

4th International Conference on Opencast Mining & Sustainability (ICOMS-2021)

Schedule (HALL B)

DAY 1: 13th December 2021

Hall B

2:00 PM to 4:00 PM	Technical Session -B-1		
Theme : Recent Practices & Innovations in Mining Industry			
	Tech papers	Author	Institution
1 (Keynote)	Energy Efficient Ventilation Strategy for Cold Storage of Agricultural Products in abandoned underground mines	Prof. Chang Woo Lee	South Korea
2	Pit and Dump Slope Design of an Opencast Working Over Old Underground Working	A.K. Verma, Piyush Rai and Sahil Sardana	Indian Institute of Technology(BHU) Varanasi
3	Effect of Illumination on Productivity and Design of Optimum Illumination System for the Haul Roads in Opencast Mines	Aditya Prakash, Dr. H. K. Naik	Department of Mining Engineering, NIT Rourkela
4	Innovative strategy for removal of OB cover for main sump formation at Jayant project, on account of major breakdown of Dragline, thereby eliminating unproductive re-handling operations	Ram Baboo Prasad, Raj Kumar Singh, Ankit Jhunjhunwala*	Jayant Area, Northern Coalfields Limited, Singrauli
5	Development of Real-Time Safety Management System in Mining with Smart Technologies	Jong-Gwan Kim, Seung-Jun Kim, Jung-Gyu Kim	Chonnam National University, Korea; Korea Cement Co. Korea
6	Application Of 3-Dimensional Balancing Diagram For Effective Draglines Operating In Tandem	Vikram Seervi, Dr. Nawal Kishore	IIT-BHU, Varanasi
7	Maximization of revenue from either by Mixing/Blending or Segregation practice of different grades in the present GCV system of coal gradation with aim to achieve best quality control	S. S. Sinha, V. K. Agarwal, Veerendra Kumar, Mayank Singh	NCL-HQ, Kakri Project
8	Coal: A source of rare earth elements other than thermal energy	Prashant Modi, Aarif Jamal, Ramita Varshney, Ishwar Chandra Rahi	IIT(BHU), Varanasi
9	Issues in Development and Operation of Open Cast Coal Blocks in MDO Model	Arvind Kumar Singh, Biswajeet Chakraborty, Partha Mazumder	NTPC

Hall B

4:10 PM to 6:00 PM	Technical Session -B-2		
Theme : Opencast Mine towards Industry 4.0 Paradigm			
Sl. No.	Tech papers	Author	Institution
1	Design and Modelling of Haul Roads in Surface Mines using SURPAC and AutoCAD Software	Gourav Kumar Pathak, Dr. Hrushikesh Naik	Department of Mining Engineering, NIT Rourkela
2	Automation and Energy conservation of GWC/SWC pumps used in mining industry with PLC and VVVF drives.	Rajasekhara Reddy.A, Lunavath Hemsingh, Atul Kumar	NLC India Limited, Mine,Neyveli,Tamilnadu
3	Application of Artificial intelligence in monitoring and safety of opencast mining from Excavation to Reclamation.	Rajasekhara Reddy.A, Lunavath Hemsingh, S.Sankaran	NLC India Limited, Neyveli-607803 Tamilnadu
4	Digital Initiatives in O/C Mines	S.P. Singh	WCL Wani Area
5	The Use of Machine Learning Algorithm Models to Optimize the Truck Dispatch System in Opencast Mines	Satyam Choudhury, Dr. H. K. Naik	Department of Mining Engineering, NIT Rourkela
6	A modern monitoring system for surrounding rock deformation control in open cast mining using fiber optic communication system.	Shashi Kanta Tripathy, Sasmita Sarangi	Odisha University of Technology and Research Bhubhaneshwar, KIIT BBSR
7	Software Development for Dump Slope Rating in Indian Coal Mining	Ch Sai Karthik, Dilip Kumar, Keloth Tejaswini, Rajesh Rai, Arunava Ray, R. E. S. Chaitanya Kumar	Department of Mining Engineering, IIT (BHU), Varanasi
8	Fleet Management System in Indian Open Pit Mine: Case Studies	A. K. Dash, Sumant Mohanto, Prince Kumar*, Yugal Kishor Patanwar	NIT, Raipur; Bharat Aluminium Company Ltd. Vedanta, Korba
9	Fleet Management System- Flexible Data Driven Load and Haul Platform	Jason Van Der Watt	South Africa

