





# Madanapalle Institute of Technology and Science

## Department of Mechanical Engineering




### Labs

S. No	Name of the Laboratory	Name of the Important equipment
1	<p>Workshop Practice</p> 	<ol style="list-style-type: none"> <li>1. Wood working lathe machine</li> <li>2. Carpentry vices</li> <li>3. Arc Welding machine</li> <li>4. Gas welding machine</li> <li>5. Muffle Furnace</li> <li>6. Cope boxes and drag Boxes</li> <li>7. Open hearth furnace</li> </ol>
2	<p>Mechanics of Solids &amp; Material Science Practical's</p> 	<ol style="list-style-type: none"> <li>1. Hardness Test Machine</li> <li>2. Universal Test machine</li> <li>3. Torsion Test machine</li> <li>4. Impact Test machine</li> <li>5. Spring Testing machine</li> <li>6. Optical Microscope</li> <li>7. Double Disc Polisher</li> <li>8. Bending Test equipment</li> </ol>
3	<p>Production Techniques Practical's – I</p> 	<ol style="list-style-type: none"> <li>1. Mechanical Press</li> <li>2. Hydraulic Press</li> <li>3. Injection Moulding</li> <li>4. Spot Welding</li> <li>5. Sand Properties Tester</li> </ol>
4	<p>Dynamics Lab</p> 	<ol style="list-style-type: none"> <li>1. Whirling of shafts apparatus</li> <li>2. Universal Governor apparatus</li> <li>3. Cam Analysis Machine</li> <li>4. Motorized Gyroscope</li> <li>5. Vibrational analysis setup</li> </ol>

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<p>5</p> <p>Heat Transfer Practical's</p> 		<ol style="list-style-type: none"><li>1. Overall heat transfer coefficient of composite slab apparatus</li><li>2. Heat transfer coefficient in forced convection</li><li>3. Experiment on critical heat flux apparatus</li><li>4. Study of two- phase flow Heat transfer in drop and film wise condensation</li><li>5. Performance test on parallel and counter flow heat exchanger</li></ol>
<p>6</p>	<p>Production Techniques Practical's – II</p> 	<ol style="list-style-type: none"><li>1 Lathe Machines</li><li>2. Milling machine</li><li>3. Slotting machine</li><li>4. Radial Drilling machine</li><li>5. Shaping machines</li><li>6. Surface Grinding machine</li><li>7. Tool and cutter grinder</li><li>8. Bench Grinding machine</li></ol>
<p>7</p>	<p>I.C. Engines</p> 	<ol style="list-style-type: none"><li>1. Cut section of Single cylinder four stroke Diesel Engine</li><li>2. Cut section of Single cylinder two stroke Petrol Engine</li><li>3. Single cylinder four stroke Diesel Engine</li><li>4. Twin cylinder four stroke Diesel Engine</li><li>5. Single cylinder two stroke Petrol Engine</li><li>6. Single cylinder two stroke Variable compression ratio Petrol Engine</li><li>7. Dual cylinder two stage reciprocating air compressor</li><li>8. Maruti 800 cc petrol engine for Assembly/Disassembly</li></ol>


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<b>8</b>	Fluid Mechanics & Machines Practical's 	<ol style="list-style-type: none"><li>1. Venturimeter</li><li>2. Bernoulli's theorem Apparatus</li><li>3. Multi Stage centrifugal pump</li></ol>
<b>9</b>	CAD/CAE/CAM Practical's CAD/CAM lab -01 	Dell 22" LCD monitor Processor Intel (R) Core (TM) i5 -7500 CPU @3.40GHz Installed memory (RAM) 16.0 GB System Type 64 – bit operating system, x64 – based processor Hard Disk 1 TB, Graphics Card 4 GB
<b>10</b>	CAD/CAE/CAM Practical's CAD/CAM lab -02 	Compaq 18.5" LCD monitor Think pad INTEL i5 @3.20 GHz 4 GB RAM 500 GB HDD 1 GB Graphic Card
<b>11</b>	Instrumentation & Control Engineering Practical's 	<ol style="list-style-type: none"><li>1. LVDT Transducer</li><li>2. Thermocouple</li><li>3. Strain Gauge</li><li>4. Resistance Temperature Detector</li><li>5. Thermistor</li><li>6. Capacitive Transducer</li><li>7. Magnetic and Photo Electric Pickup</li><li>8. Vibration Analyzer</li><li>9. Rotameter</li><li>10. Dead Weight Pressure Gauge</li></ol>

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		11. Mcleod Gauge 12. Anemometer 13. Load Cell
<b>12</b>	<b>Machine drawing lab</b> 	Processor Intel (R) Core (TM) i5 -6400 CPU @2.70GHz