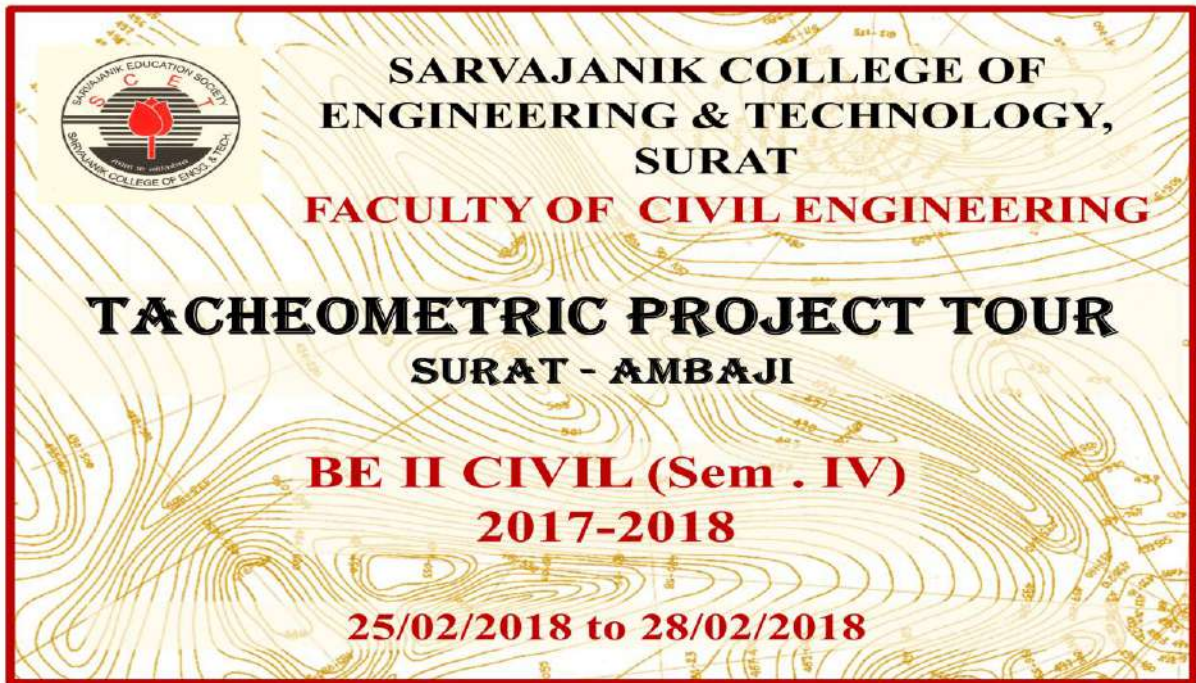


A report on



Project work for

## **Tacheometry Survey**

Under the course of

**Advanced Surveying (2140601)**

*[By a team of 79 students and 6 staff members of FCE]*



Along with visit to

**Survey of India, Gandhinagar.**

(On an occasion of “National Science Day, 28<sup>th</sup> February”)





