Dr. LINGAMPALLY SAI VINAY
Assistant Professor,
Department of Mining Engineering,
Indian Institute of Engineering Science and Technology (IIEST), Shibpur
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WORK EXPERIENCE

➢ Assistant Professor, Department of Mining Engineering, Indian Institute of Engineering Science and Technology (IIEST), Shibpur (Estd 1856) (15th Sept 2025-Present)
➢ Researcher at Tata Steel (Aug 2024-Sept 2025)
➢ Former Mining Expert, Ministry of Coal, GOI (Oct 2023-July 2024)

RESEARCH EXPERIENCE

➢ Ph.D. research work (IIT ISM Dhanbad, India (QS Ranking 20))
- Study of strata behaviour for stability of continuous miner panels using numerical simulation and machine learning techniques
- PhD Thesis nominated from India by the Indian National Group of International Society for Rock Mechanics and Rock Engineering (ISRM) for the ISRM Rocha Medal 2025

RESEARCH IDs

- Web of Science ResearcherID: **ADE-4568-2022**
- Vidwan-ID: **418143**,
- Scopus Author ID: **57772878200**,
- ORCID iD: **0000-0003-3950-5439**

INDUSTRIAL EXPERIENCE

➢ Valid second-class manager's certificate of competency (Coal) issued by DGMS
➢ Valid gas testing certificate issued by DGMS
➢ Valid first aid certificate issued by St. John's Ambulance Association

TEACHING EXPERIENCE

➢ Lecturer at Sree Kavitha Engg College (06-06 2016 30-04 2017)

ACADEMIC/EDUCATION QUALIFICATION

➢ Doctor of Philosophy (PhD): Mining Engineering (Grade: Excellent)
Indian Institute of Technology (Indian School of Mines) Dhanbad, India
➢ Bachelor of Technology (B.Tech): Mining Engineering
JNTUH University College of Engineering, Manthani, India

RESEARCH INTERESTS

Underground coal mining,mine closure, energy transition, rock mechanics, green mining, coal bed methane, mine safety, and application of numerical simulation, machine learning, and various advanced tools in mining.

ACHIEVEMENTS (AWARDS AND RECOGNITION)

➢ PhD Thesis nominated from India by the Indian National Group of International Society for Rock Mechanics and Rock Engineering (ISRM) for the **ISRM Rocha Medal 2025**
➢ **Speaker's Award**
  - **17th MiningForum**, June 06-07, 2024 at Berlin, Germany
➢ **Letter of Appreciation from Additional Secretary & Nominated Authority, Ministry of Coal, Government of India**

- Mining Engineers' Association of India (MEAI)-**SRG Information Technology Award** 2023-2024
- Mining Engineers' Association of India (MEAI)' Special Award for "**Student Membership Award**" 2022-2023
  - Established MEAI Student Chapter at JNTUH UCEM.
  - Advisory Committee Member and Keynote Speaker at the seminar on "Future of Coal Mining -Coal: A Strategic Mineral."
- **Coordinator**-International Society for Rock Mechanics and Rock Engineering (India)'s Youth Researcher's Forum
- Certified Safety Auditor (completed six days Executive Development Program on **"Safety and Health Management System Audit"** organised by IIT ISM Dhanbad
- Reviewer – Elsevier
  - International Journal of Disaster Risk Reduction (Impact Factor 5.0)
- Reviewer – Springer
  - Geomechanics and Geophysics for Geo-Energy and Geo-Resources (Impact Factor 3.9)
  - Environmental Earth Sciences (Impact Factor 2.8)
  - Journal of Mountain Science (Impact Factor 2.5)
  - The Journal of Supercomputing (Impact Factor 2.5)
- Reviewer
  - Frontiers in Public Health (Impact Factor 3.0)
  - "Rudarsko-geološko-naftni zbornik", Zagreb (The Mining-Geological-Petroleum Engineering Bulletin) (Impact Factor 1.2)
  - Iranian Journal of Earth Sciences (Impact Factor 0.8)
- Chartered Engineer (CIEI) issued by The Institution of Engineers (India)
- 1st PhD holder from JNTUH Manthani.

