



DESIRE 2 DESIGN ENGINEERS

Structural Consultancy & Constructions

Guest Lecture Report

New Technologies in Construction

A session on emerging construction technologies and modern practices for the Department of Civil Engineering

Resource Person	Er. S. Soma Sekhar Naidu — Founder & Managing Director, D2D Engineers
Date	2nd January 2024
Venue	Seminar Hall, DIET Engineering College, Anakapalli
Format	Lecture + Interactive Q&A
Participants	Civil Engineering students & faculty

About the Resource Person

Er. S. Soma Sekhar Naidu, M.E., AMIE, AIV (Chartered Engineer), is the Founder & Managing Director of Desire 2 Design (D2D) Engineers — a structural consultancy and turnkey construction firm offering services spanning structural design, NDT & soil testing, DGPS survey, seismic retrofitting and plan approvals. He visited DIET Engineering College, Anakapalli, to introduce Civil Engineering students to the technologies reshaping modern construction practice.

9 Branches	50+ Professionals	1000+ Projects Completed	500+ Students Trained
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Objectives of the Session

- Introduce students to the technologies reshaping design, construction and site management today.
- Connect classroom fundamentals to real, technology-driven consulting and construction practice.
- Build awareness of digital and non-destructive tools used to assess and monitor structures.
- Offer practical career guidance to students preparing to enter the construction industry.



Topics Covered

- **Modern Construction Technologies** — prefabrication, smart materials and off-site construction methods.
- **Digital Tools in Structural Design** — STAAD.Pro, ETABS and BIM modelling in a live design office.
- **NDT & Structural Health Monitoring** — Rebound Hammer, UPV and IoT-based monitoring of ageing structures.
- **Sustainable & Green Construction Practices** — materials and methods reducing environmental impact.
- **Automation on Site** — how technology is changing execution, quality control and safety.
- **Career Pathways in a Technology-Driven Industry** — where a civil engineer's skills fit as the industry modernises.

Interactive Learning & Demonstration

Er. Naidu walked students through how new technologies — from BIM modelling to Non-Destructive Testing and IoT-based structural monitoring — are changing the way structures are designed, built and maintained. He connected these tools to real project examples from D2D's own consulting practice, and students engaged actively with questions on how a modern design office adopts new technology.

Career Guidance for Future Engineers

- **Start on Site** — a graduate trainee role builds the practical discipline no classroom can teach.
- **Teach to Sharpen Skill** — explaining concepts to others deepens your own understanding.
- **Seek Large Exposure** — work on big, complex projects early to build real judgement.
- **Build Technical Credibility** — deep expertise earns trust and opens new opportunities.
- **Keep Learning Widely** — structural, soil, NDT and PMC skills together make you versatile.
- **Take the Entrepreneurial Leap** — when ready, starting your own practice is a natural next step.

Felicitaton

Er. S. Soma Sekhar Naidu was felicitated with a memento and a ceremonial shawl by the faculty and student coordinators of DIET Engineering College, Anakapalli, in recognition of his time, insight and continued support to the department.



Felicitaton to Er. S. Soma Sekhar Naidu by the faculty and students, DIET Engineering College, Anakapalli

Outcome & Conclusion

The session gave DIET Engineering College students a forward-looking view of civil engineering — moving beyond traditional methods to the digital tools, materials and monitoring technologies reshaping the construction industry. Connecting classroom fundamentals to live technology adoption in consulting practice left students better equipped to enter an industry that is changing quickly, and more aware of where their own skills can grow.

“Great engineers are not only those who design structures, but those who understand how structures behave throughout their service life.”

— Er. S. Soma Sekhar Naidu, Founder & Managing Director, D2D Engineers