

**A Report
Of
Expert Lecture under R& D talks Series and IGS Surat Chapter
On
“Soil Investigations for Conventional Foundation
Design: Key Parameters”**



Organized by
Civil Engineering Department
Sarvajanik College of Engineering and Technology

Coordinators:
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The Civil Engineering Department of Sarvajani College of Engineering and Technology (SCET) successfully organized an Expert Lecture under the **R & D Talk Series and IGS Surat Chapter** on the topic “**Soil Investigations for Conventional Foundation Design: Key Parameters.**” The session was conducted for **B.Tech III and IV year Civil Engineering students** on **26th August 2025 (Tuesday)**. The lecture commenced at **10:30 AM** at the **C-304 Meeting Room** of the institute.

The invited expert for the session was **Prof. (Dr.) C. H. Solanki**, Assistant Professor, Civil Engineering Department, **Sardar Vallabhbhai National Institute of Technology (SVNIT)**, Surat. Dr. Solanki is a distinguished academician and researcher in the field of geotechnical engineering, with extensive contributions in the areas of soil behaviour, foundation engineering, and soil improvement techniques.

Overview of the Session

Dr. Solanki began the lecture by highlighting the importance of **soil investigation** as a fundamental step in any civil engineering project, especially those involving conventional foundations. He emphasized that understanding soil characteristics is essential for ensuring safety, serviceability, and cost-effectiveness in structural design.

The session covered the **objectives, methods, and significance of geotechnical investigations**, focusing on parameters that influence foundation performance. He reiterated that inadequate or improper soil investigation is a major cause of structural failures and construction delays.

Key Topics Covered

- Introduction to Soil Investigation
- Field Investigation Techniques
- Laboratory Testing and Parameters
- Key Design Parameters for Conventional Foundations
- Common Challenges in Soil Investigation
- Case Studies and Practical Insights

Dr. Solanki shared practical examples where soil investigation played a crucial role in optimizing foundation design. He compared successful projects with those that encountered issues due to improper site investigation, highlighting lessons learned for young engineers.

Interaction and Student Engagement

The lecture was highly interactive, with students asking insightful questions related to site investigation practices, interpretation of SPT/CPT results, and selection of foundation types based on soil characteristics. Dr. Solanki encouraged students to connect theoretical learning with field practices and shared useful tips for internships and future professional assignments. The session also included a brief discussion on emerging technologies in geotechnical engineering, such as automated subsurface scanning, advanced laboratory equipment, and the use of GIS for soil mapping. The expert lecture provided valuable insight into the **critical role of soil investigation in foundation engineering**. It helped students understand the practical aspects of geotechnical investigations and the significance of accurate soil data in ensuring safe and economical structural designs.

The Civil Engineering Department expressed gratitude to **Prof. (Dr.) C. H. Solanki** for his informative and engaging session. The event successfully contributed to the R & D Talk Series by enhancing students' technical knowledge and preparing them for industry-oriented challenges.

Glimpses of the Event







“We acknowledge the Principal of SCET and Sarvajanic University for providing the platform and continuous support in organizing this expert lecture.”