



Call for Application for 1 Postdoc Candidate in Digital Health under the UR-Sweden Research Training Partnership Programme

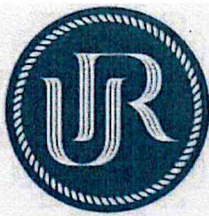
1. Background

The University of Rwanda-Centre of Excellence in Biomedical Engineering and eHealth (UR-CEBE) in partnership with Stockholm University, Sweden, through the Research Training Partnership Programme, Rwanda, 2019-2026 received funding from the Swedish International Development Agency (SIDA), Sweden, to establish a research project entitled: Strengthening Research Capacity and Expertise in Digital Health. The research training sub-programme has a goal to strengthen research and postgraduate training in Digital health as well as to develop and disseminate home-grown e-Health solutions through innovative research and development (R&D) activities involving the Government, academia, and private sector as partners.

It is in this regards that the UR cordially invites motivated candidates to apply for a Postdoctoral fellowship in the field of digital health starting February 2023. The Postdoc training intends to upgrade knowledge, methodologies and technologies in digital health to enable staff to supervise and guide research students in developing new knowledge and skills in digital health to address health issues. The Postdoc training program is two years and the candidate will spend about three months in Sweden per year and carrying out their research in Rwanda for the rest of the period. One Postdoc candidate will be attached to UR and mentored by senior researchers from Stockholm University.

2. Research area

The Postdoc training falls into multidisciplinary research including from health and life sciences, information technology, computer science, design and engineering, and related field. The Postdoctoral fellowship aims to nurture and prepare candidates for successful careers and leadership that will span multidisciplinary research through innovative and technical solutions that address healthcare challenges and the role of technologies in healthcare systems. The research activities will be in close collaboration with partners from the healthcare sector, industry, and academia. The Postdoc candidate will be invited to perform research under the following research theme:



▪ **Research theme B: Healthcare Big Data Analytics**

- **Background and objective:** Health care data is growing rapidly and is becoming more complex, with huge amounts of medical and clinical data rapidly generated and collected daily among multiple healthcare systems, health insurers, and government entities. However, in most developing countries, the collected data remains mostly underutilized, and the challenge lies on how to align decision-making in healthcare with knowledge discovery and decision support frameworks for complex and massive data sources to extract useful insights for policy makers. The objective of this research theme B is to develop novel data mining models, healthcare analytics platforms, and visual analytics tools for healthcare using computational methods and algorithmic solutions from the area of machine learning for the purpose of knowledge extraction; hence providing insights, evidence, and recommendations for decision and policy-making, as well as clinical risk modeling. In addition, national policies and strategies regulating the usage of big data in healthcare will be explored, formulated, and proposed to policy makers and governmental instruments.
- **Requirements:** A PhD degree is required, preferably within the areas of Computer Science, Health informatics, or equivalent. An applicant with a PhD degree in healthcare-related areas, such as Medicine, is acceptable as long as the applicant can provide some proof of knowledge and experience in computer science and can describe how his/her profile corresponds to the actual research theme. It is a merit (but not a prerequisite) if the applicant has prior experience in data science, machine learning, data mining, or equivalent areas, as well as programming skills in languages such as Python, Matlab, R, or C++.

3. Funding:

The study will be supported by Sida through UR Sweden Program for Research, Higher Education and Institutional Advancement.

4. Eligibility and requirements for Postdoc fellowship:

The Postdoctoral candidate should possess a PhD degree or equivalent and is expected to demonstrate his/her interest to articulate plans for the research to pursue as part of their Postdoc training.



The position holder (depending on his/her qualification) will be required to perform the following tasks:

- Shaping research directions and producing results in the area of digital health
- Disseminating results through high impact journals and conference publications
- Providing guidance and supervision to PhD and MSc. Students
- Teaching, organize scientific seminars and workshops, research grant proposal writing under the scope of digital health

i. Eligibility:

- Be a Rwanda Citizen
- Holder of a PhD degree or equivalent in a relevant field and documented competence in areas relevant to the position, including research experience
- Demonstrated ability to think and work independently and in a team
- Ready to adhere to UR capacity building policies and regulations
- Having interest and passion in digital health (teaching, research, inter-institution collaboration for digital related matters)
- All things being equal, priority will be given to UR staff. Candidates from collaborating Rwandan Government institutions are eligible and invited to apply. When successful, such candidates shall have to produce commitment letters from their respective institutions to release them to undertake the Postdoc on sandwich model. Furthermore, UR shall have an agreement with these institutions how the acquired expertise shall benefit both the institution of origin of the candidate and UR.
- In line with UR's gender policy and UR's commitment to bridge gender gap in academic (teaching and research) jobs; all things being equal, female candidate shall be preferred.

ii. Key documents to be submitted by the applicant:

- A cover letter/Motivation letter detailing commitment, statement of goals, objectives and reasons for interest in the Postdoc scholarship



- An updated CV (maximum 5 pages), including the listing of possible previous scientific publications as well as supervision.
- A project proposal/research concept note (maximum 5 pages) describing:
 - ✓ why you are interested in the field/project described in the call
 - ✓ why and how you wish to complete the project
 - ✓ what makes you suitable for the project in question

The research proposal should highlight the area of research on which the candidate intends to focus as described in Section 2.

- A certified copy of PhD degree with a summary of the courses/subjects included in the degree (Academic transcripts).
- Other professional certificates if available
- A summary of research projects conducted (no more than three pages)
- List of postgraduate supervision projects
- Letters of recommendation (two or three letters) with contact details for references
- Provide evidence of proficiency in writing and speaking English
- Your contact details and personal data

Note: It is the responsibility of the applicant to ensure that the application is complete in accordance with the instructions in the call, and that it is submitted before the deadline.

5. Selection

The selection among the eligible candidates will be based on their capacity to benefit from the training, and emphasis is placed on previous study results that must be demonstrated by academic work (research, projects, etc.). If the applicant has published in peer-reviewed journals, the published article/s can be enclosed to the application. The applicant must present his/her research plan in such a way that it appears clearly which research area the applicant wishes to associate to the planned research project.



In addition, the following criteria will be applied to assess the applicant's capacity:

- Independence in the analysis and organization of earlier work
- Problem formulation and rigor in previous work and in the research plan
- Previously shown ability to keep the specified time limits
- Methodological and scientific maturity
- Communication and cooperation skills
- Subject-specific knowledge relevant to education
- Research, supervision, and teaching



6. Important Dates to note:

Application deadline: Applicants are requested to submit the required documents no later than **November 11, 2022**

5. How to apply:

All applications must be submitted in soft copy and should be sent to the Scholarships Officer at UR CPGS, Mrs Gloriose UMULISA GASHAYIJA (email: ur-cpgscholarship@ur.ac.rw) and copy to Prof. Celestin Twizere (celestintwizere@gmail.com), and Dr. Aurore Nishimwe (email: auroreshimwa@yahoo.fr). For more information: Applicants can contact the Project PI, Prof. Celestin Twizere (celestintwizere@gmail.com).

Done at Kigali, October 18th, 2022

Prof. Nosa O. Egiebor
Deputy Vice Chancellor for Academic Affairs and Research