

## CURRICULUM VITAE

**Winifred Ayinpogbilla Atiah (PhD)**

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### Meteorology and Climate Scientist

Kwame Nkrumah University of Science and Technology (KNUST)

Department of Physics (DoP), Meteorology and climate Science Unit, Kumasi, Ghana

### Current Position: PostDoc

#### PERSONAL PROFILE

Name: Winifred Ayinpogbilla Atiah  
Date and Place of Birth: 20<sup>th</sup> August 1990; Zuarungu  
Nationality: Ghanaian  
Marital Status: Married  
Email Addresses: [winifred.a.atiah@aims-senegal.org](mailto:winifred.a.atiah@aims-senegal.org);  
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#### UNIVERSITIES ATTENDED AND ACADEMIC DEGREES EARNED

2015-2018: **Kwame Nkrumah University of Science and Technology (KNUST)**, PhD (Meteorology and Climate Science)  
PhD Thesis Topic: Performance Assessment of Satellite and DACCWA Optical Gauge Rainfall Products for the Analysis of Trends and Drivers of Rainfall Extremes in Ghana.

2014-2015: **African Institute of Mathematical Sciences (AIMS), Senegal**  
MSc (Mathematical Sciences).  
MSc. Thesis Title: The Variability of Wet and Dry Spells in Savannah Zones of Ghana from Wavelets Analysis Approach

2009-2013 **Kwame Nkrumah University of Science and Technology**,  
BSc (Meteorology and Climate Science), **First Class**.  
BSc. Thesis Title: Investigation of errors sources in the Pluvio and GMet gauges in Ghana.

#### SCHOOLS ATTENDED WITH DATES AND QUALIFICATIONS

2005 - 2008: Notre Dame Girls Senior High School, Fiapre-Sunyani; WASSCE

2002 - 2005: Sacred Heart Junior High School, Bolgatanga; BECE

#### WORK EXPERIENCE

August 2018 - October 2018: Tutoring, KNUST, Kumasi, Ghana.

November 2016 - February 2017: Teaching Assistant, Botswana International University of Science and Technology (BIUST), Palapye, Botswana.

August 2013-August 2014: Teaching Assistant, KNUST, Kumasi, Ghana.

June 2012-August 2012: Data Analyst, Afrikids, Bolgatanga, Ghana.

June 2010-August 2010:

Intern and Data analyst, World Vision Ghana, Talensi-Nabdam District-Bolgatanga, Ghana.

### COMPUTER SKILLS

I have expertise in Windows and Linux-Ubuntu operating systems.

I have knowledge in the use of LaTeX, Microsoft Word, Microsoft Powerpoint, LibreOffice Writer, LibreOffice Impress, grads, Gnuplot, panoply, CDO automations.

I have expertise in Python, Matlab, R and Bash programming languages.

### FELLOWSHIPS

- i. Global Challenges Research Fund, SWIFT-KNUST PostDoc, April 2020 – July 2021
- ii. Organization for Women in Science Sandwich Fellowship, 2016 – 2019
- iii. African-German Network of Excellence in Science (AGNES) fellowship, 2016
- iv. African Institute of Mathematical Sciences (AIMS) – Next Einstein Initiative (NEI), 2014 - 2015
- v. DACCIWA Project PhD fellowship, 2015 – 2018
- vi. Association of African Universities (AAU) internship grant (2016)

### AWARDS

**2012 to 2013:** Certificate of Honour, Department of Physics, Kwame Nkrumah University of Science and Technology. **Best student (BSc. meteorology and climate science programme)**

