AIMS-Canada Research Chairs in Climate Change Science

Call for Applications from female candidates

The African Institute for Mathematical Sciences (AIMS) invites applications for three AIMS-Canada Research Chairs in Climate Change Science to be based at AIMS Rwanda. Each Chair will be provided up to USD 970,000 over a four-year period and tasked with executing a world-class research program able to contribute significantly towards building both the human capital and the scientific knowledgebase required to solve important climate change-related problems in Africa and beyond.

This Research Chairs Program was made possible by a grant from the International Development Research Centre, Ottawa, Canada, www.idrc.ca, and financial support from the Government of Canada provided through Global Affairs Canada (GAC) www.international.gc.ca . It is administered by the AIMS Global Secretariat within the framework of the Mathematical Science for Climate Change Resilience Program.

We invite applications from outstanding female African and non-African scientists whose research seeks to elucidate the scale and causes of climate change; predict climatic conditions, especially at small temporal and spatial scales; and develop and apply novel strategies for climate change adaptation and mitigation. Preference will be given to applicants whose proposed research addresses issues relating to the Sustainable Development Goals (SDGs), including, but not limited to, the following:

SDG #2 (zero hunger): An estimated 25% of Africa's population, projected to double by 2050, is currently malnourished. Agricultural production and postharvest preservation mechanisms must improve dramatically to provide enough food for this growing population. This requires agricultural practices that are resilient to climate change. We welcome applications from scientists able to develop the conceptual and technological foundations of such climate-smart agricultural practices, especially novel practices that are suitable for pilot testing in Africa in collaboration with partners based in Rwanda and other countries.

SDG #3 (good health and well-being): Climate change is altering the risk of disease in animals and plants. In Africa, it has caused new pests and disease vectors for livestock, crops, and humans to emerge and spread. Rising temperatures and heat waves are rendering parts of the continent unsuitable for human survival and contributing to the phenomenon of "climate refugees" - the scale of which is predicted to grow significantly in the coming decades. We welcome applications from scientists who are addressing these and related problems, at both foundational and applied levels.

SDG #11 (sustainable cities and communities): Rapid population growth and urbanization in Africa are contributing to climate change through: altered land use with its attendant loss of biodiversity and reduction of CO_2 sequestration from the atmosphere; increased greenhouse emissions from human activities like energy production and transportation; etc. Altered land-use further reduces the resilience of populations to the impacts of climate change. Research is needed to improve our understanding of the scale of these problems in Africa and to develop effective, locally-adapted, and timely solutions. We welcome applications from researchers who are addressing these and other, related problems.

The above SDGs and others not mentioned are interlinked in various ways. For example, all three SDGs mentioned are linked by, among other things, the problem of finding affordable, efficient, and durable sources of clean energy, which has important implications for mitigating climate change. Hence, multiple SDGs can be simultaneously addressed through solutions to cross-cutting, climate change-related problems.

Requirements

The applicant should:

- ❖ be a female;
- ❖ hold a doctorate degree in a quantitative discipline including, but not limited to, applied mathematics, climatology, physics, chemistry, computer science, statistical ecology, or engineering;
- ❖ demonstrate significant evidence of excellent, self-initiated and self-directed research in climate change science;
- ❖ have at least two (2) years of postdoctoral experience;
- ❖ have experience supervising Master's and/or PhD students; and
- ❖ be ability to take up the Chair by the end of 2018.

How to apply

The application process will remain open until suitable candidates are identified. Please complete and submit the online application form to which the following documents should be attached:

- ❖ a completed research proposal form,
- ❖ a curriculum vitae,
- ❖ a letter of motivation,
- ❖ an electronic copy of three representative publications in climate change science where the applicant is the lead and/or senior author.

Three referees should email confidential letters of support directly to ms4cr-chairs@nexteinstein.org with the subject line "MS4CR chair application support letter – first and last name of candidate" on or before the application deadline. You should share with your referees a copy of the 'Terms of Reference for Chairs' and the 'Instructions for Referees' document. These can be downloaded on the website .

Only complete applications received by the application deadline will be considered. Short-listed applicants will be interviewed by an International Selection Committee.

Questions about this position should be sent to ms4cr-chairs@nexteinstein.org