



# 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**

Graduate with confidence. JCU Engineering is independently ranked five stars 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 five stars for median graduate salary\*.

# **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.

\*2024 Good Universities Guide, UG Education and Training



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

- Decome 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 industrybased 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: Cairns: February

Townsville: February, July

**Duration:** 5 years full-time,

part-time available

ATAR: 70

**Recommended:** English (Units 3/4,C), Mathematical

Methods (Units 3/4, C)

Please visit the <u>handbook</u> 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.





"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."

Associate Professor Mostafa Rahimi Azghadi SENIOR LECTURER, ELECTRICAL AND ELECTRONIC **ENGINEERING** 



# Career **Opportunities**

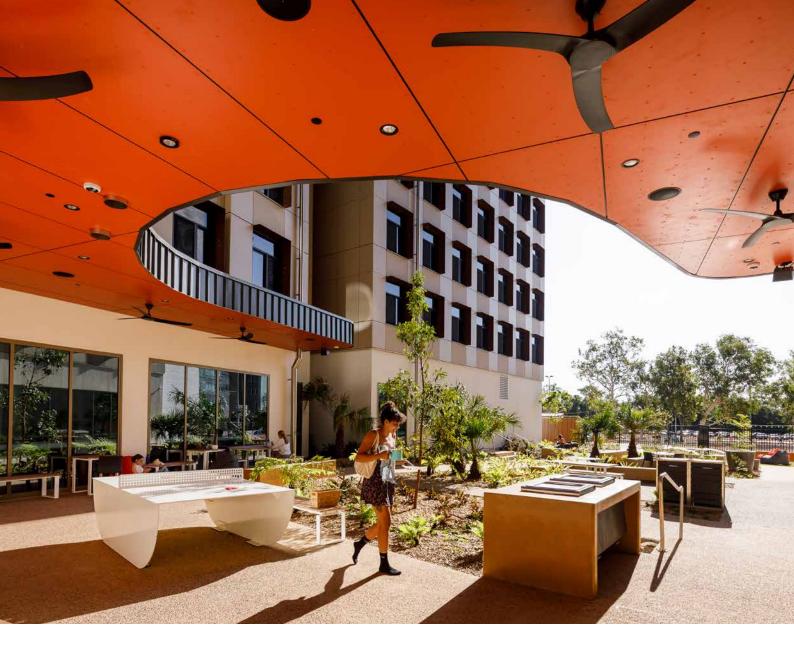
Combining Engineering and IT qualifications will give you a powerful degree for careers that require innovative and creative IT solutions.

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 1,300 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, airconditioning and Wi-Fi. Each residence is different in regards to style of living, culture and atmosphere. There are options for fully catered or selfcatered housing. Find out more at jcu.edu.au/accommodation



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