

*5 –Day Continuing Professional Development Programme*

# **Comprehensive Course on Drilling and Blasting for Engineers & Managers**

**7 – 11 April 2025**



**Mining Division**

**Engineering Staff College of India**

An Autonomous Organ of The Institution of Engineers (India)

***Centre for Promotion of Professional Excellence***

## **Introduction.**

Drilling and Blasting are critical and vital operations in Mines & Civil Engineering Projects which have a direct bearing on the downstream operations such as loading, hauling and crushing. Fragmentation of rock by blasting with explosives is still the most economical method facilitating excavations in mining and civil construction. Selection of explosives, blast initiation systems, blast geometry and drill-hole pattern would ensure optimum fragmentation and reduction in the potential to cause accidents and damage to any infrastructure in the vicinity. Latest trends in blasting technologies, automation and digitization solutions have the potential to improve productivity, workers' safety and address any social challenges. Thus, blasting technology is evolving continuously and is emerging as a full-fledged science.

## **Objectives**

The objective of the programme is to update the knowledge of engineers, managers, engaged in mining dealing with drilling operations, explosives, blasting accessories and to expose them to latest technologies and practices in drilling and blasting operations

## **Course Coverage**

- Basics of rock geology related to drilling and blasting applications
- Fundamentals and vital aspects of drilling & blasting and optimization of rock blasting
- Process of fragmentation - various techniques, design, methods and applications including environmental aspects.
- Advancement in blasting including electronic detonators
- Control blasting techniques integrating social, environmental, health, safety, security challenges to provide better solutions
- Software for design, analysis and assessment of blasting performance
- Application of IoT, Unmanned Aerial Vehicle & Drones in blasting best practices

## **Benefits to Participants**

- Evaluation and optimization of blast performance and production improvement.
- Efficient blast design depending on various site conditions and specifications.
- Avoiding dangerous practices & promoting safe blasting procedures.
- Management of fly-rocks, vibration levels and other hazards associated with blasting operations
- Regulations, Rules and other statutory restrictions.
- Environmental effects and techniques of measuring and alleviation of the undesirable side effects
- Update on the latest state of technology and software in explosives and blasting.

## **Methodology**

Lectures / presentations, Interactive sessions, Case studies.

## **Resource Persons**

The resource persons consist of experts from the Industry, Research establishments and Academia besides in-house faculty from ESCI.

## **Target Participants**

This programme would be useful to engineers, executives, managers, blasting personnel, contractors etc. in the field of mining engineering, civil engineering, drilling & blasting, geology, geo-physics

## Programme Dates & Timings

7-11 April 2025

10.00 am - 4.00 pm each day

## Course Fee

- **Residential :** INR 30,000/- (Rupees Thirty thousand ) per participant which includes course material, course kit, twin-sharing AC accommodation, breakfast, lunch, dinner, tea and snacks during the actual days of training programme.
- **Non-Residential :** INR 24,000/- (Rupees Twenty Four thousand) per participant which includes course material, course kit, lunch, tea and snacks during the actual days of training programme.
- **Special concession of 10% in course fees to organization for 5 or more nominations and attendance.**
- **ESCI provides complimentary boarding & lodging for the participants a day prior to the commencement of training programme and a day after the conclusion of the programme (check in & check out at 12:00 noon respectively).**
- **Overstay charges will be extra as per ESCI norms.**
- **Spouses may be allowed to stay along with the delegates with prior intimation and on additional payment of nominal charges of INR 1500/day.**

Goods and Service Tax @ 18% is to be paid extra over and above the programme fee. [PAN Card No AAATT3439Q](#); [GST No. 36AAATT3439Q1ZV](#). [H.S. No. 999293](#) (Under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994).

Programme fee is to be paid in favour of “THE IE(I) – ENGINEERING STAFF COLLEGE OF INDIA” in the form of Cheque / Demand Draft (DD) payable at Hyderabad. Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - [SB A/c No. 33705165550](#) with State Bank of India, Manikonda Branch, Door No.2-30/1, Indira Nagar, Gachibowli, Hyderabad – 500032, our [NEFT/RTGS/IFSC Code No. SBIN0011076](#) – [MICR No. 500002107](#).

While using EFT method of payment, please ensure to communicate your company name, our Invoice reference and programme title.

## Registration

To register, please send your nominations by providing name, designation, contact address, email address, mobile no, telephone of the participant along with the details of mode of payment of fee, addressed to: [mining@escihyd.org](mailto:mining@escihyd.org).

## Certification

A ‘Certificate of participation’ will be awarded to each participant on conclusion of the programme.

