



भारतीय प्रौद्योगिकी संस्थान इंदौर

खंडवा रोड, इंदौर 453 552

Indian Institute of Technology Indore

Khandwa Road, Simrol
Indore 453 552

Office: +91 731 2438 733

Fax : +91 731 2438 721

IIT Indore

Annexure A2

Dated: 27.01.2022

Advertisement for a Junior Research Fellow Position

Applications are invited from motivated and eligible candidates for a Junior Research Fellow position in the research project titled “*Effect of laser shock peening on twin wire arc additive manufactured CoCrNi medium entropy alloy*”

The proposed project aims to develop an additive manufacturing technology based on a twin wire arc system and optimization of process parameters on the deposition characteristics of CoCrNi Medium Entropy Alloy (MEA). Optimum material combination and processing parameters will be developed to achieve the desired morphological, microstructural, and mechanical properties. Besides, the finite element simulation analysis will be performed to predict the temperature distribution, residual stress, and thermal cycles during multi-layer deposition through the WAAM process. After successfully fabricating of CoCrNi MEAs, the LSP will be employed as a post-treatment. The influence of LSP on the compressive residual stress, surface morphology, grain refinement, texture, and phase transformation will be studied to enhance the fatigue performance WAAM processed MEAs.

Eligibility: M.E/M.Tech in *Manufacturing/ Materials and Metallurgical Engineering*. Please note that you should have defended your M.Tech thesis dissertation.

Stipend:

Junior Research Fellow will be paid consolidated salary based on the following salary structure of the proposed SERB project.

Category	Emoluments per month
JRF	Rs. 31,000/-

The candidate will be decided/recommended by the selection committee based on the qualification/Experience/Performance in the interview of the candidate.

Service conditions:

(i) DA: JRF will not be entitled to DA.

(ii) House Rent Allowance (HRA): JRF will not be entitled to HRA.

(iii) Medical Benefits: The JRF may be entitled for medical allowance as per institute policy.

(iv) The travel entitlement for JRF for participation in scientific events/workshops in India will continue to be as per proposed SERB project norms.

Duration: The appointment is for one year.

Interested candidates are requested to submit a detailed CV to *Dr. Dan Sathiaraj, Assistant Professor, Mechanical Engineering Department* (via e-mail: dansathiaraj@iiti.ac.in) by 16.02.2022.

Only shortlisted candidates will be intimated by email for an interview (online interview). No TA/DA will be paid for appearing in the interview.