CALL FOR APPLICATION FOR MASTER'S SCHOLARSHIP

I.   Background

A research team from the University of Rwanda (UR), in collaboration with the University of Malawi (UNIMA), is implementing a project titled *"AI-Driven Machine Vision for Quality Control and Waste Reduction in Small-Scale Food Processing Manufacturing in Rwanda and Malawi."* The project has secured funding under the NCST Rwanda and NCST Malawi Collaborative Research and Innovation Grant (Grant No: NCST-RW/NCST-MW/2024). The overall objective of the project is to leverage Artificial Intelligence (AI) and Internet of Things (IoT) technologies to enhance quality control, reduce waste, improve energy efficiency, and strengthen industrial manufacturing processes in small-scale food processing industries in Rwanda and Malawi.

Specifically, the project aims to:

(i) Develop and deploy an AI-powered machine vision system for real-time defect detection in food processing,
(ii) Implement IoT-based monitoring systems for process optimization and predictive maintenance in manufacturing environments.

As part of the project implementation and capacity-building component, the research team is pleased to offer a Monthly Stipend opportunity for a highly talented Master's candidate to work on the project.

II.   Description

The NCST Rwanda and NCST Malawi Collaborative Research Grant aims to strengthen bilateral research collaboration between Rwanda and Malawi, focusing on the application of emerging technologies such as Artificial Intelligence (AI) and Internet of Things (IoT) in manufacturing and industrialization.

The project titled **"AI-Driven Machine Vision for Quality Control and Waste Reduction in Small-Scale Food Processing Manufacturing in Rwanda and Malawi"** focuses on developing affordable and scalable AI-driven solutions to address manufacturing challenges, including product defect detection, process inefficiencies, post-harvest losses, and equipment downtime.

The selected Master's scholar will contribute to research activities related to AI-based image processing, IoT-enabled monitoring systems, embedded systems development, and machine learning applications in food processing industries. The research will involve prototype development, field testing, data analysis, and scientific dissemination.

III.   Funding

The funding for 1 Master's degree has been planned under the implementation of the project:

One position in Wireless Intelligent Sensor Network, Embedded Computing Systems, Computer Engineering, Electrical Engineering, or related fields.

The duration of the programme is two (2) years.

The scholarship will cover:

- Monthly Stipend
- Research support within the project framework (Attending conferences and publication fees)

IV. Application Requirements

- Have been admitted to a Master's program at the University of Rwanda (in the fields of Wireless Intelligent Sensor Network, Embedded Computing Systems, Computer Engineering, Electrical Engineering, or related fields).
- Hold a Bachelor's degree in a relevant field.

V. Application Documents

- Application letter addressed to the Director of the Centre for Postgraduate Studies at UR, with a copy to the Project PI at the University of Rwanda
- Curriculum vitae (3 pages maximum)
- A copy of the Bachelor's degree certificate
- Copies of academic transcripts
- A copy of the Admission letter to the UR-Master's related program
- A Master's research concept note aligned with the project objectives
- Two recommendation letters (from an academic referee)
- Copy of National Identity Card or passport

VI. Specific Eligibility Criteria

- University of Rwanda staff are highly encouraged to apply
- Demonstrated background or experience in AI, IoT, programming, or embedded systems development is an added advantage
- High level of English proficiency
- Male applicants above 35 years of age and female applicants above 40 years of age are not eligible for Masters scholarships.
- Women are highly encouraged to apply

VII. Selection Methodology

Shortlisted candidates will be invited for an interview on dates that will be communicated through their respective emails.

VIII.   How to Apply and Key Dates

Applicants are requested to send the documents as listed above by email to the University of Rwanda, Centre for Postgraduate Studies Scholarship Officer on E-mail: urcpgscholarship@ur.ac.rw Tel: +250 792988304 With a copy to Dr. James Rwigema, the Project Principal Investigator at j.rwigema@ur.ac.rw and Tel:+250788444801.

Submission deadline

The deadline for the application is **27th March 2026.**

IX.   Contact details for more information

For more information, please contact Dr. James Rwigema, the Project Principal Investigator at j.rwigema@ur.ac.rw and Tel: +250 788 444 801.

Done at Kigali,..**11**./..**03**./2026

Assoc. Prof. KAYIHURA Muganga Didas
Acting Vice Chancellor