what

… IS ROBOTICS AND AUTOMATION?

Robots aren't going to replace human ingenuity anytime soon. The reality is there are incredible advantages to this industry of machines and software that emulate human behaviour. By applying control systems and information technologies to the production of goods and services, we can streamline processes that are complicated, tedious, and error prone.

… ARE THE POTENTIAL CAREER PATHS?

Take your creativity from the realm of science fiction into the real-world application of robotic technology. Design mechanical systems and processing software that reduce the need for human intervention and lead us into the future of surgical robots, space vehicles and hostile environment exploration. Autonomous systems can lower the cost of production by making procedures faster and more accurate, while reducing the human risk. Industry needs your problem solving to lead the future of goods production and the creation of bespoke robotic solutions in New Zealand.

Programme pathways:

- *PGCertRobotEng* 60 pts

- *PGDipRobotEng* 120 pts

- *MRobotEng* 120 pts

- *MRobotEng* 180 pts

… WILL I LEARN WITH THIS PROGRAMME?

At the University of Auckland, we focus on how to make robots smarter. How do robots understand the world? How can we help them plan and execute their actions? How should we program robots to interact with people? We build systems used commercially, for instance in kiwifruit and apple harvesting. Our programme will put you directly in touch with the national artificial intelligence community, where we work together on cutting-edge systems like video input and speech generation systems designed for Māori and other indigenous languages.

who

… SHOULD TAKE THE COURSE?

If you have some background in programming and are interested in pushing the boundaries of what is possible with technology, then this is the course of study for you.

… IS LEADING THE PROGRAMME?

Dr Craig Sutherland is a lecturer who worked in software development before returning to academia to focus on the interactions between robots and people. He explores how robots can help children and hospital staff, uses robots to teach children at schools and public libraries, is interested in how robots can improve day-to-day living for the elderly, and building program robots without programming experience. Craig is also a member of CARES, a multi-disciplinary group exploring how robots can improve society.

why

Reskilling needs

WORLD ECONOMIC FORUM

50%

of all employees will need reskilling by 2025.

Source: Future of Jobs Report 2020, World Economic Forum.

A 2021 report by the World Economic Forum shows the rise of automation and digitisation has transformed the world of work – increasing productivity but also creating a major societal problem: the stark mismatch of people with the right skills for available jobs. The COVID-19 pandemic has accelerated and exacerbated these trends. As a result, the need to upskill and reskill people so they can participate in the economy is more critical than ever before.*

… STUDY AT THE UNIVERSITY OF AUCKLAND?

You can count on our reputation as New Zealand's top university and engineering faculty to help you turn your passion into the career of your dreams. Despite being small, New Zealand hosts experts in niche areas such as agritech and marine robots. The University of Auckland is well connected to a variety of disciplines and you can apply yourself to projects in other departments, such as medical and educational robots as well as pure technology-based projects.

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