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RESEARCH

Interests	Building Physics · Building Performance · Concept Design
Areas	Building and Construction · Environmental Engineering · Social Psychology · Health, Toxicology and Mutagenesis · Speech and Hearing · Archeology

RESEARCH SUMMARY

67	468	11	16	0.43	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 67 publications listed below, 2009–2026. Field-weighted impact is the mean over the 38 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 38 papers scored for it are among the world's most cited tenth for their field, type and year.

PUBLICATIONS

Journal articles 58

1. Audrey Asante, **Christian Koranteng**, Barbara Simons, Kwabena Abrokwa Gyimah, Justice Kwame Offei-Nketiah (2026). Reframing zero energy building (ZEB) adoption in Africa: a systematic review and socio-technical transition framework. *Facilities*. https://doi.org/10.1108/f-08-2025-0149
2. Gloria Osei - Poku, **Christian Koranteng**, Kwabena Abrokwa Gyimah, Samuel Amos-Abanyie, Edward Ayebeng Botchway (2025). Decade-And-A-Half of Research on Building Energy Performance Certification: A Systematic Review. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v43i3.9
3. E. Ayeke, **C. Koranteng**, V. K. Quagraine, M. Poku-Boansi, M. Larbi (2024). Contextualizing living with water: a systematic review. *SN Social Sciences*. https://doi.org/10.1007/s43545-024-00849-1
4. Emmanuel Otchere-Darko, Laura Atuah, Richard Opoku, **Christian Koranteng** (2023). Redefining green roof systems with climbers: simulation of a conceptual model for thermal-radiative performance and plant vitality. *International Journal of Building Pathology and Adaptation*. https://doi.org/10.1108/ijbpa-05-2022-0083
5. **Christian Koranteng**, Barbara Simons, Frederick Wireko Manu (2021). A thermal performance study of four communities in Ghana's savannah region. *Engineering Construction & Architectural Management*. https://doi.org/10.1108/ecam-07-2020-0572
6. **Christian Koranteng**, David Nyame-Tawiah, Kwabena Abrokwa Gyimah, Barbara Simons (2021). An explorative study on the potential of green roofs providing thermal comfort conditions for indoor spaces in Kumasi, Ghana. *Open House International*. https://doi.org/10.1108/ohi-02-2021-0057
7. **Christian Koranteng**, Barbara Simons, Kwabena Abrokwa Gyimah, Jimmy Nkrumah (2021). Ghana's green building assessment journey: an appraisal of the thermal performance of an office building in Accra. *Journal of Engineering Design and Technology*. https://doi.org/10.1108/jedt-02-2021-0109
8. **Christian Koranteng**, Barbara Simons, Kwabena Gyimah (2021). Potential measures towards the reduction of cooling loads of office buildings in Ghana. *Frontiers in Engineering and Built Environment*. https://doi.org/10.1108/febe-03-2021-0016

9. **Christian Koranteng**, Barbara Simons, David Nyame-Tawiah (2021). SIMULATION-BASED ANALYSIS OF THE EFFECT OF GREEN ROOFS ON THERMAL PERFORMANCE OF BUILDINGS IN A TROPICAL LANDSCAPE. *Journal on Innovation and Sustainability RISUS*. https://doi.org/10.23925/2179-3565.2021v12i1p45-56

10. **C. Koranteng**, B. Simons, K. Gyimah Abrokwa (2021). Thermal State, Potential of Natural and Fan-Induced Ventilation in Enhancing Comfort of Nine Office Buildings in Southern Ghana. *Journal of Architectural Engineering*. https://doi.org/10.1061/(asce)ae.1943-5568.0000521

11. D. Nyame-Tawiah, L. Attuah, **C. Koranteng** (2020). Determination of the Effect of Green Roofs on Indoor Temperature by the Use of Simulation in a Tropical Landscape. *Journal of Scientific Research and Reports*. https://doi.org/10.9734/jsrr/2020/v26i430244

12. Kwabena Abrokwa Gyimah, Samuel Amos Abanyie, **Christian Koranteng** (2019). A REVIEW ON APPROACHES AND TOOLS USED IN ASSESSING INDOOR ENVIRONMENTAL QUALITY. *Journal of Building Performance*.

13. **Christian Koranteng**, Barbara Simons, Selorm Fiati (2019). Audit of Auditoriums in an Academic Setting, Ghana. *Journal of Building Construction and Planning Research*. https://doi.org/10.4236/jbcpr.2019.74007

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15. **Christian Koranteng**, Barbara Simons, J. Awume (2019). Evolution of Spatial Configurations in Ghana's Housing Development: The Case of Private Apartment Buildings in Ghana.

16. **C. Koranteng**, B. Simons, D. Nyame-Tawiah (2019). Green to Grey: An Urban Heat Assessment of Kumasi, Ghana. *International Journal of Environment and Climate Change*. https://doi.org/10.9734/ijecc/2019/v9i1230155

17. **Christian Koranteng**, Jimmy Nkrumah, C. Essel (2016). An experimental assessment of the efficiency of glazing types used as cladding materials for multi-storey office buildings in Ghana. *Journal of Building Performance*.

