

# Artificial Intelligence for Development in Africa (AI4D Africa)

## Scholarship Project



### I. About the Programme

The Artificial Intelligence for Development in Africa (AI4D Africa) is a 3-year scholarship project, funded by the International Development Research Centre (IDRC) and the Swedish International Development Cooperation Agency (Sida). It aims to meet the growing demand for research and development, and deployment of responsible artificial intelligence (AI) and machine learning (ML) in African public universities. Specifically, the project aims to:

- Support scholars to undertake and successfully complete PhD research in AI and ML in African universities;
- Support Early Career Academics (ECA) to strengthen their research and development (R&D) capacities in AI and ML;
- Facilitate professional development for PhD and ECA scholarship beneficiaries.

### II. Expected outcomes

The AI4D Africa scholarship project expects to create a critical mass of scholars capable of enhancing research and development in AI and ML related fields while at the same time supporting public universities in sub-saharan Africa to develop their capacities to provide postgraduate training in AI and ML. In addition, the project aims to facilitate adequate access to knowledge by researchers and practitioners and enhance networking opportunities for the scholars. Specifically, the project expects to graduate 22 new PhD scholars to enhance research and development in AI and ML related fields in African universities. Meanwhile, 20 MSc graduates will have acquired good foundation to pursue PhD programmes in AI and ML related fields while capacities of at least 8 universities will be enhanced to a level where they can effectively provide quality postgraduate training in AI and ML.

Meanwhile, the AI4D Africa Scholarship project expects to enhance access to evidence for policy makers in AI and ML related issues; improve access to knowledge by researchers and practitioners on AI and ML; provide networking opportunities for AI and ML scholars; and develop a working model of AI4D Africa scholarships for PhD and early career studies in Africa for future reference,

These outcomes are expected to ultimately build the capacity of African scholars to undertake research and development in AI and ML and contribute effectively to global and discourse in the two fields.

### III. Target beneficiaries

The project is supporting scholars to undertake and successfully complete PhD research in AI and ML in African universities; and support Early Career Academics (ECA) to strengthen their research and development capacities in the two fields. Special consideration is given to research projects on responsible AI and ML innovation for sustainable development, gender equity and equitable regional distribution for low-income countries.

#### Registered PhD students

The scholarship project targets candidates who are already registered for PhD, have completed course work as well as research proposals. This category is open to all universities offering PhD in artificial AI and ML.

#### Early Career Academics

The project is also targeting candidates with more than two years post PhD and are therefore capable of supervising PhD students. The ECAs are supported to supervise a PhD student and two MSc students. Additionally, the programme targets post-doctoral researchers with less than 2 years, who will be supported to supervise 4 MSc students in AI and ML.

### IV. Complementary Activities

The project has also lined up a series of complementary activities to build the capacity of beneficiaries. These include short-courses, a PhD academy/summer school, quarterly seminars, annual workshops, regional conferences, online training workshops (for supervisors) and PhD mentorship.

#### A. Short Courses

The project has designed tailor-made short courses to be offered online to PhD scholars, ECAs as well as interested supervisors. These courses are outlined below:

**Intellectual Property and Artificial Intelligence:** This course is meant to expose beneficiaries on the importance of intellectual property and technology transfer in responsible AI research and ML development. This training is offered by the African Centre for Technology Studies (ACTS) in collaboration with Kwame Nkrumah University of Science and Technology, which is currently offering MSc degree in Intellectual Property.

**Understanding Responsible AI Development and deployment:** Taking into consideration the focus of AI4D Africa programme on responsible AI/ML development and deployment, a short course has been developed and delivered by the University of Linköping (LiU), Sweden, to equip beneficiaries with a better understanding of critical issues on responsible AI development and its deployment.

**Gender and Artificial Intelligence:** This course will enable researchers, scholars and practitioners to integrate gender in AI and ML research, development and practice. A training programme on gender and artificial intelligence will be developed and delivered online by the Institute for Humanities in Africa located at the Faculty of Humanities, University of Cape Town (UCT) together with Research ICT Africa.

**AI Research for Policy Influence:** the course is intended to expose AI4D Africa scholarship beneficiaries on the steps necessary to enhance uptake of research outputs for policy formulation. This training programme has also been designed by ACTS.

**Intellectual Property and Artificial Intelligence:** This course is expected to expose beneficiaries to the importance of intellectual property and technology transfer in responsible AI research and development. It is offered by Kwame Nkrumah University of Science and Technology (currently offering MSc degree in Intellectual Property, (Ghana) in collaboration with ACTS.

**Gender and Artificial Intelligence:** This course is designed to enable researchers, scholars and practitioners to integrate gender in AI and ML research, development and practice. This training programme has been developed and delivered online by the Research ICT Africa (RIA), South Africa.

**AI Research for Policy Influence:** The course is intended to expose AI4D Africa beneficiaries on the steps necessary to enhance uptake of research outputs for policy formulation. This training will also be delivered online by ACTS.

**Artificial intelligence Ethics - The African Context:** This course is delivered by the Institute for Humanities in Africa, Faculty of Humanities, University of Cape Town (UCT). It focuses on AI Ethics in the African context.

**Artificial intelligence Ethics - Global Context:** There are several ethical issues (global) related to AI research, development and deployment. A training session has been developed and delivered by the University of California to equip beneficiaries with appropriate knowledge on these issues.

### V. Key Project partners

The project is implemented by the African Centre for Technology Studies (ACTS) based (Kenya) in partnership with Kwame Nkrumah University of Science & Technology (Ghana); University of Linköping, (Sweden); University Cheikh Anta Diop de Dakar (Senegal); University of California (United States); Institute for Humanities in Africa, University of Cape Town (South Africa); Research ICT Africa; and Eduardo Mondlane University, (Mozambique).

### AI4D Africa Scholarship Project in Numbers



● **22 African Universities**



● **20 PhD Scholars**

♂ = 10

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♀ = 10



● **10 Early Career Academics (ECAs)**

♂ = 5

♀ = 5



● **23 Students under ECAs**

19 Msc and 4PhDs



● **19 MSc Students**

♂ = 11

♀ = 8