Sustainable Infrastructure

Innovative postgraduate programs



Create a sustainable future for your career and your community

QUT is introducing innovative postgraduate programs in Smart Transport and Mobility, and Water Engineering designed to tackle complex global challenges.

As the 2030 Agenda for Sustainable Development gathers momentum, it becomes imperative to empower our existing and emerging engineering workforce with the expertise needed to conceive and engineer environmentally sound solutions for the future.

Beyond enhancing your employability, the knowledge acquired through these courses will prepare you to significantly contribute towards the following Sustainable Development Goals:

- **Ensuring clean water and sanitation**
- **Advancing industry, innovation and infrastructure**
- **Promoting good health and wellbeing**
- **Fostering sustainable cities and communities**
- **Supporting climate action**

Develop game-changing new skills, knowledge and expertise

Transport and mobility skills

Australian systems
Develop skills in Australian transit applications, infrastructure planning, capacity analysis, quality of service analysis, advanced control, intelligent transport systems and project evaluation.

Micro and macro modelling
Understand the suitability of micro and macro modelling and simulation techniques for tasks and assess their strengths and weaknesses.

Artificial Intelligence
Develop skills in AI fundamentals and advanced transport data analytics for predictive modelling within industry practice.

Econometric modelling tools
Utilise econometric modelling tools to analyse consumer choice behaviours and apply these in transport planning and travel behaviour analysis.

Safe infrastructure design
Apply appropriate modelling tools and techniques for safe infrastructure design and evidence-based effective road safety interventions.

Water engineering skills

Integrated water solutions
Create integrated water solutions that span over water supply, wastewater and stormwater components of urban water systems.

Flood modelling
Address complex problems related to modelling of rainfall/runoff in both non-urbanised and urbanised catchments, focusing on flood modelling.

Water treatment solutions
Design water treatment solutions accounting for energy and economic considerations, whilst minimising the use of chemicals.

Data collection and management
Apply techniques for advanced flood and water quality data analytics that can be applied to develop predictive models for water systems in line with contemporary engineering practice.

Social and economic impacts
Understand the social and economic aspects of urban water management to contribute to planning guidelines, policies and regulations.

Stack your qualifications

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

Microcredentials

Graduate Certificate in Water Modelling
(48 credit points)

Graduate Certificate in Smart Transport and Mobility
(48 credit points)

Master of Engineering Technology
(96 credit points)

Master of Sustainable Infrastructure
(144 credit points)

Master of Sustainable Infrastructure with Data Analytics
(192 credit points)

Master of Sustainable Infrastructure with Project Management
(192 credit points)





Capabilities that make a difference

The QUT postgraduate engineering courses equip students with the following capabilities:

- Learn how to apply innovative designs to address complex sustainable infrastructure problems
- Undertake critical analysis and evaluation of engineering activities
- Utilise data analytics and optimisation techniques to boost the efficiency and economy of systems and processes
- Communicate specialist discipline knowledge and concepts in written, modelled and graphical forms to technical and non-technical audiences
- Engage in reflective practice to enhance project deliverables
- Demonstrate culturally responsible professional engineering practice
- 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 offers Queensland's only Master of Sustainable Infrastructure.
- Learn from academics with significant expertise in water modelling practice and who are recognised as some of the top stormwater researchers in the world.
- Connect with experts from the QUT Future Mobility Centre to learn how to create safe, sustainable and inclusive future mobility for all.
- Commonwealth Supported Places (CSPs) are available for domestic students. This means you may not have to pay anything upfront if you're eligible for a HELP loan.

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

bit.ly/PostGradEngineering
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linkedin.com/showcase/qut-foe/

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