

Ground control UC engineering geologists sought after

UC Engineering Geology graduates are proving their worth in some of the most significant infrastructure projects in Australasia.

Whether strengthening a dam in North Canterbury, designing and constructing road and rail tunnels in Sydney, consulting on the Western Belfast Bypass in Otautahi Christchurch or immersed in the Transmission Gully Motorway project north of Te Whanganui-a-Tara Wellington, UC graduates are at the table and on the ground.

Providing the only full course of its kind in Australasia, the UC Engineering Geology programme is recognised to be of strategic importance to the geotechnical industry in the region.

Engineering Geology began at UC as a BSc Honours programme in the late 1960s. This evolved into a full MSc Engineering programme in 1980. In 2016 UC took an important step to strengthen the programme by partnering with geotechnical engineering firm Pells Sullivan Meynink (PSM) to sponsor a new senior lecturer position in Engineering Geology.

PSM Senior Lecturer in Engineering Geology, Dr Clark Fenton, says that UC engineering geologists are sought after for their pragmatism.

"Our graduates have a holistic view of the ground and its engineering performance. They can develop a framework that takes into options. They provide the reality check."

Hearing back from graduates is hugely satisfying, he says.

"They have a lot of praise for the practical aspects of the course and how it has helped them in their job. Word of mouth tells us that they are doing a stand-up job."

Dr Fenton says the lower half of the South Island provides invaluable opportunities for practical work in the field. These include looking at landslide and groundwater issues for the Clyde Dam in Central Otago and learning from industry about construction projects that are responding to the Waitaha Canterbury earthquakes.

In the seven months following the Kaikoura earthquake, more than 50 days have been spent in the field mapping fault ruptures and investigating landslides and ground deterioration.

Several graduates of the course have been consultants for five to ten years and return to study to upskill as the industry and knowledge evolves.

As UC graduates themselves, PSM Principal Engineering Geologists Mr Mark Eggers and Mr Ralph Cammack need little convincing of the

"The UC programme is unique in Australasia and provides graduates with a great foundation for success in the industry."

"You know you are getting high-quality employees. PSM recognises that if we want to benefit from these graduates, we need to front up and play a role in providing funds and resources."

He sees opportunities for the programme to evolve further, and challenges others in the industry to help make it happen.

Mr Cammack, who is currently a consultant on the 27-kilometre, four-lane Transmission Gully motorway project, says that UC set him up for his career and for working on large projects.

"This region is a classic place to learn about geology; it's a natural laboratory. UC provides a well-balanced course, with all of the important elements of geology, excellent fieldwork and the key interactions with engineering."

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