iHub Drishti Foundation
Indian Institute of Technology Jodhpur
Recruitment
Device Development Engineer
TIH/iHub Drishti/2023-24/Recruitment/09; Dated: 25 August 2023
N.H. 62, Nagaur Road, Karwar, Jodhpur 342030, Rajasthan (India)
Website: https://ihub-drishti.ai/ *eMail:* hr@ihub-drishti.ai

iHub Drishti Foundation (iHub Drishti) is a Section-8, Not-for-profit Company, promoted by and at the Indian Institute of Technology Jodhpur under a National Mission on Interdisciplinary Cyber Physical Systems (NM-ICPS) of the Government of India. iHub Drishti is a Technology Innovation Hub focused around "Computer Vision, Augmented Reality and Virtual Reality".

iHub Drishti Foundation invite applications from Indian Nationals possessing an excellent academic background and relevant experience for the post of: **Device Development Engineer** *having bachelor's Degree in any discipline or its equivalent with first division from a recognized University/Institute and possessing relevant experience in device development, hardware design, and firmware development for microcontroller-based systems.*

Job Title: Device Development Engineer

Key Responsibilities:

- Hardware Design: Design and develop electronic hardware components, including schematic design, PCB layout, and component selection, using platforms like Raspberry Pi, Arduino, STM32, ESP32, and others.
- Firmware Development: Write, test, and debug firmware code for microcontrollers to control and interface with sensors, actuators, communication modules, and user interfaces.
- Prototyping: Rapidly prototype and iterate on hardware and firmware designs to validate concepts, identify technical challenges, and optimize device performance.
- Integration: Integrate hardware and firmware components to create functional, reliable, and scalable devices and systems.
- Testing and Validation: Conduct thorough testing, validation, and debugging of devices to ensure proper functionality, performance, and compliance with design specifications.
- Documentation: Document hardware designs, schematics, PCB layouts, firmware code, and development processes to facilitate collaboration and future reference.
- Collaboration: Collaborate closely with cross-functional teams, including software developers, mechanical engineers, industrial designers, and project managers, to deliver cohesive and well-integrated solutions.
- Continuous Improvement: Stay updated with emerging technologies, components, and best practices in device development and recommend improvements to enhance device performance, reliability, and user experience.
- Prototyping and Proof of Concept: Create functional prototypes and proofs of concept to demonstrate and validate device concepts and ideas to stakeholders.
- Troubleshooting and Debugging: Identify and resolve hardware and firmware-related issues through thorough troubleshooting and debugging processes.

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Essential Qualification and Knowledge with Expertise:

- Bachelor's Degree in any discipline or its equivalent with first division from a recognized University/Institute.
- Proven relevant experience in device development, hardware design, and firmware development for microcontroller-based systems.
- Having proficiency in designing schematics and PCB layouts using tools such as Altium Designer, Eagle, KiCad, or similar.
- Having strong programming skills in languages commonly used for microcontroller firmware development, such as C/C++.
- Possessing familiarity with microcontroller platforms like Raspberry Pi, Arduino, STM32, ESP32, and associated libraries and development environments.
- Proven experience with various sensors, actuators, communication protocols (I2C, SPI, UART), and wireless technologies (Bluetooth, Wi-Fi, etc.).
- Understanding of analog and digital electronics, power supply design, and signal integrity.
- Excellent problem-solving skills and the ability to diagnose and resolve hardware and firmware issues.
- Solid documentation skills and attention to detail in documenting hardware designs and firmware code.
- Experience with embedded Linux and real-time operating systems is a plus.
- Solid communication skills and the ability to work effectively within a collaborative team environment.

Compensation

- As per industry standards (Based on experiences, and negotiable) with annual performance linked incentives in addition
- **Tenure:** Initially 1 year (reviewable and renewable based on performance)
- **Age:** Preferably less than 35
- **Location:** Jodhpur

Information regarding the application process:

Applications will be accepted via (https://tinyurl.com/ihubdrishtidde). Interested candidates may apply by sending their CV covering educational and professional qualifications in the relevant field along with work experience, last salary drawn, contact details, and references with necessary documentary evidence by filling above mentioned form. **Applications will be accepted until the position is filled.**

Additional information:

(1) Applicants are advised to ensure, before applying, that they possess at least the minimum essential qualification and experience laid down for the post.

(2) Eligibility of a candidate and satisfaction of any other short-listing criteria shall be considered as on the last date of the submission of the online application.

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(3) The qualification prescribed should have been obtained from recognized Universities/ Institutions.

(4) In case of exceptional candidates, the iHub Drishti foundation reserves the right to relax qualifications and/or experience.

(5) *Shortlisted candidates shall be called for the further recruitment process.*

(6) *Decision of the board will be final for both Shortlisting and Selection process.*

(7) iHub Drishti foundation reserves the right to fill or not to fill any or all of the advertised posts.

(8) iHub Drishti Foundation reserves the right to fill up the post, not to fill up the post or cancel the advertisement in whole or partly without assigning any reason.

(9) No hard copy application is to be submitted. No email application is to be submitted.

(10) No correspondence will be entertained from the candidates in connection with the process of selection/interview.

(11) Canvassing in any form will be a disqualification. Application which is incomplete, not in prescribed format, will be summarily rejected.

(12) Application with insufficient information or without relevant supporting documents will not be considered for further processing. Applications without self-attested supporting documents will be summarily rejected.

(13) Persons employed in Government/ Quasi-Government organizations should submit their applications through proper channels.

(14) The appointed person shall have no claim of appointment / absorption in any companies, departments or centers of IIT Jodhpur.

(15) The appointment of the applicant will be governed by the terms & conditions of the iHub Drishti Foundation, IIT Jodhpur in effect on time-to-time basis

(16) Specific queries, if any, may be directed to the email: hr@ihub-drishti.ai.

(17) iHub Drishti foundation may verify the antecedents or documents submitted by a person at the time of appointment or during the tenure of the service. In case, it is detected that the documents submitted by the candidates are fake or the candidate has a clandestine antecedents or background and has suppressed the said information, then his or her services shall be terminated.

(18) Any dispute with regards to the selection/recruitment will be subject to Courts / Tribunals having jurisdiction at Jodhpur.

Officer In-charge
iHub Drishti Foundation
TIH on CV-ARVR, NM-ICPS
Indian Institute of Technology Jodhpur