

Expert Session Event Report held on the “Soil Investigation: The Cornerstone of Structural Engineering”

Event Details:

Organized by:	School of Engineering and Technology, GTU
Coordinated by:	Department of Civil (Structural Engineering)
Program Coordinator:	Prof. (Dr.) J. A. Amin, Professor, GTU-SET
Invitee:	Dr. K. M. Gondaliya, Ass. Professor, GTU-SET
Experts/Speakers:	Dr. Bhoomi Kamdar, Geotechnical Engineer, ATEC, Ahmedabad
Date & Time:	18 November 2024 (Monday) at 11:00 AM
Venue:	Swami-Vivekanand Conference Room, First floor, Block – 5, GTU-SET, Ahmedabad – 382424.
Register students:	20

Highlights of Event:

The expert session commenced with a warm welcome and introduction of the speaker, Dr. Bhoomi Kamdar, a Geotechnical Engineer from ATEC, Ahmedabad, shared her extensive expertise on soil investigation, its criticality in structural engineering, and the procedural aspects involved. She effectively addressed the audience, comprising students and faculty members, with a comprehensive presentation that highlighted both theoretical concepts and practical applications.

The session focused on the objectives of soil investigation, including determining subsurface soil profiles, evaluating the safe bearing capacity (SBC), and identifying potential challenges such as soil liquefaction and excessive settlement. Dr. Kamdar elaborated on the importance of Standard Penetration Tests (SPT), Cone Penetration Tests (CPT), and other field and laboratory tests in providing reliable data for foundation design.

Key aspects covered during the session included:

1. The methodology and sequence of geotechnical investigations, from site reconnaissance to laboratory analysis.
2. IS code-based guidelines for borehole placement and depth determination.
3. Field sampling techniques for disturbed and undisturbed soil samples, their respective tests, and applications.
4. Laboratory tests such as Atterberg limits, direct shear tests, and consolidation tests.

Dr. Kamdar's presentation also delved into the factors affecting soil bearing capacity, the significance of groundwater level monitoring, and the need for detailed reporting to assist structural engineers in foundation design. The session was highly interactive, with students actively engaging in discussions and posing questions related to real-world challenges in geotechnical engineering. Dr. Kamdar's practical insights, drawn from her experience, provided clarity and inspired students to think critically about problem-solving approaches in soil investigation. The expert session concluded with Dr. Kamdar emphasizing the pivotal role of geotechnical investigations in ensuring the safety and stability of structures. She encouraged students to focus on integrating theoretical knowledge with practical applications, fostering a robust foundation for their careers in structural engineering. The event was a resounding success, leaving the audience more informed and motivated.

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Glimpse of Expert Session