DAY 2: 14th December 2021

Hall B

9:30 AM to 11: 25 AM	Technical Session -B-3		
	Theme : Are we ready for a Sustainable Future		
	Tech papers	Author	Institution
1 (Keynote)	Sustainable approach for sulfidic mine tailings : Integrated paste technology	Erol Yilmaz	Recep Tayyip Erdogan University, Rize, Turkey
2 (Keynote)	Application of Input-Output Production Modeling and Digitalization for Productivity and Profitability Improvement in Mining Operations	Yoginder P. Chugh*, Siddhartha Agarwal	College of Engineering Southern Illinois University, IL, USA*; IIT-ISM, Dhanbad
3	Optimization of Process Conditions for Production of Hydrogen through Underground Coal Gasification	Priyanka Shrivastava, Pankaj Tiwari, Pradeep Kumar, Rajesh Kumar Upadhyay	IIT (BHU) Varanasi; , IIT Guwahati
4	Sand effect on slump, strength and microstructural properties of cemented paste backfill	Nihat Utku Guner, Erol Yilmaz, Muhammet Sari, Tugrul Kasap	Recep Tayyip Erdogan University, Rize, Turkey
5	Characterization and use of Wastewater from Coal Utilization Plants by using Lysimeter Test	Nikhil Kumar, Dr. Somesh Jena, Dr. H. K. Naik	NIT Rourkela
6	An Ecosystem for Clean Coal-Beyond Beneficiation	Jai Prakash, Hemant Kumar Chauhan, Pranav Shankar Anu, Nikhil Narain	CMPDIL RI 2 & RI 6
7	Geoelectrical Sounding for Groundwater Exploration around Nigahi colony, Singrauli District, Madhya Pradesh, India	Dharmendra Kumar Singh, Dr. Nawal Kishore, Dr. Birendra Prataph, Ishwar Chandra Rahi	Indian Institute of Technology BHU, Varanasi
8	Reservoir simulation and techno-commercial study of CO2 sequestration and enhanced coalbed methane recovery in a coal seam of Raniganj Coalfield	Arpita Roy, Pratik Dutta	Dept. of Mining Engineering, IIST, Shibpur, Howrah, India
9	Environmental Sustainability- By Utilising Waste Silica Sand and Develop It as an Alternative for Natural Sand	Hitanshu Kaushal, Dr. Anupam Bhatnagar	College of Technology & Engineering, MPUAT, Udaipur

Hall B

11:35 AM to 1:30 PM	Technical Session -B-4		
	Theme : Overcoming Challenges of Industry Specific Problem		
	Tech papers	Author	Institution
1 (Keynote)	Managing Environmental Impacts with Optimised Blasting Operations Using Improved Technology	Sushil Bhandari	JNV University, Jodhpur; Federation University, Australia
2	A Review on Blast Performance Monitoring Techniques in an Opencast Coal Mine	Manoj Kumar, Dr. Hemant Agrawal, Sanjay Kumar Dubey, Siddhartha Roy	CMPDI, Ranchi
3	Rock Excavation Challenges in Coal Mining: Thrust Areas and Roadmap	V.M.S.R. Murthy	IIT-ISM Dhanbad
4	Predicting Fragmentation And Ground Vibrations In Dragline Bench Blasting Using Reflection Breakage Index (RBI) - A New Approach	Nachiket V. Bhagade, V.M.S.R. Murthy	IIT-ISM Dhanbad
5	Influence of initiation sequence of blastholes on fragmentation by blasting with special reference to diagonal and V-type firing patterns	Lalit Singh Chouhan, Avtar K Raina , VMSR Murthy	UltraTech Cement Limited, Jaipur; CSIR-CIMFR, Nagpur; IIT-ISM, Dhanbad
6	Mine valuation techniques and its relevance in Indian scenario	Vineeth Balakrishnan, Sujit Kumar Mandal	CSIR-CIMFR, Dhanbad
7	Operational Controls to ensure Coal Quality from Large Open Cast Coal Mines	Arvind Kumar Singh, Pavan Khandwe	NTPC
8	Development of a Methodology for Detection, Monitoring, and Analysis of Slope Instabilities in Surface Coal Mining Environment using Spaceborne SAR Interferometry (InSAR) Techniques	Md Soyeb Alam, Dheeraj Kumar, Souvik, Manish, Ujjawal, Sagar, Niraj,	Department of Mining Engg., IIT(ISM), Dhanbad
9	Strategy for Implementation of Safety Management Plan in Indian Open Cast Coal Mines: An Approach	Prince Kumar, Dibakar Das, A.K. Dash*, Vijay Jain	Bharat Aluminium Company Ltd., Korba, NIT Raipur*

