

1. Inaugural Session: Welcome Address, Program Objectives, and Participant Introductions
Session 1: Fundamentals of Geology
Session 2: Exploration Techniques – Geophysical, Geological, and Drilling Methods, Core Logging, and Sampling Methods
Session 3: Reserve Estimation, Classification, and Reporting Standards
Session 4: Software Tools for Geological Modelling and Resource Evaluation
2. Mine Planning and Design
Session 1&2: Principles of Mine Planning

Session 3&4: Visit to Coal Museum, CMPDI
3. Mine Operations

Session 1&2: Surface Mining Techniques – Dragline, Shovel-Dumper, Surface Miner Systems, Heavy Earth Moving Machinery (HEMM) and Mechanized Mining Systems

Session 3 &4: Underground Mining Methods – Ventilation & Strata Management in Underground Mines
4. Visit to IIT (ISM), Dhanbad

Visit to VR museum ;
5. Visit to Opencast Coal Mine
6. Visit to Underground Coal Mine
7. Session 1 &2 : ESG, Just Transition, and Corporate Responsibility;
Session 3 &4 : Industrial Relation and Welfare
8. Session 1 &2 : ESG ,Environmental Management and Mine Closure;
Session 3&4 : Occupational Health and Safety
9. CSR Activities in CIL . IICM
10. Automation, Digitalization, and Smart Mining
Summing up;
Feedback ;
Valediction .