### **Profile of Expert Faculty**



**Mr. P Ranganatheswar** graduated in Mining Engineering from Osmania University worked in The Singareni Collieries Company Ltd (SCCL) gaining experience in the coal mining from conventional, semi mechanized to highly productive long-wall faces. Later joined the Directorate General of Mines Safety and superannuated as Dy. Director General. He worked as Secretary to the Board of Mining Examinations (Coal and Metal). He visited Germany, France, U.K., Australia, USA, South Africa and China.



**Dr. P Balamadeswaran** graduated in Mining Engineering from the College of Engineering Guindy, Anna University. He holds M. Tech in Opencast Mining and Ph.D. in Mining Engineering with special reference to ‘Investigation of Blast Design Parameters on Rock Fragmentation and Ground Vibrations in Opencast Mines’ obtained from the Indian Institute of Technology (ISM), Dhanbad. He is also a holder of First-Class Manager’s Certificate of Competency (Metal-Restricted) and a Recognized Qualified Person (RQP). He worked in Hindustan Copper Limited, Madhya Pradesh and in Tamil Nadu Industrial Explosives Limited, in a MNC located in Indonesia, and M/s. Dempo & Co (P) Limited, Goa. Presently, working as Assistant Professor in the Department of Mining Engineering, Anna University.



**Dr D Venkat Reddy**, Doctor of Philosophy [Ph.D.]-Geology, Osmania University, Hyderabad, Telangana State, India in 1985, Head of Department of Civil Engineering, National Institute of Technology Karnataka. Consulting Faculty, Larsen & Toubro (L&T) Construction-Heavy Civil Infrastructure, Chennai, Tamil Nadu, Adjunct Professor, Dept of Civil Engineering – Dr. Babasaheb Ambedkar Technological University , Maharashtra and visiting faculty, Reva University, Bengaluru.



**Manish Sinha**, a Bachelor of Technology in Mining and Master of Technology in Industrial Engineering from IIT (ISM), Dhanbad and has put in more than 38 years of experience in the Oil & Gas, and Mining

He worked as Executive Director under Business Development Group of Indian Oil Corporation Limited and has special expertise domain in business re-engineering. He has been a team member for Bulk Emulsion Technology transfer from IRECO INC [USA], the pioneer and leader, to Indian Mining conditions.



**Mr. Srikanth vairagare**, Managing Director at Uttam Blastech Pvt Ltd Explosives Engineering, Leading Uttam Blastech Pvt Ltd for over two decades, his tenure is marked by a commitment to strategic leadership and excellence in Excavation and Mining engineering. His team's innovative solutions have significantly advanced the excavation sector, under pinned by robust solutions and a strategic approach that continually aligns with their mission to set industry benchmarks.



**Mr. Kandi Sandeep Reddy** He holds a Bachelor's Degree in Mining Engineering, earning the title of University Gold medallist during the academic year 2014-2015 affiliated with JNTUH University and holds Master of Technology (By Research) in Rock Excavation Technology and Management from the National Institute of Technology Karnataka, Surathkal. With five years of experience as an Assistant Professor in the Department of Mining Engineering at Acharya Institute of Technology, Bangalore, and cultivated expertise in various aspects of mining engineering, including strata control, supporting systems, rock mechanics, applied mine surveying, mine safety management, and mine environment. Presently, he serves as the Manager Tech Support at Uttam Blastech Private Limited.



**Dr N Sri Chandahas** did B.Tech from GIET and M.Tech and PhD from IIT (ISM) and obtained II Class Manager's Certificate of Competency (Unrestricted). He has 8 years of teaching experience and 3 research publications to his credit and his research interests are Drilling and Blasting, Mine Environmental Engineering including software applications. He conducted blasting studies deploying drones. He worked as Assistant Professor in Mining Engineering Department, Malla Reddy Engineering College, Hyderabad. Presently employed as Deputy Manager, Mine Planning Division, GTS Ltd. (CK Birla Group)



**Er K J Amarnath** a Gold Medalist, in BE (Mining Engineering) from College of Engineering, Osmania University, Hyderabad. Worked as Chief General Manager in The Singareni Collieries Company Ltd. (A Government Company) after rendering a meritorious service of about 38 years in various capacities in Underground and Opencast Technology in Planning & Operations, Human Resource Development, Business Development, Education, Safety, Corporate Planning and Projects. Further, he was Director in NSGPVL, A Joint Venture Company of NTPC Ltd, A Central Government PSU and The Singareni Collieries Company Ltd, A Government Company. He visited the United Kingdom, Spain, United States of America & Australia during his service. He is also a holder of First Class Manager's Certificate of Competency. Presently, he is Head, Mining Division, Engineering Staff College of India, Hyderabad

## Contact

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