

**Special call for Post-Doctoral Fellowship in Mine Ventilation under the
Department of Mining Engineering, IIT(ISM) Dhanbad**

Mining operations are inherently associated with the generation of heat, fumes, and airborne contaminants such as dust, diesel particulate matter (DPM), etc. Mine ventilation plays a vital role in providing fresh air for maintaining a safe and comfortable workplace environment in underground mines. Hence, nowadays, great importance is given to the ventilation network analysis and modelling of the ventilation and environmental conditions in underground mines. The Mine Ventilation Laboratory (MVL) in the Department of Mining Engineering at IIT(ISM) Dhanbad, is well equipped with academic and industry-standard facilities to address the existing problems in underground mine ventilation and environment. It uses 3D Mine Ventilation Network Solver for modelling and simulation of underground mine ventilation and environmental conditions. This lab executes various academic, research, and industry-sponsored projects related to underground mine ventilation and environment.

IIT(ISM), Dhanbad invites applications for a Post-Doctoral Fellow (PDF) position in Mine Ventilation under the Department of Mining Engineering for conducting mine ventilation surveys, 3D modelling and simulation of airflow and mine environment using mine ventilation network solvers, such as Ventsim, VNet, etc.

No. of posts: 01 (one)

Eligibility Requirements:

1. PhD in Mining Engineering with BE/BTech in Mining Engineering background.
2. The candidate should have prior knowledge of conducting ventilation surveys in underground mines.
3. The candidate should have sound knowledge of 3D modelling and simulation of underground mine ventilation and environment using mine ventilation network solvers, such as Ventsim, VNet, etc., and CFD software.
4. Candidate having working experience in underground mines with research interests in underground mine ventilation and environment will be preferred.
5. PhD holders (within 5 years of completion of PhD) with at least two research papers published in International Journals of repute (SCI/SCIE or Q1/Q2).
6. Maximum age: 35 years (to be relaxed as per the Government of India guideline).

Roles and Responsibilities:

The Postdoc fellow will be assigned to the Mine Ventilation Laboratory of the Department of Mining Engineering, and will report to the In-Charge of the Mine Ventilation Laboratory/HOD. The fellow will have to visit underground mines for conducting ventilation surveys as and when required. The Postdoc fellow will carry out 3D modelling and simulation of airflow and mine environment using mine ventilation network solvers, such as Ventsim, VNet, etc., and CFD software. Moreover, he/she will contribute in writing research papers and study reports.

Duration of PDF: 01 year

The amount of fellowship and other benefits to PDFs is as follows:

Year	Consolidated Fellowship per month (Inclusive of all)
1 st year	Rs. 60000.00
2 nd year	Rs. 63000.00
3 rd year	Rs. 66150.00

The fellowship includes compensation for accommodation. No other allowances shall be admissible.

A contingency grant of Rs.75000.00: PDF may be allowed to attend Conferences subject to the availability of fund in his/her contingency grant.

Medical benefits: PDF and his/her spouse and children residing with him/her at Dhanbad may avail the medical facilities which are available in the Health Centre of the Institute. No referral facility shall be admissible. No reimbursement of medical bills shall be admissible.

Leave: 30 days leave with fellowship will be provided per year. The leave can be availed on a pro-rata basis of the fellowship completed.

Progress Report & Performance Appraisal: PDF shall present a progress report every six months to a Performance Appraisal Committee (PAC) detailing the research work carried out and reprints/preprints/manuscripts of the papers published/accepted for publication or communicated, patents filed, external funding obtained, etc. for this purpose.

Termination: If the Post-Doctoral Fellow wishes to leave the programme before the end of the tenure, he/she can do so with the prior approval of the PAC, giving one month's notice. The fellowship will be terminated by the Institute if the performance/ conduct of the fellow is unsatisfactory after giving one month's notice to the Post-Doctoral Fellow.

The last date of submission of the application is **20.10.2022**.

[Please click the link below for the application of the Special call for the Post-Doctoral Fellowship in Mine Ventilation under the Department of Mining Engineering, IIT\(ISM\) Dhanbad:](#)

<https://forms.gle/Hyvoz9mYb5sR2piP8>