

Indian Institute of Technology (Indian School of Mines) Dhanbad

Advertisement for the Post of Research Associate (RA) - I

Project sponsored by R&D Board of Coal India Limited

| Sanction No and Date: | IIT (ISM) Project No.: | Date: |
|--|--------------------------------|------------|
| CMPDI/R&D/01-81-2024/190; dt. 27.06.2024 | CIL(CMPDI)/2024-2025/1121/MECH | 16.09.2024 |

Applications are invited for the **Research Associate - I** position in a time-bound R&D project sponsored by Coal India Limited undertaken in the Dept. of Mechanical Engineering, IIT (ISM) Dhanbad. The details of the project are as follows:

| Position | Research Associate – I |
|--|---|
| Number of Position(s) | One (01) |
| Title of The Project | Development of Energy Efficient Ergonomically Designed (EEED) Chair Lift Man Riding |
| | System |
| Principal Investigator | Dr. Ajit Kumar |
| | Assistant Professor |
| | Department of Mechanical Engineering, IIT (ISM) Dhanbad, 826004, India |
| | E-mail: ajit@iitism.ac.in, Phone No 9471192264 |
| Co-Principal Investigator(s) | Dr. Niranjan Kumar, Associate Professor, Dept. of Mechanical Engineering, IIT (ISM) |
| | Dhanbad, E-mail: niranjan@iitism.ac.in, Phone No. 9471191827 |
| Tenure of Project | The position is purely temporary and co-terminus with the project, which is sanctioned for 24 Months |
| | (02 Years) w.e.f. 01.07.2024. The project is scheduled to conclude by 30.06.2026. It is to be noted that |
| | the appointment is for two years or till the completion of the project, whichever is earlier. |
| Job Description (in a maximum | The project aims to develop an energy-efficient, ergonomically designed chair lift man-riding |
| of 100 words) | system. The present R&D project highlights two modules: a) Module I- Design modification of |
| | the existing power pack of the chair lift man-riding system to enhance its efficiency, Module II - |
| | Investigation of the whole-body vibration analysis and design modification in the Chair seat. |
| | Scope of the work: Model, design, and develop the chair lift of man riding system in the lab, |
| | simulation and modeling of the vibration system, Mine visits, Testing in Mines, Data collection |
| | and analysis, Report preparation, and Jobs as and when assigned by the PI related to the project. |
| Essential Qualification | Ph.D. or Having Three Years of Research, Teaching, Design, and Development |
| | Experience after ME/MTech with specialization in Machine Design/Fluid |
| | Power/Mechatronics/Mining Machinery Engineering or other relevant fields per the project |
| | requirements with at least one research paper in Science Citation Indexed (SCI) journal. The |
| | and input move have a consistently and decodemic mound throughout |
| | applicant must have a consistently good academic record throughout. |
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| Desirable Qualification Age and Relaxation | Vibration and Control, Working experience in whole-body vibration analysis, Knowledge of fluid power systems, Modeling and simulation using software such as Matlab, DSpace, LabView, ANSYS, etc. The upper age limit is 35 years as of 23 rd September 2024. Relaxation in age can be considered |
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Shortlisted candidates will be informed through e-mail about the interview. The interview will be in Online Mode (Zoom/Google Meet)/ Physical Mode. Mere possession of minimum qualifications does not guarantee an invitation to the interview. Candidates will be shortlisted based on merit and per the project's requirements. All candidates should make arrangements for their stay at Dhanbad if required. No TA/DA will be paid to attend the interview.

(Signature of PI/Co-PI)