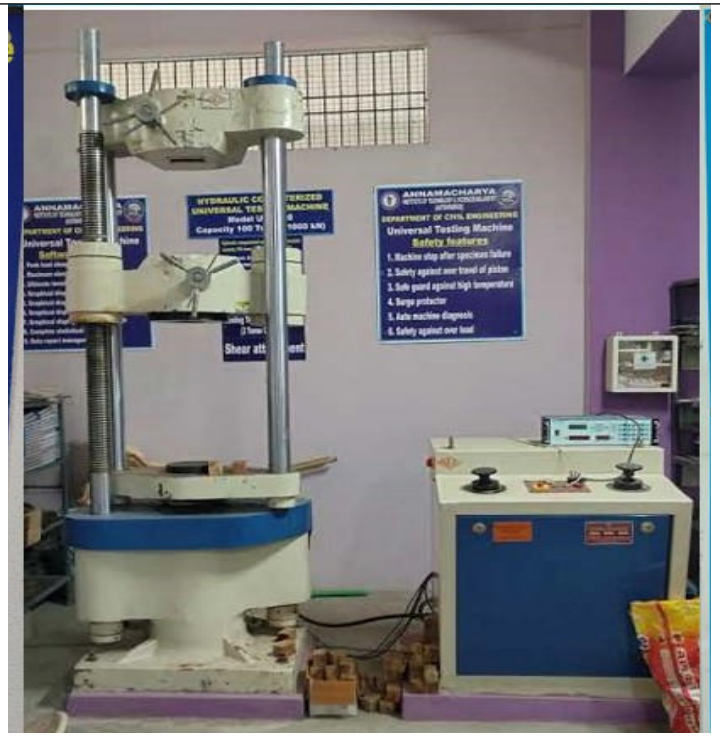
ANNAMACHARYA UNIVERSITY

CIVIL ENGINEERING DEPARTMENT

Name of the Lab: Strength of Materials Lab

Name of the Lab in-charge: Mr. Ashraf Ali Shaik

S.No.	Equipment Photo	Name of the Equipment	Specifications	Price
1.		Universal Testing Machine	Capacity: 100 Ton (1000 kN) Make: Enkay	Rs. 10,00,000/-

2.		Impact testing Machine	Charpy and Impact Tension Test (Izod Test) Pendulum drop angle: 140° / 85°21' Effective Weight: 20.996 kg / 22.057 kg Speed: 5.346 m/sec / 3.857 m/sec Impact Energy: 300 J / 164 J Min. Graduation: 2 J Distance of axis of hammer rotation and center of test piece: 825 mm Max. permission loss by friction & windage etc: 0.5 of max. impact energy Make: Heico	Rs 1,57,700/-
3.		Unsymmetrical Bending Beam Apparatus	Beam Material: Mild steel Beam Cross-Section: Rectangular Loading Mechanism: Hanger with slotted weights. Support Type: One end fixed, other end loaded. Measuring Device**:** Dial gauge	Rs 33,750/-

4.		Elastic Properties of Deflected beam Apparatus	Beam Length: 100cm. Beam Material: Steel. Supports: Rigid clamps. Loading Mechanism: Hanger with slotted weights applied at mid-span or different positions. Measurement: Dial gauge to measure deflection at mid-span.	Rs 27,500/-
5.		Clerk Maxwell Reciprocal Theorem Apparatus	Beam Setup: Simply supported beam. Supports: Knife-edge supports (rigid). Loading Mechanism: Hangers with slotted weights applied at two points. Deflection Measurement: Dial gauge Beam Material: Mild steel.	Rs 27,500/-

6.		Brinell Hardness Testing Machine	Rockwell cum Brinell Hardness Testing Machine Test Loads (Kgf): 60, 100, 150 (Rockwell); 187.5 (Brinell) Initial Loads (Kgf): 10 Max. Test Height (mm): 215 Depth of Throat (mm): 132 Max. Depth of Elevating Screw Below Base (mm): 230 Size of Base (mm Approx.): 430 x 180 Machine Height (mm): 635 Net Weight (kg Approx.): 70 Make: Heico	Rs. 1,24,500/-
7.		Continuous Beam Apparatus	Beam Length: 100 cm Supports: Combination of knife-edge, hinged, and roller supports (to simulate real boundary conditions). Loading Mechanism: Hangers with slotted weights applied at different spans. Measurement: Dial gauges	Rs 31,500/-

8.		Deflection of Steel Beam Apparatus	Beam Length: 70–100 cm (approx.). Beam Material: Mild steel, brass, or aluminium. Supports: Simple supports (knife-edge supports). Loading Mechanism: • Hanger with slotted weights applied at mid-span or at various positions. Measurement: • Dial gauge / deflection indicator placed under load point or at mid-span. • Experimental values compared with theoretical	Rs 27,500/-
9.		Torsion Test	Specification: HI 110.60 Max Torque Capacity (N-m): 100 Torque Ranges (N-m): 0-20, 20-100 Resolution (N-m): 0.01, 0.1 Torsion Speed: 0.5 R.P.M Clearance between Grips (mm): 0-420 Grips for Round bars (mm): 4-8, 8-12 Grips for Flat bars Width (mm): 1-5, 25 Motor: 3ph H.P. (approx.) 0.5 Make: Heico	Rs. 2,90,500/-

10.		Spring Test	Force in Tension & Compression (N): 2000 Clearance for Compression (mm): 0-500 Clearance for Tension (mm): 5-500 Sensitivity of Load (N): 1 Sensitivity of Displacement (mm): 0.1 Power Supply: 220V AC, 50Hz Make: Heico	Rs. 3,11,250/-