

Sustainable career goals

WRITER ALEXANDRA JOHNSON

With a passion for the environment and a keen interest in using engineering to increase equality and living standards, Ashleigh Dick plans to focus her career on helping communities become more sustainable.

Ashleigh Dick is among the first cohort of students who graduated from the newly established degree in environmental engineering at the University of Waikato. It's a multidisciplinary course teaching students how to identify and solve problems associated with the environment, resources and sustainability through engineering.

"I always wanted to do engineering as a career," says Ashleigh, an Emerging Professional Member of Engineering New Zealand.

"My dad is an engineer so I grew up helping him build things."

With a love for geography and looking at how the environment works with societies, when she heard the University had introduced an environmental engineering degree, she knew it was the right course for her. It prepared her for the world of work because it was practical, "and over the summers you have to do 800 hours of work placement".

As her honours year project, Ashleigh analysed the Hamilton city stormwater drainage network.

"I modelled what the stormwater network and flooding patterns would look like if we had increased rainfall levels as reflected by the climate change projections."

Despite intensive course and work placements, she was also involved in a variety of initiatives. These included establishing Engineers without Borders at the University of Waikato, and working as an ambassador for the Wonder Project, Engineering New Zealand's free programme for schools, designed to get young Kiwis excited about science, technology, engineering and maths.

In 2020, Ashleigh was selected for the YWCA Y25 programme which celebrates 25 trailblazing women under the age of 25. She believes this recognition propelled her career and helped her secure a job at Stantec after graduating.

"I think having something like the Y25 on my CV really helped. I didn't expect to get such a good job with an international company which has a really big focus on people and diversity and sustainability – I think Stantec is one of the top five most sustainable corporations in the world. I can already see it will offer me lots of opportunities in the future, to work overseas or perhaps get involved with volunteer engineering work."

While Covid-19 disrupted Ashleigh's plans to go on an OE after she'd finished studying, there is a silver lining.

"I can take a couple of years to really get my technical skills up to standard and then I'll be in a position where I can work when I'm travelling."

As a graduate engineer at Stantec, Ashleigh is working with the water engineering team.

"I help out wherever I'm needed. At the moment I'm designing a culvert. It's my

first independent design project there, which is exciting."

Ashleigh believes the focus of engineering is broadening.

"What I have noticed coming through university recently, is that engineering has started to shift away from just maths and physics to include the people aspect. For example, it used to be 'work out the forces on the bridge and build it for two cars', but now we consider who the bridge is for and how we enhance the experience of the people who need it."

She says it's that people focus that will help drive sustainability.

Ashleigh says one of her big hopes is that the engineering industry will be more environmentally conscious and find ways to do more, with fewer resources.

She believes the world won't be fully sustainable until "every society across the globe has access to the basic necessary resources required for an acceptable standard of living, and sustainable processes to ensure they always have access to these resources".

Ashleigh is passionate about working in developing countries where people are struggling to get resources and wants to help them become sustainable.

"But I don't want to go into a community and put in a water pump that someone will have to change in 20 years' time. My dream is to make a difference – teach people how they can do this themselves. I want to be able to help people in the long term." ■

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