

**Short Term Course**  
**On**  
**Surface Mining: Safety and Productivity, 2015 (SMSP-15)**

**April 27<sup>th</sup>-29<sup>th</sup>, 2015 at Department of Mining Engineering, IIT Kharagpur**

Success of future surface mines will depend on careful handling of large size machinery, GPS technology remote diagnostics, automation and robotics along with reliable down time minimizing techniques etc. Wide range application of data acquisition system, digital ore body modeling integrated with mining machinery controls, computerized mine planning, reliable on line machine diagnostics and advanced communication systems will make the industry more competitive. Implementation of automation, cleaner mining systems and advances of machinery management etc. will be needed for the promising growth.

We at the Department of Mining Engineering of Indian Institute of Technology, Kharagpur believe in continuous and lifelong learning and we design courses for the engineers in the mining Industry to train them in specific areas. The present course is one of such courses for the practicing engineers in Indian opencast mines.

**Accommodation of Course Participants**

The course will be *Non-Residential*. Accommodation in the campus is considered convenient and can be booked at the Technology Guest House 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, IITKharagpur**

Set up in the year of 1956, this Department has steadily grown as one of the best mining education centre 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 Mining Machinery, Mine Safety and Reliability, Mine Fire and Explosions, Model Studies in Ventilation, Rock Mechanics and Ground Controls, Numerical Analysis of Mine Structures, Underground and Surface Environment, Geometrics and Remote Sensing, Mine Closure Planning and relevant computer applications. Short-term courses, consultancy, sponsored research programmes and postgraduate project works are part of the department's regular activities.

## Welcome to the SMSP-15 Training Brochure 2015



In the today's competitive world, it goes without saying that keeping up to date and continuing learning throughout one's career is indispensable. We at the Department of Mining Engineering, IIT Kharagpur are committed to contribute to Continuing Professional Development in the mining industry.

With a team of highly qualified people with expertise in diverse fields, we are leading provider of higher education and research in mining and allied fields. We are also provider of quality training to practicing mining professionals.

The present course on *Surface Mining: Safety and Productivity* is designed to suit all levels of ability in mining, whether you are a mining engineer carrying out drilling and blasting, a civil engineer in charge of roads and facilities, a mechanical/electrical engineer responsible for productivity of machinery or an environmental engineer to ensure environmental conservation and restoration.

Specialist trainers deliver this training course, and the number of delegates is kept limited to ensure that everyone receives individual attention and achieves their learning goals. The course is open to all companies willing to send more than five participants enjoy preferential reduced rates.

### New for 2015

We have included a new Topic in SMSP-14. It was case studies of *application of Vetiver System Technology for spoil dump management and for Catchment Area Treatment (CAT)* around surface mining projects. For SMSP-15 we have added a topic on *Safety and Productivity through Outsourcing Management* with some analysis of present practices. We expect the participants will be able to prepare a list of required initiatives for their place of work.

### Developing your team

We can offer attractive discounts for booking more delegates to this course and can also create bespoke training courses, tailored to your organization and delivered at your place.

Other than this course you can contact the undersigned for the following courses that are regularly organized:

1. Remote Sensing and GIS for Environmental Management and Mine Closure Planning
2. Vetiver System Technology for CSR and EMP integration
3. Mining Machinery: Maintenance and Capacity Utilization
4. Bulk Material handling in mines, plants and ports
5. Mineral Economics and Mining Finance: what the mine managers must know

Dr. Khanindra Pathak,  
Course Co-ordinator  
Professor & Head, Department of Mining Engineering

**Continuing Education Programme (CEP)** is undoubtedly one of the essentials to the growth of efficiency and deliverance of results by professionals in industry. This can be achieved through an ongoing, structured process designed to update knowledge, and maintain and enhance professional competence and personal effectiveness. A CEP programme therefore attempts to incorporate new learning that can leave durable impressions in mind and induce subtle impacts that result in increased effectiveness of people.

The participating professional in the course must identify their competencies and the required competencies of their work place and continuously thrive by reducing the gaps. The present training programme will assist to achieve this.

## **Monitoring Objectives**

The nominees for this course will be asked to record their objectives. Following the course, delegates should consider whether they have met their objectives and to consider any further development opportunities arising. This is proven to aid the learning process and reflects our policy – to plan, undertake and reflect upon professional development activity.

Through the deliveries in the course we try to expose standards, theory and methodologies, specific knowledge areas, interpersonal skills and latest tools and techniques with special attention to their applicability in specific mining environment.

The participants will be encouraged to continue their exposure to the learning environment at the Department of Mining Engineering at IIT Kharagpur for their professional development using various online resources and contacts.

## **The benefits**

### **Meeting the experts**

The faculty members delivering lectures in the course are highly qualified in their areas and possess wealth of national and international exposure and experience. Many of them share their experience through case studies and can offer hand on experience in using decision making tools. The participants get an opportunity to discuss their specific problems with them.

### **Cost effective**

The participants from different companies share the cost of the course. Conducting the course for training few participants of your company alone would be very costly. Thus your company saves money.

### **Flexibility**

Should you require something more tailored to your exact training requirements, we can also develop a course to suit your specific needs.

### **Building Relationship**

The course participants get opportunity to meet their peer groups in different companies. Sharing the experience of best practices of relevant fields results in long term relationship in solving industry problems.

The purpose of this three-day course is to enable the participants to enhance their understanding of surface mining operations in the light of the recent trends of developments to apply in their work place. This includes an assessment of the techniques of the safety and productivity enhancement in mines with special attention to the post mining liabilities. Spoil dump management and Catchment Area Treatment issues are highlighted in this course.

## Who should attend?

- ✓ This course will be suitable for those who have already had exposure to surface mining and are exposed to organizational practices through work experience in surface mining operations.
- ✓ The managers, executives and supervisory staff engaged operations and planning of surface mining.
- ✓ Surveyors working in surface mines will also be benefitted.
- ✓ The course will be very helpful in discharging their duties particularly for the Safety Officers, Environmental Managers and Excavation Engineers

## How will this course benefit you?

Upon completion you will be able to:

- Identify and evaluate the recent developments in surface mining technologies that could be useful for their work sites and how to introduce them through outsourcing
- Define the requirements of safety and productivity enhancement in mines and plan a programmes to achieve that
- Explain how to undertake safety and productivity audit in their mines.
- Prepare an executable project proposal for

### Fees

Rs. 20000.00 per participant.

Payable by demand draft :

in favor of "CEP-STC, IIT, Kharagpur"

at Kharagpur

**Fee does not include boarding and lodging charges.**

spoil dump management and Catchment Area Treatment

## Course programme

- During this interactive course the following topics will be covered:
  - Purpose and role of **outsourcing management** in different surface mining activities
  - Professional issues of safety and productivity in mines and their audits
  - Procedures for safety and productivity auditing audit planning
  - Basics of spoil dump management: stabilization and reclamation
  - Catchment Area Treatment: what it is and how to do it
  - Introduction of vetiver system: preparing proposal for system implementation

**Pre-course work** Before the course, the participants can contact us for preparing the participation materials and basic information relevant to the course. If necessary they will be provided pre-course study materials for specific purposes.

## Duration

 Three days

Please send the names of your nominees with their designations and addresses to the Course Coordinator before **10.04.2015**.

IIT Kharagpur is exempted from Income Tax and while sending the course fee no Tax should be deducted.

Companies sending more than 4 participants will avail the following reduced fee:

1. For 5 participants: Rs 95000/-
2. More than five participants: Rs. 17500/- per additional 1 participant.