Two postdoctoral fellow positions at the University of Canterbury, New Zealand
1. Ground Motion Simulation
2. Nonlinear site response analysis

The closing date for both positions is: 22 November 2015

These positions are JobID’s 2906 and 2905 at: https://ucvacancies.canterbury.ac.nz/psp/ps/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_CE.GBL

Postdoctoral Fellow in Ground Motion Simulation
Civil and Natural Resources Engineering
- Full-time at 37.5 hours per week (1.0 FTE)
- 2 year fixed term position

The Civil and Natural Resources Engineering Department at the University of Canterbury is offering a two year postdoctoral fellowship to a motivated individual with a research background in broadband ground motion simulation, development of seismic velocity models or seismic site response analysis to work with a highly skilled team of outstanding experts on two externally funded research projects.

The successful applicant will undertake research in broadband ground modelling and its application to the 2010-2011 Canterbury earthquakes to understand the salient phenomena which resulted in the wealth of strong motion and infrastructure damage that has been collected. The project will also extend further to examine the likely ground motion characteristics of future major earthquakes in NZ through the application of validated broadband ground motion simulation methods to scenario ruptures.

Applicants require a Ph.D. in Civil/Earthquake Engineering, Geophysics or a related field.

Further information on research relevant to this position can be found here:
https://sites.google.com/site/brendonabradley/research/ground-motion-simulation

Postdoctoral Fellow in Nonlinear Site Response Analysis
Civil and Natural Resources Engineering
- Full-time at 37.5 hours per week (1.0 FTE)
- 2 year fixed term position

The Civil and Natural Resources Engineering Department at the University of Canterbury is offering a two year postdoctoral fellowship to a motivated individual with a research background in nonlinear seismic site response analysis, total and effective stress constitutive modelling of seismic soil response and/or 1D/2D/3D modelling of surficial soils to work with a highly skilled team of outstanding experts on two externally funded research projects.

The successful applicant will undertake research to examine the seismic response of surficial soil deposits in the 2010-2011 Canterbury earthquakes and their role in the observed ground motions at strong motion stations, liquefaction severity and manifestation, and impacts on infrastructure. Numerical analyses will utilize 1D/2D/3D geometry, and total and effective stress constitutive model formulations to examine the modification of the amplitude, frequency content, and duration of ground motion during wave propagation in surficial soils.

Applicants require a Ph.D. in Civil/Earthquake Engineering, Geophysics or a related field.

Further information on research relevant to this position can be found here:
https://sites.google.com/site/brendonabradley/research/seismic-site-characterization
https://sites.google.com/site/brendonabradley/research/seismic-response-in-liquefiable-soils