
THE UNIVERSITY OF
SYDNEY
Faculty of
Engineering
and Information
Technologies
Partner with us
Together we can redefine
what's possible

"At Rio Tinto, we're extremely proud of the 10-year relationship we've shared with the University of Sydney. It's a true partnership coming up with ideas, figuring out how it could work and then delivering it on the ground."

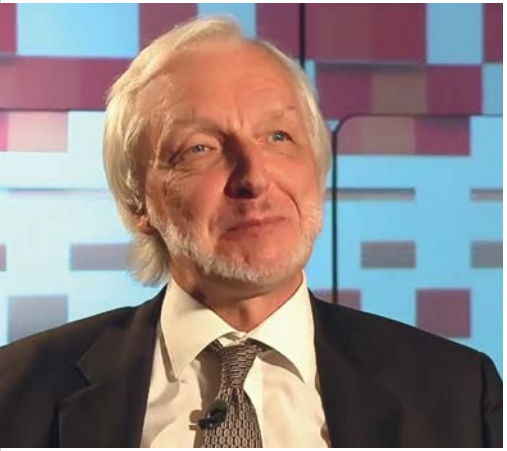
Rob Atkinson
Head of Productivity and Technical Support, Rio Tinto

Key facts

- Ranked in the world's top 40 universities for engineering and information technology
  QS World University Rankings by Subject, 2018
- Highest rating of 5 ("Well above world standard") for Computational Theory and Mathematics, Distributed Computing, Civil Engineering, Materials Engineering, and Nanotechnology
  Excellence in Research for Australia ratings, 2015
- Rating of 4 ("Above world standard") for Artificial Intelligence and Information Processing, Information Systems, Aerospace Engineering, Electrical and Electronic Engineering, Mechanical Engineering, and Communications Technologies
  Excellence in Research for Australia ratings, 2015
- 20 research centres and institutes, as well as four multidisciplinary initiatives
- Our researchers include:
  1 NHMRC Research Fellow
  2 ARC Laureate Fellows
  3 ARC Future Fellows
  6 ARC DECRA Research Fellows
- Ranked first in Australia, fourth in the world for graduate employability
  QS Graduate Employability Rankings, 2017
- Double the national average of female engineering, computing and project management undergraduate students
  Australian Government Department of Education and Training Selected Higher Education Statistics, 2016

Driving tangible impact through engineering and technology innovation

We are actively seeking new opportunities for collaboration with industry and government organisations. We offer a comprehensive engagement service which starts by listening to your needs and gaining a real understanding of the current and future challenges.



Our multidisciplinary research focuses on the areas of biomedical engineering and technologies; data science and computer engineering; food products, process and supply chain; robotics and intelligent systems; and telecommunications and the Internet of Things.

We also research the themes of complex systems; energy, resources and the environment; and infrastructure and transport.

Uniting with partners of all sizes, from startups to large multinationals, we deliver many benefits from access to our world-class facilities and research expertise, to professional consulting services and graduate recruitment.

There are many ways in which your organisation can partner with us – we look forward to exploring these diverse opportunities with you.

Professor Willy Zwaenepoel
Dean, Faculty of Engineering and Information Technologies

Research collaboration

Our research is redefining what's possible to make people's lives better. We are world leaders in robotics and intelligent systems, and breaking new ground in the realm of artificial intelligence.

We harness data to transform critical infrastructure into smart systems and revolutionise healthcare. Our food processing advances are reimagining waste.

Our expertise also encompasses the areas of infrastructure and transport, complex systems, and energy, resources and the environment.

Let's work together

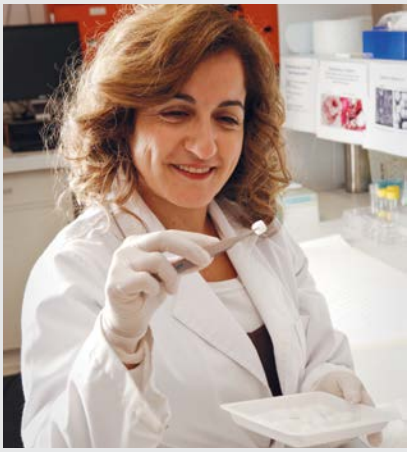
Gain access to our expertise and world-class facilities in a collaborative research project to meet your business needs.

Forge a long-term strategic research alliance, leveraging the diverse wealth of knowledge from our high concentration of researchers, to find solutions to your business challenges.

