PhD Opportunities in CREAM Project funded by the Ministry of Foreign Affairs of Denmark

INTRODUCTION/PROJECT CONTEXT

The Water Research Institute of the Council for Scientific and Industrial Research (CSIR-WRI) is leading a consortium of Nine partners (CSIR-Food Research Institute, Kwame Nkrumah University of Science and Technology, Ghana Hydrological Services Department, Ghana Meteorological Agency, SIRCOOL Bottled Water Company, Geological Survey of Denmark and Greenland, Aarhus University, and Central Queensland University) to implement the project “Building Climate Resilience into Basin Water Management” (CREAM) in the Pra and Densu River Basins in Ghana. Funded by the Ministry of Foreign Affairs of Denmark, CREAM is a five-year project aimed at creating a knowledge base and capacity for integrating climate change, shared socioeconomic pathways, land-use/cover change and other future development scenarios into river basin management to enhance climate resilience, livelihood, water-food-energy security, and environmental conservation.

Applications are invited from suitable qualified Ghanaian candidates to occupy Six (6) funded Doctoral Student Positions within the CREAM project. Each of the positions has a maximum duration of Four (4) years. Successful candidates will be required to enroll and begin their studies in relevant department or graduate programme at either the University of Ghana, Kwame Nkrumah University of Science and Technology or the University of Cape Coast in August 2019. The PhD training is an important component of the CREAM project, and therefore, successful candidates are expected to develop their research within the relevant work packages of the project; work with relevant project partners in Ghana, Denmark and Australia; spend significant portion of their time working from the lead institution (CSIR-WRI); and contribute to the overall delivery of the CREAM project.

GENERAL QUALIFICATIONS

Candidates should meet the requirements for admission to a PhD programme in any of the selected Universities. These include but are not limited to a relevant masters’ degree (MA/MSc/MPhil) and demonstration of potential for successful completion of doctoral degree programme. In addition, candidates must demonstrate the ability to work independently and in a team and should have strong collaborative skills. Good command of the English language, verbal and written alike, is essential. A minimum of Second Class (Lower Division) in first degree is required. Candidates with journal publications have advantage. In the evaluation and selection of candidates, emphasis will be placed on education, experience and personal suitability, in terms of the qualification requirements specified for each of the PhD areas.
SPECIFIC QUALIFICATIONS FOR EACH PHD POSITION

1. PhD in the area of Climatology and Climate Change

**Essential Qualifications:** Good Master’s degree in Physics, Geography, Environmental Engineering, Civil Engineering (Water Resources and Hydrology Option), Agricultural Engineering (Soil and Water Engineering option) or equivalent qualification.

**Other Qualifications:** Good skills in computer programming (e.g. R, Python, Mathlab), statistics and data mining.

2. PhD in the area of Land-use/-cover modelling

**Essential Qualifications:** Good Master’s degree in Geo-information Science and Earth Observation, Environmental Science, Physical Geography, Geomatic Engineering, Natural Resources or an equivalent qualification.

**Other Qualifications:** Good skills in remote sensing/GIS, computer programming and data mining; some skills in machine learning.

3. PhD in the area of Hydrology/Hydrogeology

**Essential Qualifications:** Good Master’s degree in Geology, Hydrology, Earth Science, Hydrogeology, Geophysics, Civil Engineering (Water Resources and Hydrology Option), Agricultural Engineering (Soil and Water Engineering option) or an equivalent qualification.

**Other Qualifications:** Good skills in hydrological or groundwater modelling, GIS, computer programming and data mining.

4. PhD in the area of Economics and Valuation of Ecosystem Services

**Essential Qualifications:** Good Master’s degree in Environmental Economics, Ecological Economics, Natural Resource Economics or equivalent qualification.

**Other Qualifications:** Good skills in statistics, economic valuation of ecosystem services, environmental/ecological modelling.

5. PhD in the area of Water System Optimization and Trade-off analysis

**Essential Qualifications:** Good Master’s degree in Water Resources Engineering, Hydrology, Mathematics, Civil Engineering (Water Resources and Hydrology Option), Agricultural Engineering (Soil and Water Engineering option), Physical Geography or equivalent qualification.

**Other Qualifications:** Good skills in mathematical/computer modelling, computer programming (preferably R or Python), GIS and data mining.
6. PhD in the area of Environmental/Natural Resource Governance

**Essential Qualifications:** Good Master’s degree in Development Studies, Political Science, Public Policy and Planning, Environmental Policy or equivalent qualification.

**Other Qualifications:** Good skills in stakeholder analysis, power-politics-interest analysis, and social capital analysis, and also a demonstration of potential to support social science work.

**APPLICATION/SUPPORTING DOCUMENTS**
Interested candidates should apply by submitting the under listed documents:

1. Cover letter
2. Detailed CV
3. Certified copies of transcripts and certificates
4. Two recommendation letters (one from a supervisor at the Master’s level)
5. Letter of motivation explaining why you are the most suitable candidate for the specific PhD position.

The above listed documents should be submitted by post, currier services or email to the addresses below:

**Post:**
The Administrator
Attention: CREAM Project
CSIR-Water Research Institute
P. O. Box AH 38 Achimota, Accra

**Currier:**
The Administrator
Attention: CREAM Project
CSIR-Water Research Institute
2nd CSIR Close, Airport Residential, Accra
Ghana Post GPS: GA-018-9641

**Email:**
Creamproject3@gmail.com

Only shortlisted candidates will be contacted and invited to attend an interview for the final selection. Additional information or clarification may be obtained from the CREAM Project Coordinator - Dr. Emmanuel Obuobie via obuobie@yahoo.com or +233 24 144 1038.

**APPLICATION DEADLINE**
The deadline for receiving applications for any of the PhD positions is 5PM on Friday, 19th April 2019.