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## STRENGTH OF MATERIALS LAB

## List of Experiments

- 1. Tension test on Steel bar
- 2. Bending test on (Steel / Wood) Cantilever beam.
- 3. Bending test on simple support beam.
- 4. Torsion test

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- 5. Hardness test
- 6. Spring test
- 7. Compression test on wood or concrete
- 8. Impact test
- 9. Shear test
- 10. Verification of Maxwell's Reciprocal theorem on beams.
- 11. Use of Electrical resistance strain gauges
- 12. Continuous beam deflection test.

## **List of Major Equipment:**

- 1. UTM for conducting tension test on rods
- 2. Steel beam for flexure test
- 3. Wooden beam for flexure test
- 4. Torsion testing machine
- 5. Brinnell's / Rock well's hardness testing machine
- 6. Setup for spring tests
- 7. Compression testing machine
- 8. Izod Impact machine
- 9. Shear testing machine
- 10. Beam setup for Maxwell's theorem verification.
- 11. Continuous beam setup
- 12. Electrical Resistance gauges