Alhassan Sulemana

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PROFILE

Dr. Alhassan Sulemana is currently a lecturer, researcher and examiner at the Department of Environmental Science, Kwame Nkrumah University of Science and Technology. He holds a BSc in Environmental Science, MSc in Environmental Resources Management and PhD Environmental Sanitation and Waste Management, all from the Kwame Nkrumah University of Science and Technology, Ghana. His research interests are in Application of Geographical Information System in Environmental Management, Water Quality Analysis, Solid Waste Management Technologies, Environmental Assessment and Occupational Health and Safety.

RESEARCH

Interests	Environmental Science
Areas	Public Health, Environmental and Occupational Health · Waste Management and Disposal · Pollution · General Health Professions · Speech and Hearing · Cognitive Neuroscience

RESEARCH SUMMARY

43	426	10	12	2.00	23%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 43 publications listed below, 2017–2026. Field-weighted impact is the mean over the 31 works scored for it; 1.00 is the world average for works of the same field, type and year. 7 of the 31 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2016–present
Department of Environmental Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

EDUCATION AND QUALIFICATIONS

PhD Environmental Sanitation and Waste Management 2015–2018
Civil Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

MSc Environmental Resources Management 2012–2015
Materials Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

BSc Environmental Science 2004–2008
Environmental Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 38

1. FA Osei, **A Sulemana**, LNA Sackey (2026). AMBIENT NOISE LEVELS IN BASIC SCHOOLS AND IMPACTS ON THE PRODUCTIVITY OF TEACHERS. *Journal of the Ghana Science Association*. https://hal.science/hal-05555098/
2. Francis Acheampong Osei, **Alhassan Sulemana**, Lyndon N.A. Sackey (2026). Bioavailability of potentially toxic metals and human health risk assessment: Bibliometric analysis and systematic review. *Scientific African*. https://doi.org/10.1016/j.sciaf.2026.e03279
3. Kwame Ohene Buabeng, **A Sulemana**, D Azanu (2025). A Review on Occurrence, Risk Assessment and Removal of Pharmaceuticals in Hospital Effluents. *International Journal of Environment and Geoinformatics*. https://dergipark.org.tr/en/pub/ijegeo/article/1565196?issue_id=90600
4. Francis Amanle Cudjoe, Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Joseph Osarfo, Kofi Sekyere Boateng, Lydon Nii Adjiri Sackey, Edgar Andoh Cobbina, Isaac Kofi Yankson, **Alhassan Sulemana** (2025). Health effects of occupational noise exposure on heavy-duty equipment operators and exposed workers in a mining firm in Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0332600
