Samuel Ato Andam

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RESEARCH

Interests	Geodesy · Remote Sensing · Hydrology · Climate
Areas	Global and Planetary Change · Environmental Engineering · Oceanography · Aerospace Engineering · Astronomy and Astrophysics · Atmospheric Science

RESEARCH SUMMARY

52	889	16	19	2.41	19%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 52 publications listed below, 2012–2026. Field-weighted impact is the mean over the 42 works scored for it; 1.00 is the world average for works of the same field, type and year. 8 of the 42 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2018–present
Department of Geomatic Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Lecturer/Dr. 2008–2018
Geomatic Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

GIS Technician 2005
Centre for Remote Sensing and Geographic Information Services, Accra, Ghana

EDUCATION AND QUALIFICATIONS

PhD. Geodesy and Survey Engineering 2011–2015
School of Earth Sciences and Engineering, Hohai University, Nanjing, China

MSc. Navigation Technology 2006–2007
Institute of Engineering Surveying & Space Geodesy, University of Nottingham, Nottingham, United Kingdom

BSc. Geomatic Engineering 2001–2005
Department of Geomatic Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

DISTINCTIONS, MEMBERSHIPS AND SERVICE

Visiting Lecturer 2018–present
Department of Geology, Pan African University Life And Earth Sciences Institute, University of Ibadan, Ibadan, Nigeria

Licensed Surveyors Association of Ghana
Accra, Ghana

American Geophysical Union
Washington, United States

Ghana Institution of Surveyors
Accra, Ghana

Ghana Institution of Engineering
Accra, Ghana

PUBLICATIONS

Journal articles 52

1. Ashe Abubakar Wulet, Jonathan Arthur Quaye-Ballard, **Samuel Ato Andam-Akorful**, Charles Gyamfi (2026). Evaluation Of Satellite Rainfall Products for Water-Related Studies Across Borno State, Nigeria. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v44i3.1
2. C.I. Kelly, V. G. Ferreira, D. Yang, **S. A. Andam-Akorful**, D. Yan, S. Osah, C. M. Hancock, G. Jing, A. T. Kabobah (2026). GeoidLab: An automated open-source Python toolbox for gravity-field analysis and vertical datum unification. *Earth Science Informatics*. https://doi.org/10.1007/s12145-026-02118-6
3. Emmanuel Adu-Afari, Caleb Kelly, John Ayer, Yaw Mensah Asare, Monica Naa Morkor Cudjoe, **Samuel Ato Andam-Akorful**, Gordon Foli (2026). Geospatial assessment of ground deformation in the Greater Accra Region of Ghana using SBAS-InSAR and Sentinel-1 time series. *Applied Geomatics*. https://doi.org/10.1007/s12518-026-00805-z
