

# Curriculum Vitae

## Naomi Kumi



Tel: +233240238267

E-mail: naomi.kumi@uenr.edu.gh

Nationality: Ghanaian

### Professional Profile

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A versatile, enthusiastic, fast-learning and result-oriented research meteorologist and teacher, whose core interest is in the application of regional and global climate models (GCMs and RCMs). The models are applied in predicting seasonal climate, projecting future climate under different emission scenarios, and understanding potential impacts of global warming on regional climate for use by decision makers. I particularly enjoy collaborating with other scientists to develop new skills and solve new challenges.

### Career Summary

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**2021 – Date UNIVERSITY OF ENERGY AND NATURAL RESOURCES (UENR), SUNYANI**

**2021 – Date Lecturer, Department of Atmospheric and Climate Science**

- Department Examinations Officer.
- Graduate Studies Coordinator for the Department.
- Academic tutor.
- Departmental Representative on School and Academic Board.

**2009 - 2021 GHANA METEOROLOGICAL AGENCY (GMet)**

**2020 – 2021 Principal Meteorologist**

- Research on the state of Ghana's climate under climate change scenarios.
- Air quality modelling in Ghana.
- Preparation of seasonal forecasts and monthly bulletins.

**2019 - 2021 Head of Climatological Unit**

- Preparation of seasonal forecasts and monthly bulletins.
- Supervision and coordination of subordinates.
- Team Lead, GMet Weather Information Dissemination System (WIDS) Project.

**2017 - 2019 Senior Meteorologist**

- Researching on how to improve the existing seasonal forecasting methods.

**2012 - 2017 Meteorologist**

- Preparation of timely seasonal forecasts for the public and for managerial decision making.
- Responsible for the provision of early warning of severe weather (flood/drought) events.
- Teaches Physics at the Agency's training school.

**2009 - 2012 Assistant Meteorologist**

- Analysis of meteorological data.
- Preparation and compilation of annual rainfall values.
- Preparation of daily weather forecast for the public and aviation purposes.
- Researching on rainfall patterns in the country (Ghana).

### Education and Qualifications

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- **PhD in Meteorology and Climate Science (West African Climate System)**, June 2016 - September 2019, WASCAL, Federal University of Technology, Akure, Ondo State, Nigeria. **Thesis:** *Improving Seasonal Rainfall Prediction over West Africa using Dynamic Climate Models.*
- **MSc. Meteorology**, 2010 - 2012, Nanjing University of Information Science and Technology Nanjing, China. **Thesis:** *Rainfall Variability and its Impact on Maize Production.*
- **B.Ed Science (Physics and Mathematics option)**, 2002 - 2006, University of Cape Coast, Cape Coast, Ghana. **Thesis:** *Sex Differences in Science Achievement at the Basic Education Level.*

### **Fellowship/Awards**

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- AIMS NEI Fellowship Program for Women in Climate Change Science, 2020 – 2021.
- Graduate Research Fellowship of the West African Science Service Centre on Climate Change and Adapted Land use (WASCAL), 2016 - 2019.
- The WMO Education and Training Fellowships programme, 2010 - 2012.

### **Membership of Professional Associations**

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- American Geophysical Union (AGU), Regular Member.
- AIMS NEI Women in Climate Change Science.

### **Research Experience**

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- Good with scientific programming on UNIX/Linux using a high-level language (e.g. Fortran, Matlab, basic Python).
- Experience in working with dynamic climate models (e.g., WRF) and modification of their source codes to suit regional climates.
- Skilful in handling and analysing large climate data (in netcdf and grib form).
- Experience with statistical methods and/or software for meteorological data analysis and visualization (e.g. Ferret, GrADS, R-Instat, Climate Predictability Tool (CPT), Instat Plus, R, DSSAT).
- Ability to communicate scientific research through conference presentations, formal publications and technical documents.

### **Other Skills**

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- **Languages:** Fluent in English, speaks and understand basic Chinese and French.
- **IT proficiency:** Word, Excel, PowerPoint, Internet, Email, WRF, RegCM, DSSAT, CDO, NCO, QGIS, NCL, Surfer, Statistica, and Origin.
- Reviewer of some international peer-reviewed journals.
- Reviewer and developer of some national policy documents on climate change in Ghana.
- Ability to work independently with or without supervision.
- Efficient, organized, reliable, fast-learner, highly motivated, team player, gets the job done.