5. **A Sulemana**, JN Hogarh (2025). Occupational Exposure to Solid Aerosols in Ghanaian Gold Mining Sector: An Assessment of Legal Gaps, Compliance Levels, and Enforcement Regulations. *Compliance Levels, and Enforcement Regulations*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5526004
6. Emma Kofua Nsafoah, Cindy Yaa Gyeniaw, **Alhassan Sulemana**, Bernard Fei-Baffoe, David Azanu, Kodwo Miezah, Kofi Sekyere Boateng, Daniel Nimako Amprako, Jonathan Nartey Hogarh, Kwame Ohene Buabeng (2025). Relationship Between Physicochemical Parameters and Risk of Analgesics and Antibiotics of Effluents From Three Selected Hospitals in Kumasi Metropolis, Ghana. *The Scientific World JOURNAL*. https://doi.org/10.1155/tswj/2891425
7. Jonathan Hogarh, S Newton, **A Sulemana** (2024). Anthropometric Assessment of Classroom Furniture for Ghanaian School Children From Two Socio-Economic Areas. *Journal of Medicine Care and Health Review*. https://www.researchgate.net/profile/Sabastian-Kwesi/publication/388148182_Anthropometric_Assessment_of_Classroom_Furniture_for_Ghanaian_School_Children_From_Two_Socio-Economic_Areas/links/678becaf1ec9f9589f4dd3fb/Anthropometric-Assessment-of-Classroom-Furniture-for-Ghanaian-School-Children-From-Two-Socio-Economic-Areas.pdf
8. Acheampong Osei, Francis, **Sulemana, Alhassan**, Sackey, Adjiri, Effah, Esther, Asantewaa (2024). Connaissances, attitudes et pratiques concernant l'exposition de base au bruit à l'école et la perte auditive chez les enseignants : une étude transversale. *HAL (Le Centre pour la Communication Scientifique Directe)*. https://doi.org/10.34172/ehem.2024.xx
9. Bernard Fei-Baffoe, Esther Badu, Kwodwo Miezah, Lyndon Nii Adjiri Sackey, **Alhassan Sulemana**, Ebenezer Ebo Yahans Amuah (2024). Contamination of groundwater by petroleum hydrocarbons: Impact of fuel stations in residential areas. *Heliyon*. https://doi.org/10.1016/j.heliyon.2024.e25924
10. A.Y. Mumeen, **A. Sulemana**, H. Urayama (2024). Evaluation of the Effects of Different Sowing and Weed Control Methods on the Physiological Performance of NERICA 4 Rice Variety in Upland Ecology of Japan. *Journal of Experimental Agriculture International*. https://doi.org/10.9734/jeai/2024/v46i52416
11. Francis Acheampong Osei, **Alhassan Sulemana**, Lyndon Nii Adjiri Sackey, Esther Asantewaa Effah (2024). Knowledge, attitude, and practice regarding basic school noise exposure and hearing loss among teachers: A cross-sectional study. *Environmental Health Engineering and Management*. https://doi.org/10.34172/ehem.2024.38
12. Francis Osei, **Alhassan Sulemana**, Esther Effah, Benedicta Hlordzie (2024). Noise Exposure, Auditory Ailments, and Non-auditory Effects that Influence the Workability of all Teachers: A Scoping Review. *Journal of Occupational Health and Epidemiology*. https://doi.org/10.61186/johe.13.2.144
13. Felix Agyemang Opoku, Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Joseph Osarfo, **Alhassan Sulemana**, Sheneil Agyemang, Obed Kwabena Offe Amponsah, Michael Tetteh Asiedu, Robert Gyebi,

