

## *~o~ Visit Report ~o~*

Academic Year 2015-16

BE II Civil (Sem. IV) students

Performed

### **Tacheometry (Topographic) Survey at Ambaji**

And had technical visits at (1) **GERI Hydrological Model Campus-Vadodara**,  
(2) **Marble Stone Quarry Site-Ambaji**, and (3) **Survey Department of India-Gandhinagar**

With consent and kind motivation of *Prof. (Dr.) Vaishali Mungurwadi, Principal-SCET*, a team of students of class BE II Civil (Semester IV) along with faculty members and staff of civil engineering department made an academic project tour to Ambaji (Banas Kantha District, Gujarat) for 2-days wherein students performed an academic exercise of measuring levels of ground (topographic survey) by employing their understanding of Tacheometry. Support from *Prof. Dharmesh Bhagat, Head of Civil Engineering Department* was pivotal in the entire of the exercise. The academic trip was conducted during Tuesday, 23<sup>rd</sup> February 2016 till Friday, 26<sup>th</sup> February 2016.

The team was led by,

***Prof. Dr. Pratima A. Patel***, Associate professor at CED

***Prof. Bhasker V. Bhatt***, PG In-charge (ME-TCP)

***Prof. Sapan Parekh***, Adhoc Assistant Professor

***Prof. Palak S. Shah*** and ***Prof. Zarana H. Gandhi***, Adhoc Assistant Professors

***Mr. Girish Kikani***, Lab Assistant and ***Mr. Shailesh Kantharia***, Peon did their job with their inputs.

**Total 72 students** from the BE II Civil Class participated in the academic exercise. Below is a brief on the day-by-day activity.



**Date: 23/02/2016**

- Students and faculty members departed from SCET by 6.00 am. Two Buses from M/s. Jeevan Yatra along with a MUV were hired for the trip.
- All reached at **GERI Campus at Gotri**, Vadodara by 11.00 am. Here, **Shri Savjibhai** (In-charge Jt. Director, Irrigation Dept.) made all the students acquainted with the role that GERI is playing and contributing to projects of Government of Gujarat. Both the officers explain the importance of physical models of **ambitious hydrological projects** such as dams, barrages and weirs. In detail, they explained the model of **Bhadbhut Weir of Narmada River** and **Ukai Dam along with Tapi River till Dumas**. These both models are of its kind, where the length of Tapi model is about 750 Mt. Both models are constructed in a distorted horizontal and vertical scale and either of them are working fine and computations are made to investigate hydrological events. Below are some of the glimpses.





- By the night, the Team CED reached to Ambaji wherein the stay was confirmed at the Holiday Home. Shri. Arasuri Ambaji Mata Devasthan Trust founded a multistory building, namely, Shri. Jagat Janani Pathikashram in opposite to the sites of Ambica Vishram Gruh and State Transport Bus Station Depot. As the location of this Holiday Inn is situated on the top of the city Ambaji, one cannot miss to look at the beautiful scenery of the whole spread over city of Ambaji and The Holy Temple in the middle, from the windows of this inn.



**Date: 24/02/2016**

- The day begin by 7.30 am with a rush to reach for the site for the academic exercise. The site selected was famous for Tacheometry survey among civil engineering fraternity – the backside hills of the **Hanuman Tekri, Ambaji**. Students established station points and started working out to measure the ground levels in the hilly region. The terrain was initially found to be difficult as it was a first such kind of experience for students. The work was concluded by 2.00 pm.



**Date: 25/02/2016**

- The day began by 8.00 am for the site. With the experience of day-1, the students were feeling comfortable working in the difficult terrain and they acquired speed in the tasks. They finished up with all assigned work by 12.00 noon. All the students were explained with a **demonstration of Total Station Instrument** by *Prof. Bhasker V. Bhatt* and *Mr. Girish Kikani*. This advanced instrument could have made the land level measurement job very easy, if used. However, as per the syllabus, the students are expected to perform the exercise conventionally by using theodolite based tacheometer only. With a group photograph memory, all departed from the Hanuman Tekri site.



- Post noon session brought the students with excitement of visiting a **marble quarry site located in the hills of Aravalli** in the Ambaji territory. The students visualized the process of marble stone being excavated from the hill, cut to size and transported for further finishing. Here, the students also found soft-marble based artifact making units. All thanked *Mr. Rajubhai Patel* who explained the students about different processes undertaken for the excavation of marble stone. *Prof. Bhasker V. Bhatt* thanked *Mr. Patel* for allowing students on the quarry site and sparing his time.



**Date: 26/02/2016**

- All departed from Ambaji by 8.30 am and headed to Gandhinagar.
- By 3.00 pm in post-lunch session, all attended a session where *Mr. Raut Rai*, welcomed all at the **Survey Department of India, Gujarat, Daman & Diu Geospatial Data Center (Sir Crik Bhavan)** Sector 10-A, Gandhinagar. *Mr. P. D. Parmar* elaborated on the roles that the SOI has been playing in the mapping of the nation. “*A surveyor of SOI will and can go to the spots where none other will like to go*” was his remarkable statement. *Mr. Anurag Sharma*

explained about the single and double frequency GPS devices in detail. He also explained the importance of GPS and mapping of locations using ground control points. Job opportunities and job profiles at SOI were also discussed and students were oriented to get involved in an interesting career of a Surveyor/ Mapping expert. All the three officers were felicitated by a token of remembrance by *Dr. Pratima A. Patel* on behalf of the Team CED.



- By mid-night 12.45 am, all reached back at SCET, safely. The trip was concluded with a successful academic gain and accomplished exercise giving a joy of satisfaction to all.

Team CED conducting the trip extends a wholehearted and sincere thanks to *Prof. Dr. Vaishali Mungurwadi*, the SES-Management and *Prof. Dharmesh K. Bhagat* for all the necessary motivation needed to accomplish the academic exercise and technical trips of such a scale. It is remarkably to be noted for the efforts made by *Prof. Sapan Parekh*, to make the trip a success under the guidance from senior faculty members.

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**Reported by Prof. Bhasker V. Bhatt for Team CED, 03/02/2016.**