



DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

GANGURU :: VIJAYAWADA – 521 139.

(Approved by AICTE New Delhi, Permanently Affiliated to JNTU Kakinada)

ISO 9001:2015 Certified Institution, Accredited by NAAC-A grade & NBA for CSE & ECE.

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FACULTY PROFILE

Name of the Faculty	Dr. Reshma Malipeddi
Designation	Associate Professor & HOD
Email	reshmamalipeddi@gmail.com
Department	Civil Engineering
Educational Background	1. Ph.D. in Structural Engineering, Andhra University College of Engineering, Visakhapatnam (2019 – 2023) – Thesis: “Effect of Dissolution of Ground Granulated Blast Furnace Slag on Cement Mortar and Concrete” (Mentor: Prof. S. Adishesu) 2. B.E. + M.E. (Integrated) in Civil Engineering, Andhra University College of Engineering, Visakhapatnam (2010 – 2015), CGPA: 8.4, Gold Medalist



Research Areas

Supplementary Cementitious Materials, Microstructural Characterization (SEM, XRD, TGA/DSC), ML-based Predictive Modelling (ANN/SVR) in MATLAB and Python

Experience

10+ Years (Academia & Industry)

Sl. No	Institute	Designation	Period
1	DhaneKula Institute of Engineering and Technology, Vijayawada	Associate Professor & Head, Dept. of Civil Engineering	2026 – Till date
2	Vignan's Institute of Information Technology (VIIT), Visakhapatnam	Associate Professor	2025 – 2026
3	Chaitanya Engineering College, Visakhapatnam	Associate Professor	2023 – 2024
4	Andhra University College of Engineering, Visakhapatnam	Research Scholar (Ph.D. Full-Time)	2019 – 2023
5	GITAM Deemed to be University, Visakhapatnam	Assistant Professor	2016 – 2019
6	Aditya Housing & Infrastructure Corporation, Hyderabad	Assistant Engineer	2015 – 2016

List of Publications (National and International Journals)

- Malipeddi, R. et al. Prediction of Mechanical Strength of Concrete by Novel Method using Artificial Neural Network and Support Vector Regression. European Journal of Environmental and Civil Engineering, Taylor & Francis (2026). <https://doi.org/10.1080/19648189.2026.2689554> (SCIE, Q2, IF=2.4)
- Malipeddi, R. Enhancing Early Reactivity of GGBS via Aqueous Pre-Dissolution: Effects on Strength, Transport and Ternary Concretes. Journal of Building Engineering (2026). <https://doi.org/10.1016/j.job.2026.116297> (SCIE, Q1, IF=8.1)
- Malipeddi, R., Adishesu, S. Impact of Unique Mixing Methodology on Macro and Microstructural Characteristics of Concrete Containing Slag and Fly Ash. Journal of Building Pathology and Rehabilitation, 8, 18 (2023). <https://doi.org/10.1007/s41024-023-00264-8> (Scopus Indexed)
- Malipeddi, R., Adishesu, S. Effect of Pre-Immersion of Slag in Water and Fly Ash as Replacement of Cement at Different Ratios on Durability and Strength Properties of Concrete. Arabian Journal for Science and Engineering (2022). <https://doi.org/10.1007/s13369-022-06957-5> (SCIE, Q1, IF=3.1)

- Malipeddi, R., Adishesu, S. Ground Granulated Blast Furnace Slag as a Cement Replacement in Concrete: An Analysis of Dissolution. Journal of the Institution of Engineers (India) – Series A (2022). <https://doi.org/10.1007/S40030-022-00623-7> (**Scopus Indexed**)
- Malipeddi, R., Jaya Rakshitha, T., Adishesu, S. Flexural Strength Recovery of Repaired RC Beams: Influence of Sealant Type on Bond Performance and Failure Mode. Submitted to Journal of Building Pathology and Rehabilitation (Scopus Indexed, Springer). (**Under Review**)
- Malipeddi, R. Dissolution-Activated GGBS and Fly Ash as Supplementary Cementitious Materials: Mechanisms, Ternary Blend Performance and Low-Carbon Prospects. Submitted to Sustainable Structures (Scopus Indexed) (**Under Review**)

National/International Conferences

- Malipeddi, R., Adishesu, S. Study of Dissolution Parameter of Ground Granulated Blast Furnace Slag as Cement Replacement on Mechanical Properties of Mortar. Materials Today: Proceedings (2021). <https://doi.org/10.1016/j.matpr.2020.10.605> (**Scopus Indexed**)

Patents

Sl. No	Title	Application No.	Published	Claims	Pages
1	Development of Reactive Powder Concrete for High Performance Structural Applications	202541115300 A	05/12/2022	10	15
2	A Viable Alternative to Cement in Concrete Production	202241048626 A	02/09/2022	7	29

Faculty Development Program

- Pedagogical Skills in Engineering, GITAM Bengaluru (2016)
- Advanced Applications of Fluid Mechanics, GITAM Visakhapatnam (2017)
- Concrete Mixing and Proportioning, UltraTech (2019)
- Corrosion Control in Concrete, IIT Madras (2019)
- Sustainable Processes in Civil & Chemical Engineering, BITS Pilani Hyderabad (2019)
- Practical Aspects of ICT Tools & Online Teaching in Current Scenario – Research Foundation of India with Parul University (11–18 May 2026)
- 5-Day Online FDP on “Advanced Structural Health Monitoring, Sensor Technologies, and Data Analytics: Integrating Machine Learning for Infrastructure” – Centre for Teaching and Learning, NIT Warangal with Geethanjali College of Engineering and Technology, Hyderabad (15–19 June 2026)
- FDP on “Principles and Applications of Quantum Computing” – Center for Quantum Science and Technologies, IIT Mandi with SVNIT Surat, CDAC, Pantech Solutions, Digiroad Technologies and QClairvoyance (08–18 June 2026)

Awards or Recognitions

- State Rank 4, AURCET 2017
- Prathibha Award for Academic Excellence, Honorable Chief Minister, Govt. of Andhra Pradesh (2015)

Professional Membership / Certification

- Life Member, Indian Concrete Institute (ICI) – Member No. 13114
- Life Member, National Environmental Science Academy – Member No. 2994

Reviewer / Editorial Board

Reviewer: Innovative Infrastructure Solutions (Springer Nature), Scientific Reports (Nature Portfolio), Iranian Journal of Science and Technology (Springer Nature)

Dr. Reshma Malipeddi