



Indian Institute of Technology (Indian School of Mines), Dhanbad
The Office of Dean, Research & Development

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| Sanction No and Date: NCL/SGRL/R&D/2022-23/276 03.02.2023 | IIT (ISM) Project No. NCL/2022-2023/982/MNE | Date: 26/02/23 |
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Development of an Advanced Dragline Simulation Model for Improving the Operational Efficiency of Dragline Operations in NCL.

Applications are invited under the sponsored project. The details of the project are as under:

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| Position | Project Associate |
| Number of Position (s) | Three(03) |
| Title of The Project | Development of an Advanced Dragline Simulation Model for Improving the Operational Efficiency of Dragline Operations in NCL. |
| Sponsoring Agency | Northern Coalfields Limited, Singrauli. |
| Principal Investigators | Prof. Sheo Shankar Rai, Department of Mining Engineering, IIT (ISM) Dhanbad |
| Tenure of Project | Upto 31 st August 2024 |
| Job Description (in maximum of 100 words) | Research fellows will be supposed to carry out some of the following activities either independently or along with PI and Co-PI of the project. <ul style="list-style-type: none">• Investigation into the existing dragline planning and operational practices of NCL.• Detailed analysis of dragline operation data of the test site and identification of gaps in the planning and operating systems of draglines.• Generation of hypotheses for making improvements and barriers to the implementation of a new approach.• Development of an advanced dragline simulation model using state-of-the-art and industry-standard software.• Sensitivity analysis of dragline operation via simulation models to develop options with varying dragline working parameters to identify the most suitable dragline mining methods, digging sequence, excavation geometry, dig block length, etc.• Investigations into existing dragline blasting practices at the test site, and identification of gaps in the design of blast.• Cast blast design and computer simulation. |
| Essential Qualification | Master's degree/PhD in Mining Engineering / Mining Machinery |

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| | Engineering/ Mechanical Engineering/ Civil Engineering |
| Desirable Qualification | Preferably two years working experience in project and research in mining sector. |
| Age and Relaxation | Preferably below 30 years (Relaxation as per GoI norms) |
| Salary | Rs. 31,000/- per month (Consolidated) |
| Last Date & Time | 10 days from the date of advertisement till 5:00 PM |

The candidates are required to submit a copy of their detailed resume with their photograph and enclose all relevant supporting documents regarding age, qualification, and experience through google form within the due date.

<https://docs.google.com/forms/d/e/1FAIpQLSeUBcCyvg2seQUINjPw9d9cEyXFFFSZcVe4M0qK4BcgS0yzJQ/viewform?>

The candidates are also required to bring the original certificates and supporting documents for verification at the time of joining. For further details, candidates may contact **Prof. B.S. Choudhary**, Co-Principal Investigator, IIT (ISM) Dhanbad Email- **bhanwarschoudhary@iitism.ac.in**

Shortlisted candidates will be informed about the date of the interview. Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be shortlisted based on their merit and as per the requirements of the project. All candidates should make their own arrangements for their stay at Dhanbad, if required. No TA/DA will be paid to attend the interview.