

Programme Schedule

Day 1: 8th December 2025

9.00-10.30	Desk Registration		
10.00-10.30	High-Tea		
10.30-13.00	Inaugural Session and Keynote Lecture 1: Prof. Rajive Ganguli, University of Utah, USA		
13.00-14.00	Lunch		
14.00-15.00	Keynote Lecture 2: Prof. Simit Raval, UNSW, Australia (Online)		
15.00-15.10			
	Parallel Session 1: AI/ML and Safety Room Session Chair: Prof Ashis Bhattacharya Session Co-Chair: Mr. Anupam Mondal	Parallel Session 2: Environment Room Session Chair: Prof. Jayanta Bhattacharya Session Co-Chair: Shri Amitava Dutta	Parallel Session 3: Georesources Room Session Chair: Dr. MN Bagde Session Co-Chair: Prof. Rakesh Kumar
15.10-15.30	Integrated approach for detection and delineation of iron ore bearing zones using Landsat data and machine learning algorithm Manasa, P., Bishwal, R., Gorai, A.	Extraction of Rare Earth Elements (REE) from Mine Waste: Implications for Green Energy Sources Paul, B.	Making Erdenet copper mine more valuable to Mongolia using cut-off-grade strategy and machine learning Sarantsatsral, N., Ganguli, R.
15.30-15.50	Geopolitical Risk and Rare Earth Element Pricing: A Machine Learning Approach to Forecasting Praseodymium-Neodymium Market Dynamics Nagpal, S., Behera, S.	Impact of particle size on ignition sensitivity of coal dust and explosion suppression efficacy: An experimental study Sahu, A., Mishra, D.	Storage of H ₂ in Clay Minerals for Sustainable Energy Prusty, B., Ghosh, P., Sandilya, P.
15.50-16.10	Assessment of Operational Mining Accident Consequence Severity using MCDM and Event Tree Analysis in a Fuzzy Environment Lalawmpuii, L., Mandal, B.	Experimental Analysis of a Bio-Inspired Aerator for Enhanced Water Oxygenation Charan, D., Mishra, S., Dash, S.	Enhancing Low-Grade Iron Ore Beneficiation through Magnetic Separation and Machine Learning: A Pathway to Efficiency and Sustainability in Mining Behera, R., Kunar, B.
16.10-16.30	Women behind Wheels: How sleep quality, presence of MSDs, and working environment impact dumper operators' job satisfaction Sharma, A., Kumar, A., Vardhan, H., Mandal, B., There, S., Jha, A.	Comprehensive assessment of the environmental impact using geospatial techniques – A case study in the Jharia coalfield, India Sing, D., Das, M., Mankar, A., Koner, R.	Indirect Tensile Responses of Sandstone Rock under High Strain Rate Loading using SHPB and Whole Field Analysis Samal, R., Mishra, S.
16.30-16.50			Rock Excavation Using Blast-Free Techniques - Some Insights on Eco-Friendly Mining Bhagade, N., Murthy, V.

