

Guest Lecture Report

Bridging the Gap Between Industry and Academia

A session on Strength of Materials, Structural Analysis & Career Guidance for the Department of Civil Engineering

Resource Person	Er. S. Soma Sekhar Naidu — Founder & Managing Director, D2D Engineers	Date	09-07-2026
Venue	College Seminar Hall, Department of Civil Engineering	Format	Lecture + demo
Participants	120 II Year students (core session) + III Year students (career guidance segment)		

ABOUT THE RESOURCE PERSON

Er. S. Soma Sekhar Naidu, M.E., AMIE, AIV (Chartered Engineer), is an alumnus of the college and the Founder & Managing Director of Desire 2 Design (D2D) Engineers — a structural consultancy and turnkey construction firm offering 18 services spanning structural design, NDT & soil testing, DGPS survey, seismic retrofitting and plan approvals. He returned to guide the next generation of engineers through a session connecting classroom fundamentals with live site practice.

15+ Years Experience	1000+ Projects Completed	50+ Skilled Team	150+ Interns Trained
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OBJECTIVES OF THE SESSION

- Connect theoretical Strength of Materials concepts with real, on-site structural engineering practice.
- Build a strong conceptual foundation in stress, strain, bending and structural behaviour ahead of core-subject examinations.
- Engage students through live, hands-on demonstrations rather than a purely lecture-based format.
- Expose III Year students to career pathways, professional licensing, and industry expectations.

TOPICS COVERED

- Stress, Strain & the Stress-Strain Curve — a material's full behaviour, from proportional limit to fracture.
- Beams, Support Conditions & the Bending Equation — why support type changes where and how much a beam bends.
- Support Reactions, SFD & BMD — reading shear force and bending moment diagrams across load cases.
- Moment of Inertia & Torsion — its role in bending resistance and the twisting behaviour of shafts.
- Factor of Safety & Columns — designing well below the limit, and why slender columns buckle.
- RCC Basics & Structural Loads — concrete-steel teamwork, and dead, live, wind & seismic loads.

INTERACTIVE LEARNING & CAREER GUIDANCE

Rather than relying only on the projector, Er. Naidu used a stack of ordinary classroom chairs to physically show how simply supported, cantilever and fixed conditions change the way a beam bends under the same load. All 120 students actively participated in the open Q&A that followed.



III Year — Career Guidance

- Design Software: STAAD.Pro, ETABS, AutoCAD, BIM modelling
- Site Testing: NDT, soil testing, DGPS survey fieldwork
- Professional Licensing: AMIE, Chartered Engineer status, M.E./M.Tech
- Practical Exposure: structured internships — D2D alone has trained 150+ graduates

GLIMPSES OF THE EVENT





Career Guidance Interaction – III Year Students

FELICITATION

Er. S. Soma Sekhar Naidu was felicitated with a memento and a shawl by the faculty and student coordinators, in recognition of his time, insight and continued support to his alma mater.



OUTCOME & CONCLUSION

The session was well received by both II and III Year students. Analogies, live demonstrations and real project examples helped students connect abstract Strength of Materials concepts to tangible engineering practice, while the career guidance segment gave III Year students clarity on the skills, software and licensing pathways ahead of them.

“Every calculation you learn in SOM and every diagram in Structural Analysis prepares you for the day a real client trusts you with a real building. Master the fundamentals — software is easy to learn after that.”

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