The University of Wollongong (UOW) is a multi-campus international university, with its courses and research capacity geared towards excellence at a global level. Its partnerships in India stretch across higher education, government, industry and research organisations. Research collaborations include software development, railway engineering and mining technologies

UOW is one of Australia’s leading teaching and research universities, attracting significant numbers of Indian students to both its Wollongong campus and the University of Wollongong in Dubai (UOWD).

Indian students form the second-largest international cohort at UOW. In 2018, there were over 2,300 Indian student enrolments onshore and offshore, including at UOWD, as well as in programs at Singapore, Malaysia and Hong Kong.

Indian students make up 16 per cent of the University’s total international students, with 28 per cent studying Engineering and Information Sciences.

UOW is rated as one of the top 20 best modern universities globally and is among the world’s top 1 per cent for graduates as rated by global employers. UOW encourages international research collaboration, is responsive to local industry and government needs, and actively supports staff and student exchange to develop a truly global perspective.

The University brings to India outstanding research in innovative materials and mining and energy, environmental sustainability, human resources, management, logistics, statistics, surveying, infrastructure management, modelling and research, business entrepreneurship and the practice of corporate social responsibility.

UOW is also one of five select Australian universities to have instituted an Indian Council for Cultural Relations Chair (ICCR) of Indian Studies. The Chair conducts lectures, seminars, and workshops related to different aspects of India such as economy, politics, art, and culture.

Indian corporations are also realising the advantages of setting up Australian operations at the University’s Innovation Campus, a 33-hectare research and development beachside precinct close to the University’s Wollongong campus. The Innovation Campus is home to the iAccelerate Centre, which fosters technology entrepreneurship, start-up development, and commercialisation of new technologies. It is one of the most successful business incubators and accelerators in Australia.

UOW is well positioned to support India to achieve its skills ambitions. Indian Prime Minister Narendra Modi has set the target of skilling and upskilling 400 million people by 2022.

Rail industry research

The Institute of Metro and Rail Technology (IHMRT) Hyderabad, India, approached UOW in 2016 regarding possible collaboration in rail industry training and sponsored research. This is aligned with the work being carried out at the Centre for Geomechanics and Railway Engineering (GRE), established at UOW more than a decade ago.

The GRE team is helping to solve problems in transport infrastructure, with work having already revolutionised the field in terms of design innovations and extended longevity, enabling faster trains carrying heavier loads. GRE researchers conduct large-scale experimental work that practically captures what happens in the field, combining with expertise in predictive computer simulations. The GRE has four current MOUs with Indian Institutes of Technologies (IIT).

The Australian Research Council (ARC) Industrial Transformation Training Centre for Advanced Technologies in Rail Track Infrastructure (ITTC Rail) was opened at UOW in 2018 and aims to create innovative engineering solutions while training a skilled young professional workforce to meet the future technological requirements of the industry across the world. Headquartered at UOW, ITTC Rail brings together rail track infrastructure expertise from all sectors of the rail industry, with eight universities and 11 national and international industry partners taking part.

Mining into the future

UOW is world-renowned for its experience in mining, which has grown from its links to the Illawarra’s strong economic foundations in the sector.

UOW offers a full suite of engineering, ICT, Environmental Science and Occupational Health, Management and Business courses both for award, non-award and professional development related to mining.
Its School of Civil, Mining and Environmental Engineering (CME) has a world-class reputation for excellence in research, innovative approaches to teaching and learning, and laboratories and workshop facilities that are among the best in Australia.

UOW has worked with the Government of Gujarat as an international knowledge partner in the development of the International Centre of Excellence in Mining Automation and Safety (iCEM) in Gujarat and is actively participating with national institutional partners Pandit Deendayal Petroleum University and the prestigious IIT Kharagpur. iCEM provides professional development and training for the mining sector, including Masters programs and PhD research, as well as industry-related R&D, workshops and conferences.

UOW has appointed a senior faculty member to coordinate the project, and has created two PhD scholarships.

**Information technology**

India has a global reputation for the strength of its Information Technology sector. India's IT industry is able to tap into the large pool of career-ready ICT graduates from UOW.

Each year, more than 1,000 students complete ICT degrees at UOW, which include Computer Science, Information Technology and Business Information Systems.

