



Vishnuvardhan Mandala

Scientist, Geotechnical Engineering Division,
CSIR-Central Road Research Institute,
Delhi - Mathura Road New Delhi-110025
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🔧 Areas of Interest

Constitutive modelling of geotechnical structures
Slope stabilization and reinforced earth
Ground Improvement techniques
Design of foundations and retention systems
Sub soil exploration and testing

👤 Personal Details

Warangal, India, 506370,
+91-7989571631
mandalavvreddy@gmail.com

🎓 Academic Profiles

[Linkedin](#)
[Research Gate](#)
[ORCID](#)

💻 Skills

PLAXIS (2D & 3D)
GEO5
GeoStudio
L-Pile
STAAD.Pro
Civil 3D
Auto CAD
ArcGIS

🗣️ Languages

Telugu, English, Hindi, Tamil

📅 Internships

Intern – NATM Tunnel
Construction – I & CAD
Department, Govt. of
Telangana

April 2018 — June 2018

📁 Employment History

Scientist – Geotechnical Engineering Division, CSIR - CRRI, Delhi

December 2025 — Till date

Design Consultant - Geotechnical at MM SPA, Chennai

November 2025 — December 2025

Sr. Design Engineer - Geotechnical at L&T Construction, Chennai

October 2022 — November 2025

🎓 Education

Master of Technology - Geotechnical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat

June 2020 — May 2022

Grade Point – 9.63/10

Batchelor of Technology - Civil Engineering, Vaagdevi College of Engineering, Warangal

June 2015 — May 2019

Grade Point – 9.47/10

✨ Professional Memberships

Life Member of Indian Geotechnical Society
Life Member, Indian Geotechnical Society (Warangal Chapter)
Corresponding member, DFI of India, Chennai

🏆 Achievements

- Awarded the **Institute Gold Medal** for securing First Position in the Master of Technology program for outstanding academic excellence – 2022 - SVNIT Surat.
- Recipient of the **Mrs. & Mr. M.D. Desai Cash Prize** for securing First Position in Soil Mechanics and Foundation Engineering – 2022 - SVNIT Surat.
- Honoured with the **Department Gold Medal** for achieving First Position in Civil Engineering – 2019 - VCE Warangal.
- **Runner-up** in the **I-Cu Contest**, recognized for Innovative Thinking and Strategic Acumen (**I-cube**) – 2022 - L&T Construction Chennai.
- Secured **State 4th Rank** in the **Sir C.V. Raman Young Genius Awards**, for excellence in Mathematics, Physics, and Chemistry. – 2010 – Suchir India Foundation.

📄 Research Contributions

a) Journal Publications

1. **Mandala, V.**, Patel, K. A., & Chavda, J. T. (2023). Numerical investigations on response of multistorey building frames subjected to adjacent unsupported excavations. *Geotechnical and Geological Engineering*, 41(2), 1223-1245. <https://doi.org/10.1007/s10706-022-02331-2>.
2. **Mandala, V.** and Chavda, J. T. (2026). Relationship and observations on the plane strain and axisymmetric angle of repose and friction angle of sand. *Geotechnical Testing Journal*. *Under Review*.

b) Conference Publications

1. **Mandala, V.**, Jayamoorthi, D.R.G., Natarajan, S. (2023). Initial Load Test on Pile for CRWS Tank—A Case Study. In: Shah, D.L., Shukla, J., Choudhury, D. (eds) *Deep Foundations for Infrastructure Development in India*, Volume 1. DFI India 2023. *Lecture Notes in Civil Engineering*, vol 619. Springer, Cham. https://doi.org/10.1007/978-3-031-77937-4_18.
2. **Mandala, V.**, Jayamoorthi, D.R.G., Babanrao. D. P. (2025). Utilization of Gabion Fascia Reinforced Soil Wall as a Cost-Effective and Sustainable Solution for Deep Excavations in Irrigation Projects. *Deep Foundations technologies for Infrastructure Development in India*, DFI India 2025.

📄 Patents

1. The design registration of “*Experimental setup for the measurement of the plane strain angle of repose of sand with varying relative density*” is received by Patent Office, Kolkata, India. Inventors: Jitesh T. Chavda and **Vishnuvardhan Mandala**. Application No. 361992-001, CBR Number 200188, CBR Date 05/04/2022, Journal No. 25/2022, Journal Date 24/06/2022.

📁 Professional Experience

Design and Analysis: Conducted comprehensive analyses and designed various geotechnical structures, including shallow, pile, and well foundations, cofferdams, tunnel designs and earthen dams for infrastructure projects.

Geotechnical Investigations: Oversaw field and laboratory investigations, ensuring in-depth review of geotechnical reports. Prepared geotechnical investigation drawings (BH location plans) and recommended optimal testing methods based on project requirements.

Structural Assessment: Performed well-sinking analyses for offshore and onshore intake structures, focusing on design stability and functionality.

Foundation Engineering: Designed and analysed isolated, combined, raft, pile foundations, and well foundations, ensuring compliance with codal guidelines, industry standards and safety regulations.

Retention Structures: Analysed retention structures, including sheet pile, contiguous pile, and secant pile walls, using finite element modelling tools (PLAXIS 2D & 3D), to enhance structural integrity and performance.

Testing and Compliance: Oversaw field permeability, plate load, pile load, and pressure meter tests; reviewed test results to ensure compliance with project specifications.

Earth Structures: Designed earthen dams, cofferdams, and embankments with heights up to 42 m and storage capacities up to 100 MCM across various projects.

Underground Structures: Analysed underground tunnel structures, pipe conduits and rock slopes using Plaxis – 2D.

Project Communication: Created visual reports and bill of quantities during pre-bid and bid stage for various geotechnical and structural works.