



Capability Statement

UOW in India

The University of Wollongong (UOW) has partnerships in India which stretch across higher education, government, industry and research organisations.

Research collaborations include software development, railway engineering and mining technologies.

UOW has increasingly deepened our connection with Central Asian countries, particularly India, Sri Lanka and Nepal via research agreements, transformative projects, education exchanges and academic partnerships.

As one of Australia's leading teaching and research universities, we attract significant numbers of Indian students to both our Wollongong Campus and the University of Wollongong in Dubai (UOWD).

Indian students form the largest international cohort at UOW. In 2019, there were over 3,500 Indian student enrolments onshore and offshore, including at UOWD, as well as in programs at Singapore, Malaysia and Hong Kong.

Indian students make up 26 per cent of the University's total international students, with 75 per cent studying Business or Engineering and Information Science degrees.

UOW is globally ranked among the top 200 universities 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 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.

SUPPORT TO STUDENTS DURING PANDEMIC

Students at UOW have been greatly impacted by the COVID-19 pandemic. In addition to adjusting to online learning, many are also dealing with the financial struggle following job losses. For our international students, the added stress of being away from friends and family has also presented an emotional challenge.

UOW is committed to doing all we can to help our students through these challenging times. On 8 April 2020, we introduced the Financial Assistance Grants Scheme. The scheme provides currently enrolled onshore domestic and international students most in need with the opportunity to access emergency funding (that does not have to be paid back) to ease some of the financial burden experienced as a result of COVID-19.

Grants are available for impacted onshore domestic and international students enrolled at any one of UOW's Australian-based campuses, including UOW College Australia. We have had more than 4,020 students apply since the scheme was started. As at 1 July 2020, 1,103 Indian students have been granted eligibility for the scheme.

In Session 2, UOW extended a remote study bursary to all domestic and international full fee-paying students who are not enrolled in Commonwealth Supported Places.



EXPANDING BIOMEDICAL TIES

In 2019, UOW expanded our biomedical ties with India, signing a strategic collaboration with Andhra Pradesh Medtech Zone (AMTZ), bringing our expertise in 3D bioprinting to India's first integrated medical devices manufacturing zone.

AMTZ was created to provide a one-stop solution covering common scientific, manufacturing and commercial facilities for medical device manufacturers and innovators. Several research and training initiatives primarily focused on 3D biofabrication will be established under the MoU.

One of the key collaborative research initiatives being pursued by AMTZ and UOW is a project to develop a scan-and-printing package to produce 3D-printed ears. The project will be coupled with innovative programs to support widespread deployment of the technology in both India and Australia.

The 3D-printed ears are one of the latest advances at the Australian Institute for Innovative Materials at UOW. Work here includes customised 3D bioprinters such as the 3D Genii, which prints prosthetic ears.

The 3D Genii can print implantable, flexible, customised prosthetic ears that match the colour and anatomy of the patient. The patient's ear is scanned using smart phone software, and the file is uploaded for printing. The customised printer is capable of high precision 3D printing of silicon rubber into complex shapes, such as those found in an ear.

RAIL INDUSTRY RESEARCH

The Institute of Metro and Rail Technology (IH MRT) 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 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.

In September 2019, UOW signed an MoU to establish a mutually beneficial collaboration with the Dedicated Freight Corridor Corporation of India Limited (DFCCIL), paving the way for a wide range of research, teaching and consultation activities. The partnership recognises the key role UOW experts will play in supporting India's rail freight expansion.

MINING INTO THE FUTURE

UOW is world-renowned for our experience in mining, which has grown from our 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. Our 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. Many of these graduates complete a major in cyber security, taught by UOW experts and world-class researchers.

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

Wollongong has attracted a number of multinational and national companies, and the University 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 links 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.

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 (ISEM) 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 has been in partnership with world-renowned IIT Madras since 2011, collaborating with UOW's School of Computer, Telecommunication and Electrical Engineering.

UOW also has significant collaborations with IIT Dhanbad (Indian School of Mines), Manipal Academy of Higher Education (engineering, medical and health training and research, and student exchange and articulation), Delhi University (student exchange) and IIT Ghandinagar (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.

UOW has also cemented our partnership with one of India's aspiring universities of the future, O.P. Jindal Global University (JGU), signing a student exchange agreement in 2019.

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 workshops on various topics of interest to be delivered at UOW's Sydney Business School.

GLOBAL LEARNING OPPORTUNITIES

In 2019, UOW offered new global learning opportunities to seven high-achieving graduate students from the Institute of Finance and International Management (IFIM) Business School in Bangalore, presenting seven scholarships to enable recipients to travel to Australia and study postgraduate business subjects for two trimesters at UOW's Sydney or Wollongong campuses.

The scholarship presentations came as UOW forged even stronger ties with the IFIM Business School, which is ranked among India's top institutions.

UOW's business school is recognised among leading business schools in the world, having achieved AACSB International accreditation, awarded only to the top 5 per cent of business schools globally.

UOW is well positioned to support India to achieve its skills ambitions.

UOW WELCOMES THE OPPORTUNITY TO WORK WITH GOVERNMENT AND INDUSTRY PARTNERS TO DELIVER EXCEPTIONAL OUTCOMES

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