



A National Workshop

On

Ventilation for Underground Mines: Concepts & Applications

(January 15-19, 2024)

(Online Mode)



Organized by



Department of Mining Engineering

National Institute of Technology Rourkela- 769008

(An Institute of National Importance under Ministry of Education, Government of India)

Organizing Team

Patron

Prof. K. Umamaheshwar Rao
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Chairman

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Student Coordinators

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Supporting Fellow

Mr. Kumar Anmol

About the Workshop

“Continuous learning is the minimum requirement for success in any field”

~ **Brain Tracy**

Objective of the Workshop

The underground mines are going deeper due to exhaustion of shallow coal/ore deposits to meet the increasing demand of minerals in India. The increasing depth of the mine exacerbates the heat and humidity problems mainly due to auto-compression of air and geothermal energy stored in the rocks. The additional sources of heat in mines are mechanical, electrical and diesel equipment, fissure water, oxidation of coal, explosives, falling rock and fragmented rock. The addition of such heat and humidity contributes to increasing dry bulb and wet bulb temperature and consequently heat content of air. The exposure to elevated levels of heat can affect the health, safety, productivity in underground mines. The various mine gasses- CH₄, CO₂, CO, SO₂, H₂S, NO₂ and Diesel Particulate Matter- are contaminants which needs to be diluted to permissible limit as per CMR 2017/MMR 2019.

The mine ventilation is the one of the integral parts of any underground mine, which provides the fresh air to the working areas and dilutes the contaminants in the underground mine. The present workshop is designed to share the knowledge for better ventilation planning and design for creating safe, productive and healthy environment in underground mines.

Speakers

1. **Dr. B.S. Sastry** – Professor, IIT Kharagpur
2. **Dr. N.C. Karmakar**- Professor, IIT (BHU)- Varanasi
3. **Dr. D.P. Mishra**- Professor, IIT (ISM)- Dhanbad
4. **Dr. J.K. Pandey**- Chief Scientist, CIMFR- Dhanbad
5. **Mr. G. Venkateswarlu**- Deputy General Manager, SCCL-Kothagudem
6. **Dr. Kunal Das**- General Manager, CMPDI- Ranchi
7. **Dr. Ravi Jade**- Associate Professor, NIT-Raipur
8. **Dr. Mahesh Shriwas**- Assistant Professor, NIT Rourkela

Workshop Schedule: Inauguration Date and Time: **15.01.2023 @ 5:00 pm Online**

Date	Session	Invited Speaker
15.01.2024	05:30 PM-07:00 PM	Dr. J.K. Pandey
16.01.2024	05:00 PM-07:00 PM	Dr. Kunal Das
17.01.2024	09:00 AM-11:00 AM	Mr. G. Venkateswarlu
	05:00 PM-07:00 PM	Dr. N.C. Karmakar
18.01.2024	09:00 AM-11:00 AM	Dr. Ravi Jade
	05:00 PM-07:00 PM	Dr. B.S. Sastry
19.01.2024	09:00 AM-11:00 AM	Dr. Mahesh Shriwas
	05:00 PM-07:00 PM	Dr. D.P. Mishra

About the Organizing Institute

Department of Mining Engineering, NIT Rourkela

Mining is the activity concerned with the extraction of minerals whereas mining engineering is the practice of applying engineering principles to planning, development, operation, ventilation planning, closure and reclamation of mines. Mining industry is in the lime light today, because it provides most of the raw materials required for the ever-increasing demands of the society with regard to infrastructure, goods, services and energy. The Department of Mining Engineering at NIT Rourkela specializes in Mine Ventilation, Mine Environment, Coal Bed Methane, Spontaneous heating, Mine Fire, Geomechanics and Strata Control, Clean Coal Technology, Mine Planning, Mine Surveying, Remote Sensing and GIS.

The Department regularly conducts continuing education programmes for the benefit of the professionals from industry and other academic, research and government regulatory organisations representing both national and international level.

NIT Rourkela

With a vision to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate, graduate studies and research, NIT Rourkela has been constantly striving to serve the society since its very inception in 1961. At present, it ranks 16th NIRF Engineering discipline and is steadily progressing to achieve all the epitomes of world level recognitions.

Target Audience

This workshop is open for all the students, research scholars, faculty members, scientists of mining engineering discipline. The workshop is also useful for ventilation engineers working in underground mines, tunneling and underground space.

No Registration Fee

Registration Link-

<https://forms.gle/cj7x3MZwmzCgDoaT7>

Last Date of Registration – 13 January 2024

- Note:** 1. The registered participants will get workshop online link in their email/WhatsApp no.
2. Certificate will be awarded to participated candidates after completion of workshop

Contact Person (Coordinator)

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