



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

Sanction No and Date: 02011/3/2023 NBHM(R.P)//11/890, 19/01/2023	IIT (ISM) Project No. NBHM(4)/2022-2023/977/M&C	Date: 10/04/2024
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JRF position under (Name of Funding Agency) Project

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

Position	Junior Research Fellow
Number of Position (s)	One
Title of The Project	Discontinuous Galerkin Finite Elements for Load Generation Mechanism in Tilted Pad Slider Bearing Lubrication”
Principal Investigator	Professor Srinivasa Rao Pentyla
Tenure of Project	36 months with effect from 19/01/2023 (Re-Advertised)
Job Description (in maximum of 100 words)	The project primarily involves applying discontinuous Galerkin methods for fluid flow problems arising in real life systems which are high nonlinear in nature due abrupt variations such as wiggles. The governing equations of Generalized Reynolds equation which describes the fluid flow phenomenon along with coupled momentum and energy equations need to be solved with variable density and viscosity. This poses oscillatory solutions in literature and need trigger these models and come up with new orthogonal polynomials where one could take the advantage of discontinuities functions so that one need not bother about inter element continuity which is quite costly computation.
Essential Qualification	First Class or CGPA of 7.0 and above with M.Sc. in Mathematics/Applied Mathematics/Industrial Mathematics/Mathematics & Computing. Preference shall be given to applicants graduated from IIT's, NIT's. Valid GATE/NET etc. is required and Governed by the DAE-NBHM project rules if any relaxation from time to time in force.
Desirable Qualification	Strong motivation for working with in house Computer code development using any of the programming languages such as Python, C, C++ etc.
Age and Relaxation (if any)	As per Govt. of India (below 28 years) and provision for Ph.D admission as per IIT (ISM) rules and regulations from time to time inforce.
Fellowship	37,000/- first two years and 42,000/- for third year (subjected to revision norms)
Last Date & Time	Apr 25, 2024, 17.00 hours, send your application to: psrao@iitism.ac.in with all enclosures duly attested by self in the form of single PDF.

Shortlisted candidates will be informed on the date of interview. Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be short listed based on their merit and as per the requirement 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.

(Signature of PI)