

# KENYATTA UNIVERSITY



## RE-ADVERTISEMENT

### CALL FOR APPLICATION FOR PhD SCHOLARSHIP IN THE DEPARTMENT OF ENERGY ENGINEERING AT KENYATTA UNIVERSITY

#### Background

Kenyatta University, Technical University of Denmark, the Geothermal Training Centre of Dedan Kimathi University of Technology, and a consortium of leading energy companies in Kenya, Denmark, Tanzania and Zambia have been awarded a research grant by the **MINISTRY OF FOREIGN AFFAIRS OF DENMARK** and administered by **DANIDA FELLOWSHIP CENTRE (DFC)** under the project “**WIDESPREAD USE OF GEOTHERMAL ENERGY IN EA**” to develop and demonstrate novel technologies in the exploration, development, management and exploitation of low to intermediate temperature geothermal resources for direct use (DU) in smart agriculture, industrial production and generation of electrical power. Working with the regional office of the **UNITED NATIONS ENVIRONMENTAL PROGRAMME (UNEP)**, the team is expected to identify and develop efficient cost effective technologies that will boost food production in rural communities, generate electrical power to support industries that will lead to reduced emission of green-house gases while increasing the usage of geothermal resources as a renewable source energy in the region. Other expected benefits to be realized through increased utilization of the largely unexplored low to medium temperature resources are creation of jobs in climate smart agriculture, food security, and education. This, in turn, will contribute to the achievement of the Sustainable Development goals of the Global Agenda 2030 and AU Agenda 206, i.e. affordable and clean energy (Goal 7), industry, innovation and infrastructure (Goal 9), sustainable cities and communities (Goal 11), and climate action (Goal 13).

In order to achieve the above goals staff training to develop the required competencies has been identified as an important component of the research project. Two (2) PhD scholarships were awarded to the Department of Energy Engineering at Kenyatta University as part of the project. One of these scholarships has already been awarded to a suitable candidate selected through a competitive process. This call is for invitation to interested candidates to apply for the second scholarship. The proposed area of study is given below.

**Development of optimization methodology for multi-generation plants for Kenyan geothermal resources.** The focus of this research will be to develop methodologies for the optimal integration of multi-generation plants into a single energy stream that will include direct use of heat, binary power plants, and how both forms of energy can be used in domestic and industrial set-ups. Working closely with leading energy experts at the Technical University of Denmark, the listed local universities and the affiliated institutions, the candidate will be expected to design, fabricate and operate specific components of the multi-generation system that will incorporate newly developed technologies in energy systems.

This scholarship is open to candidates of **all nationalities**. The scholarship will cover full costs of tuition, research equipment in any of the participating countries, travel grants and stipend. Candidates with at least Master of Science degree in mechanical, civil, petroleum or energy engineering are invited to apply. Knowledge of geology, geophysics, geophysics or the earth sciences will be an added advantage. Those with work and research experience in geothermal industry are particularly encouraged to apply.

Applications should include the following documents,

1. Letter of application for scholarship identifying the project the candidate wishes to undertake.
2. A complete C.V listing all competencies and publications, and professional affiliations.
3. Copies of university degree certificates and transcripts, and any other relevant certificates.

**All applications should be submitted by end of working day Friday, September 16, 2022 to the following address; [geothermal\\_energy@ku.ac.ke](mailto:geothermal_energy@ku.ac.ke).**

Any inquiries can be sent to [info\\_geothermal\\_energy@ku.ac.ke](mailto:info_geothermal_energy@ku.ac.ke)