

1.	Lab Name	Mechanical Testing Lab
2.	In-charge	Dr. Sunil Nimje
3.	Associated Members to the Lab: RAs , PhD Scholars/ Technical Staff	RA- Nil PhD- Nil Lab officer: Prajith P. Lab Assistant: Mr. Amol Indalkar
4.	Contact Details	02024304204
5.	Area in sq units (optional)	800 Sq. ft
6.	Lab Facilities	Universal Testing Machine: Model: 8852 Axial Torsion Systems Make: Instron
7.	Consultancy / Services Offered	NA
8.	Complete & On-going Projects (Details)	NA
9.	Collaborations (with DRDO lab, IISER, TATA, TCS, etc)	-
10.	Intellectual Outcome: publications/ patents/ etc..	-
11.	Mentors Associated: (Like Dr. APJ Abdul Kalam, etc..)	-
12.	Any other relevant data	Objective: Testing of Mechanical Properties such as Tensile, Compression, Flexural, fatigue etc. of Metals and Plastics as per ASTM, DIN and IS standards <u>Specifications</u> <ul style="list-style-type: none"> • Floor model Biaxial Servo Hydraulic Dynamic Test system • Axial load capacity of ± 100 kN • Torque capacity of ± 1000 Nm • Axial actuator stroke of 150 mm (6 in) and a rotary stroke of 90° • Facility for Tensile, Flexural and compression test for Metals, Plastics etc. • Equipped with two-axis 8800 MT Digital Controller and Bluehill Operating Software

Universal Testing Machine



Major Features of UTM

- Dynamic axial load capacity : ± 100 kN
- Dynamic torsion load capacity : ± 1000 Nm
- Actuator Axial Stroke : 150 mm
- Rotary stroke : 90°
- Bi-axial Fatigue Load cell : 100 kN Linear & 1000 N-m Torsional
- Additional load cell for testing of plastics and FRP composites : 10 kN
- Controller - designed for both cyclic and static testing applications.
- Hydraulic Power pack - Maximum system Pressure 200 bar.

Mechanical Tests

- Tensile Test
- Compression Test
- High Cycle Fatigue
- Low Cycle Fatigue
- Fracture Toughness
- Crack Growth Rate