



S.A.P.D. Jain Pathashala

# Walchand Institute of Technology, Solapur

An Autonomous Institute

P.B.No.634, Walchand Hirachand Marg, Ashok Chowk, Solapur - 413006 (Maharashtra)

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## Department of Civil Engineering

### Lab Details

<b>Lab Name :</b>	Geotechnical Engineering Lab
<b>Lab Description</b>	Major tests conducted in the laboratory <ol style="list-style-type: none"><li>1. Index properties of soil</li><li>2. Shear strength and permeability of the soil</li><li>3. Bearing capacity determination of soil</li><li>4. Soil investigation and testing</li><li>5. Plate Load Test</li><li>6. Standard Penetration Test (SPT)</li></ol>
<b>Lab Equipment</b>	<ol style="list-style-type: none"><li>1. Liquid/plastic/shrinkage limit test apparatus</li><li>2. Direct shear test apparatus small size(60mmx60mm) (Motorised)</li><li>3. Direct shear test apparatus large size(300mmx300mm) (Motorised)</li><li>4. Standard and modified Proctor Compaction test apparatus</li><li>5. Permeability test apparatus</li><li>6. Unconfined compression test (Proving ring type)</li><li>7. Swell test apparatus</li><li>8. Vane shear test apparatus</li><li>9. Standard penetration test assembly</li><li>10. Consolidation test apparatus</li><li>11. Triaxial test apparatus (Motorized)</li><li>12. Automatic Compactor</li><li>13. Electric oven large size</li></ol>
<b>Lab Floor Area in square meters</b>	172
<b>Practical engaged in Lab</b>	<ol style="list-style-type: none"><li>1. Determination of Specific gravity of coarse- and fine-grained soil,</li><li>2. Particle size distribution – Mechanical sieve analysis,</li><li>3. Determination of Atterberg limits</li><li>4. Consistency limits- a. Liquid limit, b Plastic limit, c Shrinkage limit,</li><li>5. Determination of coefficient of Permeability,</li></ol>

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	<ol style="list-style-type: none"><li>6. Determination of Field density<ol style="list-style-type: none"><li>a) Core cutter</li><li>b) Sand replacement method.,</li></ol></li><li>7. Direct box shear test,</li><li>8. Proctor compaction test-</li><li>9. Standard proctor,</li><li>10. Modified proctor, 8Triaxial test,</li><li>11. Unconfined compression test,</li><li>12. One-dimensional consolidation test,</li><li>13. Standard penetration test,</li><li>14. Plate load test,</li><li>15. Swelling pressure test,</li><li>16. Vane shear test</li></ol>
<b>Name of Lab Incharge</b>	Dr. Mahesh Girmallappa Kalyanshetti
<b>Associated Faculty with the lab</b>	<ol style="list-style-type: none"><li>1. Mr. Sandeep Bansilal Javheri</li><li>2. Mr. Ashok Kumar Ninganna Rajanavar</li><li>3. Mr. Avinash Angadi</li></ol>
<b>Name of Lab Assistant</b>	Mr. Arvind D Kalpavruksha
<b>Name/s of Menial Staff</b>	Mr. Jain. G.C