2 Days Workshop
on
"Blasting for Mines / Quarries / Infrastructure Projects"
(Basic Level)

August 01 – 02, 2022 (Timing: 3:30 - 5:30 pm) (Online Mode)

Organized by

Department of Mining Engineering,
National Institute of Technology Karnataka, Surathkal

ORGANIZING COMMITTEE

Chairman:
Prof. V. R Sastry
Convener:
Dr. S. K. Reddy
Head of Department:
Dr. M. Aruna

IMPORTANT DATES

Last date for filling Registration form:
25-07-2022
Intimation of selection:
26-07-2022
Intimation through email only

CERTIFICATE

The digital certificates will be issued to the participants

CONTACT

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Highlights

- Series of ONLINE WROKSHOPS is designed exclusively for UG / PG Students of Mining and Civil Engineering.
- No registration fee will be charged from the participants.
- Each module will be for a Maximum of 50 participants.
- Only online registration of participants to be done through the link given below: https://forms.gle/63QmkjFybwFpQLKn7

About the Workshop

With the rapid growth in mining and infrastructure sectors in India, new technologies are being introduced for large scale operations, to enhance mineral production and speeding up infrastructure projects. In the mining sector, huge targets are set for raising coal to improvise the power generation in the country. There is also a need to carry out iron ore mining, the second largest mining sector in the country, in a more environment friendly manner, with a demand to protect ancient structures and other eco-sensitive zones. The stone quarrying industry is facing day-to-day problems, the main cause of which is rock blasting activity. In the civil engineering sector, a number of projects are on in areas like - rapid transport systems in metro cities, construction of tunnels, and large underground caverns in the hard rock formation to meet requirements like transport, hydel power generation, railway lines, etc.

A major issue faced by the nation today is faster development but at the same time environment-friendly-development and eco-conscious-development. This is in view of the usage of a huge quantity of explosives in mining, quarrying, and infrastructure sectors. Blasting activity is attracting a great deal of attention from society as well. Although a good amount of knowledge has been developed in the subject area of explosives and blasting, there are still many gaps between the developments and application of technology. Also, there is a great need to develop a broader base for research in this vital area to cater to the needs of the industry.

It is with this background a series of Workshops are planned, initially to create awareness among the students of Mining and Civil Engineering, followed by dissemination of knowledge about blast design and environmental issues. The series of Workshops are expected to provide basic level exposure to the students in blasting technology for infrastructure, mining, and quarrying projects.

About Chairman of Series of Workshops – Prof. V. Rama Sastry

Prof. V. Rama Sastry is currently working as a Professor in the Department of Mining Engineering with an experience of over 39 years in Teaching and research at National Institute of Technology Karnataka, Surathkal.

Prof. Sastry holds a Ph.D. in Mining Engineering (Rock Blasting) from the Indian Institute of Technology – Banaras Hindu University and an M.Tech in Mine Planning from the Indian Institute of Technology – Banaras Hindu University. His current research focuses on Rock Engineering, Blast Design & Controlled Blasting, Rock Dredging with Underwater Blasting, Tendering & Contracting, and Environmental Management. He has been working on the sub-areas of Blast Design in mines, quarries, and construction projects, Fragmentation Assessment using Digital Image Processing. Analysis of the performance of blasts using High-Speed Videography using up to 1000 frames/sec (for the 1st time in the Country), in addition to Underwater Blasting for Rock Dredging in Ports, Slope Stability, Tunneling & Cavern Design, and Environmental Management.

Prof. Sastry specialized in Controlled Blasting, applying his expertise to a score of projects in the Mining and Infrastructure sectors. To name a few most prestigious infrastructure projects are: Laying of **the Dahej – Vijaypur CNG Pipeline of GAIL India Ltd**., **Controlled blasting** for the construction of five (5) Metro Underground Stations of **Bangalore Metro Rail Corporation Limited,** wherein more than 10,000 blasts were conducted at different locations in busy areas of Bangalore like near HAL building, GPO, Central College, Sessions Court, Vidhana Soudha, Chikpet, Majestic, etc., for five years from Feb. 2011 to March 2016, without causing a single incident, **Under Water Blasting for rock dredging in Ports** – Chidambaranar Port, Visakhapatnam Port, New Mangalore Port, Mumbai Port, for the 1st time in India, the Rock Dredging project involving Under Water Blasting at Tuticorin Port was completely designed and supervised leading to the introduction of Indian Project Executors in the Country for rock dredging involving UW Blasting in ports. This was followed by the design and implementation of UW Blasting under his guidance at New Mangalore Port, Visakhapatnam Port, Kudankulam Nuclear Power Project, Project Seabird, etc. Handled 16 R&D Projects, 2006 Industry sponsored consultancy projects, Guided 10 Ph.D. and over 50 M.Tech scholars, and has a score of Indexed Publications.

Presently, Dr. Sastry is working on a vital component playing a significant role in the economics of mining and quarrying projects and developing indigenous software based on Digital Image Processing for assessing fragmentation resulting from Blasts. He is also developing a Peizo-Gen based Ground Vibrations Monitor for showing Danger Levels of ground vibrations.

About Convener of Series of Workshops: Dr. Sandi Kumar Reddy

Dr. Sandi Kumar Reddy is currently working as Assistant Professor in the Department of Mining Engineering**,** National Institute of Technology Karnataka, Surathkal and he has 15 years of experience in the mining field, covering Industry, Research, and Academics. He worked with the National Institute of Rock Mechanics (NIRM), Bengaluru, as a Scientist for 12 years, from 2007-2019.

Dr Reddy's areas of specializations are Slope Stability, Mine Planning, Rock Engineering, Open-Pit Mining, Underground Mining, Internet of Things & Sensors, Geostatistics and GIS. He has published more than 46 technical research papers in various reputed international and national journals, and Seminar proceedings. He has organized many national and international level workshops related to mining areas. He has handled 50 Industry-sponsored and R&D projects.

Dr Reddy is guiding Ph.D. & M.Tech scholars related to different issues of mining related problems. He is a member of many professional bodies and recipient of various awards (i.e. Dr. Rajendra Prasad Gold Medal & Best Researcher award), prizes, and other honors for his contribution to mining engineering.