संकुल नवप्रवर्तन केंद्र
CLUSTER INNOVATION CENTRE
दिल्ली विश्वविद्यालय (UNIVERSITY OF DELHI)
रग्बी सेवेन्स बिल्डिंग, यूनिवर्सिटी स्टेडियम, जीनारंग रोड .सी .,
दिल्ली यूनिवर्सिटी, दिल्ली110007-, फोन न27666702 .
Rugby Sevens Building, University Stadium, G.C.Narang Road,
University of Delhi, Delhi-110007, Ph. 27666702

Advertisement for the JRF Position in the IITG-TIH Sponsored Project (TIH/TD/001)

Applications are invited from eligible candidates as a Junior Research Fellow (JRF)to work on the following project. The duration of the project extends for a maximum period of 2 years. The candidate can be enrolled in the PhD program as per the institutional guidelines.

Project Title	Development of underwater RoV for inspection of dams and bridges
About the Project	This research project aims to design and develop a robust underwater Remotely Operated Vehicle (ROV) capable of manoeuvring in complex environments around dams and bridges. By integrating state-of-the-art Simultaneous Localisation and Mapping (SLAM) algorithms, the ROV will map and localise itself in real time, enabling autonomous or semi-autonomous navigation. Semi-autonomous features-such as obstacle avoidance and assisted inspection modes will boost safety and ease of operation for human pilots. Together, these elements will create a next-generation platform for efficient, accurate, and safe underwater inspections.
Fellowship	As per Government of India JRF norms (currently ₹37,000 p.m. + HRA) or higher if revised by the funding agency
Essential Qualifications	i. Bachelor's degree (B.E./B.Tech.) *or* three-year Diploma in Electronics, Electrical, Electronics & Communication, Mechanical, Mechatronics, or equivalent. ii. Solid fundamentals in circuits or mechanical design, plus demonstrable programming ability. iii. Physical fitness and willingness to travel and work in outdoor, aquatic, and laboratory settings.
Desirable Qualifications	i. Master's degree (M.E./M.Tech.) in the same fields. ii. Hands-on experience with any of: - UAV/ROV assembly, tuning, and mission planning - Flight-controller stacks (PX4, ArduPilot), ROS 2, or custom embedded firmware - CAD & rapid prototyping (3-D printing, CNC, composites) Control-system design, SLAM, machine-vision, or acoustic/imaging sonars

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	iii. Publications, open-source contributions, or industrial project track-record in robotics or unmanned systems. iv. Strong written and spoken English; clear communication with multidisciplinary teams
	- Hardware integration - configure sensors, power systems, actuation, flight/drive controllers, communication links, and payload interfaces for both UAVs and ROVs - Embedded & ground-station software – develop, port, and debug code (C/C++, Python/ROS, PX4 or ArduPilot) for real-time control, telemetry, and data logging. - System verification – bench testing, environmental stress testing, buoyancy/flight tuning, and safety validations. - Field deployment & data collection – operate drones in rivers, reservoirs, and open-air sites; manage mission data, preliminary analytics, and secure backups. - Documentation & dissemination – maintain design logs, write technical reports, contribute to journal papers/patents.
Application Deadline	21 days after the date of advertisement
Date of Interview	Only shortlisted candidates will be informed by e-mail about the interview date. No TA/Da will be provided for attending the interview.
Job Location	IIT Guwahati

Application Procedure: Candidates are requested to send their detailed CV, including the academic details with percentage/CGPA, Portfolio/GitHub links or brief descriptions of relevant projects (optional but strongly encouraged) (if any) to rkasana@cs.du.ac.in with the subject line as "**Application for the JRF Position in the IITG-TIH Sponsored Project (TIH/TD/001)"**

Please note that if the candidate performs unsatisfactorily, the position can be terminated with 1 month's notice.

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