

THE UNIVERSITY OF  
**AUCKLAND**  
Te Whare Wānanga o Tāmaki Makaurau  
NEW ZEALAND

**ENGINEERING**

# *Postgraduate Q & A*

## Sustainable Resource Recovery



# what

## ... IS SUSTAINABLE RESOURCE RECOVERY?

It's exactly what it sounds like: minimising waste, recycling and extracting valuable materials from waste. Our programme is all about the practical use of innovation in a way that reduces the environmental impact of waste and shapes the future of sustainability. As an Aotearoa New Zealand university, we take our responsibility to the land seriously by recognising the Māori tradition of *kaitiakitanga*, the exercise of guardianship. That means our graduates will work with Māori businesses and communities who join us in creating a holistic learning experience unique to our position in the world.

## ... ARE THE POTENTIAL CAREER PATHS?

Join a growing field where your skills have an impact on the quality of life for your community. The waste industry is urgently looking for skilled professionals to maintain waste reduction and recycling technology and resource recovery. Graduates who specialise in sustainable resource recovery will develop rigorous problem-solving skills and technical expertise that will open the doors to a number of employment opportunities. This expertise in our workforce can only strengthen New Zealand's sustainability as a whole, across the industry, government and non-government organisations.

# what

## Programme pathways:

fulltime and part-time study available

- ***PGCertEng Sustainable Resource Recovery*** 60 pts
- ***PGDipEng Sustainable Resource Recovery*** 120 pts
- ***MEngSt Sustainable Resource Recovery*** 120 pts
- ***MEngSt Sustainable Resource Recovery*** 180 pts

## ... PREREQUISITES OR QUALIFICATIONS DO I NEED TO TAKE THIS COURSE?

The MEngSt specialisation will allow students with academic engineering backgrounds, as well as some highly capable students from Science and BTech programmes, to expand their existing theoretical and practical skills.

The MEngSt is open to Bachelor of Engineering (Hons) and Bachelor graduates in a relevant subject who meet the entry GPA standards.

# what

## **... CAN I STUDY WITHIN THE DEGREE?**

Create new biomaterials, discover protein recovery or battle the growing heap of batteries and e-waste. This programme will teach you to critically evaluate the latest research and development in waste reduction and resource recovery. It focuses on advanced processes for resource recovery and recycling, and biotechnical techniques for nutrient and energy recovery. Then test your knowledge with your own project under the guidance of research companies and industry professionals.



# who

## ... SHOULD TAKE THE COURSE?

We've been waiting for you. Set yourself up for a solid scientific career by turning today's waste into tomorrow's every-day materials. The University of Auckland is working with students and professionals to understand the big picture of waste minimisation and resource recovery technology. From there, our graduates will work with industry on real-world problems, such as landfills and enviro-waste, helping to launch innovations that herald a new generation sustainable practice.

