



Indian Institute of Technology Jodhpur

Office of Research and Development

Advt. No.: IITJ/R&D(Advt.)/2022-23/54

11 Nov 2022

Project Recruitment

Applications are invited from the citizen of India for filling up the following temporary position in the Consultancy Project at this Institute. The position is purely temporary, initially for a period of 01 Year, and same extendable but co-terminus with the duration of the project, on contractual basis with consolidated pay. The requisite qualification, experience and others details are given below:

1.	Project No.	C/ABC/NPA/20220065
2.	Project Title	Development of a partitioned fluid-structure interaction solver with moving boundaries and turbulent flows
3.	Name of the Project Investigator	Dr. Nipun Arora
4.	Duration for initial appointment	01 Year
5.	Name of the Post	Senior Research Assistant
6.	Post	01
7.	Consolidate Pay	Rs. 36,000/- per month
8.	Minimum Qualification and Experience	<p><u>Eligibility:</u> B. Tech/ B.E.(Mechanical/ Aerospace/Civil/Computational Mathematics) or M.Sc. (Mathematics) or related fields with strong programming skills (C/C++).</p> <p><u>Desirable Qualification:</u> M. Tech.(Thermofluids/Design/Aerodynamics/Structures/Computational Mathematics) Knowledge of</p> <ul style="list-style-type: none">• Finite element method (FEM)• Lattice Boltzmann method (LBM)• Numerical methods <p>Parallel programming using open MP/MPI</p>
09.	Brief description of Project	<p>A consistent prediction of the interaction between fluid and structure has garnered a lot of interest lately, with applications in bio-inspired flight, biological processes such as blood-heart interaction and aero-elasticity that includes flutter and buffeting. However, these problems pose serious challenges due to their multidisciplinary nature (knowledge of both fluid and structural mechanics required) and non-linearity. Due to inherent impediments and complexity involved in carrying out experiments on FSI, development of numerical tools has opened new avenues in this area. Currently, there are two approaches: (a) Monolithic i.e. fluid and structural part solved simultaneously, and (b) Partitioned i.e. separate solvers and</p>

		methods for fluid and structure. The latter approach will be pursued in this work, based on FEM for structural part (geometric non-linearity) and LBM for fluid.
10.	Job Description	The candidate will be involved in the development of an in-house fluid-structure interaction solver based on the partitioned approach.
10.	Maximum Age	35 Years

The candidates possessing the requisite qualification and experience should apply through the ONLINE process up to **25 November 2022**. The candidates are advised to send a soft copy of the application with all relevant documents to recruitment_rnd@iitj.ac.in (*Please mention the advertisement number in the subject line of the email*). *No need to send a hard copy.*

General Instructions to Applicant(s)

1.	The post(s) is purely temporary and contractual for a period of 01 Year, and extension based on satisfactory performance, but co-terminus with the duration of the project
2.	Application which is incomplete, not in prescribed format, without photograph or unsigned will be summarily rejected.
3.	Certificate in support of experience should be in proper format i.e. it should be on the organizations letter head, bear the date of issue, specific period of work, name and designation of the issuing authority along with his signature.
4.	Institute reserves the right to: a. Fix, modify or revise the eligibility conditions, age and selection criteria as per its requirements, at any time. b. Fill up the post, not to fill up the post or cancel the advertisement in whole or partly without assigning any reason. c. Place a reasonable limit on the total number of candidates to be called for the Written Test and/or Skill Test, Interview.
5.	The Institute shall verify the antecedents or documents submitted by a candidate at the time of appointment or during the tenure of the service. In case, it is detected that the documents submitted by the candidates are fake or the candidate has a clandestine antecedents/background and has suppressed the said information, then his/her services shall be terminated.
6.	Higher initial pay may be given to exceptionally qualified/deserving candidate.
7.	No TA/DA shall be paid to the candidates for attending the interview.
8.	No correspondence will be entertained from candidates regarding interview and reasons for not being called for interview.
9.	Canvassing in any form will be a disqualification.
10.	No interim correspondence will be entertained.
11.	No need to send hard copy.