



CALL FOR APPLICATIONS: MPhil Research Scholarship

The Université des Mascareignes (UdM) is seeking a highly motivated Mauritian National to undertake an MPhil by Research. The project, in collaboration with the University of Oxford, aims to move beyond traditional risk assessments by modelling how the failure of one infrastructure asset cascades through Mauritius's economy. The successful candidate will develop a framework that integrates geospatial hazard data with national economic data to prioritise resilience investments.

Project Title

Developing a Systemic Risk Framework for Critical Infrastructure Resilience in Mauritius using Geospatial Analysis and Economic Input-Output Modelling.

Qualifications Required

- A first-class or upper second-class honors degree in Civil Engineering, Geomatics, Environmental Science, Data Science, Physics, or a related field relevant to infrastructure resilience.

Profile

This position is open to Mauritian Nationals only. Candidates must have:

- **Analytical & Problem-Solving Skills:** A strong interest in understanding how infrastructure systems (roads, power, water) work together. Candidates should be comfortable with mathematical concepts and interested in learning how to model the impacts of climate change on these systems.
- **Interest in Economics & Resilience:** A desire to learn how physical damage to infrastructure affects the national economy. Candidates should be willing to be trained in Input-Output (I-O) analysis to help calculate financial losses and risks to the Mauritian GDP.
- **Software & Data Aptitude:** Proficiency in Excel is essential. Previous experience with, or a strong motivation to learn, Python programming and GIS (QGIS/ArcGIS) for mapping and data analysis is required.
- **Communication & Research Skills:** Ability to write clearly and synthesize information from different sources. The candidate should be motivated to produce a high-quality thesis and contribute to scientific publications.

Responsibilities & Duties

- **Methodology Development:** Research and design a systemic risk framework tailored to Small Island Developing States (SIDS).
- **Economic Modeling:** Utilise Mauritian Input-Output tables to quantify indirect economic losses and GDP-at-risk from infrastructure disruptions.
- **Geospatial Integration:** Work alongside Research Assistants to analyse asset vulnerability under climate scenarios.
- **Scientific Communication:** Produce a high-quality MPhil thesis and contribute to at least one peer-reviewed journal publication.
- **Technical Support:** Assist the Project Lead (Dr Jay Doorga) in stakeholder workshops to validate the developed framework.

Scholarship Benefits

- **Full Tuition Fees:** Coverage of all MPhil enrollment and registration fees at UDM for a period of 2 years.
- **Monthly Stipend:** An all-inclusive monthly partial stipend of Rs 20,000/-.
- **Research Environment:** Access to international expertise from the University of Oxford and Université des Mascareignes.

Place of Work & Working Hours

The candidate will be based at the Bel Air Campus of the Université des Mascareignes. While research schedules can be flexible, the candidate is expected to be present during core project hours (09:00 to 16:00) to coordinate with the technical team.

Mode of Application

Qualified candidates should submit their application via both physical mail and electronic mail

- 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 Registrar, Université des Mascareignes, Avenue de la Concorde, Camp Le Vieux, Rose Hill by **Friday 27th February 2026 at latest.**

The envelope should be sent by registered by post and should be clearly marked “MPhil Research Scholarship” on the top left-hand corner.

- An advanced soft copy of the complete application should be emailed to the Registrar (ksewpal@udm.ac.mu) with Dr Jay Doorga (jdoorga@udm.ac.mu) in copy (CC).

Applications received after the closing date will not be considered. The University reserves the right:

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

Date: 11th February 2026