भारतीय प्रौद्योगिकी संस्थान जम्मू
INDIAN INSTITUTE OF TECHNOLOGY JAMMU
विद्याधनं सर्वधन प्रधानम्

भारतीय प्रौद्योगिकी संस्थान जम्मू
जगती, एनएच-44, पीओ नागरोटा, जम्मू, जम्मू और कश्मीर 181221
Indian Institute of Technology Jammu
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संख्या / No.: IITJMU/RC/ RP-100330/DRDL/A-46 **दिनांक / Date:07.09.2026**

परियोजना कर्मचारियों के लिए विज्ञापन / Advertisement for project staff

"***IoT Node Development for ML/AI based Sustainable Intrusion Detection System***" नामक अनुसंधान एवं विकास परियोजना पर काम करने के लिए **Research Assistant** के पद के लिए भारतीय उम्मीदवारों से आवेदन आमंत्रित किए जाते हैं।
Applications are invited from the Indian candidates for the post of **Research Assistant** to work on the R&D project titled "**IoT Node Development for ML/AI based Sustainable Intrusion Detection System" sanctioned by, DRDL Hyderabad**.

विवरण / Details	सूचना / Information
Post	Research Assistant
No. of Positions	Two (2)
Area of Specialization	Wireless Communication, IoT Systems, PCB Design, and Embedded AI Systems, and solutions suitable for IoT and industrial applications.
Duration	Initially 3 months; extendable based on satisfactory performance; co-terminus with project 31.12.2026
Consolidated Salary per Month (INR)	₹67,000 + HRA as applicable

आवश्यक योग्यता और मानदंड / Minimum Qualification and Criteria For Research Assistant:

Candidates must hold an **M.Tech/M.E./M.Sc. degree with a minimum of 60% marks (or 7.5/10 CGPA)** throughout their academic career starting **from Class XII**, in ***Embedded Systems, Electronics and Communication Engineering, VLSI, IoT, Wireless Communication, Computer Science, or a related discipline, along with a B.Tech/B.E./B.Sc. degree in Electronics and Communication Engineering, Electronics and Telecommunication Engineering, Electrical Engineering, Electrical and Electronics Engineering, or Computer Science and Engineering***. A valid GATE score is preferred. **And Six years 'experience in R&D** in industrial or academic institutions, S&T organizations, or in scientific activities and services.

OR

Candidates must hold a **Doctoral Degree (Ph.D.)** in ***Embedded Systems, Electronics and Communication Engineering, VLSI, IoT, Wireless Communication, Computer Science, or a related field***, **along with an M.Tech/M.E./M.Sc. degree** in any of the above disciplines and **a B.Tech/B.E./B. Sc. degree** in Electronics and Communication Engineering, Electronics and Telecommunication Engineering, Electrical Engineering, Electrical and Electronics Engineering, Computer Science and Engineering, or a related discipline.

परियोजना का संक्षिप्त उद्देश्य / **Brief Objective of Project**:

This project focuses on developing an intruder detection system using both optical and thermal camera feeds. The system is designed to identify human intruders in real time across varying lighting conditions. The primary intention is to ensure uninterrupted surveillance using optical vision during the daytime and thermal imaging during the night. The setup also integrates a movable and zoom-controlled gimbal to increase the surveillance coverage area and improve clarity for long-range intruder observation.

नौकरी का विवरण / **Job Description**:

The selected candidate is expected to work on designing and implementing IoT device interfaces for intrusion detection systems, including sensors for temperature, humidity, air quality, and flow control. The candidate will develop and maintain data libraries for IoT devices, incorporating calibration data, sensor characteristics, and communication mappings. Responsibilities also include creating communication modules using RS485, SPI, I²C, UART, Wi-Fi, BLE, or other IoT protocols, along with supporting the prototyping and testing of embedded hardware for smart monitoring and control. The position requires integrating IoT devices with cloud or local dashboards for data logging and real-time monitoring, as well as preparing detailed documentation and test reports covering hardware performance, communication reliability, and system-level integration.

Developing this multi-modal intruder detection system requires expertise in computer vision to implement real-time AI object detection (like YOLO) and fuse optical and thermal video streams across day and night conditions. It also demands embedded systems and robotics skills to interface edge computing hardware (such as NVIDIA Jetson) with camera sensors, alongside control engineering to program gimbals using PID loops for automated target tracking and zoom control. Finally, software engineering proficiency in Python and C++ is essential to manage low-latency multi-threading, ensuring video analytics, hardware telemetry, and motor controls run simultaneously without system lag.

ऊपरी आयु सीमा / **Upper age limit: 37 years**

(Age relaxation: Upper age limit is relaxable up to 5 years for SC/ST/women and physically handicapped candidates and 3 years for OBC NCL).