Programme Schedule

Day 2: 9th December 2025

9.00-10.00	Keynote Lecture 3: Mr. Abhishek Somani, CEO - Mining Business, Rashmi Group		
10.00-10.30	High-Tea		
	Parallel Session 1: AI/ML and Safety Room Session Chair: Prof. Rajive Ganguli Session Co-Chair: Prof. Amit Sharma	Parallel Session 2: Environment Room Session Chair: Prof. Suprakash Gupta Session Co-Chair: Prof. Nachiket Bhagade	Parallel Session 3: Georesources Room Session Chair: Dr. Ashim Sinha Session Co-Chair: Prof. I S Rao
10.30-11.00	Prof Ashis Bhattacharya	Prof. Jayanta Bhattacharya	Prof. Boris Albijanic
11.00-11.20	UAV Technology-Based 3D Reconstruction of Mine Dump Slope Using Georeferencing Technique Mankar, A., Koner, R.	Hybrid ANFIS-Based Control of Savonius-Darrieus Wind Turbines: Mitigating Output Fluctuations in an Open Mines Wind Tunnel Environments Singh, Y., Ghosh, S., Maity, T.	Delineation of Sensitive Zones in Charnockite Rock Using Predictor Equations Rathi, K., Verma, A., Gupta, A., Vishwakarma, A., Himanshu, V.
11.20-11.40	Arc Fault Localization in Mining Systems Using Physics-Guided Neural Networks and Electromagnetic Radiation Signatures Nutenki, R., Routray, A., Pradhan, A.	Satellite-Driven PM2.5 Prediction of Korba Coalfield using Random Forest Modelling. Kumar Gond, A., Jamal, A., Verma, T.	Stability assessment of a depillaring panel using bottom ash as stowing material - A case study of an underground coal mine Bagde, M.
11.40-12.00	Reliability Assessment of Dragline using Bayesian Network Jana, D., Gupta, S., Kumar, D.	In-cabin particulate matter exposure of heavy earth moving machinery operators in a surface coal mine Pradhan, D., Patra, A.	Design of support system for longwall gate roadways using displacement profile- A numerical modeling approach Prasanth, D., Kolikipogu, N., Roy, G., Ram, S.
12.00-12.20	Machine learning assisted prediction and optimisation of air-cooled battery thermoregulation system Pandey, H., Ghosh, A., Chang, P., Kumar Gupta, N., Ghosh, S.	Assessment of diesel particulate matter concentration in a mechanized surface coal mining environment Abhishek, P., Patra, A.	Planning and Performance of Single Shield-TBM Excavation in Railway Tunnel: A Case Study of Lesser Himalayas, Uttarakhand, Northern India Kumar, J., Mukherjee, M., Gangwar, A., Dandapat, T.
12.20-12.40	Sustainable Automation in Indian Coal Mining: Addressing Technological Barriers and Envisioning a Resilient Future Moon, P., Mankar, A., Koner, R.	Adsorption of Fluoride from Aqueous Solutions Using Modified Carbonaceous Shale Behera, B., Sahu, H.	Central Ore-Shaft Underhand Cut-and-Fill (COS-UCF): A New Underground Mining Method for Friable Chromite at 200–300 m Depth, Kaliapani, India. Munsi, S.
12.40-13.00	Discovering Patterns of Unsafe Conditions in Aluminum Smelter Using Association Rule Mining Kumar, A., Sharma, A., Biswajit, S., Bhattacharjee, A.	Depth Influence on Optimum Stopping Sequence Selection in Underhand Paste Fill Stopes Vinod Kumar, J., Porathur, J., Reddy, S., Nageswara Rao, K., Prudhvi Raju, G.	Slope Monitoring Techniques and Prediction Methods – A Review Verma, T., Rai, R., Nayak, G., Abdul Mazed, S., Himanshu, H., Kanaparthi, S.
13.00-14.00	Lunch		
14.00-15.00	Keynote Lecture 4: Prof. VMSR Murthy, Director, IIST Shibpur		
15.00-15.10	Coffee Break		
	Parallel Session 1: AI/ML and Safety Room Session Chair: Prof. Debashis Chakravarty Session Co-Chair: Prof. Apurna Ghosh	Parallel Session 2: Environment Room Session Chair: Prof. B K Prusty Session Co-Chair: Prof. B Paluchamy	Parallel Session 3: Georesources Room Session Chair: Prof. Pratik Dutta Session Co-Chair: Prof. S K Patel
15.10-15.40	Prof. NR Thote	Shri Amitava Dutta	Shri MK Pati
15.40-16.00	Artificial Neural Network-Based Prediction of Work-Related Musculoskeletal Disorders in Shuttle Car Operators Shaikh, A., Mandal, B.	Laboratory and Numerical Investigation of Lime Stabilized Fly ash-Overburden Composite Material for Opencast Coal Mine Haul Roads Mallick, S. and Verma, A.K.	Effect of Vertical Joints on the Propagation of Blast Induced Ground Vibrations Vairagare, S., Tripathy, D.
16.00-16.20	Whole-Body Vibration Exposure and Ergonomic Issues of Heavy Earth Moving Machine Operators in Surface Mines: A Major Health Concern Upadhyay, R., Bhattacharjee, A., Patra, A.	Application of Rock Engineering System (RES) Approach to Predict Fragmentation in Iron Ore Mines Behera, C., Ghosh, S., Mishra, M., Panda, P.	Reserve Estimation, Optimisation of Pit Design and Assessing the Impact of Catch Bench Intervals on Overall Slope Angle and Stripping Ratio in Opencast Mine - A Case Study Reddy, R.K.T., Sathish Kumar, M.

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Day 3: 10 th December 2025		
9.00-10.00	Keynote Lecture 5: Shri Satish Jha, CMD, ECL and CMPDIL	
10.00-10.30	High-Tea	
	Parallel Session 1: AI/ML and Safety Room Session Chair: Prof. G P Karmakar Session Co-Chair: Prof. S Sinha	Parallel Session 2: Georesources Room Session Chair: Mr. MK Pati Session Co-Chair: Dr. S R Mallick
10.30-11.00	Shri Amit Kumar Sen	Dr. Prabhat Mandal
11.00-11.30	Mr. Suraj Prakash	Prof. Pratik Dutta
	Coffee Break	
11.40-12.00	Advancing ground vibration prediction for smaller blastholes: empirical and ML-based insights Jaiswal, N., Mishra, M., Vishwakarma, A., Himanshu, V.	Influence of joint parameters on mechanical properties of rock mass: A Review Kumar, V., Verma, A.
12.00-12.20	Predictive Modelling of Surface Miner Productivity Based on Operational Parameters Yadav, A., Behera, S., Sahu, S., Nayak, G., Dey, K.	Effect of the Disturbance Factor and GSI on EDZ Development and Support Efficiency in Hard-Rock Mining Choudhury, S., Mandal, B., Patel, S.
12.20-12.40	Reduced Grip Strength in Jackhammer Operators: The Role of Hand-Arm Vibration Sharma, A., Mandal, B., Prakash, A.	Study of Anisotropy and Uniaxial Stress Dependent P-Wave Velocity for Different Rocks Using Ultrasonic Testing Sarkar, S., Agarwal, H., Kumar, R.
12.40-13.00	A framework for cognitive fatigue evaluation of machine operators in underground coal mines A K, A., Biswajit, S., Bhattacharjee, A.	Development of a Controlled Underwater Demolition Blasting Methodology In Close Proximity to a New RCC Berth Through Structural Vibration Model Modi, S., Murthy, V., Choudhary, B.
13.00-14.00	Lunch	
14.00-15.00	Keynote Lecture 6: Shri Sabyasachi Mohanty, Director (Operations), OMC	
15.00-15.30	Dr. Inumula Satyanarayana	
15.30-15.45	Coffee Break	
15.45-16.30	Panel Discussion and Valedictory Session	