Access potential additional government funding enabling you to undertake a more ambitious research program by leveraging your funds.

Work directly with our talented research students, developing an important pipeline of highly qualified potential employees.

Donate and help us to continue research and education that reimagines the future of engineering and computing, and makes a lasting impact on lives here and around the world.



"Through my research we have developed new materials with properties similar to natural bone that the body won't reject in transplant. The materials can be 3D printed, and have the potential to improve quality of life for countless people."

Professor Hala Zreiqat
Head of Biomaterials and Tissue Engineering Research Unit, NHMRC Senior Research Fellow and 2018 NSW Premier's Woman of the Year

Our multidisciplinary strengths

Robotics and intelligent systems
Our interdisciplinary research focuses on the development and application of autonomous and intelligent robots and systems, and the design of new technologies to benefit industries that use and interact with them.

The Centre for Robotics and Intelligent Systems (CRIS), incorporating the Australian Centre for Field Robotics (ACFR), is one of the largest multidisciplinary robotics institutes in the world.

Biomedical engineering and technologies
The Institute of Biomedical Engineering and Technology is at the heart of our biomedical engineering program, the largest of its kind in the southern hemisphere.

We work with clinical and industry partners to conduct transformational interdisciplinary research in broad fields including biomaterials, stem cells, biosensors, surgical devices, signal and image processing, biomedical instrumentation and bionics.

Telecommunications and the Internet of Things (IoT)
Our IoT research focuses on next-generation wireless communications and networking, microwave photonics and advanced optical techniques for information systems.

Our industry-supported Centre for IoT and Telecommunications (CIoTT) is pioneering advanced research in the fields of 5G mobile, signal processing, advanced coding and quantum imaging.

Food products, process and supply chain
We're redesigning food production for smarter and healthier living by reshaping the way food is farmed and produced, optimising its nutritional value and strengthening Australia's agricultural sector.

Our Centre for Excellence in Advanced Food Enginomics (CAFE) comprises a cross-disciplinary cluster of industry-focused research specialists in engineering, agriculture, business, chemistry, molecular biology and medicine.

Data science and computer engineering
We're making technology smarter by designing, engineering and evaluating new technologies, and conducting fundamental interdisciplinary research that provides an explanation for both their technical application and social impact.

In partnership with a world-leading robotics company, our UBTECH Sydney Artificial Intelligence Centre brings together a multidisciplinary team of dedicated researchers dedicated to exploring new horizons in artificial intelligence.

Photo: ABC Catalyst

Together we can redefine what's possible

International alliances

We are committed to improving our world through teaching, research and industry collaboration.

That is why we are deepening and broadening our partnerships with key engineering and technology educational institutions worldwide and with leading international companies.

Our industry partnerships span the globe, with particular strengths in our own region.

Our alliances include:

- Airbus
- BAE Systems
- Dow Chemical Company
- Evonik
- Facebook
- Jaguar
- Kobe Steel
- Microsoft
- Nippon Sheet Glass
- Northrop Grumman
- Rio Tinto
- Thales Group
- UBTECH
- ZTE Corporation.

There are several ways we can work with you to deliver your research and innovation solutions. These include direct industry-funded research, collaborative government-funded projects and helping you access our equipment and students.

The Commonwealth and NSW Governments support industry and university collaboration through a range of initiatives including ARC Linkage Projects, tax incentives and matched funding. Schemes are open to international industry participants.

We welcome the opportunity to start discussions with your company to identify the best scheme to deliver your outcomes.

"By using UBTECH's state-of-the-art technology and outstanding creativity, we will be able to thoroughly develop, analyse and evaluate AI algorithms and theories for humanoid robots, which will bridge the gap between AI studies in universities and real-world AI utilisation."

Professor Dacheng Tao
Director of UBTECH Sydney Artificial Intelligence Centre, ARC Laureate Fellow

Consultancy and analytical services

Access extensive analytical laboratory facilities with advanced equipment, in-depth knowledge and insight from experts with proven experience in a wide range of work.

Whether you require technical solutions to a problem, standard or specialised testing, or independent consultancy or investigation, our researchers are well placed to answer your project needs.

Our areas of specialist services include:

- chemical engineering analytical services
- fluids and the environmental consultancy
- geotechnical testing and consultancy
- sustainable energy development consultancy
- structural engineering testing and consultancy
- telecommunications consultancy.

