## **Short Term Course on**

# <u> "Techno-Economic Coal Mining & Coal Beneficiation in India"</u>

### (From 12.11.2018 to 16.11.2018 at the Department of Mining Engineering, IIT Kharagpur)

Indian coal mining industry needs now proper human resource development, appropriate technology adoption and management skills within the coal producing companies for Techno-Economic/ sustainable coal mining & Coal Beneficiation in the country. Indian coal industry also needs to enhance the capability of coal production from underground coal mines which currently contributes only around 6.5% of total coal production. For this leap, the underground mining that produces around 45Mte now requires to enhance to the level of 100Mte. Surface (o/c) mining is to contribute the bulk (around 90%) of coal output in country with technology up-gradation & ecofriendly mining practices. Beneficiation of coal with advanced practices/technology now is also of immense importance. To achieve this within a period of around 4 years, it will require proper planning, appropriate technology adoption and mindset towards the goal. The existing practicing engineers and new incumbents have to be groomed accordingly for technology adoption and its economic sustainability. 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, coal beneficiation personnel, equipment manufacturers in **Coal Mining and coal beneficiation** Industry. This course will address the following issues:

- Advances in Coal Mining Technology in the globe & its applicability in Indian conditions.
- Analysis of current mining practices and scope of technology adoption for both Surface and underground operations.
- Techno-economic solution for future U/G & O/C coal mining with safety.
- Appraisal of economic performance of underground coal mines in India and associated constraints for integrated economic operation.
- Legislative supports and **management of mine safety** in the **changing coal mining** Scenario.
- Fundamentals and importance of coal preparation with special reference to Indian coal & Modern practices in coal beneficiation.
- Performance evaluation & effective operation of existing coal washing/beneficiation units.
- New concepts of yield optimization with changing feed coal washability characteristics.
- Dry coal beneficiation problems and prospects. Flow sheet design principles for the upcoming coal washing plants.
- Techno-Economic Mining Solution for sustainable coal mining and future ecofriendly coal mining & scientific Coal Beneficiation.

## **Course Outcome**

After attending/participating this course the participants will be able to -

- Select appropriate mining technology for planning and operation towards achieving the targeted coal production economically.
- Explain the mining practices needed for current Indian coal mining scenario for sustainable development to meet organizational objective.
- Contribute towards **improvement in production and productivity** including optimization of manpower in mines.
- Detailed understanding of the scientific principles associated with various coal beneficiation techniques.
- Selection of **appropriate coal beneficiation equipment** for the upcoming plants.

- Yield optimization techniques of the coal beneficiation plants with changing feed coal characteristics.
- Develop skill for time bound projects implementation and production commissioning with appropriate technology adoption for economic mining & effective coal beneficiation.

#### **Participation**

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

#### **How to Send Nomination**

Please send the names of the nominees with their designations and addresses to the course coordinator before 05.11.2018.

#### **Accommodation**

Accommodation for the participants **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 coordinator, course Asst. will solve the accommodation purpose for the course.

#### **Course Fee**

The course fee of this <u>non-residential course</u> 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). The course fee will not be refunded unless the nomination is withdrawn 3 weeks prior to course-commencement. The course fee does not include boarding and lodging charges. <u>IIT Kharagpur is exempted from</u> Income Tax and while sending the course fee no Tax should be deducted. 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:

- 1. For 5 participants: Rs. 1,40,000.00 (excluding boarding and lodging)
- 2. More than five participants : Rs. 28,000.00 for every additional participant (excluding boarding and lodging)
- 3. The above course fee does not include the GST that will have to be paid additionally by the sponsors as per GOI rule.

#### **Address for Communication**

For any other information or sending nomination please write to: Prof. M. P. Dikshit, Course Coordinator & Prof. A.K Majumder, Co-Coordinator Department of Mining Engineering IIT Kharagpur – 721302 Phone: 03222283712/81838; Mobile: 09433002310, 09476481268 Fax: 03222282700/282282 E-mail:dikshit1955@gmail.com / majumder1965@gmail.com Course assistant: Mr. Sourav Mandal (0) 9732952854, E-Mail: souravm.iitkgp@gmail.com