Junior Research Fellow in the IITGN Robotics Lab
IIT Gandhinagar

Broad Subject Area: Robotics / Electrical & Electronics Engineering

Minimum Qualification: B.Tech/B.E in Electrical, Electronics, or Mechatronics Engineering from a recognized institution is required. Candidates should have hands-on experience with PCB design tools such as KiCad, Altium, or EasyEDA. A strong understanding of microcontrollers, circuit design, and embedded firmware development is expected. Familiarity with basic lab equipment like multimeters, oscilloscopes, and logic analyzers is essential. Basic knowledge of power systems, motor drivers, and sensors used in robotics is also required.

The percentage/grade points with respect to the academic qualifications will be a minimum of 60% or equivalent grade from Graduation onwards and 55% or equivalent grade in class 10th and 12th.

Salary: Consolidated monthly remuneration will be Rs. 28,000/-.

Project: Electronics Robotic Systems.

Desired Background: Strong foundation in one of the areas of robot hardware, dynamical systems, control systems, or mechanical design, is highly desired. Prior experience with building electronics, mechanical design, robotic systems and/or other experimental skills.

No. of posts: 1

Description:

The successful candidates will have an opportunity to contribute to projects involving building robotic hardware, developing control algorithms, and experimentation. These projects involve multidisciplinary skills including modeling, simulations, development of the hardware prototypes, electronics, coding, and experimental testing.

The candidates are expected to have strong interests and some prior foundation in one of the areas from dynamical systems, mechanical design, electric motor/actuators, controls, robotics, or relevant embedded systems. Familiarity and prior experience with mechanical design, control hardware, or dynamics simulation is a must. The successful candidates are also expected to bring a positive and enthusiastic attitude to the lab and work collaboratively with several other lab members on this project. An open-mindedness and a willingness to learn new hardware, software and

theory skills as the project demands is a must given the multidisciplinary nature of the projects. The successful candidates should be proficient in written and verbal communication, which is necessary to collaborate effectively in a multidisciplinary team environment and present and explain the technical information.

The candidate will work in the IITGN Robotics Lab (website, youtube channel) and will have plenty of opportunities to interact and collaborate with other labs in mechanical engineering, electrical engineering, and in cognitive sciences. The lab has a vibrant environment and has a diverse and interdisciplinary set of individuals and we work on a range of robotics and control systems projects ranging from fundamental theory and its hardware validation to robotic systems for specific applications (with human subject trials in some cases).

The tenure for this position will be 12 months.

Please submit the resume and a short statement of 250-300 words highlighting your career goals and your motivation to apply for this position (and specifically mention past experience working with robot hardware, or robotics), and a list of referees (preferably three) using this form (https://forms.gle/4WXrX4dZ1Af72pTW9) , latest by 30 June, 2025. For any questions, you may write to Prof. Madhu Vadali at robotics@iitgn.ac.in