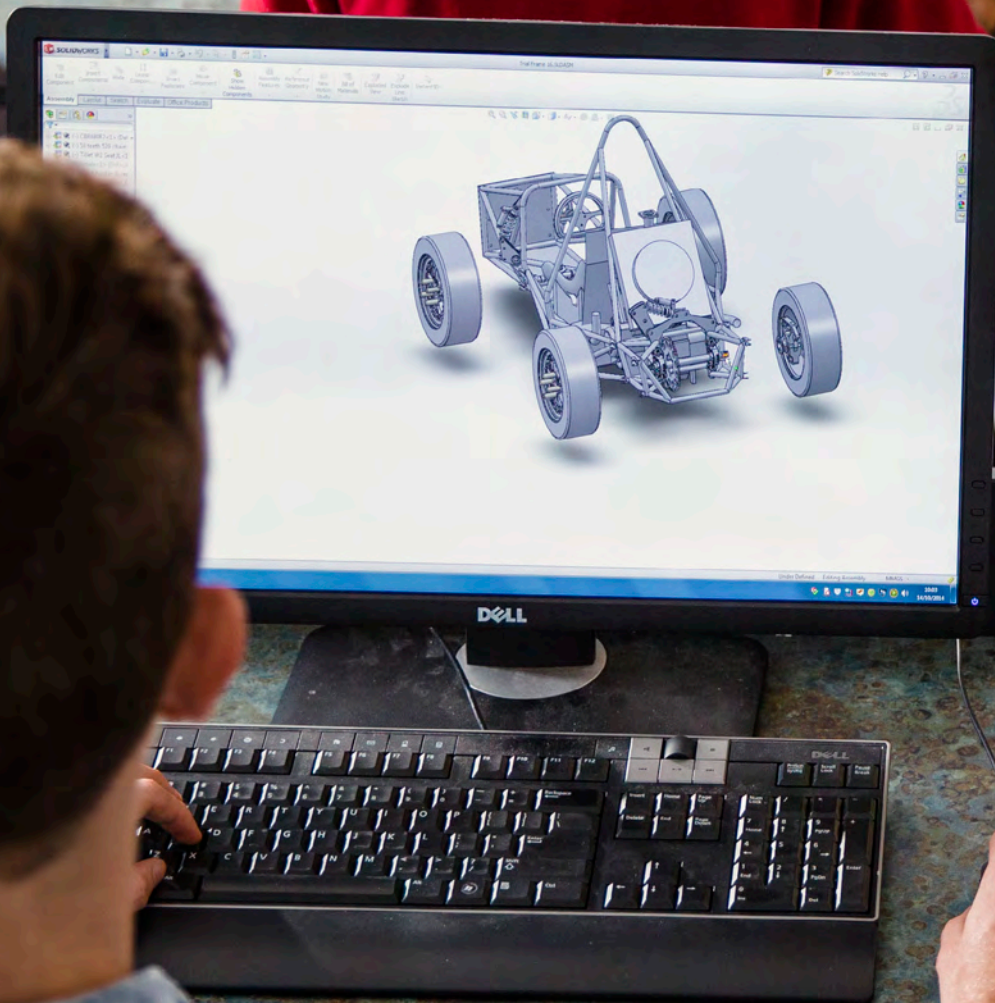


# Bachelor of Engineering (Honours) and Bachelor of Information Technology



JAMES COOK  
UNIVERSITY  
AUSTRALIA



*Ready today for tomorrow*

[jcu.edu.au](http://jcu.edu.au)



# Why JCU?

## **A STUDENT EXPERIENCE LIKE NO OTHER**

- Access to world-class teachers
- Develop skills in state-of-the-art facilities
- Achieve exceptional employment outcomes
  - Benefit from small class sizes
  - Connect with professional networks
- Support through scholarships for merit and equity
  - Discover great accommodation options

## **OUTSTANDING GRADUATE OUTCOMES**

JCU Engineering is independently ranked #1 in Queensland for full-time employment outcomes\*.

## **EXCEPTIONAL STUDENT SUPPORT**

Small classes enable access to world-class lecturers and researchers committed to student success. JCU is ranked 5 stars for learner engagement, skills development and teaching quality and #1 in Queensland for student support\*.

## **WORK ANYWHERE IN THE WORLD**

Leverage JCU's outstanding industry connections with global brands such as Huawei. Make a difference locally or globally with an internationally recognised qualification.

## **SUPPORT FOR YOUR SUCCESS**

Explore JCU's range of scholarships, grants and bursaries and discover the right financial assistance to achieve your goals

\*Good Universities Guide 2022





# Bachelor of Engineering (Honours) and Bachelor of Information Technology

- ✓ Become a world-class engineer and information technology professional. Experience the benefits of a dual degree and graduate with a broad skillset that is highly sought-after in the local and global economy.
- ✓ Gain hands-on experience through IT internships with local businesses and organisations. Participate in 12 weeks of industry-based engineering practical placement.
- ✓ In your Engineering (Honours) course, prepare yourself for the challenges of today and tomorrow through industry-based teaching. Build a thorough understanding of engineering fundamentals in your first year with theoretical and practical learning.

## COURSE DETAILS:

Locations:	Cairns, Townsville
Start Dates:	February, July
Duration:	5 years full-time, part-time available
ATAR:	78.1
Prerequisites:	English, Mathematical Methods

Please visit the [handbook](#) for a detailed outline of the course structure. Note: Information is for domestic students only.