PAPERS PUBLISHED

- Vinay, L.S., Bhattacharjee, R.M., Ghosh, N. *et al.* Machine learning approach for the prediction of mining-induced stress in underground mines to mitigate ground control disasters and accidents. *Geomech. Geophys. Geo-energ. Geo-resour.* **9**, 159 (2023). (**Impact Factor 5.00**) https://doi.org/10.1007/s40948-023-00701-5
- VINAY, L. S., BHATTACHARJEE, R. M., GHOSH, N., BUDI, G., KUMAR, J. V. & KUMAR, S. 2022. Numerical study of stability of coal pillars under the influence of line of extraction. Geomatics, Natural Hazards, and Risk, 13, 1556-1570. (**Impact Factor 4.20**) https://doi.org/10.1080/19475705.2022.2088409
- Mukesh Vikram., Ram Madhab Bhattacharjee., Partha Sarathi Paul., Lingampally Sai Vinay. Determinants of prioritised influencing factors on coal spontaneous combustion propensity – A Fuzzy-Delphi-geometric mean analytic hierarchy process. Fuel, Volume 356, 15 January 2024, 129541 (**Impact Factor 7.4**) https://doi.org/10.1016/j.fuel.2023.129541
- R M Bhattacharjee., L S Vinay. Application of different Pillar Extraction Methods using Continuous Miner in Indian Underground Coal Mines. presented at: 8th Asian Mining Congress November 2019; Kolkata.
- L S Vinay, G. Budi, A K Dash. An Overview on importance of Coal and the necessity to increase Underground Coal Production. Presented at: Recent Challenges in Mining Industry Organised by CSIR-CIMFR April 2018

BOOK CHAPTERS PUBLISHED

- Vinay, L. S. , Bhattacharjee, R. M. , Ghosh, N., 2022, 'Underground Coal Mining Methods and Their Impact on Safety', in Natural Hazards - New Insights, IntechOpen, London. 10.5772/intechopen.109083. https://www.intechopen.com/online-first/85222

SPEAKER AT INTERNATIONAL/NATIONAL SUMMITS

- Mine Closure: Repurposing of closed and abandoned mines and diversification of local economy, Dr. Lingampally Sai Vinay,17th MiningForum Berlin, Germany, June 7-8 2024

INDUSTRY ARTICLES

- What, Why and How: Green Mining at 5th Coal Log India 2025 organised by Indian Coal Forum.

MINISTRY OF COAL, GOVERNMENT OF INDIA (REPORTS PUBLISHED)

- Energy Cell Annual Report 2023-24 and Monthly Reports
- Report on Mine Closure Activities at Barjora Mine (Internal Report)
- A Report on Coal Demand 2030 (Internal Report)

MEMBERSHIPS

- International Association for Carbon Capture (IACC)
- Closure Planning Practitioners Association (CPPA)
- International Society of Rock Mechanics (ISRM)
- The Institution of Engineers India (IEI)
- The Mining, Geological & Metallurgical Institute of India (MGMI)
- Mining Engineers' Association of India (MEAI)
- Southern African Institute of Mining and Metallurgy (SAIMM)
- Indian Society for Rock Mechanics and Tunnelling Technology (ISRMTT)
- American Rock Mechanics Association (ARMA)
- Society for Mining, Metallurgy & Exploration (SME)
- Indian Energy Forum (IEF)
- Indian Coal Forum (ICF)

COURSES/CERTIFICATIONS

- Lessons from Disasters by Safety in Mines Testing and Research Station (SIMTARS) Australia
- Foundations of Mine Closure and Sustainable Transitions by Sustainable Minerals Institute (SMI), University of Queensland, Australia
- "Focus on Peer Review" by Nature Masterclasses
- What, Why and How: Critical Minerals at IIT Hyderabad
- DST-STUTI Course on "Uses of Advanced Instruments and Numerical Tools for Mining Engineering Applications" at IIT ISM Dhanbad
- Program for Newly Recruited Young Professionals of Nominated Authority, Ministry of Coal at IICM Ranchi
- Journal Citations Reports Certification Program, Web of Science
- GIAN Course on "Rock Mechanics: Recent Advances and Challenges in the 21st Century" at IIT ISM Dhanbad
- $VentSim^{TM}$ Training Course, at IIT ISM Dhanbad
- National training programme on "Research Methodology." , at IIT ISM Dhanbad
- Design and style of a PhD Thesis and Reference Management using Open Source Solutions, at IIT ISM Dhanbad
- Introduction to R-Programming Language for Geostatistical Data Analysis, IIT ISM Dhanbad
- Roadmap for Patent Creation by NPTEL Online Certification, at NPTEL
- Certificate of Proficiency in German (Basic Level A1), at IIT ISM Dhanbad
- Roadmap for Patent Creation NPTEL Online Certification, at NPTEL
- Coal and its Exploration by iGOT Karmayogi
- (1) Mining Lease up to Letter of Intent (2) Mining Plan by iGOT Karmayogi

Best regards,