Wollongong – a beachside location one hour from Sydney - is home to a significant number of technology-based companies, many of which were established by University of Wollongong graduates.

Wollongong has attracted a number of multinational and national companies, all eager to tap into the large pool of job-ready ICT graduates from the University of Wollongong. The University also has links with major players in India's IT industry, including Infosys, Mindtree and Tata Consulting.

UOW also has an existing agreement with WIPRO Infotech for academic research and partnership in IT services. WIPRO specialises in cognitive computing, hyper-automation, robotics, cloud, analytics and emerging technologies.

**Research and industry links**

UOW's research collaborations are extensive in India and include multi-functional materials research, coastal reservoir research, molecular and life sciences, software development, railway engineering and mining technologies.

In addition to iCEM, UOW's link with IIT Kharagpur also includes joint PhD programs across engineering, technology and health. There are developing research collaborations in mining, high speed rail and humanities. UOW also has research and teaching links in humanities with other universities in West Bengal, including the University of Burdwan, which has ongoing connections with UOW's English Literature program and is a hub for Australian Studies in India. Also in addition to iCEM, UOW's partnership with Pandit Deendayal Petroleum University includes student mobility, exchange and tailored study tours.

UOW's partnership with Indian Institute of Technology (IIT) Bombay focuses on engineering power systems and other allied areas such as battery management and integration of renewables into a SMART grid.

UOW's Institute for Superconducting and Electronic Materials in Wollongong is investigating superconductors for low-cost fusion power for a sustainable future, working directly with India's Institute for Plasma Research. UOW has also been involved with IIT Chennai in robotic welding research.

UOW is in partnership with IIT Kharagpur to deliver joint PhD programs across multiple disciplines including mining and related engineering, rail transport and social sciences.

UOW also has significant collaborations with IIT Dhanbad (Indian School of Mines), Manipal University (engineering, medical and health training and research, and student exchange and articulation), and IIT Gandhinagar (research and student exchanges). Partnerships with IIT Delhi, IIT Hyderabad and IIT (BHU) Varanasi comprise research collaborations and staff/student exchange, financial mathematics, mining engineering and related disciplines. Other academic research collaborations centred on mining are with Banaras Hindu University and IIT Indian School of Mines, Dhanbad.

The Indian Institute of Science Bangalore and UOW have jointly established an International Association for Coastal Reservoir Research (IACRR), which has already earned a world-class reputation.

IACRR is dedicated to advancing all aspects of coastal reservoirs and promoting the sustainable development and management of surface water otherwise lost to the sea.

IACRR was founded in January 2017 and is an international non-profit organisation set up to promote and develop coastal reservoirs. IACRR welcomes members from various sectors such as engineers, scientists, researchers, industry players, suppliers, contractors, developers, water agencies, operators and decision makers.

**Professional development and cultural relations**

Academics at UOW are leaders in their field, providing governments and international corporations with customised staff education programs.

Customised masterclasses include: Energy and environment; Leadership and business management; Public administration; Asset management; Manufacturing and infrastructure; Teacher training for higher education; Health and safety; and Public policy.

Cultural relations have also been strengthened with the signing of an MoU between UOW and the Indian Council for Cultural Relations (ICCR) for an ICCR Chair of Indian Studies. The MoU will facilitate for the Chair to conduct lectures, seminars and workshops on various subjects such as economics, policy, art and culture. These will be delivered at the Sydney Business School.

**Community engagement**

The Bradman Foundation Scholarship is named in honour of the world's greatest ever cricketer, Sir Donald Bradman. It is awarded annually by Australian cricketing legend Adam Gilchrist AM to an Indian student who has completed secondary school and demonstrates strong academic, sporting, personal and social skills as well as strong participation in cricket. The scholarship combines quality education and the love of cricket across Australia and India.

Gilchrist has been the University’s Global Brand Ambassador since 2008, and was previously Australia’s Education Ambassador to India. In this role, he meets prospective students and Indian media to help promote the opportunities available in Australia.

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The University of Wollongong attempts to ensure the information contained in this publication is correct at the time of production (December 2018); however, sections may be amended without notice by the University in response to changing circumstances or for any other reason. Check with the University for any updated information. UNIVERSITY OF WOLLONGONG CRICOS 00102E