Hall B			
2:00 PM to 3:30 PM	Technical Session -B-5		
	Theme : Are we ready for a Sustainable Future		
	Tech papers	Author	Institution
1	Prediction Of Backbreak In Hot Strata/Fiery Seam Of Open Cast Coal Mine By K-Nearest Neighbour	Mukul Sharma, Bhanwar Singh Choudhary, K. S. Gaiwal	CCL Ranchi, IIT (ISM), Dhanbad
2	Postural Risk Assessment of Heavy Earthmoving Machinery Operators in Mines Using Rapid Upper Limb Assessment	Khane Jithendar Singh, Sanjay Kumar Palei, Netai Chandra , Vivekanand Kumar, Amrendra Kumar & Suprakash Gupta	Indian Institute of Technology (BHU), Varanasi
3	pH effect of tailings on physico-chemical and mechanical properties of cemented paste backfill	Tugrul Kasap, Erol Yilmaz, Nihat Utku Guner, Muhammet Sari	Recep Tayyip Erdogan University, Rize, Turkey
4	Slag effect on properties of cemented paste backfill containing pyritic tailings at different pH values	Muhammet Sari, Erol Yilmaz, Tugrul Kasap, Nihat Utku Guner	Recep Tayyip Erdogan University, Rize, Turkey
5	Assessment of Whole-Body Vibration Exposure of HEMM Operators	Anand S. Sharma, B. B. Mandal*, Sujit K. Mandal, Amar Prakash	CSIR-CIMFR Dhanbad; IIT Kharagpur*
6	Petro-Physical Study of the Shale from Singrauli Coalfield, India	Ved Prakash, Vimal Pal, T N Singh	GSI, NER, Guwahati; NCL, Singrauli; IIT Bombay
7	Feature Extraction in Open Cast Mining Area using Sentinel-1 SAR Data using Morphological Operations	Jasperine James, Arunkumar Heddallikar, Raymond Pinto	Radar Division, SAMEER Mumbai
8	Analyzing risks of the coal supply chain: A quantitative approach	Ajeet Kumar Yadav, Dr. Cherian Samuel	IIT (BHU), Varanasi
3:40 PM to 5 PM	Technical Session -B-6		
	Theme : Holistic Approach to Contemporary Mining Challenges		
	Tech papers	Author	Institution
1	Incremental systematic improvement leading to significant performance enhancement: Chronicle of Bina CHP	L. P. Godse, Anilkumar S, Anurag Shah, Ramesh Thakur	Bina Project, NCL
2	Overburden: Converting Waste to Resource – Way to Sustainable OC mining	Dr Anindya Sinha, P D Rathi, Nandan Kumar Choudhury	NCL-HQ
3	Alternative Dispute Resolution: An opportunity for Coal India	Dr. Siddhartha Priya, LL.B.	Bina Project, NCL
4	An Examination of Human Resource Practices in Indian Coal Industries: A Qualitative Approach	Urmila Rani Srivastva, Shefali Mohaley, S.K. Sharma, Shamini Srivastva, Purnima S. Awasthi, Naman Srivastva	Banaras Hindu University, Varanasi; IIT BHU, Varanasi
5	Co-gasification of Low-grade coal and Waste Biomass blend: Experimental Investigation and RSM based parametric optimization of dual fuel CI Engine	Deepak Kumar Singh, Ritesh Sonkar, Jeewan Vachan tirkey*, Hemant Kumar, Jitendra Kumar Singh	Department of Mechanical Engineering, Indian Institute of Technology (BHU),
6	Coal Stock Management at Mines of MCL – A Case Study	Awadh Kishore Pandey, Nalamasa Sukesh	Mahanadi Coalfields Limited, Sambalpur
7	Investment Prospect of CIL into Variable Renewable Energy (VRE) and BESS Infrastructure vis-à-vis present global scenario	Chitranjan Kumar, Abhijit Pal	Bharat Coking Coal Limited, Dhanbad
5:00 PM	Valedictory Session		