

TUM SEED Center @ Makerere University scholarship in Engineering for the 2023/2024 Academic Year

1. Call for Applications

TUM SEED Center @ Makerere University invites applications from suitable candidates from Uganda for fully funded PhD scholarship in Engineering for the 2023/2024 Academic Year tenable in the College of Engineering, Design, Art and Technology (CEDAT).

The scholarship is part of a partnership between Makerere University and the TUM SEED Center, Munich, Germany. Specifically, the scholarship is to further research at the Makerere University Living Lab - one of eight living labs created in partnership with Technical University of Munich (TUM) SEED Center that aims at offering higher education at the intersection of sustainable energies and entrepreneurship and conducting research to contribute to the 2030 Agenda for Sustainable Development. It is expected that upon graduation, the student would contribute towards frameworks for sustainable energies and entrepreneurship in Uganda.

2. Selection criteria for the Scholarship

In addition to the general admission requirements of Makerere University, applicants should possess the following qualifications and experience:

- 1) A Bachelor of Science degree in Engineering, from a chartered institution, with a Minimum of an Upper Second Class or its equivalent
- 2) A Master of Science Degree in Engineering with Merit or above (as may be applicable). This scholarship particularly targets recent graduates (from a chartered institution) and faculty of Makerere University at Masters level.
- 3) The proposal's relevance to the call: Candidates should present proposals addressing the priority research area for this scholarship
- 4) Teaching and/or research experience is considered essential. If not already a faculty member at Makerere University, successful applicants shall be considered for Graduate Fellowships that carrying a requirement for teaching
- 5) Applicants for the scholarship must demonstrate commitment to pursuing their programmes within the stipulated timeframe on full time basis
- 6) Applicants must be citizens and residents of Uganda at the time of application, and ready to stay and work on Africa upon completion of their studies
- 7) Working experience in industry or related field experience of at least one year will be an added advantage
- 8) Applicants must be ready to take on full-time studentship at Makerere University and also be willing to spend time at partner universities within the TUM SEED network.

- 9) Applicants must be ready to study a set of taught courses as recommended by the program to enhance their research capacity. These courses will be delivered by Makerere University and by the TUM SEED Center network of universities.
- 10) Should not hold any other scholarship for an academic programme at Makerere University or any other university and has not received a scholarship for an equivalent programme in the past.
- 11) Should demonstrate specific interest in pursuing a career for the theme of study chosen

3. PhD by Research Scholarships Coverage

The scholarships will be limited to tuition, functional fees, an allowance for field-based research, and a modest stipend for the stipulated period of study (4 years).

4. PhD by Research Scholarship Conditions

- 1) One (1) PhD scholarship is available in this call.
- 2) The award covers only 4 years specified for the PhD program. Students are encouraged to complete their studies within this timeframe.
- 3) Annual Scholarship Progress Reports will be required to justify further funding. Poor progress may automatically lead to cancellation of the scholarship.
- 4) Failure to complete studies and graduate within the stipulated programme period without sound reason (unrelated to illness or other such compassionate conditions) will lead to automatic cancellation of the scholarship and under certain circumstances, a refund may be demanded.
- 5) The student should be willing to take part in industry/field excursions and other activities organised by the Scholarship Programme.
- 6) Payments of tuition and functional fees will be made directly to Makerere University and stipend to the student's bank account.

5. Scholarship Application

The scholarship application shall include submission of a 6-page (in single space, font size 11) research synopsis covering the Title of the Study; Study Background, Problem Statement; Key research question, Study objectives, Significance/rationale for the study; Conceptual Framework, Methodology and a Literature review (not more than three pages for the Literature review section).

The research synopsis should come from the priority research area identified for this call. In addition, applicants should submit:

- 1) A curriculum vitae showing academic qualifications, work experience and any other relevant information
- 2) A letter of motivation and justification for the scholarship award based on the specified criteria (max. 1000 words)
- 3) At least two letters of recommendation, one of which should be from an academic referee

- 4) Photocopies of Certified Academic Documents including Undergraduate, 'O' and 'A' level Certificates
- 5) A copy of the applicant's National Identity Card

5.1 Key Priority Research Area for PhD by Research

The combination of off-grid energy, productive uses of energy, and electric mobility can be a game-changer for rural communities. Drawing a basis from the Makerere Living Lab, key priority areas for research entail innovative energy solutions for rural communities. The Makerere University Living Lab (MULL) is located at Kyampisi, about 75 km from Makerere University, and about 10 km from the main electricity grid and 12 km from the main tarmac road. It is within a clustered community of approximately 200 households, which is predominantly agricultural.

The Living Lab Kyampisi seeks to facilitate research at the nexus of sustainable energies and entrepreneurship, and to provide a context for research relating to subjects of the 2030 Agenda for Sustainable Development. Among other activities, we seek to expand the energy generation and storage capacity to develop an electric mobility ecosystem and to further support the productive uses of energy related to the local agriculture potential. This is expected to unlock the entrepreneurial abilities of the community in the areas of agricultural value addition, banking and mobile services, and transport services. This scholarship thus seeks to support research in affordable and clean energy. This includes areas of renewable energy production, energy storage, energy distribution, monitoring and evaluation systems, and any other pertinent areas that an applicant is able to identify and articulate a research issue therein.

6. Application Procedure

The following steps are a guide for the application procedure:

- 1) Develop a research synopsis as guided in Section. 5
- 2) Scan certified copies of your academic documents, all other relevant documents, and three (3) referees' letters of recommendation. Compile the scanned copies into a single PDF document that should not exceed 10MB in size (and/or when compressed).
- 3) Submit one print copy of the two items above (1 & 2) to the Dean's Office, School of Engineering, Room 222, CEDAT Old Building. In addition, email scanned copies of the mentioned documents in Items 1 & 2 above to cedat_soe@mak.ac.ug. **Only two attachments are expected by email: (1) Research Synopsis and (2) Single PDF document of academic and other documents requested above.**
- 4) Strictly observe the closing date for applications of 30th November 2023 (*new deadline*)

For any further information about the scholarship, contact the Dean, School of Engineering of the College of Engineering, Design, Art and Technology (CEDAT) via email at cedat_soe@mak.ac.ug

Closing date for Applications: Thursday 30 November 2023