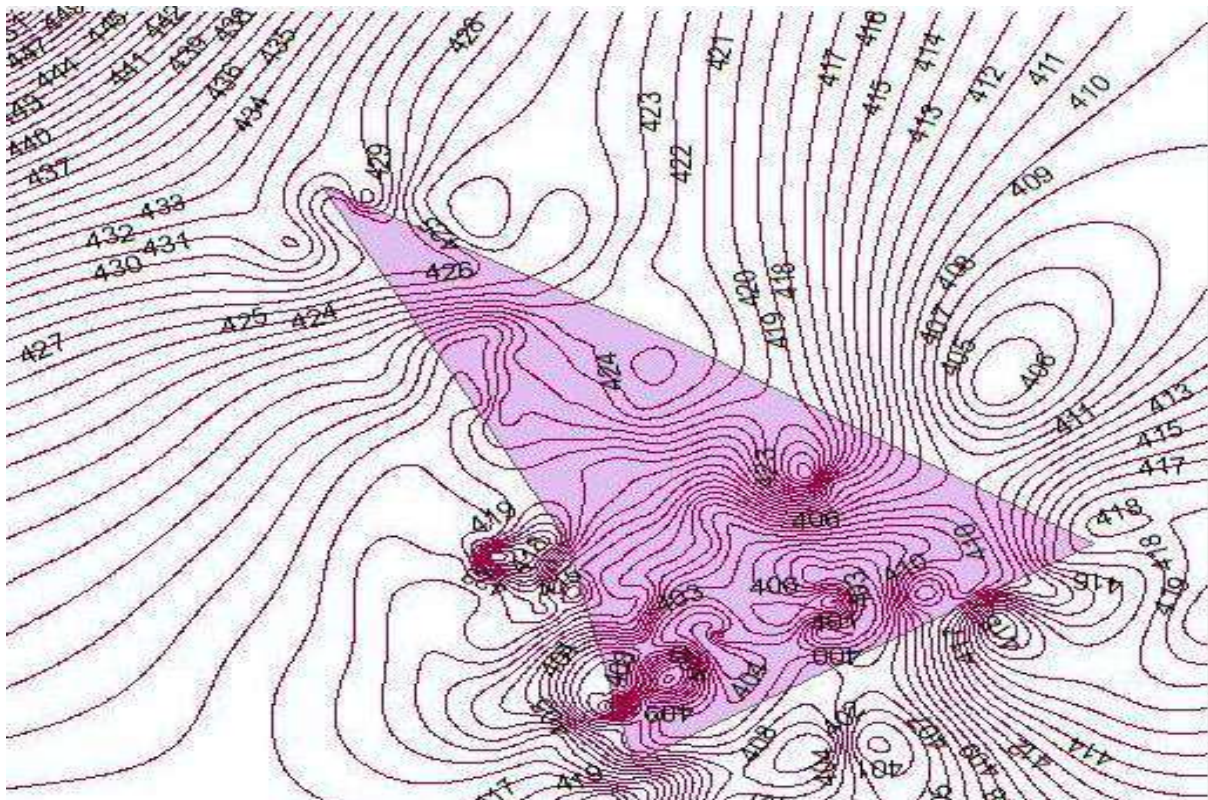
Any civil engineering project work begins with maps. Creating maps play a very crucial role regarding its accuracy and measurements of various kinds. A variety of maps are required for different type of projects.

One of a most important task while preparing topographic maps is to measure distances and levels of ground terrain.

Tacheometry is a method employed for measuring distances and elevations of ground points using Tacheometer (a theodolite with special arrangement of cross hairs). Under the motivation of *Dr. Vaishali B. Mungurwadi*, Hon'ble principal, SCET and guidelines of *Dr. Pratima A. Patel*, Head, Faculty of Civil Engineering, and an academic tour was organized and completed at Ambaji, and Survey of India, Gandhinagar.

The schedule		
Date	Time	Particulars
25 February 2018	6.30 am	Departure from SCET, Surat in buses
	6.45 pm	Arrival at Hotel Ambaji
26 February 2018	7.30 am	Survey work begins at site
	1.45 pm	Survey work ended for day-1
27 February 2018	7.45 am	Survey work begins at site
	2.15 pm	Survey work ended for day-2
28 February 2018	8.00 am	Departure from Hotel of Ambaji
	1.10 pm	Arrival at Survey of India, Gandhinagar.
	2.20 pm	Departure from Survey of India, Gandhinagar.
	11.30 pm	Arrival at SCET, Surat

Below is an image the area measured by the students under the guidance of faculty members.