4. Nehemiah Kweku Essilfie, Arnold Abakah, Moses Etsey, Daniel Ofori-Amanfo, Kwadwo Boampong, Ben Adu Gyan, Oscar Lukumuena Kashala, Efiba Vidda Senkyire Kwarteng, **Samuel Ato Andam-Akorful**, Vivian Paintsil, Alexander Kwarteng, Amma Aboagyewa Larbi (2026). Impact of Distinct Molecular and Immunological Features of Breast Cancer on the Effectiveness of Therapies in Ghana. *Breast Cancer Basic and Clinical Research*. https://doi.org/10.1177/11782234261451687
5. Emmanuel Adu-Afari, Caleb Kelly, John Ayer, Yaw Mensah Asare, Muhammad Sanan, **Samuel Ato Andam-Akorful**, Dongkai Yang, Gordon Foli (2026). Multi-sourced data integration for detecting and mapping the 30th July 2017 Adaklu Mountain landslide in the Volta Region of Ghana. *Scientific African*. https://doi.org/10.1016/j.sciaf.2026.e03325
6. C.I. Kelly, Dongkai Yang, V.G. Ferreira, S. Grebby, C. M. Hancock, **S.A. Andam-Akorful**, Guifei Jing, S. Marsh (2026). Resolving Groundwater-Driven Surface Deformation in Upper East Ghana Using Downscaled GRACE and InSAR. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. https://doi.org/10.1109/jstars.2026.3692103
7. Patrick Azong, **Samuel Ato Andam-Akorful**, Emmanuel Nyaaba, Efiba Vidda Senkyire Kwarteng, Gift Dumedah (2026). Unequal heat: Urban form, land cover change, and socioeconomic vulnerability in greater Kumasi, Ghana. *City and Environment Interactions*. https://doi.org/10.1016/j.cacint.2026.100392
8. Richard Gyamfi, **Samuel Ato Andam-Arkoful**, John Amoah-Nuamah (2026). Urban expansion and thermal transformation in the Greater Kumasi Sub-Region, Ashanti Region, Ghana. *Scientific African*. https://doi.org/10.1016/j.sciaf.2026.e03625
9. **SA Andam-Akorful** (2025). GIS-based assessment of soil erosion impact and mitigation strategies for sustainable agriculture in Ghana's most vulnerable region. *Environmental and Sustainability Indicators*. https://www.sciencedirect.com/science/article/pii/S2665972724002198
10. Efiba Vidda Senkyire Kwarteng, Ebenezer Asiedu, Emmanuel Kobla Atsu Amewu, Arnold Abakah, **Samuel Ato Andam-Akorful**, Allan Alfred Duker, Alexander Kwarteng (2025). Integrating geospatial tools is crucial for enhancing control strategies against human lymphatic filarial infections in Ghana: A comprehensive review. *Parasite Epidemiology and Control*. https://doi.org/10.1016/j.parepi.2025.e00444
11. F Ibili, CA Adams, **SA Andam-Akorful** (2025). Noise on wheels: Decoding urban road traffic noise dynamics using a smartphone noise-based application. *African Transport Studies*. https://www.sciencedirect.com/science/article/pii/S2950196225000444
12. Efiba Vidda Senkyire Kwarteng, Amma Aboagyewa Larbi, Nanatte Veronica Anderson, Sheriff Wahab, Yaa

