



## UNIVERSITY OF NAIROBI

### ENGINEERING AND SCIENCE COMPLEX PROJECT (ESC)

#### ADVERTISEMENT FOR PHD SCHOLARSHIPS - CALL FOR APPLICATIONS

#### BACKGROUND

The Engineering and Science Complex (ESC) is a flagship project set to enable the University of Nairobi to reform training in science, engineering and technology in order to achieve Kenya's Vision 2030. This project is a partnership between the Kenyan government and the French Development Agency (AFD).

To fulfil its objective, ESC is committed to supporting high-caliber doctoral training to address the human resource gap within its proposed Communities of Excellence (CoEs), thereby strengthening the research and innovation ecosystems at the ESC. ESC, therefore, announces five PhD scholarship opportunities for the University of Nairobi academic staff that are aligned to 5 of the 8 proposed CoEs summarized below.

1. **Innovation ecosystem** - Maker space and fab lab, prototyping facilities, PCB fabrication, precision machining, clean room, project platforms, innovation design, management of unknown, incubator for start-ups and open innovation, technology transfer accelerator.
2. **Advanced Manufacturing** - Next-generation manufacturing processes, industry 4.0, prototyping and modeling, industrial processes, robotics and automation, digital twins.
3. **National Institute of Computer Science** - AI and its applications, data science, cybersecurity, high-performance computing, software engineering and other digital technologies and their applications in various development sectors.
4. **Agro and Food Engineering** - Sustainable agriculture, food science and technology, food security, agro-ecology, and innovative agricultural practices.
5. **Biotech, Process, and Chemical Engineering** – Bioprocessing and industrial biotechnology, circular economy, green chemistry, environmental and process engineering, drug processing, and biotechnology innovations.
6. **Technology for Health** - Biomedical engineering, digital health solutions, AI-driven diagnostics, and biotechnology for health.
7. **Urban development and transportation** - Data-driven urban solutions, including smart infrastructure and intelligent transport systems.
8. **Energy** - Renewable energy technologies, smart grids, energy storage, green hydrogen and sustainable electrification solutions

#### **DURATION**

The duration of the PhD Scholarship is 3 years. Within this time, the scholar undertakes either a joint PhD degree (18 months) or research visit (10 months) placement at any of the following partner universities in France: Université Paris-Saclay, CentraleSupélec, Chimie ParisTech PSL, AgroParisTech, Mines Paris PSL or Ponts et Chaussées.

The joint PhD is a program that leads to two degrees in 3 years with two 9-month stays in France. The program is subject to a "co-tutelle" agreement between the French institution and University of Nairobi.

The visiting PhD is a program that leads to one degree from University of Nairobi with two 5-month stays in France. The program does not require a formal agreement beyond the engagement of the French institution to receive the candidate and the engagement of University of Nairobi to recognize the stays in France.

## **ELIGIBILITY**

Applicants must meet the following criteria:

1. Be a Kenyan citizen.
2. Must be full-time academic or research staff members at the University of Nairobi or MSc graduates (on condition they are recruited prior to taking up the grant, or on staff development).
3. Must hold a relevant Master's degree in disciplines related to the ESC Communities of Excellence.
4. Be maximum 40 years of age at the date of application.
5. Should not be holding another PhD scholarship when applying for the ESC PhD scholarship.
6. Be willing to spend 2 periods of research (2x5 or 2x9 months) in France.
7. Should express strong interest and proven experience in research, innovation, or development projects through conference presentations, publications, grants, or industry collaborations.
8. Candidates must demonstrate how their research will contribute to innovation and knowledge creation within their CoEs, with the potential for generating tangible outputs such as start-ups, patents, publications, or new technological developments.

## **REQUIREMENTS**

1. Provide letters of recommendation from two (2) senior academic staff, one of whom should be the prospective supervisor.
2. Submit a concept proposal of a maximum of four (4) pages, with prospective roles of each institution, respectively, in Kenya and France.
3. Submit a motivation letter.
4. Priority will be given to candidates who can demonstrate their interest to collaborate with the industry through existing relationships or a clear plan to involve the industry in the research work and its related CoE.
5. Priority for the scholarships will be given to women and existing young academic faculty who do not have a PhD.
6. Priority will be given to candidates whose research is supported/encouraged by a French partner and is likely to attract future external stakeholders and funding and contribute to the long-term academic and financial sustainability of the CoE.
7. The final award will be done after securing support from one of the French partners. The University will make all efforts to facilitate securing a connection with French partners.

**WHAT THE SCHOLARSHIP COVERS:**

1. A monthly allowance to cover living expenses in France and Kenya (in France- 1,500€/month; in Kenya - 700€/month).
2. Maximum of two return tickets to France (max of 1300€ each).
3. Visa costs and annual medical and personal accident insurance (up to 400€).
4. Laboratory expenses, if any, in France and Kenya.

**APPLICATION PROCEDURE:** Applications to be submitted through ([APPLY HERE](#)) by 19th May 2025.

**NB:**

1. *Plagiarized and AI-generated proposals will not be considered.*
2. *Only complete applications submitted online will be accepted.*