


Walchand Institute of Technology, Solapur  
Lab Details

Lab Photo	
Lab Name	Basic Mechanical Engineering Laboratory
Lab Description	This laboratory serves the practicals for the course Basic Mechanical Engineering of FE-I of all branches
Lab Equipments	Babcock & Wilcox Boiler Model, Instruction Charts on various subject topics,(Steam Power, Diesel Power, Gas Turbine, Hydro Power, Refrigeration, Window A/C, Transmission systems, Pumps & Compressors), Four Stroke Single Cylinder Diesel Engine – Cut section, Velocity ratio apparatus, Cut section of Diesel Engine
Lab Floor Area in square meters	86.82
Practicals Engaged in Lab	<ol style="list-style-type: none"> <li>1. Study of I.C. Engines: Study of different parts, working, use, of 2 stroke and 4 stroke IC Engines (existing models),</li> <li>2. Study of different parts, working, application of: <ol style="list-style-type: none"> <li>a. Pumps – Reciprocating, Centrifugal, &amp; Rotary pump.</li> <li>b. Compressors - Reciprocatory &amp; Rotary</li> <li>c. Turbines – Francis &amp; Pelton Wheel (sharing with Fluid Mechanics Lab of Civil Engg. Dept.)</li> </ol> </li> <li>3. Study of various Power Transmission systems (TOM Lab, Mech. Engg Dept.) <ol style="list-style-type: none"> <li>a. Belt – ‘V’ &amp; Flat</li> <li>b. Rope</li> <li>c. Chain</li> <li>d. Gears – Spur gear, Helical gear, Worm &amp; Worm wheel, Rack &amp; pinion</li> </ol> </li> <li>4. Study of machine tools (Central Workshop) <ol style="list-style-type: none"> <li>a. Introduction to Lathe</li> </ol> </li> </ol>
	<ol style="list-style-type: none"> <li>b. Drilling machine – Pillar type.</li> <li>5. Study of Joining Process (Central Workshop): Gas welding, Arc Welding, &amp; Spot welding</li> <li>6. Study of Refrigeration &amp; Air conditioning (RAC Lab, Mech engg. Dept.) <ol style="list-style-type: none"> <li>a. Split &amp; Window A/C systems</li> <li>b. Test rig of Vapour compression refrigeration</li> </ol> </li> </ol>
Name of Lab Incharge	Mr. S.M. Math
Associated Faculty of the Lab	Mr. P.V. Ekhande, Mr. . S.S. Bansode, Mr. R.C. Biradar, Mr. K.I.Swami
Name of Lab Assistant	Mr. G. D. Navalgund
Name/s of Lab Menial Staff	Mr. N.R. Mansawale