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Towards Resolving Challenges Associated with Climate Change Modelling in the African Continent

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Monday, 29 May 2023 | 16h00 – 17h00 SAST
Venue: in person* and online
* Neelsie Cinema, Stellenbosch University | Cheese and wine will be served at the venue

ABSTRACT

Climate change constitutes a global challenge that impacts food security, agricultural reform, disease transmissions and disruption to human, plant, and animal ecosystems, along with a many additional consequences that ultimately affect the quality of life and the livelihoods of the global population.

Research emanating from Africa aims to gain a better understanding of the impact of climate change on nature and the different aspects of humanity, as well as improve forecasting for greater economic potential. However, African researchers often encounter various challenges and obstacles. In this research, we conducted a systematic review, bibliography analysis and interpretation of relevant climate change peer-reviewed research articles related to the African continent.

The results of our analysis, helped to identify the challenges associated with climate change modelling in Africa. Primarily, the lack of an extensive observational network and technological limitations hinder modelling efforts. Additionally, an apparent pull of scientists away from African institutions to institutions further afield was observed. Novel solutions towards resolving these challenges are proffered. Results revealing the extent of research collaborations between climate change modelling African researchers and their international counterparts in foreign universities were also presented. Finally, we highlight how the German Deutscher Akademischer Austauschdienst (DAAD) Climate Research for Alumni and Postdocs in Africa (climapAfrica) program is contributing towards resolving these challenges.

BIOGRAPHY

Olugbenga Oluwagbemi conducted his PhD research at Johns Hopkins University, US, as a Fulbright Research Scholar and defended his PhD Computer Science thesis in Covenant University, Nigeria. He has a BSc (Hons) from the University of Ilorin, Nigeria, and MSc from the University of Ibadan, Nigeria, in Computer Science. He also has an advanced certificate from the Rochester Institute of Technology, US, under the sponsorship of the Fulbright Scholarship Foundation.

Oluwagbemi held a 2-year NRF Innovation postdoctoral research fellowship at Stellenbosch University (SU), and the South African Centre for Epidemiological Modelling and Analysis (SACEMA). He was also an AfOx visiting postdoctoral researcher to the Big Data Institute, Li Ka Shing Centre for Health Information and Discovery, Nuffield Department of Medicine, University of Oxford, UK. Afterwards, he held a 2-year individual DAAD-funded and Oppenheimer Memorial Trust-funded postdoctoral research associate fellowship position at SU.

Oluwagbemi was previously an Associate Professor of Computer Science and IT at Sol Plaatje University, where he led a task team to develop the concept note and establish the Centre for Applied Data Science at the university.

He has research experience at various universities in the US, UK, South Africa and Nigeria. He has the UK Royal Society's endorsement for a Global Talent visa. He is a senior lecturer (US equivalent of associate professor) in Computer Science at Middlesex University, UK. He is also a C2 NRF-rated established researcher in South Africa. His main research interests and expertise are AI, AI in biomedical data science, applied health informatics, computational modelling, bioinformatics (computational genomics) and computer-aided diagnosis.

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