



**Department of Mechanical Engineering**  
**Indian Institute of Technology Indore**

**Advertisement for Junior Research Fellow (JRF)**

Applications are invited from motivated and eligible candidates for a junior research fellow (JRF) position in the research project supported by Defence Materials and Stores R&D Establishment (DMSRDE), a premier laboratory of DRDO. The details of the project are given below:

<b>Name of Post</b>	Junior Research Fellow
<b>No. of post</b>	One (01)
<b>Title of The Project</b>	<b>Development of Simulation Model for Blast Resistant Honeycomb Sandwich Structure</b>
<b>Principal Investigator</b>	Dr. Indrasen Singh, Assistant Professor Mechanical Engineering, IIT Indore
<b>Tenure of Project</b>	Maximum 1.5 years or till end of the project, whichever is earlier. <b>However, the selected candidate will be encouraged to join Ph.D. program at IIT Indore.</b>
<b>Job Description</b>	Candidate needs to perform finite element simulations of deformation behaviour of honeycomb sandwich structure subjected to blast loading. The primary objective of these simulations is to optimize the shape, size and geometrical lengths associated with the honeycomb so that the sandwich structure can sustain the blast load generated by 60 grams of RDX. In addition, the candidate needs to determine the thickness of different layers (top, bottom and honeycomb) in sandwich structure.
<b>Essential Qualification</b>	M. Tech. in Mechanical Engineering/Aerospace Engineering/Materials Engineering or equivalent (with first division as defined by the awarding Institute / University). The candidate should be GATE qualified in any branch of engineering.
<b>Desirable Qualification</b>	Candidate needs to have good knowledge of Continuum Mechanics, Theory of Plasticity, Finite Element Method, and Fracture Mechanics. The basics knowledge of the dynamic behaviour of ceramics and metals is also required. Candidate is expected to be comfortable in computer programming using Fortran and/or Python and MATLAB.
<b>Age Limit</b>	Preferably below 25 Years
<b>Salary/Fellowship</b>	Rs. 31,000/- pm + HRA (as per institute rules)
<b>Last Date &amp; Time</b>	Interested candidates are requested to send their detailed CV, statement of purpose (SOP), and copies of educational qualifications, and other relevant documents to the Principal Investigator by Email ( <a href="mailto:indrasen@iiti.ac.in">indrasen@iiti.ac.in</a> ) on or before <b>November 11, 2023, 5:00 PM.</b>
Only shortlisted candidates will be informed about the date of the interview by email. The appointment is purely temporary and may co-terminus with the project. 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. Google meet link will be shared only with the shortlisted candidates before the date of the interview. <b><u>Interview Date: November 15, 2023 (2:00 PM onward online)</u></b>	