KNUST
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

THE BREW-HAMMOND ENERGY CENTRE, KNUST

AISESA
African Institute for Sustainable Energy and Systems Analysis

Call for application - Doctoral Students

The Brew Hammond Energy Centre, Kwame Nkrumah University of Science and Technology (KNUST) and the African Institute for Sustainable Energy and Systems Analysis (AISESA) invite applications from MPhil Graduates at KNUST to undertake research on energy, climate, and development challenges in Africa, with a particular focus on Skills & Capacity for the Energy Transition in Africa.

Introduction

The African Institute for Sustainable Energy and Systems Analysis (AISESA) is a pan-African research institute established in response to a defining challenge: how African countries can expand energy systems that support inclusive development, industrialisation, and resilience while navigating climate constraints and structural global inequalities.

Committed to interdisciplinary collaboration, AISESA's work is organised around five research clusters: Clean Energy Pathways; Implementation Approaches; Policy and Governance; Finance and Technology; and Institutions, Skills and Capacity, supported by cross cutting themes on powering livelihoods, inclusive industrialisation, and urban transitions.

As an African led and African anchored institute, AISESA seeks to strengthen knowledge sovereignty by placing African institutions and scholars at the centre of agenda setting, theory building, and policy engagement. The doctoral programme is designed to develop a new generation of African researchers whose work is theoretically grounded, methodologically robust, and engaged with real policy and implementation challenges.

Key details of the programme

Research focus: Energy, climate, and development challenges aligned with AISESA research priorities.
Thematic Alignment: Institutional skills and Capacity
Location: The Brew-Hammond Energy Centre, KNUST
Duration: up to three years

This call is linked to AISESA's research area on institutional skills and capacity for Africa's energy transition. This research area focuses on understanding and strengthening the capacities required to design, implement, and sustain energy transitions across the continent. It examines how different forms of capacity interact, including individual skills, institutional capabilities, governance arrangements, policy environments, and access to finance. The work takes a systems perspective, exploring how knowledge, institutions, networks, and enabling environments together shape the ability of countries and organizations to translate energy transition goals into practice. The research also aims to support intra-African learning by identifying existing expertise across the continent and highlighting opportunities to strengthen collaboration, institutional development, and capacity mobilization for sustainable energy systems.

PhD Modality and Commitment

Doctoral research within AISESA is expected to engage with policy dilemmas, institutional constraints, or implementation challenges facing African countries. Candidates will align their work with AISESA's thematic cluster of Institutional skills and capacity, while engaging across themes reflecting the interconnected nature of energy and development challenges and are expected to engage critically with dominant narratives through political economy and related analytical traditions, and design research that speaks to the needs of policymakers and practice communities. PhD candidates will be based in African institutions and embedded within the AISESA research ecosystem with active participation in joint research activities, workshops, seminars, and collective outputs is expected. Doctoral research should be grounded in strong qualitative, quantitative, or mixed methods, supported by careful data collection and transparent analysis.

Candidate Profile

Applicants should hold a postgraduate degree (MPhil) in a relevant discipline, including development planning, development studies, political science, human geography, sociology, economics, engineering, environmental sciences, or related fields. Previous research activities and knowledge in energy systems, institutions and capacities in Africa will be an advantage. Candidates should also demonstrate strong academic performance, familiarity with qualitative and/or quantitative research methods and designs, and have deeper interest and operational knowledge in energy, climate, and development challenges in Africa. Applicants must be citizens of an African country.

This opportunity is targeted at early-career applicants (maximum age 30 at the time of application). We particularly welcome applications from women.

Application Requirements

Applicants must submit the following:

- A Curriculum Vitae detailing academic background, research experience, and relevant professional engagements.
- A personal statement outlining motivation for pursuing a PhD within AISESA and alignment with its mission.
- A short project proposal (3 to 5 pages) including:
    - the development or policy problem to be addressed
    - key research questions and their relevance
    - proposed methodological approach
    - an indicative research timeline of up to three years
    - Indicative budget of the proposed research project

The candidate will focus on the national, institutional, and individual capacities required to support evidence based and sustainable energy development in Africa. The research will examine different interpretations and dimensions of capacity, including skills, knowledge systems, institutional arrangements, governance structures, and enabling environments that shape energy system decision-making and implementation. The candidate will develop analytical frameworks (qualitative and/or quantitative) to deepen understanding of these dimensions and their interconnections. These frameworks will be applied, potentially using benchmarking approaches, to identify existing capacity gaps and opportunities across African contexts. Finally, the research will assess how existing capacities can be made more visible, mobilized, and effectively utilized to accelerate energy access and the deployment of clean energy solutions on the continent.

Proposals should demonstrate clear problem framing and analytical ambition, while remaining open to refinement through engagement with AISESA clusters, supervisors, and policy partners.

Deadline for the submission of applications: 8th May 2026

Funding Arrangements: The successful applicant shall receive support for tuition fees and research and a monthly stipend. The candidate shall also receive travel support to participate in conferences and other learning events.

Applications should be sent to: aisesa.phd.knust@gmail.com
Enquiries may be directed to: daquansah.coe@knust.edu.gh