

MECHANICS OF SOLIDS LABORATORY

LIST OF THE EQUIPMENTS:

1. Universal Testing Machine
2. Hardness Testing Machine
3. Spring Testing Machine
4. Impact testing Machine
5. Torsion testing Machine

Name of the Equipment:	Universal Testing Machine
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Specifications:	Maximum capacity : 400KN Weight :2500kg
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Experiments that can be conducted:

- 1) Tensile test on MS rod.
- 2) Compression test on wood.
- 3) Shear test on MS rod

Research work which can be done:

- Different types of Materials Testing can be done.

Name of the Equipment:	Hardness Testing Machine
	
Specifications:	Maximum Test Height :295mm Depth of throat: 150mm Maximum depth of screw below base:280 mm
Experiments that can be conducted: <ol style="list-style-type: none"> 1) Brinell Hardness Test. 2) Rockwell Hardness Test. 	

Name of the Equipment:	Torsion testing Machine
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Specifications:	Maximum Torque capacity : 60 N-M Torsion speed rpm : 1.5 rpm .
Experiments that can be conducted: <ul style="list-style-type: none">• Torsion test on square on rods.	

Name of the Equipment:	Spring Testing Machine
	
Specifications:	<p>Maximum Test Height : 300mm Outer scale : 0-500N Middle scale : 0-1000 N Inner scale : 0-2500N</p>
<p>Experiments that can be conducted:</p> <ol style="list-style-type: none"> 1) Compression test on spring. 2) Elongation test on spring. 	

Name of the Equipment:

Pendulum Impact Testing Machine



Specifications:

Charpy Test:

Maximum impact energy of pendulum: 300 J

Minimum impact energy of pendulum: 2J

IZOD Test:

Maximum impact energy of pendulum: 168 J

Minimum impact energy of pendulum: 2J

Experiments that can be conducted:

1) Charpy Test .

2) Izod Test .

Research work which can be done if any:

- Design a multi-material impact tester that can test both metals and polymers.