## Department of Mechanical and Aerospace Engineering,, Environmental and Energy Engineering Graduate School of Environmental Studies,

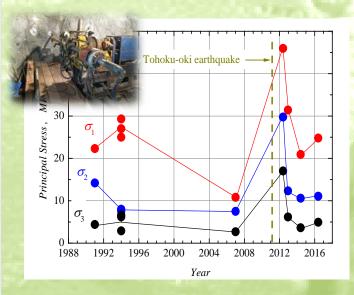
Graduate School of Environmental Studies

Earth Exploitation Environmental Studies



Assoc, Prof. K. Sakaguchi

## Toward Advanced Environmental Geomechanics and Energy Technology



Axial stress

Confining pressure

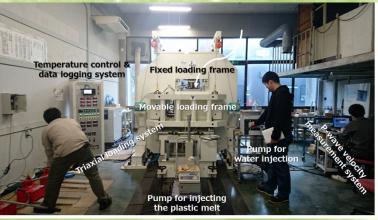
Shear stress

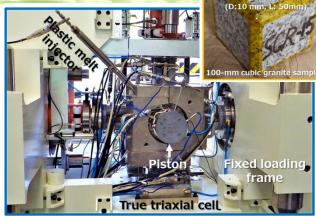
Tomm

Normal stress

Smm

Study on crustal stress fields at shallow depth, which is a several hundred meter below surface, before and after huge earthquake for prediction of earthquakes. Injection-induced slip characteristics of a rock fracture under high temperatures. (Geothermal energy extraction)





Study on mechanical and hydraulic characteristics of rock and fracture under high temperature (300 - 500°C) and high pressure (50 MPa - 100 MPa) for new concept geothermal reservoir (Geothermal energy extraction)

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