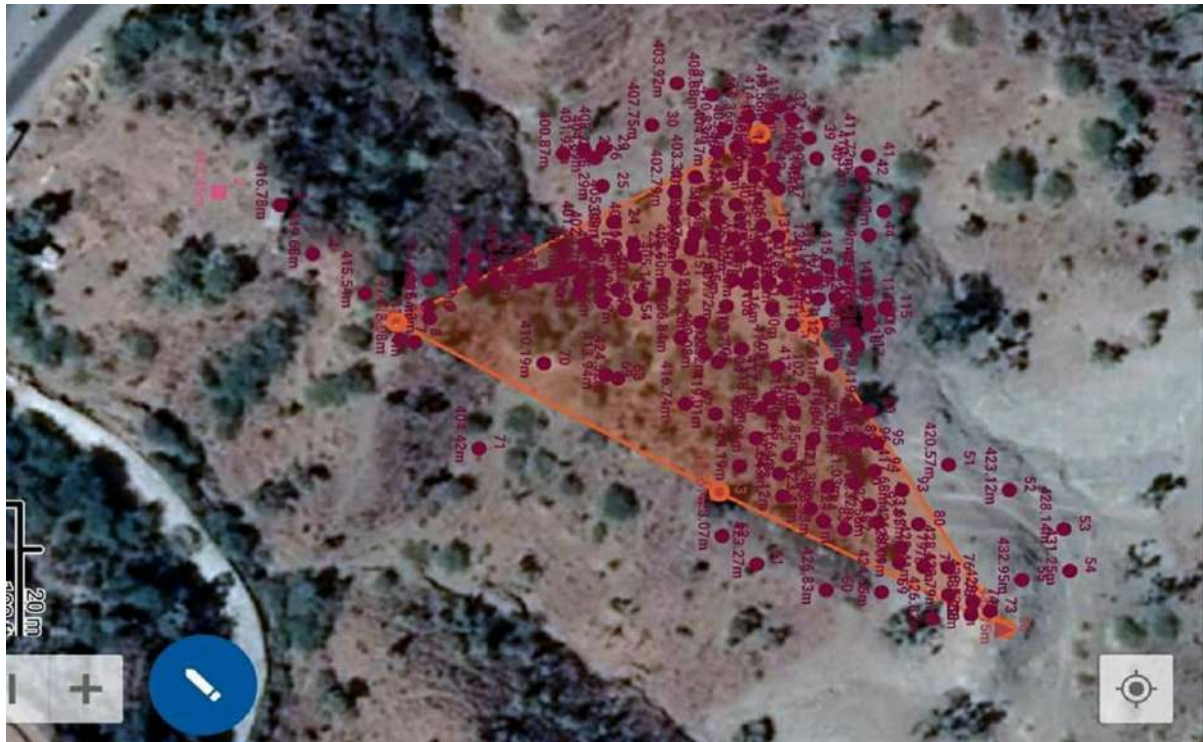


(Image courtesy: Prof. Bhasker V Bhatt)





## The Tacheometry Project Work:



(Image courtesy: Prof. Bhasker V Bhatt)

Students admeasured an about Triangular area length of hilly terrain overcoming the difficulties of rough lands, dry shrubs with no utilities nearby. The level difference of surveyed ground was having an elevation difference of about 9.0 Mt. Below images are the Team and students' hard-work and tasks in action.





## A visit to Survey of India, Gandhinagar.



While on the way back to Surat, the team reached at the “Survey of India”, Gandhinagar, on an occasion of “National Science day”. Where students took benefit of all instruments of advance surveying demonstrated there. They also have an exposure on the topics of tachometry, triangulation, remote sensing, GIS, GPS and aerial photogrammetric maps with help of live demo by officers of Survey of India.

Images below shows the interaction of students and faculties with officers of SOI in subject.







## **Acknowledgements**

- The almighty;
- Managing trustees and office bearers of the Sarvajanik Education Society;
- Dr. Vaishali B. Mungurwadi, Principal, SCET;
- Dr. Pratima A. Patel, Head, Faculty of Civil Engineering;
- Mr. Subhash Dave, for arrangement and his outstanding and wholehearted, enthusiastic support during the endeavour
- Staff of Survey of India for sparing time and explaining various instruments ;
- Students of B. E. Civil II (Semester IV) for showing learning attitude and hard-work;
- Staff at the faculty of civil engineering, SCET for extending support;
- One and all who extended support knowingly and unknowingly.

A report prepared by Dr.Kamlesh S. Dalal, for team on academic excursion.

