Research Area : Geotechnical and Groundwater Engineering

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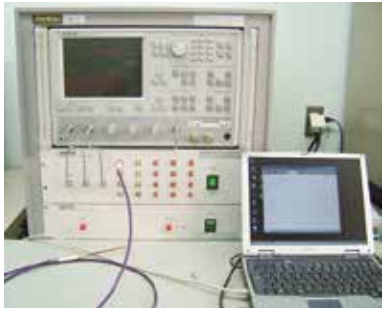
Developing a flexible and robust communication infrastructure system for a network of sensors used to remotely monitor damage during natural disasters

When a large-scale disaster occurs, it is crucial to have stable data transfer from a network of sensors. For a region considered as high-risk, it is essential that the sensor network and data communication infrastructure be installed and configured within several hours. This study aims to develop a novel sensor network and data communication system for a test site for monitoring slope stability during intense precipitation events.

Establishing a technique for monitoring soil and groundwater contamination using Frequency Domain Reflectometry



The purpose of this study is to apply a measuring system for subsurface contamination; the FDR (Frequency Domain Reflectometry) and FDR-V (with Vector network analyzer) system are employed to measure salinity and oil contaminants.