### MEMBERSHIP OF PROFESSIONAL BODIES/ASSOCIATIONS

**Member,** Green Ambassadors for Climate in Africa CCAO, December 2020

**Member,** Organization for Women in Science in the Developing World (OWSD), 2015- till date

### PARTICIPATION IN RESEARCH PROJECTS

**April 2020 to 2021:** Global Challenges Research Fund, SWIFT

**2015 to 2018:** Dynamic-Aerosol-Chemistry-Cloud interactions in West Africa (**DACCIWA**)

### LIST OF PEER REVIEWED PAPERS, BOOK and BOOK CHAPTER PUBLICATIONS

- I. **Atiah, W. A.**, Amekudzi, L. K., Aryee, J. N. A., Preko, K. and Danuor, S. K. (2020a) Validation of satellite and merged rainfall data over ghana, west africa. Atmosphere, 11, 859.
- II. **Atiah, W. A.**, Tsidu, G. M., Amekudzi, L. and Yorke, C. (2020b) Trends and interannual variability of extreme rainfall indices over ghana, west africa. Theoretical and Applied Climatology, 1-15
- III. **Atiah, W. A.**, Tsidu, G. M. and Amekudzi, L. K. (2020c) Investigating the merits of gauge and satellite rainfall data at local scales in ghana, west africa. Weather and Climate Extremes, 100292
- IV. Maranan, M., Fink, A. H., Knippertz, P., Amekudzi, L. K., **Atiah, W. A.** and Stengel, M. (2020) A process-based validation of gpm imerg and its sources using a mesoscale rain gauge network in the west african forest zone. Journal of Hydrometeorology, 533 21, 729-749.
- V. Aryee, JNA and Amekudzi, LK and Preko, K and **Atiah, WA** and Danuor, SK, (2020), Estimation of planetary boundary layer height from radiosonde profiles over West Africa during the AMMA field campaign: Inter-comparison of different methods, Scientific African

- VI. **Atiah, Winifred A** and Amekudzi, Leonard K and Quansah, Emmanuel and Preko, Kwasi, Atmospheric and Climate Sciences (2019), The Spatio-Temporal Variability of Rainfall over the Agro-Ecological Zones of Ghana.
- VII. Aryee, J. N. A, Amekudzi, L. K., **Atiah W.**, Osei, M., and Agyapong, E. (2018), Overview of surface to near-surface atmospheric profiles over selected domain during the QWECI project. *Meteorology and Atmospheric Physics*, pages 1-15.
- VIII. J.N.A. Aryee, L.K. Amekudzi, E. Quansah, N.A.B. Klutse, **W.A. Atiah**, and C. Yorke, (2017), Development of high spatial resolution rainfall data for Ghana, *Int. J. Climatol.*, (wileyonlinelibrary.com) DOI: 10.1002/joc.5238.
- IX. L.K. Amekudzi, M.A. Osei, **W.A. Atiah**, J. N.A. Aryee, M.A. Ahiataku, E. Quansah, K. Preko, S.K. Danuor and A. H. Fink. (2016), Validation of TRMM and FEWS satellite rainfall estimates with rain gauge measurement over Ashanti Region, Ghana, *Journal of Atmospheric and Climate Sciences*, 6(4), 500-518.
- X. Bessardon, G., Brooks, B. J., Abiye, O., Adler, B., Ajao, A., Ajileye, O., Altstadter, B., Amekudzi, L. K., Aryee, J. N. A., **Atiah, W. A.**, Ayoola, M., Babi Žc, K., B šarfuss, K., Bezombes, Y., Bret, G., Brilouet, P.-E., Cayle-Aethelhard, F., Danuor, S., Delon, C., Derrien, S., Dione, C., Durand, P., Fosu-Amankwah, K., Gabella, O., Groves, J., Handwerker, J., Kalthoff, N., Kohler, M., Kunka, N., Lambert, C., Jegede, G., Lampert, A., Leclercq, J., Lohou, F., Lothon, M., Medina, P., P šatzold, F., Pe-druzo Bagazgoitia, X., Reinares, I., Sharpe, S., Smith, V., Sunmonu, L. A., Tan, N., and Wieser, A. (2018). A dataset of the 2016 monsoon season meteorology in southern West African overview from the DACCIWA campaign.