आवेदन प्रक्रिया / **Application Process:**

मांगे गए विवरण, प्रमाणपत्रों की स्कैन की गई प्रतियां, अन्य सहायक दस्तावेजों के साथ विधिवत भरा हुआ आवेदन पत्र **17.09.2026** तक ऑनलाइन पोर्टल)https://apply.iitjammu.ac.in/#/home) के माध्यम से अपलोड किया जाना चाहिए। कृपया संदर्भित आवेदन पोर्टल पर के टैब [एसआरएफ/जेआरएफ/स्टाफ प्रोजेक्ट/अनुबंध] करें। आवेदन से माध्यम

Duly filled application form along with the requested details, scanned copies of certificates, other supporting documents, should be uploaded through the online portal (https://apply.iitjammu.ac.in/#/home) latest by **17.09.2026** Please apply through the [contract/project staff/JRF/SRF] tab on the referred application portal.

महत्वपूर्ण बिंदु / Important Points:

1. आवेदक प्रस्तुत की गई जानकारी, अन्य दस्तावेजों और तस्वीरों की प्रामाणिकता के लिए जिम्मेदार होगा।
The applicant will be responsible for the authenticity of the information, other documents, and photographs submitted.

2. केवल निर्धारित योग्यता रखने से यह सुनिश्चित नहीं हो जाता कि उम्मीदवार को साक्षात्कार के लिए बुलाया जाएगा। उम्मीदवारों को योग्यता और परियोजना की आवश्यकता के आधार पर शॉर्टलिस्ट किया जा सकता है।
Merely possessing the prescribed qualification does not ensure that the candidate will be called for an Interview. The candidates may be shortlisted based on merit and need for the project.

3. शॉर्टलिस्ट किए गए उम्मीदवारों को साक्षात्कार के बारे में ई-मेल द्वारा सूचित किया जाएगा। इसलिए, उम्मीदवार को अपने आवेदन में वैध ई-मेल आईडी और फोन नंबर की जानकारी देनी होगी।
Shortlisted candidates will be informed by e-mail about the interview. So, the candidate must provide valid e-mail IDs, and phone number information in their applications.

4. शॉर्टलिस्ट किए गए उम्मीदवारों को साक्षात्कार तिथि पर एक अद्यतन सीवी और अपनी शैक्षणिक योग्यता का समर्थन करने वाली मार्कशीट/प्रमाणपत्र की मूल और सत्यापित फोटोकॉपी के साथ साक्षात्कार के लिए उपस्थित होना होगा। केवल शॉर्टलिस्ट किए गए उम्मीदवारों को साक्षात्कार के लिए बुलाया जाएगा। साक्षात्कार का समय शॉर्टलिस्ट किए गए उम्मीदवारों को ई-मेल द्वारा सूचित किया जाएगा। साक्षात्कार ऑनलाइन/ऑफ़लाइन प्लेटफ़ॉर्म का उपयोग करके आयोजित किया जाएगा।
Shortlisted candidates must present themselves for the interview on the interview date with an updated CV and original and attested photocopies of mark sheets/certificates supporting their academic qualifications. Only shortlisted candidates will be called for the interview. The time of the interview will be informed to the shortlisted candidates by e-mail. The interview will be held using the online/offline platform.

5. पद पर शामिल होने के लिए बुलाए गए उम्मीदवारों को अपने स्वयं के फंड पर आईआईटी जम्मू पहुंचना चाहिए। यदि नौकरी की पेशकश की जाती है तो पद पर शामिल होने के लिए टीए/डीए की अनुमति नहीं है।
Candidates called for joining the position should reach IIT Jammu on their own fund. TA/DA is not permissible to join the position if job is offered.

6. जो अभ्यर्थी पहले से ही कार्यरत हैं, उन्हें चयनित होने पर अपने नियोक्ता से कार्यमुक्ति प्रमाणपत्र प्रस्तुत करना होगा।
Candidates who are already employed should produce a relieving certificate from their employers if selected.

7. विधिवत भरा हुआ आवेदन प्राप्त करने की अंतिम तिथि **17.09.2026** ।
The last date for receiving the duly filled-in application **is 17.09.2026.**

8**.** साक्षात्कार की तारीख शॉर्टलिस्ट किए गए उम्मीदवारों को ईमेल के माध्यम से सूचित की जाएगी ।
The date of the interview will be informed to the shortlisted candidates through email.

9. उम्मीदवार को शैक्षणिक योग्यता, अनुभव आदि के संबंध में सभी दस्तावेज अपलोड करने होंगे।
Candidate must upload all the documents with respect to educational qualification (10, 12, graduation, post-graduation, PhD. and also experience, etc.

पत्राचार के लिए पता /Address for Correspondence :
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