G H Patel College of Engineering & Technology, V. V. Nagar

Department of Civil Engineering

Report on

Expert talk on "Importance of Structure Engineering in Infrastructure Development"

Department of Civil Engineering, GCET organized an expert talk on **"Importance of Structure Engineering in Infrastructure Development"** on 27th January, 2023 by Mr. Mukesh Rai, Branch Head and Mentor of Acumen 3600, Vadodara. 37 students along with faculty members attended the session.

AIM:

The primary aim of the expert talk is to inform and enlighten the third and second year students regarding importance of structure engineer in infrastructure development. Through this event it is our goal to expose students to practice fundamentals of structure engineering in detail.

About the Talk:

Mr. Mukesh Rai started his session by explaining the basic concept of structural analysis. He explained the load distribution taking place in any type of buildings. He mentioned various types of structures such as skeleton structure, solid structure, surface structure, rigid structure, and flexible structure. He further discussed about analysis of structures in detail. He explained types of supports, types of beams, and types of reactions with few examples.

Mr. Rai discussed abut equilibrium condition when the structure is loaded with various kinds of loading. He explained the different types of loads which are acting on the buildings. He discussed the various infrastructure developments in the country. Structure design is important in civil engineering because it helps to check that the structure is safe. Structural design gives all the vital information regarding foundations, floors, walls, beams, roof types and the quality of materials to ensure that any of the structures built meet all the safety requirements.

Infrastructure facilities includes

- Good surface communication links such as tar or concrete rods.
- Provision of water supply distribution system i.e. construction of water storage reservation or sumps, laying of underground pipes etc.
- Provision of a drainage system which may include construction of surface drains as subsurface drains for the disposal of wastewater.
- Supply of electrical power for which construction of transmission line towers, construction of electrical substations.
- Providing inland communications lines, i.e telephone lines etc.
- Construction of recreational places e.g gardens, parks etc.

In all the above mentioned activities concepts of structural engineering is required. Finally, Mr. Rai explained Structural engineering is the heart and backbone of all structures small or large. Structural engineers play an important role in all stages of design and construction to ensure that the structure can be built with durability and stability. Design entails the creative endeavours as well as analysis. So when it comes to building your dream home, structural engineering and design are both very important.

Poster of the event:

G H Patel College of Engineering & Technology, V. V. Nagar

Department of Civil Engineering

Expert Talk on

"Importance of Structure Engineering in Infrastructure Development"

Date: *30th January, 2023, Monday*

Time: *3.00 pm onwards*

Venue: G207

Mr. Mukesh Rai

Branch Head & Mentor of Acumen 360^{0}Group, Vadodara

Department of Civil Engineering

G H Patel College of Engineering & Technology

(A Constituent College of CVM University)