

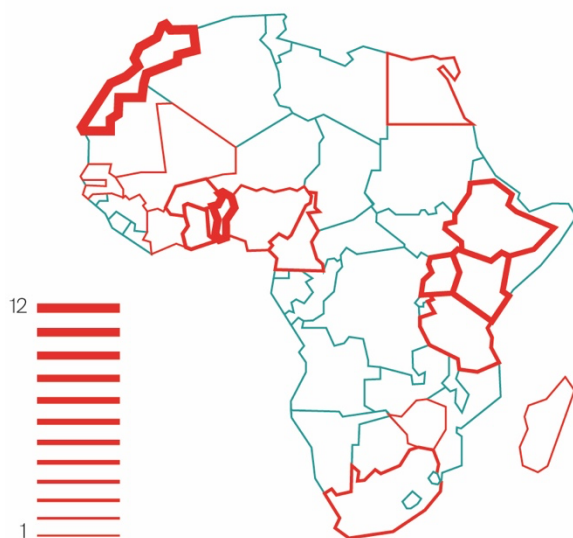
100 PhDs for Africa: Paperboard full for the 2nd edition!

As part of the joint [“Excellence in Africa”](#) initiative supported by the Ecole polytechnique fédérale de Lausanne - EPFL, and the University Mohammed VI Polytechnic - UM6P, and the [“100 PhDs for Africa”](#) programme, the list of the second intake of doctoral students who will be part of the research programme has been published.

The new call for projects launched in 2023 was a resounding success, with 2,572 people submitting applications on the competition platform. Some 644 applications passed the first filter of criteria to decide between competitors based on the scientific excellence of their research project, the commitment of the teaching staff and the potential societal impact of the thesis.

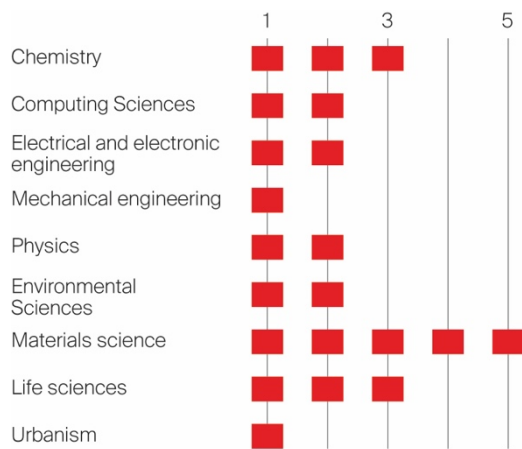
An initial selection resulted in 82 applications, of which a third were from women.

The map below shows the number of applications according to the country of universities of the 82 applicants. Eighteen different countries are represented, which not only confirms the interest in the programme throughout Africa, but also demonstrates the diversity of academic excellence in French-speaking and southern Africa, as well as on the east coast. The programme provides a kick-start to support the growth in research and innovation driven by these engineering research theses, with a high potential societal impact for each country and for the continent as a whole.



Map - Countries of origin of the 82 applications selected for matching with an EPFL professor.

The chart below shows the disciplines covered by the finalists:



Graph - Breakdown of applications by scientific discipline

The most represented topics are material sciences, chemical engineering and life sciences. The other disciplines represented are electrical and electronic engineering, environmental sciences, computing sciences and physics. Finally, a thesis project in urban planning demonstrates the importance of subjects related to urban planning on a continent that is experiencing significant demographic growth. Almost all the applications include transdisciplinary aspects in the proposed research, often with a computational analysis.

The second selection phase, with interviews conducted by EPFL professors who will act as co-supervisors to the PhDs, resulted in 23 candidates being selected.

The Scientific Committee of the programme announces the 2nd class of the 20 granted projects of the “100 PhDs for Africa” programme:

(To ensure scientific accuracy, the titles of the theses are given below as formulated by the candidates themselves, in English or French)

- Ms. Imane ARAF, Morocco, UM6P, “Cost-Sensitive Learning for Imbalanced Medical Data.”
- Mr. Alemu BELETE, Ethiopia, Wollo University, “Molecular epidemiology and spatial analysis of anti-viral drug resistance and its genetic transmission networks among HIV patients in Ethiopia.”
- Mr. Mhamed BERRADA, Morocco, UM6P, “Glycopolymers as light stimulative systems for controlled release fertilization.”

