



# 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

## ❖ 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

## ❖ Personal Details

Warangal, India, 506370,  
+91-7989571631  
[mandalavvreddy@gmail.com](mailto: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

## ❖ 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](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.