### **Selected Professional Training and Scientific Visits**

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- Visiting student, Climate System Analysis Group, University of Cape Town, March 2017- December 2018, Cape Town, South Africa.
- Visiting Scientist, Climate Prediction Center/NOAA African Desk Program, June 1- September 28, 2013, College Park, University of Maryland, USA.

### **Membership of National and International Committees**

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- Ghana's former Representative to the WMO Commission of Climatology.
- AIMS Next Einstein Forum Global Gathering (NEF-GG 2020) program committee.
- Ghana Expert Panel on the Health and Wellbeing impacts of Climate Adaptation Strategies.
- Ghana's Nationally Determined Contributions (NDCs) Gender Working Group.
- The National Adaptation Planning (NAP) Project.
- UENR Information Technology Committee.
- Chairperson, Committee for the Development of Academic Programmes in Applied Meteorology and Climate Science (Diploma, BSc, MSc, MPhil, PhD).
- Member, Committee for the Development of Academic Programmes in Applied Geomatics

(Diploma, BSc, MSc, MPhil, PhD).

## Publications

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- **Kumi, N.**, & Abiodun, B. J. (2018). Potential impacts of 1.5° C and 2° C global warming on rainfall onset, cessation and length of rainy season in West Africa. *Environmental Research Letters*, 13(5), 055009. <https://doi.org/10.1088/1748-9326/aab89e>.
- **Kumi, N.**, Abiodun, B. J., & Adefisan, E. A. (2020). Performance Evaluation of a Sub-seasonal to Seasonal Model in Predicting Rainfall Onset over West Africa. *Earth and Space Science*, e2019EA000928-T.
- Yahaya, M., Damoah-Afari, P., Mensah, C., **Kumi, N.**, Prempeh, N. A., & Anima, P. A. (2022). Climate change adaptation strategies of smallholder farmers in the Mamprugu-moaduri district of Ghana. *Journal of Energy and Natural Resource Management*, 8(1), 86-94.

## Conferences, Workshops and Seminars

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- UN/Ghana on Space Technologies for Water Resources Management, 10 -13 May 2022, Accra.
- Innovative Teaching Practices in Higher Education, 10 – 12 January 2022, Sunyani, Ghana.
- Research School on Climate Science, 10 – 20 February 2020, Kigali, AIMS Rwanda.
- International Climate Change & Population Conference on Africa, 12 - 14 November 2019, Accra, Ghana.
- African Climate Risks Conference, 7 - 9 October 2019, Addis Ababa, Ethiopia.
- Stakeholder Workshop on National Framework for Climate Services in Ghana, 10 - 12 July 2019, Accra, Ghana.
- School on Climate and Environmental Modelling in the West African Region, 11 - 15 March 2019, Abidjan, Cote d'Ivoire.
- The 4<sup>th</sup> IMPALA Science Meeting, 14 - 15 January 2019, Met office, Exeter, United Kingdom.
- The Second International Conference on Subseasonal to Decadal Prediction, 17 - 21 September 2018, UCAR/NCAR, Boulder, Colorado, USA.

## References

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### **Prof. Babatunde J. Abiodun**

Senior Lecturer and the Coordinator of Climate Science Research  
Dept. Environmental and Geographical Science  
University of Cape Town, South Africa  
Tel: +27 21 650-5737, Email: [babiodun@csag.uct.ac.za](mailto:babiodun@csag.uct.ac.za)

### **Prof. Benjamin L. Lamptey**

Visiting Cheney Fellow  
Institute for Climate and Atmospheric Science (ICAS)  
University of Leeds, United Kingdom.  
Tel: +233 26 512 1750, Email: [blamptey@gmail.com](mailto:blamptey@gmail.com)

### **Prof. Nana Ama Browne Klutse**

Senior Lecturer  
Department of Physics  
University of Ghana  
Legon, Accra – Ghana. Tel: +233244983637, Email: [amabrowne@gmail.com](mailto:amabrowne@gmail.com)