## ... IS LEADING THE PROGRAMME?

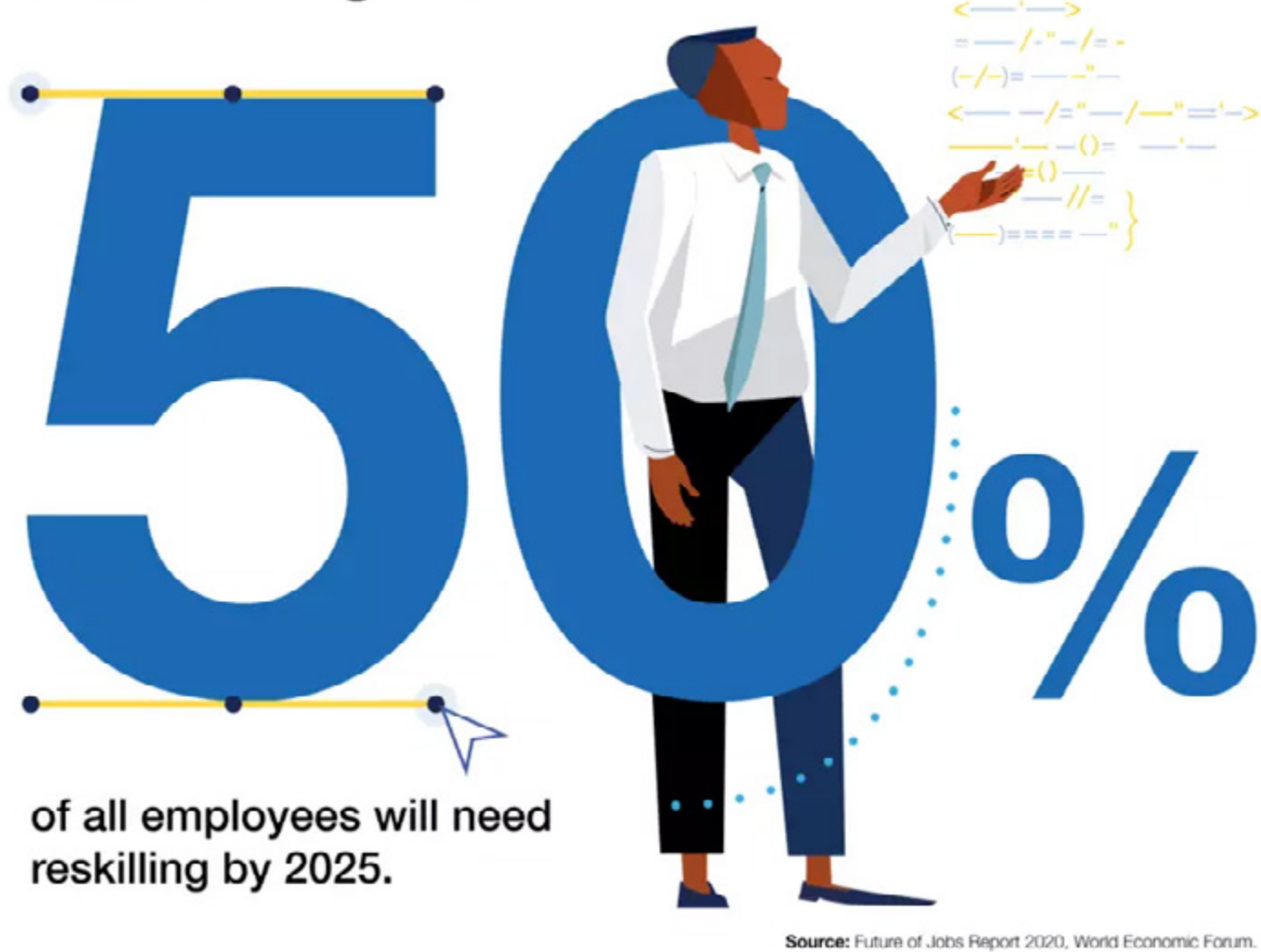
**Saeid Baroutian MEngSt** is an Associate Professor in the Department of Chemical & Materials Engineering. Saeid leads the Waste & Resource Recovery Research Group (WaRe3) at the University of Auckland. He is an expert in the development of resource recovery and waste minimisation, and his research interests focus on the area of process engineering. Saeid has published more than 90 articles in international journals, and his research has been widely adopted industry.



# why

## ... STUDY AT THE UNIVERSITY OF AUCKLAND?

### Reskilling needs



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.\*

We are one of very few universities in the world offering a Master of Sustainable Resource Recovery, with no other post graduate programmes in the Asia-Pacific region. The programme is designed to produce graduates with advanced knowledge of waste minimisation, resource recovery and waste valorisation. Graduates will also come away with how to communicate that knowledge to the benefit of industry and society.

You can count on our reputation as New Zealand's top university and engineering faculty, as well as our track record in the field of chemical and materials engineering. Our staff is dedicated to supporting the sector by moulding employable candidates who can improve the innovation and management of resource recovery; and we have strong ties to industry and the community to create real solutions.

\*source:<https://www.weforum.org/reports/the-future-of-jobs-report-2020>





Scan me



@UoAEngineering