

SERVO-CONTROLLED TRIAXIAL ROCK TESTING SYSTEM

SYSTEM:

GCTS RTR-1500
(Funded by School of Energy Resources)

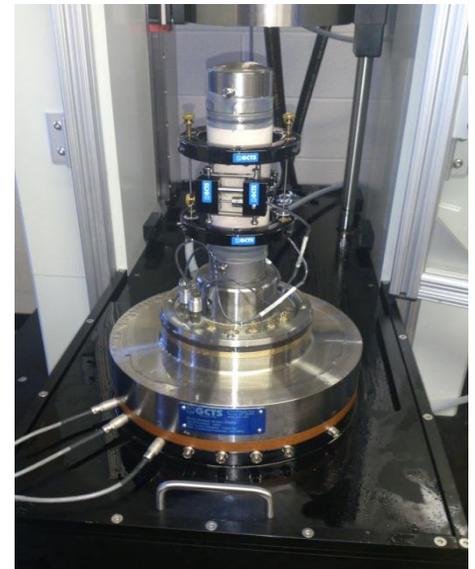
FEATURES:

- Capable of performing static and dynamic closed-loop strain or stress controlled loading, as well as post failure behavior tests
- Ideal for unconfined compression, triaxial, bending, tension, fracture, creep and other compression tests
- Stiff loading frame supports maximum compressive load capacity of 1,500 kN (337 kips) and a tension load capacity of 820 kN (184 kips)
- Consists of high-pressure triaxial cell with internal instrumentation allowing local axial and radial strain measurements
- A 140 MPa (20 ksi) servo-controlled pressure intensifier controls and measures confining cell and pore pressure
- Test data automatically displayed on monitor and digitally stored in data acquisition system



POTENTIAL APPLICATIONS & BENEFITS:

- Characterize general mechanical and strength parameters of geomaterials
- Investigate rock behavior and failure criteria for shale gas development
- Investigate geotechnical challenges associated with underground coal gasification wells
- Evaluate rock rippability and characteristics of rock cuts to improve road constructions
- Address geotechnical issues relating to rock slope stability, caving and subsidence created from mining, and foundations on rock and intermediate geomaterials
- Improve safety and productivity of mining
- Improve foundation system for wind turbines
- Characterize not only geomaterials, but also structural (i.e. steel, concrete and timber), soil and pavement materials



CONTACT:



Kam Ng, PhD
Assistant Professor
Department of Civil and Architectural Engineering
University of Wyoming
Phone: (307) 766-4388
Fax: (307) 766-2221
Email: kng1@uwyo.edu

