation Campus.

"Wollongong has all the right attributes ... the geography, the proximity to a major urban centre with Sydney just an hour away, the quality of life ... but most importantly a university with a strong record in developing innovation-oriented technology and a place (the Innovation Campus) to accommodate IT companies."

"In a sense Wollongong is just waiting to be discovered, even though the University already has such a strong record in IT research."

Over the past 17 years Professor Ghose has played a key role in further developing UOW's international standing in Computer Science and Software Engineering, especially in his area of expertise, business process management, service systems and artificial intelligence. He is the President of the Service Science Society of Australia, a past Vice-President of the Computing Research and Education Association of Australia and Research Leader in the Australian Cooperative Research Centre for Smart Services.

"Our work addresses the issue of leveraging IT to improve the efficiency and effectiveness of business processes," he said, citing industry examples such as such as developing production planning and scheduling systems for Australia's mining and steel industries.

He has collaborative partnerships with universities and research institutes in North America, Europe, the United Kingdom and Japan, as well as in his homeland. In 2010 he spent his sabbatical with IBM Research in Bangalore, which deepened his engagement with the Indian IT industry.

He now supervises Indian postgraduate students who are doing their PhDs with him in Australia or off-shore in Bangalore while continuing to work for their companies.

"We already do quite a lot with India, but there is great potential to do so much more," Professor Ghose said.

**FIRST** Year Civil Engineering student Mohammed Shuja Ahmed Khan can thank cricketing legend Sir Donald Bradman for his special place amongst the University of Wollongong's 440-strong Indian student population.

Known as Shuja to his friends, the 18-year-old from Hyderabad is UOW's inaugural Bradman Scholarship holder. UOW inaugurated the scholarship in 2012 to honour Sir Donald, widely regarded as the greatest-ever cricketer.

The scholarship will be awarded each year to an Indian student – male or female - who has completed secondary school and demonstrates a combination of academic, sporting, personal and social skills, as well as strong participation in cricket.

UOW combined with the Bradman Foundation, a charitable trust established in 1987 with the blessing of Sir Donald Bradman to promote cricket as a cultural and sporting force, to establish the scholarship.

Shuja was awarded the inaugural Bradman Scholarship after an India-wide search in 2013, and began his four-year Bachelor of Civil Engineering course early in 2014.

Shuja is an outstanding scholar as well as an accomplished cricketer who worked hard to promote participation in the game among children in his home city. He was a member of Chandrayangutta Sports Development Association from 2006 and served in many leadership roles for his cricket team.

Shuja participated in cricket coaching camps conducted by the Greater Hyderabad Municipal Corporation and due to his skills and dedication in cricket he was selected for the Inter-

zone championship Mayor Trophy and All Greater Hyderabad Municipal Corporation tournaments in 2011-2013. Shuja also volunteered with his team at the local cricket clubs to encourage younger children to join sports and coached them in cricket.

Having arrived in Australia at the end of the cricket season, Shuja hasn't played any serious cricket yet but will join the University Cricket Club for the 2014-2015 season.

In the meantime he is thriving with his studies and adapting well to life in Australia.

"I settled very quickly into life in Wollongong," he said. "The University had very good programs for enrolment and orientation for new students. Each

Faculty hosted programs over two or three days to make the international students feel comfortable, and to show us how to study in Australia, which is a different process from in India.

"And the Indian community in Wollongong and at the University helped me settle in and found me accommodation in a house with other Indian students.

"My housemates have also taken me to see the sights, like the Sydney Opera House and Harbour Bridge, and we celebrated India's National Day with the local Indian community."

Shuja said he felt very privileged to be studying at UOW, and to be the University's first Bradman Scholarship holder.

"UOW has a very highly ranked Civil Engineering degree, and I am very impressed with the University's infrastructure and the style of teaching," he said.

"It is also helpful being in a smaller centre (Wollongong's population is around 300,000). The city has a good atmosphere, excellent beaches and a good climate. It even has some good Indian restaurants!"



MOHAMMED SHUJA  
AHMED KHAN

# BRADMAN SCHOLARSHIP OPENS DOOR THE STUDENT





#### **TOP 2% OF WORLD UNIVERSITIES**

- 276th in the world - QS World University Rankings 2013/2014
- 298th in the world - Times Higher Education World University Rankings 2013/2014
- 329th in the world - Academic Ranking of World Universities (ARWU) 2014



#### **ONE OF AUSTRALIA'S BEST MODERN UNIVERSITIES**

- 22nd in the world - QS Top 50 Under 50 Rankings 2014
- 33rd in the world - Times Higher Education Top 100 Under 50 Rankings 2014



#### **Globally Rated A Five-Star University**

- QS World University Rankings 2012/2013
- Australian Good Universities Guide 2014

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WOLLONGONG**  
AUSTRALIA