#### POSTER AND CONFERENCE PRESENTATIONS

June 23 2016: Physics World Press Talk on Immigration and Science at the 66<sup>th</sup> Lindau Nobel Laureate Meeting.

April 2015: The Variability of Wet and Dry Spells in Savannah Zones of Ghana from Wavelets Analysis Approach, Research Seminar in KNUST, Kumasi-Ghana.

#### CONFERENCES/SEMINARS AND WORKSHOPS PRESENTATIONS

1. Maranan, Marlon and Fink, Andreas H and Amekudzi, Leonard K and **Atiah, Winifred A** and Stengel, Martin, A Sensor-and Rainfall-Type-Based Validation of GPM IMERG for the West African Guinea Coast. In: 100th American Meteorological Society Annual Meeting, Boston Convention and Exhibition Center- 253A, January 16, 2020.
  2. **Winifred Atiah**, L. K. Amekudzi, A. H. Fink, M. Maranan, AND J. Aryee, Validation of satellite and gauge-based gridded rainfall products over Ghana (West Africa). In: 99<sup>th</sup> Annual Meeting, Phoenix, 6<sup>th</sup> - 10<sup>th</sup> January, 2019.
  3. **W. A. Atiah**, L. K. Amekudzi (2018), Assessment of Satellite and DACCIWA Optical Gauge (DOGs) Rainfall Products in Ghana. In: Dynamic-Aerosol-Chemistry-Cloud Interactions in West Africa (DACCIWA) Project Meeting, 15<sup>th</sup> - 17<sup>th</sup> October , 2018, Abidjan, Cote D' Ivoire.
  4. L. K. Amekudzi, **W. A. Atiah** (2017), Micro-scale Rainfall Characteristics over parts of the Ashanti Region of Ghana. In: Dynamic-Aerosol-Chemistry-Cloud Interactions in West Africa (DACCIWA) Project Meeting, 24<sup>th</sup> - 27<sup>th</sup> October, 2017, Karlsruhe, Germany.
4. L. K. Amekudzi, **W. A. Atiah**, J. N. A. Aryee (2017), Synthesis of Atmospheric and Climate Research Activities in KNUST. In: College of Science Research Seminar, February, 2018, Kumasi, Ghana.

5. **W. A. Atiah**, L. K. Amekudzi (2016), Validation of Satellite and Merged Rainfall Products over Ghana. In: Dynamic-Aerosol-Chemistry-Cloud Interactions in West Africa (DACCIWA) Project Meeting, 2<sup>nd</sup> - 4<sup>th</sup> October, 2016, Leeds, UK.
6. **W. A. Atiah**, L. K. Amekudzi (2016), The Variability of Wet and Dry Spells in Savannah Zones of Ghana from Wavelets Analysis Approach, In: Research Seminar in KNUST, 2015 Kumasi-Ghana.
7. Maranan, Marlon; Fink, Andreas H.; Amekudzi, Leonard K.; **Atiah, Winifred A.** Identification and Diagnosis of Rainfall Types over Southern West Africa Using Satellite and Rain Gauge Data. In: 19th EGU General Assembly, EGU2017, proceedings from the conference held 23-28 April, 2017 in Vienna, Austria., p.13625.

#### LANGUAGE PROFICIENCY

English:	Fluent ( <i>Language of work and communication</i> )
French:	Intermediate ( <i>Language of communication</i> )

#### REFERENCES

1. Prof. Leonard K. Amekudzi, Provost (College of Science), Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.  
Email: [leonard.amekuzi@gmail.com](mailto:leonard.amekuzi@gmail.com)
2. Prof. Kwasi Preko, Dean, Faculty of Physical and Computational Sciences, and DACCIWA project coordinator, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.  
Email: [kpreko@yahoo.com](mailto:kpreko@yahoo.com)
3. Prof. Sylvester K. Danuor, Department of Physics and DACCIWA project coordinator, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.  
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