



A Collaborating Technical Society  
of The Institution of Professional  
Engineers New Zealand

### Christchurch Branch Presentation

Thursday 26 March 2026

PDP | Level 2, 134 Oxford Terrace

Christchurch Central

Light Refreshments from 5.00pm

Presentation 5.30pm

[Register Here](#)

## Use of the 3D GPR Geophysical Method

### Presented by Kent Jacobsen

Kent Jacobsen (SSFI, B.E) presents a talk on the use of the '3D GPR' geophysical method and some of its potential applications (e.g., paleo channels, buried services, sinkhole, archaeological sites, etc.).

This will also include a short visual presentation in which some album images from the 1987 Edgecumbe Earthquake will be shown, together with video footage following the Christchurch earthquakes, focusing on groundwater, excess pore water pressure and liquefaction.



Finally, the presentation will cover some stopbank design aspects, including a comparison of geotechnical testing between a house site and a stopbank in the Edgecumbe area, where both peat and pumiceous soils provide some challenges.

Kent is an engineer with New Zealand Stopbank Services and a graduate of the University of Canterbury. With 20 years' experience in sub-surface and foundation engineering, often in and around waterways, Kent brings deep practical expertise to complex ground and flood-risk environments. His engineering passions include flood protection, finite element modelling, deep foundations, and groundwater/soakage calibration.