# **Short Term Course on**

# "Techno-Economic and Sustainable Future Mining Solution in Indian Coal Industry"

(21.04.2020 to 25.04.2020)

# **Department of Mining Engineering, IIT Kharagpur**

Development of human resource and appropriate technology adoption are highly essential in the present Techno-economic coal Mining scenario of the country.

It is a need of the hour to develop management skills within the mining companies for sustainable and eco-friendly mining solution. Indian coal industry needs to enhance the capability of coal production from underground coal mines which is currently contributing only around 6% of total coal production in the country. For this leap from the current level, the underground mining that produces around 45Mte now requires to enhance to the level of around 100Mte. Opencast coal mining in India is also to contribute the bulk output (over 90%) of coal with eco-friendly mining practices & technology up-gradation. It needs proper planning, appropriate technology adoption, suitable mechanization, Human Recourses to achieve the goal. The existing practicing engineers and new incumbents have to be developed accordingly for suitable technology adoption, sustainable and techno-economic mining solution. IIT Kharagpur with its Department of Mining Engineering is dedicated to serve the nation and ready to play its role in the present scenario. Keeping these in mind a short term course under Continuing Education Programme has been designed for the practicing engineers, planners, equipment manufacturers of the Coal Industry.

The aim of the course is to address the following relevant spheres in Indian coal mining practices:

- Advances in the globe on technological front and its applicability in Indian coal mining Scenario.
- Mining practices now and scope of technology up-gradation for both Surface and underground operations with equipment selection in mining.
- Assessment on capacity utilization and mode of capacity enhancement via-à-via mine economics.
- Future U/G & O/C coal mining operations and their Techno-Economic viability with safety.
- Underground coal mining in India and associated constraints, scopes of amalgamation of smaller units for integrated economic operation.
- Legislative changes and **management of mine safety** in the **changing coal mining** Scenario.
- Mitigation on Environmental challenges, means for effective mine closure and **post mining liability** management.
- Planning, implementation for surface & underground coal mines with appropriate **Technology Adoption.**
- Formulation, Management and operation of high capacity u/g & mega o/c mines with advanced technology solution

#### **Course Object**

Future Mining Solution for sustainable coal mining - Eco- friendly, Techno-Economic coal wining in India with equipment selection for bulk output with safety.

#### **Course Outcome**

After attending the course the participants will be able to meet the challenges on -

- 1. Mining practices needed in current Indian coal mining scenario for sustainable development.
- 2. Accept appropriate mining technology for planning and operation towards achieving the targeted coal production with a Techno-economic operation.
- 3. Select & plan for suitable sites in high capacity mine planning and required operations to meet the organizational objective.
- 4. Develop analytical thinking for **Technology up-gradation of mining activities.**
- 5. Able to contribute towards **improvement in production and productivity** including **optimization of manpower in mines and thus improvement in mining & safety performance.**

- Selection of suitable **equipment towards mechanization and their operation and** maintenance being need of the time.
- Skill development for time bound project implementation, production, planning and commissioning the coal projects with appropriate technology adoption for future Techno-Economic mining solution.

## **Participation**

This course will be useful for the executives and engineers working in the middle and higher level management in the coal mining industry including equipment manufacturer, scientific organizations and stake holders too in the Industry.

### **How to Send Nomination**

Name of the nominees to be sent with their designations and addresses to the course coordinator, Dept. of Mining Engineering, IIT kharagpur by 18.04.2020

# **Accommodation**

Participants accommodation is normally booked at the Technology Guest House of IIT Kharagpur on prior request. Alternatively, there are local hotels available in the town. However, the accommodation in the campus is considered to be convenient. Early booking is necessary as there are limitations in the guest house facility. Prior intimation to the course coordinator, course Asst. will solve the accommodation purpose of participants nominated to attend the course. Early nomination will help to facilitate booking of guest house at IIT Kharagpur being the best option with nominal charges. Both fooding & lodging at our IIT guest house is usually arranged at a most reasonable charges for convenience of participants in IIT campus.

#### **Course Fee**

The course fee of this non-residential course is Rs. 30,000.00 per participant payable by demand draft in favor of "CEP-STC, IIT, KHARAGPUR" payable at Kharagpur or by electronic money transfer to "CEP-STC, IIT Kharagpur" to the Account Number- 95562200002955 of Syndicate Bank at Branch SRIC-IIT Kharagpur (IFSC Code:SYNB0009556).GST is to be paid additionally (18% now). The course fee will not be refunded unless the nomination is withdrawn 3 (Three) weeks prior to course-commencement. The course fee does not include boarding and lodging charges. IIT Kharagpur is exempted from Income Tax and while sending the course fee no TDS is applicable. However GST (18%) is to be paid as applicable now as per Govt. directives over the above course fees. Companies sending 5 participants will avail the following reduced fee if payment made within 6 weeks of the course i.e. by 11th June'20 fund transferred to IIT Kharagpur.

- 1. For 5 participants: Rs. 1,40,000.00 (excluding boarding and lodging)if fund transferred by June 11, 2020
- 2. More than five participants: Rs. 28,000.00 for every additional participant (excluding boarding and lodging) if course fee transferred to IIT by 11<sup>th</sup> June'20
- 3. The above course fee does not include the GST which is to be paid additionally by the sponsors as per GOI rule.(18% now)
- 4. The concessional/reduced course fee is applicable only when the course fee is transferred to above IIT A/C within the above stipulated time i.e. by June 11, 2020

#### **Address for Communication**

For any other information or sending nomination please write to:
Prof. M. P. Dikshit
Course Coordinator
Department of Mining Engineering
IIT Kharagpur – 721302

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