



IE(I) STUDENTS' CHAPTER- CIVIL
CHAPTER CODE: 388120/BVME/CV
B.V.M. ENGINEERING COLLEGE
V.V. Nagar – 388120.



Chairman: Dr. L.B. Zala

Advisor: Prof. N. F. Umrigar

“Hands on training on Auto level, Dumpy level and QGIS”

Team IE(I) Civil, BVM organized a two day workshop on Auto level, Dumpy level and QGIS for Civil Engineering students on 4th and 5th March 2022. The first session started at 10:00 AM on 4th March 2022. More than 200 students participated in the workshop. The training on auto level and dumpy level was carried out under the guidance of Mr. Mukesh Rai (Acumen) & Mr. Shivam Patel (Acumen). Dr. L.B. Zala, Prof. A.N. Bhavsar, Dr. H. J. Chauhan, Prof. N. F. Umrigar, Prof. J. R. Prajapati and Prof. Dhaval Parmar accompanied the students during the workshop. Final year students, Pradip Baldaniya, Abhishek, Dhruv, Tushar and Vicky helped the students with their knowledge and practice. The workshop on QGIS was carried out under the guidance of Prof. Krunal Suthar and Dr. Unnati Patel from ISTAR.

Program Objectives:

- To give the students; hands-on training on Auto level, Dumpy level and QGIS.

The first session on 4 March 2022 started at 10:00 AM, at Shastri ground, where students were given hands-on training on dumpy level and auto level. Mr. Mukesh Rai taught the students the use of auto level and dumpy level for profile levelling. He taught the basics related to the surveying and started with explaining the use of the instrument. The students performed the practical in a group of 15. Final year students accompanied them to guide them with the practical. The session ended at 1:00 PM. Later, all the participants had

refreshments at the Civil garden.

The 2nd session was about introduction to QGIS. The session started at 02:00 PM at LRUC hall and Civil Seminar hall and the sessions were conducted by faculties of ISTAR; Mr. Krunal Suthar and Dr. Unnati Patel respectively. The session started with the presidential remarks by Dr. I.N.Patel, Principal, BVM, followed by a Welcome speech by Dr. L.B. Zala, HOD, Civil department, BVM. The session started with an introduction to QGIS where the application of GIS was taught and information about the QGIS software was shared. The session ended at 04:00 PM.

On the second day of the workshop, 5th March 2022, the session started at 10:00 AM. The session for 1st year students was conducted by Dr. Unnati Patel at Civil seminar hall, and for 2nd year onwards, Prof. Krunal Suthar conducted the session at LRUC hall. The experts had sample exercises prepared to teach the students the functions of QGIS. The students were taught various data bases and data types used in QGIS, like raster, vector, shapefile, etc. Further the use of open source data available was shown which can be used by students and researchers. Then, different geometry functions were taught. Further geo-referencing of raster file and spatial analysis were taught. First session ended at 12:00 PM which was followed by lunch at the Civil garden. Second session started at 2:00 PM where further concepts of QGIS were covered. The session ended at 4:00 PM. The two day workshop concluded on 5 March 2022 at 4:00 PM; with the presence of Prof. H. J. Chauhan and vote of thanks by Neel Parmar (Chairman, IE(I) Civil SC) and Pradeep Baldaniya (Secretary, IE(I) Civil SC).

Contents:

The topics that were covered were: -

- Use of auto level and dumpy level
- Profile levelling
- Application of QGIS
- Data types in QGIS
- Geo-referencing of an image
- Geometric functions
- Spatial analysis

Program Outcomes:

The participants got to know the basics of surveying and use of auto level and dumpy level. They also got to know the application of GIS and its benefits. Students learned to use the QGIS software.

Some Glimpses of the Webinar:

