Mechanical Engineering

Facilities & Services provided by dept.

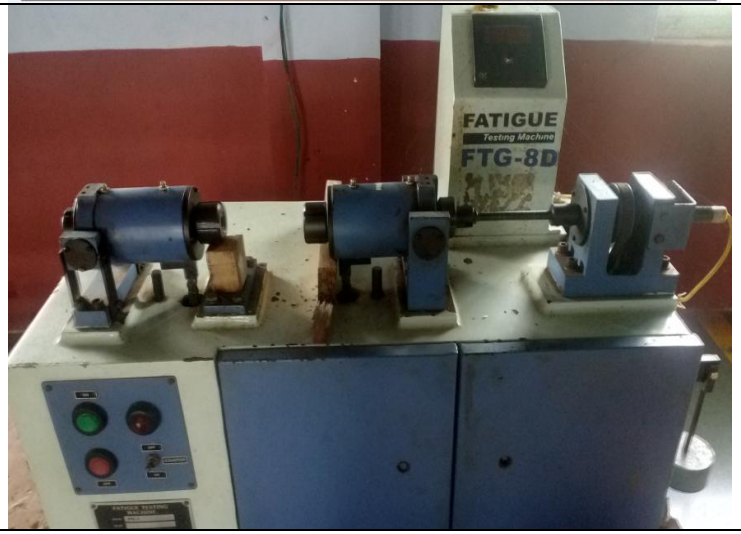
- Sivert type apparatus to **measure gas storing capacity** of metal powder.
- Universal Testing Machine (UTM), Capacity: 40Tonnes to carry out Flexural test (Tensile, compression, bending and shear strength test of wood and steel specimen) to **determine tensile strength, compressive strength & shear strength** of sample.
- Flatness tester to determine the **flatness of the specimen**.
- Ultrasonic flow detector Capacity: 5 to 10 MHz to **detect the presence of defects** in the specimen
- Hardness testing machine to Evaluate Rockwell hardness and brinell**hardness number**
- Impact testing machine, Capacity: 300 Joule to **measure toughness** of metal.(using Izod and Charpy tests)
- Fatigue testing machine (Maximum bending moment= 200 kg-cm, load= 5 to 40 kg, Range= 100 to 200 kg-cm) to **evaluate of fatigue life of metal bars or pipes** in revolutions.
- Torsion testing machine Capacity: 200 N-m to measure **torsion strength** of specimen.
- Surface Roughness tester to **check surface roughness**.
- Fabrication & Civil structures
- Wood working carving, design & prototyping with wood working

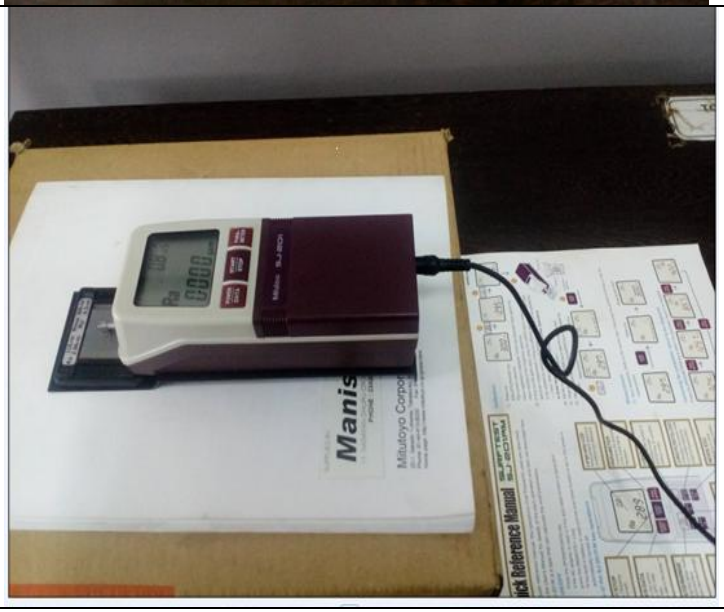
Consultancy areas:-

- Stress analysis
- Solid Modeling
- Material testing & characterization for strength
- Product life cycle analysis
- Fracture mechanics & Failure analysis

Available Equipments in the Department of Mechanical Engineering for consultancy.

Sr. No.	Name of the Equipment	Nature of Testing	Photos
01	Universal Testing Machine (UTM), Capacity: 40Tonnes	Flexural test: Tensile, compression, bending and shear strength test	

02	Torsion testing machine Capacity: 200 N-m	Torsion testing	
03	Fatigue testing machine (Maximum bending moment= 200 kg-cm, load= 5 to 40 kg, Range= 100 to 200 kg-cm)	Evaluation of fatigue life in revaluations	

04	Ultrosonic flow detector Capactity: 5 to 10 MHz	To detect the presence of defects in the specimen	
05	Flatness tester	To determine the flatness of the specimen	

06	Rockwell cum brinell hardness testing machine	Rockwell hardness test and brinell hardness test (Evaluation of Hardness number)	
07	Impact testing machine, Capacity: 300 Joule	Charpy and izod impact test	

8	Sivert type apparatus	To measure gas storing capacity of metal powder	

9	Surface Roughness tester	to measure surface roughness