VACANCY

Applications are invited from suitably qualified candidates for a task-based assignment to work on the research project entitled *"A mesoscopic simulator for the optimisation of Light Rail Transit Systems"*. The identified tasks and respective remuneration are as follows:

1. Task 1: Systematic Literature Review (Rs 25,525 x 1 Month)
   - Conduct a systematic literature review of existing models used to optimize Light Rail Transit Operations
   - Report to investigators on a regular basis
   - Documentation and report writing
   - Any other cognate duties

2. Task 2: Comparative study of existing optimization models (Rs 25,525 x 1 Month)
   - Compare 3 to 4 ideal optimization models using MATLAB (other platforms may also be considered)
   - Report to investigators on a regular basis
   - Documentation and report writing
   - Any other cognate duties

3. Task 3: Design and develop an optimization model for LRT operation (Rs 25,525 x 4 Months)
   - Formulate a comprehensive optimization model for LRT operation using MATLAB (other platforms may also be considered)
   - Report to investigators on a regular basis
   - Documentation and report writing
   - Any other cognate duties

4. Task 4: Model calibration and validation (Rs 25,525 x 1 Months)
   - Calibrate and validate the new optimization model.
   - Report to investigators on a regular basis
   - Documentation and report writing
   - Any other cognate duties

Qualifications Required
- A Bachelor's degree in Computer Science/ Information Systems/ Applied Computing/ Software Engineering/ Mathematics/ Physics/ Engineering, or related fields, from a recognised institution.

Profile

Candidates must have:

- Good Research skills;
- Good communication skills;
- Ability to work under pressure;
- Good analytical and problem-solving skills with adequate knowledge in the relevant fields of research;
- Ability to develop optimisation/predictive algorithms and/or mathematical models (Experience in Matlab is advantageous but not mandatory);

Duration of Contract

Appointment will be offered for a contractual period of 7 months (part-time). The tentative starting date will be **9 May 2022.**

While the recruited candidate(s) will **NOT** be expected to be on site and in-office on a daily basis, arrangements should be made to attend weekly meetings with the research team on the University of Mauritius campus.

Further Information and/or Clarification

Any request for further information and/or clarification should be directed to   Dr. Oomesh Gukhool via email (o.gukhool@uom.ac.mu) with subject line: "Request for information/clarification on "*A mesoscopic simulator for the optimisation of Light Rail Transit Systems*" project.

Mode of Application

Letter of application together with a detailed Curriculum Vitae (C.V) and photocopies of qualifications, birth certificate, marriage certificates (if applicable), testimonials and equivalence of qualifications (where applicable) should reach **the Dean of Faculty of Information, Communication and Digital Technologies (FoICDT)**, **(Attention: Dr O.Gukhool)**, **University of Mauritius, Réduit** OR **PREFERABLY** by email at **o.gukhool@uom.ac.mu** and copied to **deanfoicdt@uom.ac.mu** (Dean, FoICDT), by **2 May 2022**, **at latest.**

The envelope should be clearly marked **"*A mesoscopic simulator for the optimisation of Light Rail Transit Systems*"** on the top right-hand corner, or if your application is sent by email, your email subject should be same as the aforementioned description.

Applications received after the closing date will not be considered.

The University reserves the right:

- to call for interview only the most appropriate and best qualified applicants;
- not to make any appointment as a result of this advertisement.

Dean, Faculty of Information, Communication and Digital Technologies