

Short Term Course
under
Continuing Education Program of IIT Kharagpur
on
**RISK ASSESSMENT OF OCCUPATIONAL EXPOSURE TO NOISE AND
VIBRATION IN MINES**

(April 14-18, 2020 at the Department of Mining Engineering, IIT Kharagpur)

Occupational noise exposure due to deployment and operation of mining machinery and plants is a major health hazard which affects millions of mine workers as well as the residential areas in and around the mining complexes. Exposure to noise leads to multiple adverse effects on physical and mental state of the mining community as a whole. On the other hand, drivers of earth-moving machines are exposed to whole-body vibration (WBV). Many of them (~85% in one study) are already suffering from LBP (low-back pain). In mining operations there can be a combination of relatively high intensity of vibration and long exposure durations at work. Effective risk mitigation requires understanding of the main aspects of a risk that pose a hazard to health.

Directorate General of Mines Safety (DGMS) has circulated the Recommendations of Xth and XIth Conferences on Safety in Mines wherein Noise Mapping in mines and Vibration studies of mining equipment have been made mandatory. Not only for statutory compliance but also for serving the mining community in a better way, the mines require enhancement of theoretical and practical knowledge in these fields. In view of the above, Department of Mining Engineering IIT Kharagpur is organizing a 5-day short course on risk assessment of occupational exposure to noise and vibration which is specially designed for Indian mines.

Objectives

- To develop knowledgeable and trained manpower within the mining industry for Noise and Human Vibration monitoring and health risk assessment
- To disseminate knowledge on Noise Mapping software and technologies for application in mining projects.

The following broad areas will be covered in the course:

- Impact of noise on mining and surrounding areas
- Area noise monitoring and personal noise dosimetry
- Environmental noise propagation and Geo-informatics for mining areas
- Monitoring of whole-body vibration and assessment of associated health risk
- Introduction to Noise Mapping theories and best international practices
- Noise modeling and Noise mapping software
- Hands-on exercise on noise monitoring, noise mapping
- Hands-on exercise on equipment vibration measurement and risk Assessment

Course fee

The course fee of this [non-residential course](#) is **Rs. 30,000/-** per participant. Payment can be made by either of the following options.

1. Payable by demand draft in favor of "**CEP-STC, IIT, Kharagpur**" payable at Kharagpur
2. Electronic money transfer to "**CEP STC IIT Kharagpur**" to the account number **95562200002955** of **Syndicate Bank at Branch SRIC IIT Kharagpur (IFSC Code SYN0009556)**. **Transaction ID (NEFT/RTGS No. with date)** is essential while transferring the course fees through electronic money transfer.

The course fee does not include boarding and lodging charges. IIT Kharagpur is exempted from Income Tax and while sending the course fee NO TAX should be deducted. GST @18% will be charged extra as per GoI rules.

Accommodation for the Course Participants

The course will be **Non-Residential**. Accommodation in the campus is considered convenient and can be booked at the **Technology Guest House on payment basis of IIT Kharagpur** on prior request.

Address for Communication

For any other information or sending nomination please write to:

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Department of Mining Engineering, IIT Kharagpur

Set up in the year of 1956, the Department of Mining Engineering has steadily grown as one of the best mining education centers in the country. Besides offering undergraduate, postgraduate, and doctoral courses in Mining Engineering, it is actively involved in short term courses and research activities in the areas of Mine Planning and Design, Mine Safety and Occupational Health, Mine Fire and Explosions, Ventilation networks and design, Rock Mechanics and Ground Controls, Underground and Surface Environment, Coal preparation and mineral processing, Geometrics and Remote Sensing, Mine Closure Planning and relevant computer applications. Short-term courses, industrial consultancy, sponsored research programs and postgraduate project works are part of the department's regular activities.