

**Maulana Abul Kalam Azad University of Technology, West Bengal***(Formerly West Bengal University of Technology)***Syllabus for B. Tech in Civil Engineering**

(Applicable from the academic session 2018-2019)

<b>CE(PC)493</b>	<b>Surveying &amp; Geomatics Laboratory</b>	<b>2P</b>	<b>1 Credits</b>
<b>Course Outcome</b>	Upon completion of the course, the students will be able to: <ol style="list-style-type: none"><li>1. State the interdependency and advancement of different surveying methods</li><li>2. Comprehend the working principles of different surveying and geomatics instruments and experiments</li><li>3. Execute the different methods of surveying and geomatics to measure the features of interest</li><li>4. Examine the results obtained from the surveying and geomatics experiments</li><li>5. Critically appraise the different techniques of surveying and geomatics in measuring and assessing the features of interest</li><li>6. Design and construct solutions for real world problems related to surveying and geomatics.</li></ol>		
<b>Prerequisite</b>	Surveying & Geomatics [CE(PC)403]		
<b>Experiment 1</b>	Traverse survey by Prismatic Compass: Procedure; Computation and checks on closed traverse; Preparation of field book; Plotting the traverse; Sources of errors.		
<b>Experiment 2</b>	Theodolite Survey: Closed traverse by transit theodolite, Preparation of field book		
<b>Experiment 3</b>	Differential Levelling using Dumpy level: Collimation and Rise and Fall methods, Field book preparation		
<b>Experiment 4</b>	Total Station Survey: Traversing and Levelling		
<b>Experiment 5</b>	Visual Image Interpretation		
<b>Experiment 6</b>	Satellite Image Pre-processing		
<b>Experiment 7</b>	Digital Image Classification and Accuracy Assessment		
<b>Experiment 8</b>	Stereoscopic fusion of aerial photographs using mirror stereoscope		