

Department of Aerospace Engineering

Indian Institute of Science

Bangalore – 560012

Advertisement No: SERB/March-2024

Date: 19/03/2024

Advertisement for JRF Position in Additive Manufacturing of Composites

Indian Institute of Science (IISc) now seeks to recruit one JRF for a SERB funded Core Research Grant project on “Design and Development of Light Weight Impact Resistant Sandwich Composite Fabricated using CFRP Face sheet and Cenosphere Reinforced PEEK Auxetic Core: An Integrated Experimental-Computational Approach”.

Specific Roles & Responsibilities: The primary tasks will include the following.

- Develop 3D printed auxetic core.
- Develop sandwich composite with CFRP facesheet and cenosphere reinforced PEEK auxetic core.
- Assessing the performance of developed sandwich composites for impact loading.
- Develop the computational model and compare with experimental findings.
- Communicate your results succinctly including writing and speaking.
- Preparing and submitting manuscripts for reputed journals.

Essential Qualifications:

M.Tech./M.E. in Machine design/ Materials Engineering/Manufacturing Engineering/ Automobile Engineering / Aerospace Engineering or any other allied areas with a first division in both graduate and post graduate degrees. Candidate must have qualified GATE examination (old gate score is also considered).

- **Must Know.** MATLAB, ABAQUS, ANSYS, LS-DYNA, Exposure to 3D printing technology (Hands on is preferable) of polymer based composites.
- Ability to learn new things quickly, at depth and apply them in practice correctly.
- Comfort with fast paced work environment and back-to-back deadlines.

The candidate is expected to have good communication skills (speaking and writing) and should be willing to work in a team environment.

Salary – DST/SERB mandated salary applicable for these posts is given below. Campus accommodation is not available for project staff.

JRF: 37,000 to 42,000 p.m +HRA (depending on meeting the qualifications as per DST/SERB guidelines).

Terms of Appointment: This is a contract appointment, initially for one year and renewable thereafter based on an annual evaluation of performance for up to 3 years. Our lab is in IISc Bangalore, and the position is envisaged to be in-person. Remote working options are not available.

Conversion to Ph.D.: Outstanding candidates will be considered for admission to our regular Ph.D. program and stand a good chance in gaining an accelerated Ph.D. (subject to all IISc norms and regulations).

Indirect Perks: Coaching for applying to doctoral programs abroad, teaching opportunities with additional pay, industry networking, state-of-the-art computational facilities.

How to Apply: Interested candidates may send their resume (preferably in pdf format or website), with subject marked "Advertisement No. SERB/Mar-2024" by email to: dineshkumar@iisc.ac.in

Online Interview: If your application is successful, you should appear for an online interview to be scheduled on a mutually convenient time.

Last date for application: Last date to submit the application is 02/04/2024. 1st review of applications will be completed on 09/04/2024. Thereafter this advertisement will be a standing advertisement until the position is filled.

Anticipated Start Date: 01 May 2024

Principal Investigator: Dr. Dineshkumar Harursampath
(<https://aero.iisc.ac.in/people/dineshkumar-harursampath/>)