



# UNIVERSITY OF MAURITIUS

## V A C A N C Y

Applications are invited from suitably qualified candidates for the post of **Research Assistant, for a task-based assignment** to work on the research project entitled “Enhancing Marine Shrimp Farming and Acclimatisation to Freshwater Environments Through IoT and Smart Technologies”, for a contractual period of four (4) months.

### Qualifications Required:

- A degree in Computer Science, Software Engineering, Applied Computing, Information Systems, Electronics, Electronics and Communication Engineering, or any other equivalent qualification.

### Profile

Candidates must have:

- Proficiency in IT, programming, and IoT integration, with experience in deploying and managing sensors and devices;
- Strong knowledge of web-based development (PHP, JavaScript) and/or mobile app development;
- Familiarity with JavaScript UI Frameworks and Libraries (e.g., React, Angular) will be an advantage;
- Experience in testing, commissioning, and troubleshooting IoT and software systems;
- Skills in customizing applications to meet specific project requirements;
- Ability to document processes and prepare comprehensive reports for each task;
- Good analytical skills and adequate knowledge in relevant fields of research;
- Good interpersonal, communication and research skills;
- Analytical skills and adequate knowledge in the relevant field of research; and
- Availability to start work as soon as possible.

### Responsibilities & Duties

#### Task 1: IoT Equipment Deployment and Prototyping

- Assist in the installation and configuration of IoT-enabled water quality monitoring equipment;
- Prototype and integrate sensors for real-time data collection (parameters such as salinity, pH, and dissolved oxygen);

- Calibrate equipment to ensure accuracy and functionality;
- Maintain detailed documentation of the deployment and calibration processes; and
- Any other relevant activities related to this task.

### **Task 2: Mobile and/or Web-Based Application Development**

- Design and develop a mobile and/or web-based application for recording, visualizing, and monitoring data from IoT devices;
- Ensure compatibility with IoT hardware and seamless data integration;
- Use cloud-based or web-server services for hosting the application;
- Customize the application to include data visualization and alert mechanisms for deviations in water quality parameters; and
- Any other relevant activities related to this task.

### **Task 3: Testing, Commissioning, and Final Reporting**

- Test and troubleshoot IoT systems and the developed application to ensure they meet project objectives;
- Commission the integrated system for use in shrimp farming operation;
- Prepare detailed progress reports and a final project report documenting the deployment, development, and testing processes;
- Ensure knowledge transfer through documentation and regular meetings with the project team; and
- Any other relevant activities related to this task.

### **Remuneration**

For Task 1: an all-inclusive allowance of Rs25,000/- upon satisfactory completion

For Task 2: an all-inclusive allowance of Rs30,000/- upon satisfactory completion

For Task 3: an all-inclusive allowance of Rs20,000/- upon satisfactory completion

### **Duration of Contract**

- Appointment will be offered for a contractual period of 4 months. The tentative starting date will be 15<sup>th</sup> January 2025 to 14<sup>th</sup> May 2025.

### **Mode of Application**

Letter of application together with a detailed *Curriculum Vitae* and photocopies of qualifications, birth certificate, marriage certificate (if applicable), testimonials and equivalence of qualifications (where applicable) should reach **the Dean of the Faculty of Information, Communication and Digital Technologies (Attention: Dr Roushdath Elaheebocus), University of Mauritius, Réduit**, OR email address ([r.elaheebocus@uom.ac.mu](mailto:r.elaheebocus@uom.ac.mu)) and copied to ([deanfoicdt@uom.ac.mu](mailto:deanfoicdt@uom.ac.mu)) by **Noon (12:00 PM)**, on the **30<sup>th</sup> of December 2024**, at latest.

The envelope should be clearly marked **“Research Assistant for the project Enhancing Marine Shrimp Farming and Acclimatisation to Freshwater Environments Through IoT and Smart Technologies”** on the top right hand

corner.

Applications received after the closing date will not be considered.

The University reserves the right:

- to call for interview only the most appropriately and best qualified applicants.
- not to make any appointment as a result of this advertisement.
- to conduct a written/aptitude test as and when required.

17 December 2024

**Dean Faculty of Information, Communication and Digital Technologies**