"Arup's collaboration with the University's Centre of Advanced Structural Engineering (CASE) on post-tensioned composite floors led to useful insights into the serviceability and ultimate strength behaviours of this popular form of construction. Arup would be pleased to collaborate again with the CASE research team on suitable future projects."

Peter Macdonald
Principal, Arup

Student engagement and education

We're creating tomorrow's highly sought-after engineers, project managers and information technology professionals by shaping them into industry leaders: fostering their passion and motivation and giving them hands-on experience as well as technical skills.

We're also preparing them to be excellent communicators, able to work effectively within teams and with clients.

As our industry or government partner, you are an essential part of their educational experience. In return, your organisation benefits through access to our brightest students, who bring new ideas and approaches to your business's specific needs.

There are numerous ways to engage with our students and we can be flexible to suit your business needs.

Leadership Scholarship

This scholarship is regarded as one of Australia's most valuable programs both to the recipient and industry partner. It is designed to develop future engineering and computing leaders who can work in complex environments and problem-solve effectively from a holistic perspective.

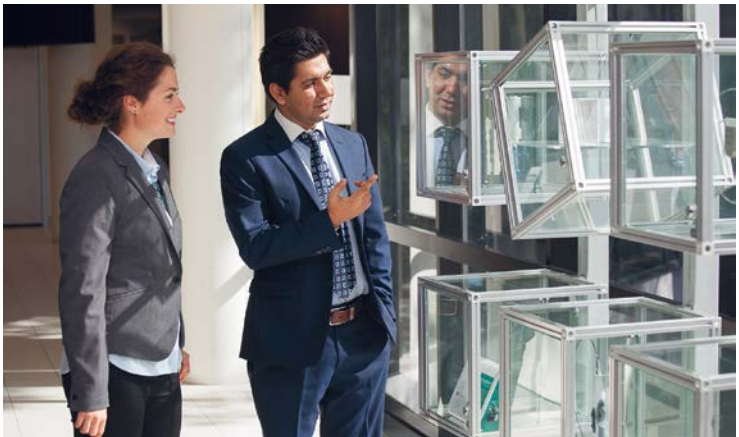
Our students undertake two placements with your organisation during their studies, in addition to attending weekly sessions on campus covering various leadership topics on self-management, effective communication, motivation, conflict management, and systems thinking.

Professional Engagement Program

Access a pool of talented engineering students through our innovative sector-leading program and gain an additional resource for key projects.

Jacaranda Flame Consulting

Let our students become your organisation's external consulting team, working to solve your business challenges. This student-led simulated engineering consultancy is located near our Darlington Campus and accessible anytime you require its services.



Community engagement

We share your commitment to provide working environments that value diversity and inclusion, and support all employees to reach their full potential.

By partnering with us, we can assist you with your inclusion strategies and initiatives, helping you to reach your engagement and outreach goals.

Indigenous Community Engagement

We are dedicated to developing key skills and opportunities for Aboriginal and Torres Strait Islander students in engineering, computing and project management.

With your support, we can provide academic and financial assistance to foster the skills and talents of these future professionals.

There are many ways you can engage with us, including:

- educational programs
- industry site visits
- internships
- mentorship
- scholarships.

Women in Engineering and Technology

More women than ever are choosing to study engineering and computing at the University of Sydney, currently representing one in three students – double the national average.

We recognise the need to provide further opportunities for women throughout their engineering and computing careers. You can help by partnering with us through:

- research collaborations with our female academics
- educational programs
- industry site visits
- internships
- mentorship
- scholarships.

"Our two Leadership Scholars have proved to be valuable members of the Abergeldie team, not only working and learning on site but fully embracing our company spirit. Both will continue working with us during their final year, with the view to moving to full-time roles after graduation."

Robin Craig
Corporate Social Responsibility Manager,
Abergeldie Complex Infrastructure

Key events

Engage with us and discover the many face-to-face networking opportunities our industry partners enjoy.

Our flagship events enable you and your staff to meet and network with our talented researchers, high-achieving students and business colleagues.

Engineering Sydney Annual Careers Fair

This unique forum gives our valued industry partners the opportunity to engage with our high-quality students on graduate employment, vacation placements and scholarship opportunities.

Innovation Week

Join us as we celebrate how our academic cohort are changing the world through their groundbreaking discoveries and transformative inventions.

Research Conversazione

Hear how our researchers and students are using their skills to impact lives in Australia and globally. Engage with our experts, forge linkages for future collaborations and network with your peers.