Gyamfua Oppong-Mensah, **Samuel Ato Andam-Akorful**, Alexander Kwarteng, Lawrence Osei-Tutu, Gladys Acquah, Comfort Asoogo, Bernice Eklu, Paul Obeng, Barnabas Manlokiya, Ben Gyan, Vivian Paintsil (2025). Spatial and Temporal Distribution of Pediatric Cancers in Southern Ghana: A Retrospective Observational Study. *Health Science Reports*. https://doi.org/10.1002/hsr2.70797

13. C.I. Kelly, E.F. Boateng, A. Zibrila, **S.A. Andam-Akorful**, J.A. Quaye-Ballard, P.B. Laari, P. Damoah-Afari (2025). Understanding hydrometeorological conditions and their relationship with crop production in the upper east region, Ghana. *Agricultural Water Management*. https://doi.org/10.1016/j.agwat.2025.109434
14. KA Adjei, **SA Andam-Akorful**, C Gyamfi, SN Odai (2024). ASSESSMENT OF NEAR-REAL-TIME SATELLITE RAINFALL ESTIMATES FOR MONITORING SUB-DAILY EXTREME PRECIPITATION EVENTS IN TROPICAL WEST AFRICA. *Chapman Conference on Remote Sensing of the Water Cycle*. https://scholar.google.com/scholar?cluster=11150844615713313568&hl=en&oi=scholarr
15. Monica Naa Morkor Cudjoe, Efiba Vidda Senkyire Kwarteng, Enoch Anning, Idowu Racheal Bodunrin, **Samuel Ato Andam-Akorful** (2024). Application of Remote Sensing and Geographic Information System Technologies to Assess the Impact of Mining: A Case Study at Emalahleni. *Applied Sciences*. https://doi.org/10.3390/app14051739
16. Emmanuel Donkor, Stephen Adu-Bredu, Edward Matthew Osei Jnr, **Samuel A. Andam-Akorful**, Yakubu Mohammed (2023). Biomass Estimation Models for Cocoa (Theobroma cacao) Plantations in Ghana, West Africa. *Open Journal of Applied Sciences*. https://doi.org/10.4236/ojapps.2023.139126
17. Julia Atayi, Geophrey K. Anornu, Alfred Awotwi, **Samuel A. Andam-Akorful**, Amos T. Kabo-bah, Yaw A. Twumasi, Emmanuel Adu-Afari, Maxwell Anim-Gyampo (2023). Terrestrial water storage and climate variability study of the Volta River Basin, West Africa. *Theoretical and Applied Climatology*. https://doi.org/10.1007/s00704-023-04636-5
18. Fidelma Ibili, Charles A Adams, Atinuke O Adebanji, **Samuel A Andam-Akorful** (2023). The state-of-the-art of practice of traffic noise regulations in Ghana. *Noise & Vibration Worldwide*. https://doi.org/10.1177/09574565231161645
19. Nnenna Jennifer Nze, Charles Anum Adams, Ibeawuchi Chibueze Nze, **Samuel Ato Andam-Akorful** (2023). Trend of traffic on inland waterways of Port Harcourt urban coastal environment: a comparative safety imperative for a Ghanaian coastal regional province. *International Journal of Frontiers in Engineering and Technology Research*. https://doi.org/10.53294/ijfetr.2023.5.1.0017
20. Benjamin Kommey, Francis Gyimah, Jerry John Kponyo, **Samuel Ato Andam-Akorful** (2022). A Web Based System for Easy and Secured Managing Process of University Accreditation Information. *Indonesian Journal of Computing Engineering and Design (IJoCED)*. https://doi.org/10.35806/ijoced.v4i1.240
21. Gift Dumedah, Charles Ofosu Marfo, **Samuel Ato Andam-Akorful** (2022). An Interoperability Mobile Application for Location and Travel Planning Services in Ghana. *International Journal of Applied Geospatial Research*. https://doi.org/10.4018/ijagr.298299
22. Emmanuel Donkor, Edward Matthew Osei Jnr, Stephen Adu-Bredu, **Samuel A. Andam-Akorful**, Efiba Vidda Senkyire Kwarteng, Lily Lisa Yevugah (2022). Application of Parametric and Non Parametric Classifiers for Assessing Land Use/Land Cover Categories in Cocoa Landscape of Juaboso and Bia West Districts of Ghana. *Journal of Geoscience and Environment Protection*. https://doi.org/10.4236/gep.2022.1011018
23. Efiba Vidda Senkyire Kwarteng, Frank Badu Osei, **Samuel Ato Andam-Akorful**, Alexander Kwarteng, Da-Costa Boakye Mensah Asare, Jonathan Arthur Quaye-Ballard, Alfred Allan Duker (2022). Mapping Spatial Variation and Impact of the National MDA Program on Lymphatic Filariasis Elimination in Ghana: An Initial Study. *Frontiers in Tropical Diseases*. https://doi.org/10.3389/fitd.2022.811909
24. Odinakachukwu C. Echeta, Kwaku Amaning Adjei, **S. A. Andam-Akorful**, Charles Gyamfi, Deborah Darko, Samuel Nii Odai, Efiba Vidda Senkyire Kwarteng (2022). Performance Evaluation of Near-Real-Time Satellite Rainfall Estimates over Three Distinct Climatic Zones in Tropical West-Africa. *Environmental Processes*. https://doi.org/10.1007/s40710-022-00613-8
25. Gift Dumedah, **Samuel Ato Andam-Akorful**, Solomon Twum Ampofo, Isaac Abugri (2021). Characterizing urban morphology types for surface runoff estimation in the Oforikrom Municipality of Ghana. *Journal of*

