



the university  
for the real world

# ROBOTICS & ARTIFICIAL INTELLIGENCE

FUTURE FOCUSED POSTGRADUATE PROGRAMS

Revolutionise the future with expertise in Robotics and AI

QUT is delivering future-focused postgraduate courses in Robotics and Artificial Intelligence (AI), equipping engineers with advanced knowledge and skills to lead and contribute to complex Robotics and AI projects.

The robotics and AI revolution is transforming every industry sector. Now more than ever, engineers need advanced skills in the application of robotics and AI technology to drive technological advancements and competitiveness in both the Australian and global markets.

DEVELOP DYNAMIC NEW SKILLS, KNOWLEDGE AND EXPERTISE AT QUT!

## ✔ Understanding of robot components

Including sensors, actuators, dynamics, kinematics, and control of mobile and manipulator arm robots.

## ✔ Build robotics systems

Capable of building robotics systems and applying knowledge in entrepreneurship for devising innovative robotic solutions.

## ✔ Robotic system design

Knowledgeable in estimation, model uncertainty, decision making and practical control aspects for robotic system design.

## ✔ Robotic vision

Advanced knowledge in computer vision concepts and deep learning models for robotic vision applications.

## ✔ Machine learning

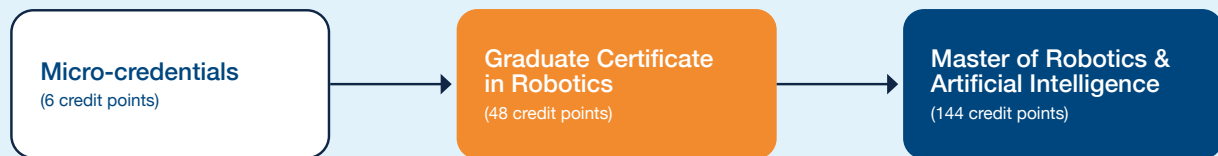
Advanced proficiency in probabilistic machine learning, Bayesian deep learning, generative machine learning and deep reinforcement learning.





## STACK YOUR QUALIFICATIONS

Stacking qualifications allows you to develop new skills and capabilities at a pace that suits you.



### Complete 8 eligible Micro-credentials to obtain your Graduate Certificate.

Micro-credentials are designed for busy professionals who need to upskill in a particular area. Each micro-credential carries credit points from QUT, which can culminate in a Graduate Certificate, and can even contribute to a specialised masters' degree later.



### DID YOU KNOW?

AI has the potential to deliver 134 Sustainable Development Goal (SDG) targets, across all 17 SDGs.

Source: Guenat, S., et al, (2022).

## CAPABILITIES THAT MAKE A DIFFERENCE

QUT's postgraduate courses in engineering equip students with the following capabilities

- » Conduct research to identify cutting-edge developments in robotics and machine learning
- » Apply project development and management techniques at a mastered level.
- » Undertake critical analysis and evaluation of engineering activities
- » Collaborate and communicate effectively with multi-disciplinary teams to deliver outcomes
- » Enhanced knowledge, skills and confidence in professional presentations and demonstrations
- » Engage in reflective practice to enhance project deliverables
- » Consider the ethical, environmental, social and economic outcomes for engineering activities

## LEVERAGE YOUR LEARNING

Completion of our postgraduate courses will equip you with key competencies that may be used towards an application for an Engineers Australia Chartered credential.

The Engineers Australia Chartered credential is recognised nationally and internationally as a measure of excellence and presents prospective clients with immediate confidence in your abilities.

## WHY CHOOSE QUT

- » QUT is the number 1 research institution in robotics in Australia (The Australian's Research magazine, 2023)
- » Engage with internationally renowned robotics and AI educators such as Distinguished Professor Peter Corke, Professor Michael Milford and Professor Jonathan Roberts
- » Commonwealth Supported Places (CSPs) are available for domestic students who enrol in 2024. This means you may not have to pay anything upfront if you're eligible for a HELP loan
- » Access real-world content that has been developed with industry, for industry.

## NEXT STEPS

Explore the courses on offer by visiting our website, or contact us directly to discuss your training needs

[bit.ly/MasterRoboticsAi](https://bit.ly/MasterRoboticsAi)

3138 2612

[postgraduate.engineering@qut.edu.au](mailto:postgraduate.engineering@qut.edu.au)

[linkedin.com/showcase/qut-foe/](https://linkedin.com/showcase/qut-foe/)