18. **C Koranteng**, S Amos-Abanyie, TE Kwofie (2016). Environmental Noise Exposure On Occupants In Naturally Ventilated Open-Plan Offices: Case Of Selected Offices In Kumasi, Ghana. *INTERNATIONAL JOURNA L OF SCIENTIFIC & TECHNOLOGY RESEARCH*. https://scholar.google.com/scholar?cluster=7937334371185442098&hl=en&oi=scholarr

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20. **C. Koranteng**, S. Afram, C. Essel (2015). An Appraisal of Sacred Spaces in Terms of Inert Strategies; a Case of Bantama, Kumasi. *Advances in Research*. https://doi.org/10.9734/air/2015/16711

21. **C. Koranteng**, S. Amos-Abanyie, S. Afram (2015). An Evaluation of Climate Responsive Design Features of Buildings on Knust Campus Based on Mahoney Tables. *British Journal of Applied Science & Technology*. https://doi.org/10.9734/bjast/2015/17795

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24. Barbara Simons, **Christian Koranteng**, Joshua Ayarkwa (2015). Simulation-based Assessment of the Thermal Performance of High-rise Office Buildings in Ghana. *British Journal of Applied Science & Technology*. https://doi.org/10.9734/bjast/2015/16700

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26. K Agyekum, J Ayarkwa, **C Koranteng** (2014). A holistic survey of dampness in a six bedroom residential apartment. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v34i1.4

27. Samuel Amos-Abanyie, **Christian Koranteng**, K E Apeatse (2014). AN EVALUATION OF THE EFFECTS OF EXTERNAL LANDSCAPING ELEMENTS ON INDOOR AIRFLOW RATE AND PATTERNS USING COMPUTATIONAL FLUID DYNAMICS. *European Scientific Journal ESJ*.

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35. Kofı Agyekum, Joshua Ayarkwa, **Christian Koranteng**, Emmanuel Adinyira (2013). Level of Knowledge of Building Occupants on Dampness in Walls of Residential Buildings in Ghana.

36. Kofi Agyekum, Joshua Ayarkwa, **Christian Koranteng**, Emmanuel Adinyira (2013). Preliminary Assessment of Dampness in Walls of Residential Buildings in Four Climatic Zones in Ghana. *Journal of Sustainable Development*. https://doi.org/10.5539/jsd.v6n9p51

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42. **C Koranteng**, B Simons (2012). Contrasting the Principles behind the Orientation of Building Forms and Location of Spatial Components around the Globe. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v31i3.9

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45. B Simons, **K Christian** (2012). Thermal Comfort evaluation of high rise buildings in Accra, Ghana. *Pelgia Research Library. Advances in Applied Science Research*.
46. **C Koranteng**, D Nyame- Tawiah, E Quansah (2011). A psychrometric analysis of thermal comfort In low-rise office buildings in Ghana. *Journal of Science and Technology (Ghana)*. https://doi.org/10.4314/just.v31i1.64888
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57. **C Koranteng** (2010). Using concepts to support creative form formation process in architecture. *INTERNATIONAL POSTGRADUATE RESEARCH CONFERENCE ON THE BUILT ENVIRONMENT*. https://www.researchgate.net/profile/Frank-Fugar/publication/341164847_The_Changing_Climate_and_the_Built_Environment_in_the_21st_Century_Challenges_and_Opportunities/links/5eb1c699a6fdcc7050ad5242/The-Changing-Climate-and-the-Built-Environment-in-the-21st-Century-Challenges-and-Opportunities.pdf#page=96
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Conference papers 3

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2. **C Koranteng**, TE Kwofie (2017). USER-INITIATED BUILDING EXTENSIONS AND DAYLIGHTING: THE CASE OF GOVERNMENT-BUILT HOUSING ESTATES AT TEMA COMMUNITY TWO (2), GHANA. *ICIDA 2017 - 6TH INTERNATIONAL CONFERENCE ON INFRASTRUCTURE DEVELOPMENT IN AFRICA - 12-14 April 2017, KNUST, Kumasi, Ghana*.
3. K Agyekum, **C Koranteng** (2013). Assessment of Dampness in Walls of Residential Buildings in Four Climatic Zones in Ghana. *Applied Research Conference in Africa (ARCA), 8-10 August 2013, Kumasi-Ghana*.

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2. **C Koranteng** (2017). An emperical analysis of the thermal performance of curtain wall office buildings in Ghana: The window-to-wall ratio effect. *ICIDA*.
3. **C Koranteng** (2017). Fraction of time: A phenomenon towards the reduction of indoor discomfort in office buildings, Ghana. *ICIDA*.
4. **C Koranteng** (2017). Validation of simulated mean air temperature and mean radiant temperature using monitored data from an experimental test cell. *ICIDA*.
5. **C Koranteng** (2012). An assessment of thermal comfort in a warm and humid school building at Accra, Ghana. *Advances in Applied Science Research*.
6. **C Koranteng** (2010). A study into the thermal performance of low-rise office buildings in Ghana. *na*. https://publications.ibpsa.org/proceedings/bausim/2010/papers/bausim2010_92.pdf