Waipapa
Taumata Rau
University
of Auckland



Electrical and Electronic Engineering

LEARN MORE

Electrical and Electronic Engineering involves the design of equipment and systems that provide essential services such as power, communications, and electronics.

Offered by our Department of Electrical, Computer, and Software Engineering, this specialisation may suit you if you enjoy mathematics, electronics, physics, and resource management.

Te Herenga Auaha, Faculty of Engineering and Design

POWER ELECTRONICS

If you are interested in developing electronic devices for a wide range of applications in power systems and automation, you may opt to focus on power electronics. You will tackle the challenges of wireless power transfer in applications like automotive material handling, charging electric vehicles, and in medicine, such as a heart pump design.

ROBOTICS AND SIGNAL PROCESSING

Get involved with the in-depth details of robotics — you will be exposed to their design, construction, operation, development, and applications in various engineering fields, including medicine, factory automation and driverless vehicle production. You'll also learn about sophisticated signal processing algorithms in computer platforms to develop your understanding of complex robotic systems, such as speech, vision and navigation.

COMMUNICATION AND INFORMATION SYSTEMS

The communications between both people and automated devices are a vital part of our daily lives. You'll be introduced to, and perform experimental investigations on the theory and practice of electrical communication systems, including mathematical modelling, simulation and their design.

POWER SYSTEMS AND CONTROL

We literally depend on electricity and electronic circuitry to power our daily lives — from factories, machines, offices and homes to computers and handheld gadgets. Here, you will learn how to generate, transmit and efficiently use electrical power.