Hydrology Regional Studies. https://doi.org/10.1016/j.ejrh.2021.100796

26. Thelma Dede Baddoo, Zhijia Li, Samuel Nii Odai, Kenneth Rodolphe Chabi Boni, Isaac Kwesi Nooni, **Samuel Ato Andam-Akorful** (2021). Comparison of Missing Data Infilling Mechanisms for Recovering a Real-World Single Station Streamflow Observation. *International Journal of Environmental Research and Public Health*. https://doi.org/10.3390/ijerph18168375
27. **SA Andam-Akorful**, J Ayer (2021). Global gravity models and the Ghanaian Vertical Datum: challenges of a proper definition. *Survey review*.
28. Efiba Vidda Senkyire Kwarteng, **Samuel Ato Andam-Akorful**, Alexander Kwarteng, Da-Costa Boakye Asare, Jonathan Arthur Quaye-Ballard, Frank Badu Osei, Alfred Allan Duker (2021). Spatial variation in lymphatic filariasis risk factors of hotspot zones in Ghana. *BMC Public Health*. https://doi.org/10.1186/s12889-021-10234-9
29. Fidelma Ibili, Emmanuel K. Adanu, Charles A. Adams, **Samuel A. Andam-Akorful**, Simeon S. Turay, Samuel A. Ajayi (2021). Traffic noise models and noise guidelines: A review. *Noise & Vibration Worldwide*. https://doi.org/10.1177/09574565211052693
30. J. A. Quaye-Ballard, T. M. Okrah, **S. A. Andam-Akorful**, A. Awotwi, W. Osei-Wusu, T. Antwi, X. Tang (2020). Assessment of vegetation dynamics in Upper East Region of Ghana based on wavelet multi-resolution analysis. *Modeling Earth Systems and Environment*. https://doi.org/10.1007/s40808-020-00789-8
31. J. A. Quaye-Ballard, T. M. Okrah, **S. A. Andam-Akorful**, A. Awotwi, T. Antwi, W. Osei-Wusu, X. Tang, N. L. Quaye-Ballard (2020). Spatiotemporal dynamics of rainfall in Upper East Region of Ghana, West Africa, 1981–2016. *SN Applied Sciences*. https://doi.org/10.1007/s42452-020-03463-x
32. Vagner G. Ferreira, **Samuel A. Andam-Akorful**, Ramia Dannouf, Emmanuel Adu-Afari (2019). A Multi-Sourced Data Retrodiction of Remotely Sensed Terrestrial Water Storage Changes for West Africa. *Water*. https://doi.org/10.3390/w11020401
33. Samuel Bansah, **Samuel Ato Andam-Akorful**, Jonathan Quaye-Ballard, Matthew Coffie Wilson, Solomon Senyo Gidigasu, Geophrey K. Anornu (2019). An Evaluation of Catchment Transit Time Model Parameters: A Comparative Study between Two Stable Isotopes of Water. *Geosciences*. https://doi.org/10.3390/geosciences9070318
34. Thomas Moore Okrah, J. A Quaye-Ballard, **S. A Andam-Akorful**, Ibrahim Abdul Sulemana (2019). Assessing Spatial and Temporal Precipitation Dynamics in Upper East Region of Ghana Using Chirps Data from 1981 to 2016. *International Journal of Geography and Geology*. https://doi.org/10.18488/journal.10.2019.84.110.127
35. Samuel Bansah, Jonathan Quaye-Ballard, **Samuel Andam-Akorful**, Edward Bam, Geophrey K. Anornu (2019). End-Member Selection in Two-Component Isotope-Based Hydrograph Separation. *Open Journal of Modern Hydrology*. https://doi.org/10.4236/ojmh.2019.92003
36. C. I. Kelly, **S. A. Andam-Akorful**, C. M. Hancock, P. B. Laari, J. Ayer (2019). Global gravity models and the Ghanaian Vertical Datum: challenges of a proper definition. *Survey Review*. https://doi.org/10.1080/00396265.2019.1684006
37. Vagner Ferreira, Zibrila Asiah, Jia Xu, Zheng Gong, **Samuel Andam-Akorful** (2018). Land Water-Storage Variability over West Africa: Inferences from Space-Borne Sensors. *Water*. https://doi.org/10.3390/w10040380
38. **S. A. Andam-Akorful**, V. G. Ferreira, C. E. Ndehedehe, J. A. Quaye-Ballard (2017). An investigation into the freshwater variability in West Africa during 1979-2010. *International Journal of Climatology*. https://doi.org/10.1002/joc.5006
39. Tengke Sun, Vagner Ferreira, Xiufeng He, **Samuel Andam-Akorful** (2016). Water Availability of São Francisco River Basin Based on a Space-Borne Geodetic Sensor. *Water*. https://doi.org/10.3390/w8050213
40. **Samuel Ato Andam-Akorful**, Xingxiang He, Vagner G. Ferreira, Jonathan Arthur Quaye-Ballard (2015). A Multivariate Analysis of Freshwater Variability over West Africa. *2015 AGU Fall Meeting*.

