



## GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY

### SURVEYING LAB-II

Course Code: GR15A2018  
II Year II Semester

L:0 T:0 P:2 C:2

#### Prerequisites

- Knowledge of Engineering Mathematics
- Knowledge of Surveying and Leveling

#### Course Objectives

- To teach the students to have successful technical or professional careers, including supportive and leadership roles on multidisciplinary teams.
- To train the students to Acquire, use and develop skills required for effective professional practices.
- To educate the students to acquire the holistic education necessary to be a responsible member of society.

#### Course Outcomes

After completing the Surveying lab -II, students will be able to:

- Civil Engineering Surveyors are involved in every stage of the project from initial concept through design and construction, to monitoring the condition and performance of the completed structure.
- Within this profession you could choose to work within Commercial Management (Quantity Surveying) or Geospatial Engineering.
- An ability to demonstrate proficiency in the creation and acquisition of Field data.

#### Contents

1. STUDY OF THEODOLIE- Measurement of horizontal and vertical angles-(Repetition and Reiteration method).
2. TRIGONOMETRIC LEVELLING- Heights and distances problems.
3. Calculation of R.L and distance using tacheometric survey.
4. Curve setting by any two methods.
5. Introduction to total station and operational procedure.
6. Determine the area of the traverse using total station.
7. Column and foundation marking using Total Station.
8. Distance, gradient, differential height between two inaccessible points using Total Station.