

Job Description



Position Title	Research Assistant (Electrical/Electronics Engineer)
Department	Dhanani School of Science & Engineering
Reporting To	Principal Investigator (PI)
Type of Position	Contractual
Project Title	Improving Urban Water Management: an interdisciplinary application of smart urban infrastructure to study water demand in Karachi

POSITION DESCRIPTION

This position is part of a 24-month HEC funded project. This interdisciplinary project aims to develop tools to improve financial sustainability of Karachi’s water utility. The project team led by Habib University includes multiple Pakistani and international universities, in addition to industrial partners.

The selected candidate for this position will work primarily on developing a scalable cost-effective smart flowmeter network. The position requires lab work in addition to hands-on fieldwork for installation and maintenance of devices. Prior experience of developing and deploying IoT networks will be a plus.

DUTIES AND RESPONSIBILITIES

- ✓ Participate and contribute effectively in research, development of prototypes.
- ✓ Testing of prototype in lab and field setting.
- ✓ Planning, procurement and assembling of finalized designed equipment.
- ✓ Supervision of installation of water flowmeters in city.
- ✓ Project progress reporting and presentation.
- ✓ Coordinating the set-up and managing the availability of required materials, tools, and software. Also insuring calibration and proper functioning of equipment.
- ✓ Providing technical support, i.e., troubleshoots and repairs of equipment that malfunctions or breaks down.
- ✓ Maintaining the infrastructure, inventory and storage of project relevant equipment.
- ✓ Ensure compliance of safety, timelines, and budget through to completion
- ✓ Involve in scientific research related to project.

REQUIRED JOB SPECIFICATIONS

Required Qualification	<ul style="list-style-type: none"> ✓ BE in Electrical/Electronics/Telecommunication Engineering from HEC recognized University. ✓ Registered Engineer with PEC
Required Experience	<ul style="list-style-type: none"> ✓ Experience of working on different microcontrollers. ✓ Working knowledge of instrumentation and measurement systems ✓ Working knowledge of Wireless Sensor Networks and IoT ✓ Experience of PCB design and fabrication. ✓ Working knowledge of piping standards. ✓ Experience of 3-D modeling on CAD tools ✓ Experience of working with flowmeters will plus

REQUIRED JOB COMPETENCIES (Technical and Soft Skills)

S#	Competency	Criticality (High / Low / Medium)
1.	Analytical Skills	Medium
2.	Problem-Solving Skills	High
3.	Communication Skills	High
4.	Programming Skills	Medium

Verified By (For HR Only)

Line Manager (If Any)

Head of the Department