

No.: Advt/ IITT/CSRC/2024-25/35

Date: 26-11-2024

Applications are invited from eligible Indian nationals for One Senior Research Fellow post in a sponsored project undertaken in the Department of Civil & Environmental Engineering.

Position	<u>Senior Research Fellow</u>
Essential Qualification	(i) M.E/M.Tech/MS/MSc in Water Resources Engineering/Remote Sensing/Computer Science or MCA in computer science/ relevant discipline (ii) B.E/B.Tech in Civil Engineering/Computer Science /relevant discipline (iii) CGPA in graduate course: 6.5 or above, Marks: 65% or above (iv) Relaxation of CGPA: 6.0 for OBC/EWS, 5.5 for SC/ST/PWD. (v) Relaxation of marks: 60% for OBC/EWS, 55% for SC/ST/PWD
Desirable Qualification	(i) M.E/M.Tech/MS/MSc in Water Resources Engineering/Remote Sensing/Computer Science or MCA in computer science/ relevant discipline (ii) Be qualified in the GATE or CSIR-UGC NET in a relevant discipline (iii) Minimum 2 year's experience as JRF
Research Area/ Project title	LODESTAR: Low-cost Disaster & Emergency Services for Communities At Risk
Project No	CIE2425002DSTXROSH
Sponsoring Agency	Department of Science & Technology
No. of Position	One
Monthly Salary	SRF Rs. 42,000 + HRA as applicable
Principal Investigator	Dr. Roshan Karan Srivastav
Department/Centre	Civil & Environmental Engineering
Maximum Tenure of Assignment	Initially for 1 Year, with possible extension for 2 more years based on performance
Desired Experience	<ul style="list-style-type: none"> ➤ Strong understanding of multi-hazard forecasting models and disaster management systems. ➤ Prior involvement in developing dashboards or decision-support systems. ➤ Experience in coordinating with multi-disciplinary teams and stakeholders. ➤ Knowledge of AI/ML applications in forecasting, data visualization techniques, and hydrological models like SWAT, VIC, or HBV. ➤ Proficiency in programming languages such as Python, R, or MATLAB. ➤ Hands-on experience with hydroclimatic modeling, geospatial analysis, and machine learning. ➤ Demonstrated expertise in database management systems and cloud-based services.
Brief Project Description and Nature of the Work	LODESTAR aims to develop a low-cost, technologically advanced, multi-hazard early warning system (MH-EWS) for mitigating the impacts of extreme weather events such as floods and droughts. The project utilizes innovative technologies

	<p>including AI, high-resolution remote sensing data, and sensors for improving disaster forecasting and response. It incorporates a participatory approach through living labs, engaging citizens, academics, and policy actors in co-developing the EWS to ensure it is socially inclusive and tailored to local needs. The project focuses on sites in India and the Netherlands, addressing urban and rural vulnerabilities by integrating local knowledge into disaster management practices.</p> <p><u>Nature of work:</u></p> <ul style="list-style-type: none"> ➤ Design and implement robust algorithms for forecasting multi-hazard events (floods, droughts, compound events) using machine learning and statistical models. ➤ Develop and optimize an integrated, user-centric dashboard with GIS-based spatial mapping and interactive functionalities. ➤ Collaborate with interdisciplinary teams to ensure data accuracy and usability. ➤ Manage project deliverables and contribute to open-access publications.
Age Limit	The maximum age limit is 28 years as of the closing date of the application. Age relaxation applicable as per Government of India (GoI) rules
Last date application	Dec 10, 2024 (5:00 PM)
Application Link	https://forms.gle/dCjctPGqNQCiu2Ki9

Eligible candidates must attach a detailed CV specifying their Qualifications and Experience with scanned copies of marksheets and certificates from X class till date. A brief statement of purpose (Why they are interested in this project topic?) also to be attached with the application link.

The shortlisted candidates will be informed by Email only. Selection will be based on the qualification, experience, and in-person interview at IIT Tirupati. **No TA/DA shall be paid to candidates appearing for an interview online or offline.** The interview date will be notified to the shortlisted candidates by Email. For any queries send mail to csrc_recruitment@iittp.ac.in

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