



**ESCI**



**ENGINEERING STAFF COLLEGE OF INDIA**

Gachibowli, Hyderabad-500032, Telangana State.

**CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMME ON**

## **AI Applications in Mining Regulations, Safety and Resource Optimization (Gen AI & Agentic AI)**

**DATE**

**18-20 August 2026**

**VENUE**

**Udaipur (Rajasthan)**

**TIME**

**09:45 Hrs to 17:15 Hrs**

### **AI Applications in MINING**

**Regulations, Safety and Resource Optimization**

Harnessing Artificial Intelligence to build a safer, compliant and highly efficient mining ecosystem

**SMARTER REGULATIONS**  
AI-driven compliance monitoring, automated reporting and real-time risk assessment

**ENHANCED SAFETY**  
Predict hazards, monitor conditions and safeguard workforces with intelligent alerts and analytics

**RESOURCE OPTIMIZATION**  
AI-powered exploration, grade prediction, equipment optimization and cost efficiency

**PREDICTIVE ANALYTICS**  
Anticipate equipment failures and operational risks

**DRONE & REMOTE MONITORING**  
Real-time surveying, inspection and progress tracking

**AUTONOMOUS OPERATIONS**  
AI-enabled equipment for safer and more productive mines

**SUSTAINABLE MINING**  
Optimize resource use and minimize environmental impact

**AI MINING COMMAND CENTER**

**SAFETY MONITORING** **EQUIPMENT HEALTH** **PRODUCTION ANALYTICS**

**RESOURCE MODEL**

**DATA-DRIVEN DECISIONS. SAFER OPERATIONS. HIGHER PROFITS.**

**IMPROVED COMPLIANCE**  
Stay ahead of regulations with automated tracking

**ZERO COMPROMISE ON SAFETY**  
AI systems detect risks early and help prevent incidents

**MAXIMIZED EFFICIENCY**  
Optimize workflows, reduce downtime and improve

**GREATER VALUE**  
Boost productivity, reduce costs and enhance overall resource

**For more information please write to us on [fdpdiv@escihyd.org](mailto:fdpdiv@escihyd.org)**

## **INTRODUCTION:**

The mining industry is undergoing a significant transformation driven by Artificial Intelligence (AI), automation, advanced analytics, and digital technologies. AI-powered solutions are revolutionizing mining operations by improving regulatory compliance, enhancing workplace safety, optimizing resource utilization, reducing operational costs, and supporting sustainable mining practices. This training programme is designed to equip participants with practical knowledge of AI applications in mining regulations, safety management, environmental compliance, and resource optimization, empowering organizations to build safer, smarter, and more sustainable mining operations.

## **OBJECTIVES:**

- To Understand the fundamentals of Artificial Intelligence
- To Explore AI applications in mining regulations, statutory compliance, and governance
- To Learn predictive maintenance and equipment health monitoring using AI.
- To Utilize AI-driven data analytics for mineral exploration, production planning, and resource optimization.

## **CONTENT COVERAGE:**

- Overview of Artificial Intelligence and Industry 4.0 in Mining
- Agentic AI for R&D in Mining
- AI Applications in Mining Regulations and Compliance Management
- AI for Exploration
- Predictive Maintenance of Mining Equipment
- AI for GIS and GNSS
- Resource Optimization through Predictive Analytics
- Digital Twins and Intelligent Mine Planning
- AI-Based Environmental Monitoring and ESG Compliance
- Hands-on Demonstrations of AI Tools and Mining Analytics Platforms

**Methodology:** The programme will be delivered through expert lectures, interactive classroom sessions, live demonstrations of AI-enabled mining technologies, case studies, group discussions, simulation-based learning, hands-on exposure to AI tools and analytics platforms, video-based learning, practical exercises, industry best practices, and experience sharing by domain experts

**TARGET GROUP:** This programme is intended for officials from Central and State Government Departments, regulatory authorities, mining and mineral development agencies, environmental and sustainability organizations, as well as mine managers, engineers, geologists, safety professionals, compliance officers, consultants and technology professionals involved in mining regulations, occupational safety, digital transformation, artificial intelligence and resource optimization.

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|----------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------|
| <b>Non-Residential Fee Per Participant</b>                                                                                       | Rs.40,000 +18%     | Rs.35,000 +18% GST Each<br>(for a batch of Ten)     |
| <b>Twin Occupancy Fee Per Participant</b>                                                                                        | Rs.48,000 +18% GST | Rs. 45,000 +18% GST<br>(For a batch of Eight)       |
| <b>Programme Fee Per Participant: (Residential).<br/>Special Feature: Spouse stay is complimentary and meals are chargeable.</b> | Rs.55,000 +18% GST | Rs. 50,000+18% GST Each,<br>(For batch Size of Six) |

#### **GENERAL INFORMATION :**

- Hotel Check in Date & Time : 17 August 2026 from 12.00 pm afternoon
- Hotel Check out Date & Time : 20 August 2026 before 12.00 pm afternoon
- Programme starts on 18 August 2026 from 9.00 Hrs morning onwards
- Programme ends on 20 August 2026 by 12.00 pm Afternoon

**To Register, please send nominations with Name, Email ID and Contact No of participants to mail Id:** [fdpdiv@escihyd.org](mailto:fdpdiv@escihyd.org)

**CERTIFICATE:** A certificate of participation will be awarded to each participant on conclusion of the programme

#### **ESCI ACCOUNT DETAILS :**

Beneficiary Name: IE(I)-Engineering Staff College of India

A/c No: 10007111201 with SBI Bank, Raj Bhavan Road Branch

RTG'S/ NIFT/ IFSC/Code No: SBIN 0004159

#### **PROGRAMME DIRECTOR:**

**Er.Sai Kishore.P**, MIE, M.Tech(EPS), MBA, (Ph.D)

Head(FDP Cell) & Programme Director.

Nodal Officer-DST Programs

Engineering Staff College of India

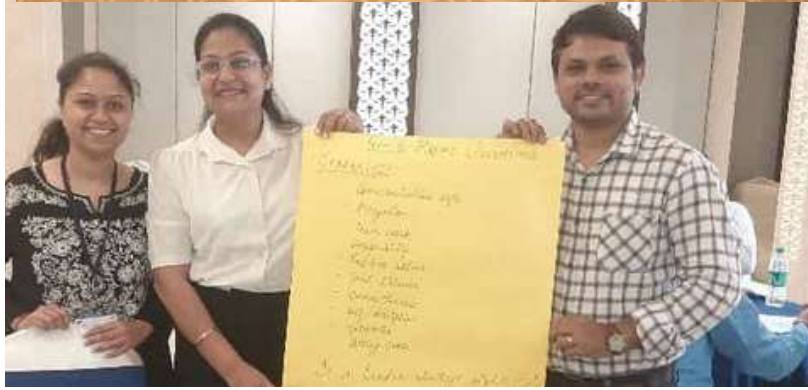
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# Glimpses of our recent programme at Shillong, Udaipur, Shimla, Manali, Ooty, Coorg, Portblair, & Mizoram



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