Peter Agyei-Baffour (2024). Occupational injury prevalence and predictors among small-scale sawmill workers in the Sokoban Wood Village, Kumasi, Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0298954

14. Michael Tetteh Asiedu, Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Joseph Osarfo, **Alhassan Sulemana**, Aliyu Mohammed, John Amissah, Jennifer Ashilevi, Ayongo Mate-Kole, Felix Agyemang Opoku, Isaac Kofi Yankson, Emmanuel Kweku Nakua (2024). Prevalence and associated factors of occupational injuries in an industrial city in Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0301339
15. Bernard Fei-Baffoe, Ebenezer Ebo Yahans Amuah, Ebenezer Laryea Annan, **Alhassan Sulemana**, Lyndon Nii Adjiri Sackey, Kwodwo Miezah, John Bentil, Douti Biyougue Nang, Raymond Webrah Kazapoe (2024). Synergistic use of cattle bile, compost and fertilizer amendments in enhancing the bioremediation of hydrocarbon-contaminated soils. *Cleaner and Circular Bioeconomy*. https://doi.org/10.1016/j.clcb.2024.100116
16. Bright Asare, Lyndon N. A. Sackey, Phebe Y. Kayoung, **Alhassan Sulemana** (2023). Assessing the use of two plant powders on maize weevil, Sitophilus zeamais on stored maize grains (Zea mays). *Organic Agriculture*. https://doi.org/10.1007/s13165-023-00428-3
17. Janet Beyuo, Abdul-Razak Issifu Yidana, Ramatu Mustapha, Ebenezer Ebo Yahans Amuah, **Alhassan Sulemana** (2023). Management of used face/nose masks in a higher learning institution: Lessons from the developing world. *Environmental Challenges*. https://doi.org/10.1016/j.envc.2023.100768
18. Ali Baba Awini, Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Joseph Osarfo, **Alhassan Sulemana**, Isaac Kofi Yankson, Maxwell Osei-Ampofo, Ahmed Nuhu Zackaria, Sam Newton (2023). Prevalence and determinants of occupational injuries among emergency medical technicians in Northern Ghana. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0284943
19. **Alhassan Sulemana**, Matilda Koduah, Stephen Owiredu, Charles L. Tengan, Ebenezer A. Agyare, Kofi S. Boateng, Emma K. Nsafoah, Jonas B. Beogkina (2023). Spatial distribution of potentially toxic elements in e-waste contaminated site at Akwatia-Line, Kumasi, Ghana. *Heliyon*. https://doi.org/10.1016/j.heliyon.2023.e23381
20. Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Joseph Osarfo, **Alhassan Sulemana**, Aliyu Mohammed, Kathryn Spangenberg, Ali Baba Awini, Anthony Kwaku Edusei (2022). Attrition of Nursing Professionals in Ghana: An Effect of Burnout on Intention to Quit. *Nursing Research and Practice*. https://doi.org/10.1155/2022/3100344
21. Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, Aliyu Mohammed, **Alhassan Sulemana**, Abigail Owusuwaa Gyamfi, Dominic Kwabena Owusu, Dorothy Yeboah, Kathryn Spangenberg, Hilda Maria Ofosu, Anthony Kwaku Edusei (2022). Determinants of burnout among nurses and midwives at a tertiary hospital in Ghana: A cross-sectional study. *Nursing Open*. https://doi.org/10.1002/nop2.1355
22. Mavis Dako-Gyeke, Richard Baffo Kodom, **Alhassan Sulemana** (2022). Experiences of Unaccompanied Child Migrant Workers from West African Countries Living in Ghana. *Journal of International Migration and Integration / Revue de l integration et de la migration internationale*. https://doi.org/10.1007/s12134-022-00961-2
23. Angelina Boatemaa Boateng, Douglas Aninng Opoku, Nana Kwame Ayisi-Boateng, **Alhassan Sulemana**, Aliyu Mohammed, Joseph Osarfo, Jonathan N. Hogarh (2022). Factors Influencing Turnover Intention among Nurses and Midwives in Ghana. *Nursing Research and Practice*. https://doi.org/10.1155/2022/4299702
24. Kingsley Saa-Touh Mort, **Alhassan Sulemana**, Richard Baffo Kodom (2022). Financial Capability and Asset Building Training in Ghana Through Project-Based Learning. *Global Social Welfare*. https://doi.org/10.1007/s40609-022-00258-3
25. Junias Adusei-Gyamfi, Kofi S. Boateng, **Alhassan Sulemana**, Jonathan N. Hogarh (2022). Post COVID-19 recovery: Challenges and opportunities for solid waste management in Africa. *Environmental Challenges*. https://doi.org/10.1016/j.envc.2022.100442
26. Vijith H., Ninu Krishnan MV., **Alhassan Sulemana** (2022). Regional scale analysis of land cover dynamics in Kerala over last two decades through MODIS data and statistical techniques. *Journal of Environmental*

