CALL FOR APPLICATIONS FOR PHD BY RESEARCH PROGRAMMES
ACADEMIC YEAR 2022/2023

The Management of the University of Rwanda is pleased to invite applications from interested and qualified candidates to apply to study PhD programmes offered by the African Centre of Excellence for Innovative Teaching and Learning Mathematics and Science (ACEITLMS) based, College of Education (UR-CE). Qualified candidates shall apply for the following programmes:

- PhD by Research in Biology Education
- PhD by Research in Chemistry Education
- PhD by Research in Mathematics Education
- PhD by Research in Physics Education

The ACEITLMS is one of the four African Centres of Excellence (ACEs) supported by the World Bank. The main aim of the ACEITLMS is to strengthen human capacity in the delivery of quality teaching and learning of mathematics and science in Rwanda and across the region, in collaboration with regional and international institutions. The Centre's main activities are: (i) teaching, learning and training (ii) research and (iii) community outreach. For teaching and learning, the Centre is running PhD and Masters programmes whose graduates are expected to bring quality and innovation into teaching and learning of mathematics and science, and application of STEM (Science, Technology, Engineering and mathematics) knowledge for economic development of the African continent. In this regard, the ACEITLMS will offer financial support to selected Rwandan and other African citizens to pursue studies in PhD (by research) in Biology, Chemistry, Mathematics and Physics Education programmes during academic year 2021-2022, University of Rwanda- College of Education, Rukara Campus.

Mode of attendance, duration and commencement : This PhD programme is a full-time research study programme for a three-year period, maximum four years. The programme will start by 26th September, 2022. All students will be provisionally admitted, and the final admission will be completed after approval of the research proposal by the appropriate organs of the UR-CE.

I.   Entry Requirements

Candidates applying for the ACEITLMS-PhD (by research) programmes should have MSc degree in Mathematics or Science (Biology, Chemistry and Physics) with an undergraduate degree in Education or an undergraduate degree in mathematics/science subject(s) with a Master's degree in Education. The candidate must have sufficient knowledge of English, which will be the medium of instruction; he/she should submit a PhD research concept note (refer to the appendix) clearly mentioning innovative aspects to mitigate current local and regional challenges in teaching and Learning Mathematics and Science. Publication/acceptance/submission of a paper in a peer reviewed journal will be an added value.

Procedure to develop a concept note
The applicant must contact a potential supervisor for consultation to develop a concept note for proposed PhD research project in discipline-based mathematics or science education in areas listed in Appendix 1. **Contacts of potential supervisors are accessible via the link below:** https://aceitlms.ur.ac.rw/?q=node/402

II.   Key dates for this call

Deadline of application: **15th July 2022**

III.   Required documents for application

1.   A detailed curriculum vitae of the candidate

2.   Notarized copies of previous degrees/certificates (from High School to University) and transcripts

3.   A motivation letter describing the candidate's motivation to join one of the programmes mentioned above.

4. Two letters of recommendation from Lecturers/supervisors from previous educational institutions,

5.   A recent passport sized photograph and a copy of ID (or valid Passport).

6.   An abstract of Master's programme dissertation

7.   A PhD research concept note describing the research problem, the purpose and objectives of the research, the methodology, expected outcomes and its expected impact in the area of study (see Format in Appendix 1).

8. Sponsorship letter from an organization (if any, added value to the application).

9. Evidence of Publication(s): Submit published paper(s) and/or manuscript(s) with a proof of acceptance or submission.

NB:

- Rwandan candidates who have completed their degrees/diplomas from foreign universities are required to submit their degrees/diplomas' equivalence provided by the Higher Education Council (HEC) of Rwanda.
- International applicants, upon admission will provide equivalence of their certificates from Rwanda Higher Education Council (HEC) after three months
- Female candidates and applicants with disabilities are encouraged to apply.
- Candidates who fulfill admission requirements will have to pass interview with the ACEITLMS.
- Selected candidates will be informed by email.

IV. Selection criteria

The selection of candidates will be done based on submitted documents by the applicants. Only candidates who meet the entry requirements mentioned above and who will have submitted all the required documents will be invited for interviews. Candidates who will have successfully passed the interviews will be recommended for admission.

All selected students will be provisionally admitted, and the final admission will be completed after approval of the research proposal by the appropriate organs of the UR-CE.

