

Desai Fula

CIVIL ENGINEERING STUDENT

Email: fula.uce23066@cept.ac.in
Phone: +91-9909712606
LinkedIn: linkedin.com/in/fuladesai
Portfolio: portfolio.cept.ac.in/student/fula-desai-uce23066

PROFILE

Civil Engineering student at CEPT University with practical experience in construction technology, structural engineering, soil testing, and site operations. Skilled in structural calculations, Safe Bearing Capacity (SBC) calculations, foundation design, bore log interpretation, architectural drafting, 3D rendering, and computer vision applications in construction. Strong background in workshop practices, physical prototyping, productivity assessment, and collaborative engineering research.

ACADEMIC PROJECTS

SPRING 2026

PAVEMOTION

Industry 4.0 in Future Construction Technology | Portfolio Link

- Applied digital technology to improve construction quality control by developing an OpenCV computer vision system for automated beam stirrup spacing detection.
- Conceptualized and designed PaveMotion, an automated paver-block laying machine to improve placement accuracy, execution speed, and site productivity while reducing manual labor.

MONSOON 2025

REBAR HOUSE

Designing Spaces Using Reinforced Concrete | Portfolio Link

- Designed a 150 m^2 exhibition space integrating structural principles inspired by August Komendant, combining structural expression with functional spatial organization.
- Developed an architectural layout with inclined walls, open spaces, and natural ventilation housing a reception, café, office, exhibition, and service areas.

SPRING 2025

EXPERIMENTAL APPROACHES IN SHELTER DESIGN

Dynamic Systems (S24) | Portfolio Link

- Engineered an adaptable emergency shelter system using natural folding principles for disaster relief and temporary housing applications.
- Evaluated lightweight FRP sections and structural fabrics through iterative physical prototyping, material testing, and custom joint detailing.

MONSOON 2024

GROUND STABILIZATION

Geotechnical Investigation and Ground Improvements | Portfolio Link

- Investigated fly ash and waste foundry sand as sustainable additives for improving weak soil properties through laboratory experimentation.
- Observed Standard Penetration Tests (SPT) on-site, conducted bore log interpretations, and performed laboratory soil testing.
- Computed Safe Bearing Capacity (SBC) and shear strength parameters to evaluate foundation stability and ground improvement efficiency.

EXPERIENCE

- **Workshop & Model Making:** Hands-on experience with workshop tools, material handling, fabrication, and physical model making.
- **REBAR HOUSE – Site Development:** Contributed to transforming a barren site into a functional exhibition space through site preparation, planning, and execution.
- **Construction Site Study:** Evaluated major construction activities, workflow mapping, resource planning, and site productivity assessments.

SKILLS

- Structural Analysis & SBC Calculation
- Soil Testing & Stabilization
- Architectural Drafting & Rendering
- Site Productivity Analysis
- Workshop Practices & Model Making
- Computer Vision (OpenCV) & Automation

EDUCATION

CEPT University, Ahmedabad 2023–2028

Faculty of Technology | Bachelor of Civil Engineering

SGVP International School 2015–2022

Primary and Higher Secondary

LANGUAGES

English (Fluent) • Gujarati (Fluent) • Hindi (Fluent)