Studies and Sciences. https://doi.org/10.1007/s13412-022-00766-w

27. Bernard Fei-Baffoe, Jeffery Amo-Asare, **Alhassan Sulemana**, Kodwo Miezah (2021). Levels of Lead, Copper, and Zinc in Cabbage (Brassica oleracea sp.) and Lettuce (Lactuca sativa sp.) Grown on Soil Amended with Sewage Sludge. *Journal of Environmental and Public Health*. https://doi.org/10.1155/2021/8386218
28. Paul Alhassan Issahaku, **Alhassan Sulemana** (2021). Older Adults' Expectations and Experiences With Health care Professionals in Ghana. *SAGE Open*. https://doi.org/10.1177/21582440211040125
29. Mavis Dako-Gyeke, Richard Baffo Kodom, Ernestina K. Dankyi, **Alhassan Sulemana** (2020). Drivers of independent migration among adolescents from selected West African countries. *Children and Youth Services Review*. https://doi.org/10.1016/j.childyouth.2020.105293
30. **A Sulemana**, EA Donkor (2020). Efficiency of Municipal Solid Waste Collection Systems in Ghana. *The Journal of Solid Waste Technology and Management*. https://www.ingentaconnect.com/content/jswt/jswt/2020/00000046/00000001/art00007
31. **Alhassan Sulemana**, Eric Forkuo, Evelyn Arthur, Kwame Agyei-gyamfi, Ebenezer Otchere-darko, Michael Ayaim (2020). Multi-Criteria Selection of Suitable Institutional Solid Waste Collection Sites: A Case of KNUST Campus, Kumasi, Ghana. *International Journal of Environment and Geoinformatics*. https://doi.org/10.30897/ijegeo.696335
32. **Alhassan Sulemana**, Emmanuel Amponsah Donkor, Eric Kwabena Forkuo, Juliet Asantewaa, Isabella N. A. Ankrah, Abdul Muhaymin O. Musah (2020). OPTIMIZED ROUTING OF TRUCKS FOR INSTITUTIONAL SOLID WASTE COLLECTION IN KUMASI, GHANA. *Detritus*. https://doi.org/10.31025/2611-4135/2020.13896
33. **Alhassan Sulemana**, Emmanuel Amponsah Donkor, Eric Kwabena Forkuo, Sampson Oduro-Kwarteng (2019). Effect of optimal routing on travel distance, travel time and fuel consumption of waste collection trucks. *Management of Environmental Quality An International Journal*. https://doi.org/10.1108/meq-07-2018-0134
34. Michael Kaamo Ayaim, Bernard Fei-Baffoe, **Alhassan Sulemana**, Kodwo Miezah, Festus Adams (2019). Potential sites for landfill development in a developing country: A case study of Ga South Municipality, Ghana. *Heliyon*. https://doi.org/10.1016/j.heliyon.2019.e02537
35. **Alhassan Sulemana**, Emmanuel Amponsah Donkor, Sampson Oduro-Kwarteng (2018). Cost drivers and functions for municipal solid waste collection systems in Ghana. *International Journal of Engineering & Technology*. https://doi.org/10.14419/ijet.v7i3.8852
36. **A Sulemana**, K Miezah, Donkor (2018). Customer satisfaction of solid waste collection services: A measure towards effective waste management. *International Conference on Solid Waste Technology and Management. http://solid-waste.org/past-conferences-and-proceedings/proceedings/2018-2/*.
37. **Alhassan Sulemana**, Emmanuel A. Donkor, Eric K. Forkuo, Sampson Oduro-Kwarteng (2018). Optimal Routing of Solid Waste Collection Trucks: A Review of Methods. *Journal of Engineering*. https://doi.org/10.1155/2018/4586376
38. **A Sulemana**, JN Hogarh (2018). Potential migration of leachate from an active landfill: spatial analysis of groundwater quality in communities surrounding the Dompoase Landfill, Kumasi, Ghana. *LAP LAMBERT Academic Publishing*. https://www.researchgate.net/profile/Alhassan-Sulemana/publication/290607380_Potential_Migration_of_Leachate_from_an_Active_Landfill_Spatial_Analysis_of_Groundwater_Quality_in_Communities_Surrounding_the_Dompoase_Landfill_Kumasi_Ghana/links/56d0360c08aeb52500ccc56b/Potential-Migration-of-Leachate-from-an-Active-Landfill-Spatial-Analysis-of-Groundwater-Quality-in-Communities-Surrounding-the-Dompoase-Landfill-Kumasi-Ghana.pdf

Conference papers 2

1. **A Sulemana**, Donkor (2018). Route optimization for municipal solid waste collection in Sunyani, Ghana. *33rd International Conference on Solid Waste Technology and Management*.
2. **A Sulemana** (2017). Cost efficiency of Ghanaian waste collection systems: An application of stochastic frontier analysis. *1st Regional Conference and School on Water, Climate Change and Environmental Sanitation*.

Reports 2

1. FA Osei, **A Sulemana**, LNA Sackey (2026). Bioavailability of Potentially Toxic Metals and Health Risk Assessment: Bibliometric Analysis and Systematic Review. *Scientific African*. https://www.sciencedirect.com/science/article/pii/S2468227626001031
2. **Alhassan Sulemana** (2018). Assessing the impact of quality assurance in the hospitality industry (a case study of mariam hotel, tamale). *University of Education*. https://ir.uew.edu.gh/handle/123456789/3719

Theses 1

1. **Alhassan Sulemana** (2018). PUBLIC SATISFACTION TOWARDS MUNICIPAL SOLID WASTE COLLECTION SERVICES IN HO MUNICIPALITY, GHANA. *Department of Theoretical and Applied Biology, Kwame Nkrumah University of Science and Technology, Kumasi*. https://www.researchgate.net/profile/Alhassan-Sulemana/publication/354150202_Public_Satisfaction_Towards_Municipal_Solid_Waste_Collection_Services_in_Ho_Municipality_Ghana/links/6127b2150360302a005f28e5/Public-Satisfaction-Towards-Municipal-Solid-Waste-Collection-Services-in-Ho-Municipality-Ghana.pdf