41. **SA Andam-Akorful** (2015). Multi-model and multi-sensor estimation of evapotranspiration over the Volta Basin, West Africa. *International Journal of Climatology*. https://orca.cardiff.ac.uk/id/eprint/94846/

42. Thelma Baddoo, Yiqing Guan, Danrong Zhang, **Samuel Andam-Akorful** (2015). Rainfall Variability in the Huangfuchuang Watershed and Its Relationship with ENSO. *Water*. https://doi.org/10.3390/w7073243

43. J.L. Awange, V.G. Ferreira, E. Forootan, Khandu, **S.A. Andam-Akorful**, N.O. Agutu, X.F. He (2015). Uncertainties in remotely sensed precipitation data over Africa. *International Journal of Climatology*. https://doi.org/10.1002/joc.4346

44. **SA Andam-Akorful** (2014). A performance do BDS no posicionamento relativo usado com dados de observações reais. *Boletim de Ciências Geodésicas*. https://www.scielo.br/j/bcg/a/fT5tmpdXdKVmVbBV4mjf65r/abstract/?lang=pt

45. Vagner G. Ferreira, **Samuel Ato Andam-Akorful**, Xiufeng He, Ruya Xiao (2014). Estimating water storage changes and sink terms in Volta Basin from satellite missions. *DOAJ (DOAJ: Directory of Open Access Journals)*. https://doi.org/10.3882/j.issn.1674-2370.2014.01.002

46. **S. A. Andam-Akorful**, V. G. Ferreira, J. L. Awange, E. Forootan, X. F. He (2014). Multi-model and multi-sensor estimations of evapotranspiration over the Volta Basin, West Africa. *International Journal of Climatology*. https://doi.org/10.1002/joc.4198

47. **SA Andam-Akorful** (2014). The performance of Bds relative positioning usage with real observation data. *Boletim De Ciencias Geodesicas*. https://www.scielo.br/j/bcg/a/fT5tmpdXdKVmVbBV4mjf65r/?lang=en

48. **SA Andam-Akorful** (2013). Estimating total discharge in the Yangtze River Basin using satellite-based observations. *Remote Sensing*. https://www.mdpi.com/2072-4292/5/7/3415

49. JA Quaye-Ballard, **SA Andam-Akorful** (2013). Role of Geoinformatics for Ghana oil and gas industry. *International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC)*. https://www.academia.edu/download/32139744/Ballard2013_Role_of_Geoinformatics_for_Ghana_oil_and_gas_industry.pdf

50. Jonathan Arthur Quaye-Ballard, Ru An, Richard Ruan, Kwaku Amaning Adjei, **Samuel Akorful-Andam** (2013). Validation of Climate Research Unit High Resolution Time-Series Rainfall Data over Three Source Region: Results of 52 Years. *Advanced materials research*. https://doi.org/10.4028/www.scientific.net/amr.726-731.3542

51. Vagner G. Ferreira, Zheng Gong, **Samuel A. Andam-Akorful** (2012). Monitoring mass changes in the Volta River basin using GRACE satellite gravity and TRMM precipitation. *Boletim de Ciências Geodésicas*. https://doi.org/10.1590/s1982-21702012000400003

52. **SA Andam-Akorful** (2012). Mudanças em massa na bacia hidrográfica do Rio Volta empregando-se os satélites GRACE e TRMM. *Boletim de Ciências Geodésicas*. https://www.scielo.br/j/bcg/a/83N9kCPjks5VgvRpqnthTZD/abstract/?lang=pt&format=html