



IIT PALAKKAD TECHNOLOGY IHUB FOUNDATION

(Incorporated under Section 8 of the Companies Act 2013)

Ref: IPTIF/HR/Adv/2025/009

06.11.2025

Palakkad

Advertisement for the position of Embedded Systems Engineer – Telemetry & Motor Control

About the company

IIT Palakkad has established IIT Palakkad Technology IHub Foundation (IPTIF) to facilitate the Technology Innovation Hub on Intelligent Collaborative Systems (TIH-ICS) setup at IIT Palakkad by the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) coordinated by the Department of Science and Technology (DST), Govt. of India. TIH-ICS, through IPTIF, plans to attract potential and harness expertise available nationwide, thus fostering research innovation, world-class technology and product development. IPTIF also plans to build linkages with research institutes and labs within and outside India. One of the primary goals of this company is to work in close collaboration with the industry to deliver commercial technology and products, and build a vibrant innovation ecosystem by providing a reliable platform for technology-based start-ups and entrepreneurs.

Job Description

Position: Embedded Systems Engineer – Telemetry & Motor Control

Nature: Full-time, On-site

Location: Palakkad, Kerala

Start Date: Immediate

Context & Role: IPTIF over the past five years have supported multiple technology development projects, supported startups and entrepreneurship, conducted skill development programs and events and forged collaborations with National and International Organizations.

We are seeking a talented and motivated Embedded Engineer to design and develop advanced wireless telemetry systems and motor-control platforms for real-time monitoring and control of rotating or dynamic systems. The role involves end-to-end system development — hardware design, firmware implementation, data acquisition, and algorithm development — with opportunities for hands-on testing and field validation in a research-driven environment.



IIT PALAKKAD TECHNOLOGY IHUB FOUNDATION

(Incorporated under Section 8 of the Companies Act 2013)

Key Responsibilities:

- **Telemetry System Development:** Design and implement embedded systems capable of high-speed data acquisition, onboard storage, and wireless communication. Develop modular hardware integrating analog/digital interfaces and embedded controllers. Ensure data synchronization, accuracy, and low-power operation for field and rotating applications.
- **Motor Control Development:** Design and implement control algorithms (current, torque, speed loops) for BLDC/PMSM or other motor types. Develop firmware for real-time control and protection on STM32 or TI C2000 platforms. Interface telemetry modules with motor-drive systems for combined monitoring and diagnostic studies.
- **Firmware & Software Integration:** Develop embedded firmware in C/C++ for data handling, control, and wireless communication (CAN, UART, Bluetooth, or Wi-Fi). Create PC/mobile applications for data reception, visualization, and logging. Support data analysis and algorithm validation using MATLAB, Python, or LabVIEW.
- **Testing & Validation:** Conduct bench-level and field testing to evaluate performance and reliability. Prepare technical documentation, validation reports, and system integration notes.

Educational Qualifications and Experience

- **Education:** B.E./B.Tech or M.E./M.Tech in Electronics, Electrical, Mechatronics, or Embedded Systems.
- **Technical Expertise:** Strong background in embedded programming (C/C++), PCB design, and signal interfacing. Experience with STM32, TI C2000, or ESP32 microcontrollers. Knowledge of telemetry/data acquisition, real-time control, and wireless communication. Familiarity with control algorithms and simulation tools such as MATLAB/Simulink.

Desirable Attributes:

- Experience with low-power embedded design and battery operation.
- Exposure to motor-drive testing and telemetry integration.
- Strong analytical, documentation, and communication skills.

Emoluments & other terms

- Remuneration will be as per qualification and experience



IIT PALAKKAD TECHNOLOGY IHUB FOUNDATION

(Incorporated under Section 8 of the Companies Act 2013)

- Duration of employment will be initially for **One year** with a scope of extensions subject to performance and fund availability.
- The selected candidate will have to work on-site at Palakkad and join at the earliest.

Application process

Interested candidates can apply: <https://forms.gle/bBioJRj6mYjaVq3o7>

Last date for the receipt of Application :- **13th November 2025**

For any further clarifications please send email to: manager-hr@iptif.tech

Note: IPTIF holds the right to stop receiving applications when we identify the right candidate.

IPTIF holds the right to modify the required qualifications / experience based on the requirements and receipt of a number of applications from time to time.
