Background of Scholarship:
We seek a highly motivated student for a 1-year Master's research project “Dynamic site characterisation of the Waikato basin using surface wave methods”. This project is externally funded by QuakeCoRE, a New Zealand Tertiary Education Commission-funded Centre. The project goal is to improve our understanding of the dynamic properties of the Waikato Basin and the soils within the Basin using geophysical methods, as part of the ongoing nation-wide collaborative effort to quantify the site dynamic characteristics of New Zealand urban areas. The student project will include extensive field testing and processing of the measured ground vibration data.

This research will improve our understanding of the dynamic properties of the Waikato Basin using Geophysical methods. The specific objectives are to:

• Collect fundamental site period data throughout the Waikato basin using the single station horizontal-to-vertical (H/V) spectral ratio method.
• Characterise shear wave velocity ($V_s$) profiles using active- and passive-source surface wave inversion analysis.
• Develop a first-order velocity model of the Waikato Basin.

Prospective student must have a strong background in Geotechnical Engineering, Geophysics, Engineering Geology, or a related field, be proficient in one or more scientific programming languages (Python, Matlab, Fortran, C++, etc.), and have completed a Bachelor's with Honours degree (or an equivalent) by the start of the programme. A full NZ driver's license is highly desirable. The start date is early 2019, and the scholarship provides NZ$15,000 stipend + $7,500 NZ domestic tuition fees for a year.

Eligibility criteria:
Applicants should have a Bachelor's with Honours degree (or equivalent) in Civil Engineering, Geophysics, Geological Engineering, or closely related fields.

The successful applicants should be eligible to enrol at the University of Waikato, Hamilton, New Zealand. Full details of Waikato University's eligibility criteria for the ME program can be found here: https://www.waikato.ac.nz/study/qualifications/master-of-engineering/

Application documents required:
• Curriculum vitae including a cover letter
• Academic transcripts
• Two letters of references (Academic)

Contact and email address for applications:
Dr Seokho Jeong
seokho.jeong@waikato.ac.nz

Closing date:
Review of applications will begin on 1 March 2019 and will continue until the position is filled.