V. Funding

There are opportunities for financial support available on a competitive basis, for selected candidates. Candidates who will obtain the ACEITLMS financial support will initially be provided for one year. It may be renewable based on performance of the candidate and availability of funds. Such support may cover:

- Living cost, accommodation and local transport up to 6000USD per year for regional students and 4800USD per year for local students, with an additional 600 USD for female candidates.
- Tuition fee as per UR fee structure (full or partial), and

- A one-way trip air ticket for some selected candidates from other African countries.
- **Self sponsored candidates are highly encouraged to apply.**

Payments and fee structure for Postgraduate Studies

See the University fee structure downloadable from the University of Rwanda's website:
https://ur.ac.rw/IMG/pdf/fees_structure_2018_2019_combined-pivote.pdf
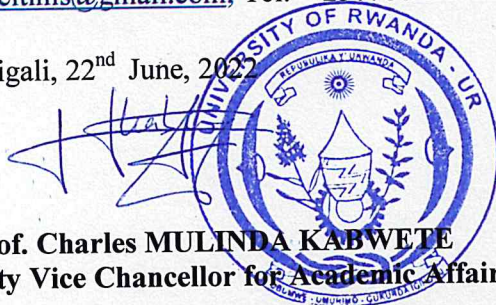
VI. Application process

- Go to UR Website (www.ur.ac.rw)
- *Go to Admission, Applicant Portal and click to (New Application)*
- *Fill the **Biographical Form** and click (**Save**) at the end*
- *You will get "**Your Student ID Reference Number**". Please keep this ID Reference Number as it will be your identification for your study and all transactions at UR.*
- *Create a PIN of 5 numeric digits, Do not start with a zero (0) (This PIN will serve as password to access your student account).*
- Applicants must submit the soft copies of all required documents (*as specified in point 4 above and saved as one file in PDF, the name of the file must be the reference number.*) through the following link: pgfile.ur.ac.rw/pgfile/findme.php

For any additional information, clarification, or inquiry, please do not hesitate to contact:

- Mr. William Kizza, Postgraduate studies Administrator, ACEITLMS:
  Tel: (+250) 780839778; email: **kizzawilliam2013@gmail.com**
- Dr Marcellin Rutegwa, Head of Research, ACEITLMS:
  Tel.: (+250) 788356696; email: **marcellin.rutegwa@gmail.com**
- Postgraduate Studies Officer: Tel: (+250) 786147759; email: **jmutaganda@ur.ac.rw**

ACEITLMS website: www.aceitlms.ur.ac.rw, E-Mail: aceitlms@ur.ac.rw / wrceceitlms@gmail.com; Tel: +250788221035

Done at Kigali, 22nd June, 2022

Assoc. Prof. Charles MULINDA KABWETE
Ag. Deputy Vice Chancellor for Academic Affairs and Research

APPENDIX 1: PhD concept note format

1. Guidelines for a structured PhD research concept note (*To be strictly applied*)

   i.   **Cover page with**
- *Research Title (no more than 20 words)*
- *The applicant's personal information)*
- *PhD by research programme (eg. Biology Education, Mathematics Education, etc).*
- *PhD Research area(See guidelines in point 2 below)*

   ii.   **Project summary:** Describe in general terms the problems you want to address. Provide an overall description of your anticipated PhD research concept, what you want to achieve and which kind of innovations it will bring *(Maximum 500 words)*

   iii.   **Project problem and outputs:** Description and background of the research problem(s) you intend to address and descriptions of the individual outputs you expect to realize(500 words)

   iv.   **Literature review:** Based on the reviewed literature, describe the existing knowledge and experience that you will build on from your own research or that of others, and how your PhD project will contribute to new scientific knowledge

   v.   **Methodology**: Provide a brief description and justification of the methodology and research approach that will be used in your PhD research. *(500 words maximum)*

   vi.   **Policy implications of the research (if any):** Please provide an indication of how relevant are the research outputs to policy change for development? (200 words maximum)

   vii.   **Expected users of the research:** indicate and justify who will use your research results – during your project, and at the end? (organizations, educators, researchers, policy makers, community groups, etc.) *(300 words)*

2. Research areas

Research topics should mainly focus on (but not necessarily limited to) the following:

   i.   Innovative teaching and learning methods in science and mathematics

   ii.   Assessment and experimental methods in science and mathematics education

   iii.   Scientific and mathematical thinking in students at school and college level

   iv.   ICT integration in teaching and learning of science and mathematics

   v.   Science-Technology-Society-Environment Education

   vi.   Structure and dynamics of science and mathematics knowledge

   vii.   Space and Environmental science education