



UNIVERSITY OF MAURITIUS

VACANCY: Research Assistant Part-Time (P/T)

Applications are invited from suitably qualified candidates for the post of **two (2) Research Assistants (Part-Time)** to work on the research project entitled: **“Solar Irradiance Dataset for Mauritius, Rodrigues and Agaléga”**, for a contractual period of Seven (7) months and renewable if required.

Qualifications Required:

- A first degree in Computer Science/ Applications, Electrical and Electronic Engineering/ Telecommunications Engineering/ Mechatronics Engineering/ or any related degree to the field of the research project.

Profile

Candidates must have:

- Sound research aptitudes, good communication, and writing skills.
- Good organisation and problem solving skills.
- Good IT and analytical skills.
- Practical experience with Python / Other relevant programming languages.
- Practical experience with cloud server security, website development and integration of data analysis mechanisms.
- Knowledge of data pre-processing, annotation and analysis.
- Knowledge of application development using Python and relevant libraries for machine learning models.
- Knowledge and Practical experience with Cloud platforms such as Google Cloud or AWS would be a plus.

Responsibilities & Duties

- To assist in the hardware / sensor network / software setup, calibration and configurations for the data collection mechanism at the different sites.
- To implement and test a data collection network system for secure cloud-based data acquisition and processing.
- To design and implement a fully functional and secure cloud database for real-time data storage for the different sites.
- To design and implement a fully functional real-time graphical visualisation of the data collected on the secure web platform.
- To implement machine-learning algorithms and analyse data obtained from equipment at the different sites.
- To incorporate satellite imagery display on the website with the possibility of identifying and highlighting the sites under consideration.
- To perform experimental work and conduct different tests.
- To integrate the visualisation of the actual and predicted data in both graphical forms and on the satellite image(s).
- Incorporate both scheduled predictive tasks as well as predictions based on user-selected parameters in the system.
- Train the different stakeholders on the system.
- To report to the Principal Investigator and project collaborators.
- To assist in report writing and presentation of results obtained.

- To work on journal publications over the course of the project.
- To present the research findings at conferences and workshops as deemed appropriate by the supervisors.
- To carry out literature review in the related field of research, document the work carried out and any other applicable cognate duties.

Remuneration

A monthly all-inclusive allowance of Rs 13,700/-.

Duration of Contract

Appointment will be offered for a contractual period of **Seven (7) months** (Part-Time), renewable if required. The proposed starting date will be **8th May 2023**.

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 Engineering (Attention: Dr Y. Beeharry, Principal Investigator), University of Mauritius, 80837 Réduit, Mauritius** OR email address (*y.beeharry@uom.ac.mu*) and copied to (*deanfeng@uom.ac.mu*) by **Wednesday 26th April 2023, at latest. Applications by email are encouraged.**

Any email or postal correspondence should be referenced as **“Research Assistant (Part-Time) – Solar Irradiance Dataset for Mauritius, Rodrigues and Agaléga”**.

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.

Date: 10th April 2023

Dean, Faculty of Engineering