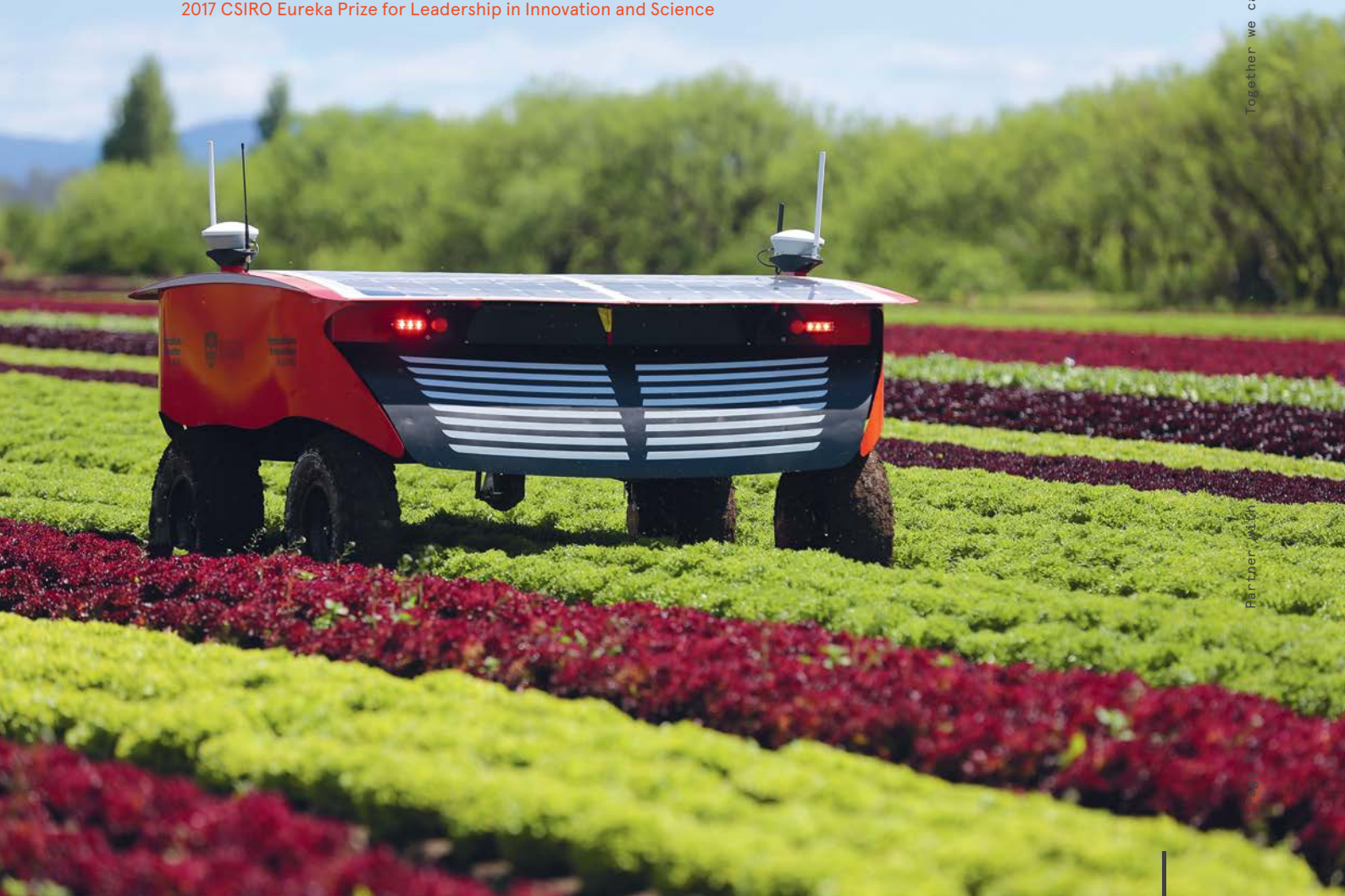
Dean's Lecture Series

Hear from key national and international guest speakers in the fields of engineering and computing.

"We pride ourselves on the vast depth of fundamental knowledge in the areas of engineering sciences and technologies available to our industry partners.

"This expertise underpins our excellence in applied and translational research, and complements our enquiry-driven, solution-orientated approach to projects and collaborations."

Professor Salah Sukkarieh
Associate Dean (Industry and Innovation),
2017 CSIRO Eureka Prize for Leadership in Innovation and Science



Ignite

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