

Position: Junior Research Fellow
(Professional) - Research

PI: Sunita Mishra

Department: Mining
Engineering

Ref

No.: IIT/SRIC/R/MRL/2023/102

Ref Date: 18-01-2024

Project Title: Thermo-Mechanical Characterization of Rocks under Dynamic Loading Conditions(MRL)

Sponsor: Department of Atomic Energy (DAE)(Government of India, Board of Research in Nuclear Sciences (BRNS), BRNS Secretariat, 316-C, 3rd Floor, CFB, BARC, Trombay, Mumbai - 400085)

Consolidated Compensation: Upto Rs.37000(dependent upon qualification & experience)

Qualifications: The candidate is expected to perform material characterization of rocks especially high strain rate tests in conjunction with high-speed imaging and acoustic emission techniques. A significant part of the research study involves understanding the temperature effect on high strain rate properties of the rocks and mapping of the structural changes under high loading rate. The candidate expected to go to field for sample collection, stay at outstation research facilities for few months at a stretch and write the reports, high quality conference and journal papers. B.Tech, B.E., M.Tech, M.S. with one of the following specializations: 1. Mining Engineering 2. Civil Engineering 3. Mechanical Engineering Or 4. M.Sc /M.Tech in Geology and Applied Geology Qualified and Valid GATE and/or NET Score is required if applying after M.Sc. / B.Tech / B.E. Additionally, strong knowledge in the area of Solid Mechanics, Rock Mechanics and Structural Geology is desirable.

Relevant Experience: Software knowledge like ABAQUS, Ansys, LS Dyna, Solid Works is desirable. Additionally, knowing the programming languages like MatLab, C++, Python, etc., will be preferable.

Application Fees: NIL

Age Limit: Upper age limit is 28 years. Relaxable upto 5 years in the case of SC/ST/OBC/Physically Handicapped / Visually Handicapped and female applicant.

Tenure: 24 Months or the termination of the project, whichever is earlier. Months or the termination of the project, whichever is earlier.

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