Rock Mechanic Lab

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About the Lab:

This laboratory is equipped with all necessary equipment to determine shear strength, the compressive strength of soil sample, cohesion and angle of shearing resistance for c-ϕ soil, uniaxial compressive strength, tensile strength, and indirect tensile strength of rock core specimen.

List of Equipment:

1. Electronic balance
2. Rock-cutting machine
3. Slake durability index testing machine
4. Point Load Strength testing machine
5. Brazilian tensile testing machine
6. Oblique shear strength testing machine
7. Filed shear strength testing machine
8. Schmidt hammer
9. Physical modeling platform for foundation testing
10. Physical modeling platform for slope
11. Rock polishing and lapping machine
12. Compression testing machine
13. V- Funnel testing machine
14. L-Box testing machine
15. LVDT
16. Strain gauge data logger
17. MASW (Multichannel Analysis of Surface Wave) system

List of Experiments:

1. To determine the Uniaxial Compressive strength of a given rock specimen

2. To determine the tensile strength of rock by Brazilian apparatus
3. To determine the strength of rock by oblique shear apparatus.
4. To determine the in-situ shear strength of rock sample using field-shear apparatus
5. To determine the point load strength index of a given rock specimen and to calculate uniaxial compressive strength.
6. To determine the Schmidt rebound hammer number and compressive strength of a given rock specimen
7. To determine the slack durability index of a given rock specimen
8. To determine the P & S wave velocity and the dynamic properties of a given rock specimen.
9. To determine the cohesive strength and angle of internal friction of a given rock specimen by tri-axial testing.
10. To determine the modulus of elasticity and poison ratio of given rock specimen.