# Majors

As well as studying Information Technology subjects you can choose from five different Engineering majors.

## ENGINEERING MAJORS

The following are the Engineering specialties you could choose. Not all majors are available at all campuses.

### Chemical Engineering

Create, manipulate and design products using raw materials, and chemistry and physics principles. Become an expert in the intricacies of reactor design and modelling, and learn how to comprehend the concepts of instrumental analysis. Build an in-depth understanding of advanced chemical technologies such as minerals processing, extractive metallurgy and bioprocessing.

### Civil Engineering

Benefit from JCU's expert lecturers and explore various civil engineering disciplines such as structural, hydraulic, geotechnical, transport and environmental engineering. You will have the skills to work in design, construction and maintenance of infrastructure such as buildings, bridges, roads, railways, airports, ports, water supply systems, dams, mines and waste disposal systems.

### Electrical and Electronic Engineering

Learn how to design and maintain electrical energy infrastructure through the application of the electrical principles. You will integrate theory with practice and visit telecommunications companies, power utilities and mines. Build a comprehensive knowledge of electrical materials, circuit theory, single phase and three phase power system modelling and signal processing.

### Electronic Systems and Internet of Things (IoT) Engineering

Develop sensor technologies, analyse big data and design smart technology that relates to various industries. Work with cloud computing and wireless communication utilising a state-of-the-art Internet of Things research lab. Become innovative technology leaders, accessing world-class lecturers and their strong industry partnerships.

### Mechanical Engineering

Understand the principles of mechanics and thermodynamics to analyse, design, manufacture and maintain machines across almost all industries. Learn skills that will see you working in design, manufacturing and maintenance of machines – from bicycles to robots to supersonic jets to renewable energy systems.





*“JCU Engineering and I.T. are super approachable when it comes to pursuing interesting real-world projects, such as the car park monitoring solution that I was able to develop at several JCU car parks alongside colleagues. It really was one of, if not the best part of studying at JCU. I was able to accomplish one of my career aspirations while studying - developing systems that make a change to the real world.”*

**Alan Liang**

BACHELOR OF ENGINEERING (HONOURS)  
AND BACHELOR OF IT



*”The Bachelor of Engineering (Honours) prepares students for their field specific engineering duties, while adding the Bachelor of Information Technology sharpens skills and gives extra ability to speak the language of technology. Information technology skills are becoming more and more critical for engineers and are mainstream requirements for many engineering jobs. Double degree graduates are more competitive because they bring more skills to the job.”*

**Dr Mostafa Rahimi Azghadi**

SENIOR LECTURER, ELECTRICAL AND ELECTRONIC  
ENGINEERING



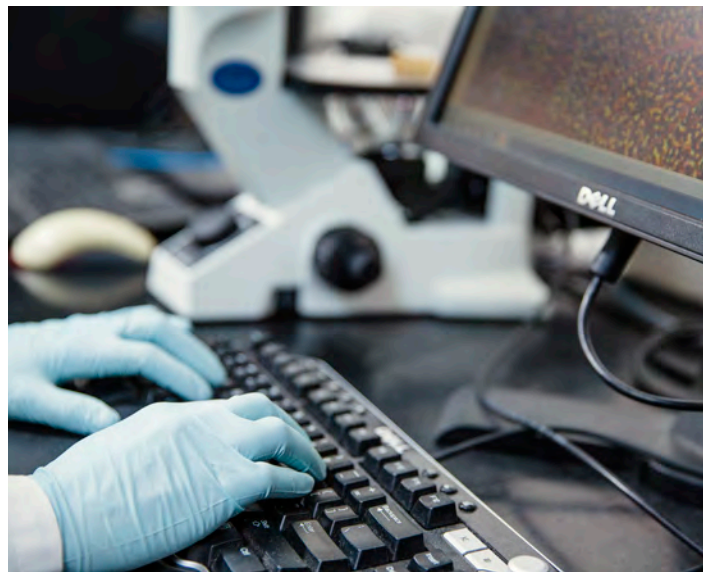
## Career Opportunities

Combining Engineering and IT qualifications will give you a powerful degree for careers that require innovative and creative IT solutions.

Depending on your Engineering and IT specialisations, you will have rewarding career opportunities with cutting-edge industries including:

- electronics and communications technologies
- computer system engineering
- electricity supply industries.

You could find employment as an aerospace avionics engineer, chemical engineer, civil engineer, electrical engineer, mechanical engineer, software engineer, IT specialist, or transport engineering specialist.







# JCU Accommodation

Study and live in some of the most interesting places in the world. Cairns and Townsville are on the doorstep of the Great Barrier Reef, magnificent rainforests, the savannah region and Outback Australia.

Living on-campus is a great way to make the most of your time at JCU. JCU Townsville, Bebegu Yumba campus, Douglas, has five different accommodation options housing over 1,200 students. JCU Cairns, Nguma-bada campus, Smithfield, features an accommodation complex for 300 students. Living on-campus is a great place to make new friends and immerse yourself in the JCU culture. All rooms at our on-campus residences are single board, with a single bed, study desk, chair, fan, air-conditioning and Wi-Fi. Each residence is different in regards to style of living, culture and atmosphere. There are options for fully catered or self-catered housing. Find out more at [jcu.edu.au/accommodation](https://jcu.edu.au/accommodation)



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