- Mr. Abdessamad EL AMRI, Morocco, UM6P, “2D COFs materials for water production and treatment: Water desalination as a case study.”
- Ms. Nancy EVANS, Kenya, University of Nairobi, “Clostridioides difficile infections among Kenyan patients with Chronic Kidney Disease.”
- Mr. Seyoum Abebayehu GETANEH, Ethiopia, Université Sciences et Technologie d’Addis Ababa, “Synthesis, characterization and electrochemical performance study of heterostructure MoS₂/MoO₂/CNTS composite as high performance supercapacitor electrodes.”
- Ms. Nehal GHONEIM, Egypt, The American University in Cairo, “Development of Nano-Biosensors for rapid and early diagnosis of neurodegenerative diseases (NDs).”
- Ms. Meryem JAMAL, Morocco, UM6P, “Design and Assembly of Fully Biobased and Bioinspired Fibers.”
- Ms. Ruth KASAVO, South Africa, University of Pretoria, “Magnetic nanoparticles and polymer nanocomposites for the removal of organic, heavy metals and pharmaceutical pollutants; A continuous flow system study towards industrial application.”
- Ms. Abla Grace Leaticia KOUASSI, Morocco, Hassan II University of Casablanca, “Elaboration et caractérisation de matériaux écologiques légers et isolants thermiques à partir de déchets de démolitions et de déchets industriels (pierre ponce et boues de marbre).”
- Ms. Safaa MENSSOURI, Morocco, UM6P, “Robust Intrusion Detection based Deep Learning for Network.”
- Ms. Grantina MODERN, Tanzania, NM-AIST, “Determination of an enteric bacteriome profile as a possible biomarker for growth and Environmental Enteric Dysfunction (EED) in children between 1 and 4 years in the Southern regions of Tanzania.”
- Ms. Lydia MWIKALI, Uganda, Mbarara University of Science and Technology, “Perfluoroalkyl substances in source and treated drinking water, and their removal using corncob-derived biochar.”

- Ms. Erika Mado NGOS BIYIHA, Cameroon, University of Yaoundé, “Etude d'un écoulement entre deux cylindres co-axiaux à entrefer constant avec gradient de température.”
- Mr. Nelson N-YANBINI, Ghana, Dumbo University of Business and Integrated Development Studies, “Space matter: Urban sprawl and the future of urban green spaces in secondary cities in Ghana.”
- Mr. Lilian OWINO, Kenya, University of Nairobi, “Application of TiO₂: GO Nanotube Arrays as Photocatalysts for Industrial Waste Water Treatment.”
- Mr. Archibald Wishard ROHDE, South Africa, University of Pretoria, “Accessible Manufacturing Techniques for Ultra-low-cost Metal Oxide Gas Sensors.”
- Mr. Gustave TCHOFFO SAAH, Cameroon, University of Bamenda, “Arithmetic of algebraic curves and post quantum cryptography.”
- Mr. Aurel Davy TCHOKPONHOUE, Morocco, UM6P, “Uncertainty Quantification of Machine Learning based Pathology Diagnosis in Oncology.”
- Mr. Bi Diangoné Fabrice TRA, Côte d'Ivoire, Félix Houphouët-Boigny University, “Intérêt de l'amendement organique dans la relation champignons mycorhiziens-plantes cultivées pour une production maraîchère durable en Côte d'Ivoire : cas de l'aubergine Africaine (*Solanum macrocarpon*).”

Our congratulations to the awarded of this second promotion and our thanks to all the candidates who have done so well. We are delighted that the “100 PhDs for Africa” programme has been so well received on the continent, and we would like to thank all the partners who have contributed to its success!

The aim of the “100 PhDs for Africa” programme is not only to enable the completion of very high-level theses, but also, in the longer term, to establish a network of researchers who can make a tangible transdisciplinary, economic, and societal impact in Africa.