FUTURE SERVICES, INDUSTRIES & PRODUCTIVITY

UTS researchers in areas such as robotics, IT and nano-materials are designing and supporting the next generation of Australian industry and services.

Services make up a critical component of the Australian economy, representing about 70 per cent of Australia’s gross domestic product. Technology allows a revolutionary approach both to the delivery of services and in traditional industries such as manufacturing. Our researchers are working on technologies to reshape the way we power our buildings and vehicles and helping to deliver affordable and efficient lighting to communities in developing countries without access to the electricity grid. They’re also developing innovative solutions to help organisations unlock the productivity of their workforce and improve the efficiency of their processes so they can focus on their core business.

Our researchers work in partnership with innovators across business and government, who are shaping the Australia of tomorrow, including major industry bodies and research institutions like the CSIRO.

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WHY UTS?

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WORLD-LEADING RESEARCH

The Australian Research Council’s 2012 Excellence in Research for Australia (ERA) ranked 100 per cent of all assessed UTS research as world standard or above world standard. UTS is ranked in the top 50 research universities in the Academic Ranking of World Universities. UTS was ranked 15th in Australia and 272 in the QS World University 2013-2014 index. UTS ranks first in Australia and 20th in the world for universities under 50 years old, according to the 2014 edition of the QS Top 50 Under 50 index of younger universities – those less than 50 years old. The rankings are based on a range of research, teaching, employability and internationalisation metrics.

UTS was ranked in the top 250 universities in the Times Higher Education World University Rankings 2013-2014 published by Thomson Reuters, and ranked 53rd in Australia. For universities under 50 years old, UTS was ranked 1st globally.

RESEARCH WITH IMPACT

As a major part of any city’s infrastructure, steel bridges need regular maintenance to remain functional. This task costs Australia over $200 million each year, plus the human cost of exposure to dangerous environments and kites. The NSW Roads and Maritime Services contacted robotics experts in the Centre for Autonomous Systems to find a way to minimise workers’ exposure to these hazards. The world-first robot they developed scans its environment in real-time and uses this information to plan and carry out grit-blasting, all without human intervention. Two such robots now work on Sydney Harbour Bridge. This technology has been commercialised by SABRE Autonomous Solutions where it’s applications continue to expand.

Exposure to natural light has long been proven to have a positive impact on workplace productivity. A sunlight-based indoor lighting system was developed by the Materials and Technology for Energy Efficiency research group which allows sunlight to be ‘harnessed’ efficiently and economically inside buildings virtually without heat or ultraviolet radiation. Aside from the psychological and aesthetic benefits of natural light, the system offers reduced installation and maintenance costs compared to existing solar or conventional lighting. This technology has been commercialised by Fluorosolar Systems Limited.

One of Australia’s most pressing issues for the future is management and support of an ageing population. With limited healthcare professionals and growing numbers of elderly people, it is increasingly important to allocate these resources efficiently without placing those in need at risk. Enabling people to stay in their homes as they age has been shown to have positive effects on the individual as well as reducing the economic burden on health and housing costs. Researchers in the Innovation in IT Services and Applications Centre developed techniques for the active, non-intrusive monitoring of elderly people, connecting them to medical care providers in ways that reduce unnecessary calls on expensive medical services.

Researchers at the Centre for Autonomous Systems designed a new dual, sluch system for the Boeing Electric Vehicle Company which will shortly go into production for the company’s next generation of electrically powered sedans. The system works in tandem with energy management software and provides the performance of a traditional combustion engine driven car with the energy efficiency of an electric vehicle.
A research partnership allows you and your organisation to access the skills and knowledge of UTS’s talented people and our leading facilities. We have opportunities for organisations of all sizes to engage with our research solutions.

There is no one-size-fits-all model to suit whatever organisational outcome you are seeking, regardless of the type of problem you’re trying to address.

**CONTRACT RESEARCH**

If you have a particular problem in mind and a sense of the research area that is relevant to your needs, UTS can work with you to develop a research contract to solve the problem.

**COLLABORATIVE RESEARCH**

We are open to exploring research collaboration that is tailored to your team's expertise and innovation. There is a collaborative research model to suit whatever organisational outcome you are seeking, regardless of the type of problem you’re looking to address.

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**INDUSTRY SPONSORED PHD SCHOLARSHIPS**

Enhance the professional capacity of your staff or bring in a UTS PhD student to undertake directed research for your business. An industry funded PhD can provide unique benefits and low cost research solutions and position you as a global leader in your field.

**AUSTRALIAN COMPETITIVE GRANTS**

You may choose to leverage your research investment by aligning with a UTS application under the Australian Competitive Grants Register. Relevant funding schemes include ARC Linkage Grants and NHMRC Development Grants.

**COMMERCIALISATION OPPORTUNITIES**

UTS has many inventions and technologies that are under commercial development. You can support their further development or license the technology for commercial use.

**GOVERNMENT SUPPORTED RESEARCH**

Our industry partners have achieved exciting successes working with UTS through government schemes such as Tech Vouchers and Researchers in Business. As a UTS industry partner, you may also access a host of other government support packages.

**FIND A COLLABORATOR**

UTS researchers are actively seeking new opportunities for collaboration with other researchers, domestically and internationally, and increasing our research collaboration is key to achieving our research strategy. We are also committed to fostering a strong researcher education, including training and maintaining a diverse and experienced research community.

Contact our team to get some ideas about the sort of research expertise that will best fit your needs.

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**RESEARCH**

**PRODUCTIVITY**

**future services, industries and productivity**

**STARTING A RESEARCH COLLABORATION WITH UTS**

Health Futures

UTS researchers are improving the quality and safety of health care with specific strengths in developing biotechnology and medical devices, evaluating health systems and services to improve practice and generating meaningful economic analyses to take health into the future.

Sustainability and the Built Environment

Across areas from climate, water, energy, health to the built environment, UTS researchers are working to provide holistic research approaches to environmental issues and policies.

Creative Industries and Civil Societies

UTS researchers from the arts and social sciences, design and the sciences give a unique perspective on solutions, innovation, knowledge and learning and cultural change. This ranges from the impact of technology upon society and the characteristics that affect social cohesion and cultural change to the opportunities for creativity and creative industries.

Business Innovation

Our experts are world-leading in fundamental discipline areas such as finance, economics, accounting, marketing and management with innovative cross-disciplinary approaches to the role of business and public policy in addressing key economic, social and environmental problems.

Communication and Intelligent Systems

This theme addresses issues that are fundamental to society, namely how we communicate and share information. Researchers examine new ways to draw insight from oceans of data, understanding and leveraging the communication potential of new media and technologies, design new-time intelligent systems and investigate how regulation can promote the free and ethical flow of information.