Dr. Isaac Kwesi Acquah

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RESEARCH

Areas: Education · Radiology, Nuclear Medicine and Imaging · Biomedical Engineering · Atomic and Molecular Physics, and Optics · Computer Networks and Communications · Computer Vision and Pattern Recognition

RESEARCH SUMMARY

10	13	2	0	0.47	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 10 publications listed below, 2023–2025. Field-weighted impact is the mean over the 10 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 10 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Lecturer 2021–present
Department of Physics Education, University of Education Winneba, Winneba, Ghana

EDUCATION AND QUALIFICATIONS

PhD Medical Physics 2022–2025
Department of medical Physics, University of Ghana, Accra, Ghana

Mphil Medical Physics 2017–2019
Department of medical physics, University of Ghana, Accra, Ghana

Bsc Physics (biomedical Physics) 2012–2016
Department of Physics, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

PUBLICATIONS

Journal articles 10

1. **Isaac Kwesi Acquah**, S Issahaku, Samuel Nii Adu Tagoe (2025). A systematic review of deep learning techniques for generating synthetic CT images from MRI data. *Polish Journal of Medical Physics And Engineering*. https://doi.org/10.2478/pjmpe-2025-0003
2. Bernard Amedzoame, Isaac Frimpong Brobbey, Bismark Djan, **Isaac Kwesi Acquah**, Mercy Afadzi Tetteh (2025). Assessment of Radiation Doses for Paediatric Head, Chest, and Abdominopelvic Computed Tomography Examinations in a Teaching Hospital in Ghana. *Polish Journal of Medical Physics And Engineering*. https://doi.org/10.2478/pjmpe-2025-0029
3. **Isaac Kwesi Acquah**, S Issahaku, Samuel Nii Adu Tagoe, Theophilus Akumea Sackey (2025). Deep Learning-Based Synthetic-CT Generation from MRI for Enhanced Precision in MRI-Only Radiotherapy Dose Planning. *Polish Journal of Medical Physics And Engineering*. https://doi.org/10.2478/pjmpe-2025-0025
4. **Isaac Kwesi Acquah** (2025). Enhancing Conceptual Understanding of Electric Circuit Analysis through the Jigsaw Method: A Quasi-Experimental Study in Senior High Schools. *Schrödinger Journal of Physics*

Education. https://doi.org/10.37251/sjpe.v6i1.1348

5. Anthony Babategremine Yuoni, Issahaku Sontaa Jakalia, Victor Antwi, **Isaac Kwesi Acquah**, Cynthia Jebuni-Adanu (2025). Exploring the factors influencing undergraduate students' decision to pursue physics at the University of Education, Winneba. *Research in Science & Technological Education*. https://doi.org/10.1080/02635143.2025.2510404
6. S Issahaku, Simon Mensah Amoh, **Isaac Kwesi Acquah**, George Nunoo, Theophilus A. Sackey (2024). Establishment of institutional Diagnostic Reference Levels for Computed Tomography examination at the University of Ghana Medical Centre. *Health and Technology*. https://doi.org/10.1007/s12553-024-00902-2
7. **Isaac Kwesi Acquah**, Michael Gyan, Desmond Appiah, Bright Owusu Ansah, Robert Wilson, Charles Enoch Mensah (2024). Improving Students' Performance in Resolution of Vectors Using PhET Interactive Simulations. *Schrödinger Journal of Physics Education*. https://doi.org/10.37251/sjpe.v5i3.1078
8. Victor Antwi, Michael Gyan, Desmond Appiah, **Isaac Kwesi Acquah**, Fortune Addo Wuver, Cynthia Jebuni-Adanu (2024). Theoretical study of the strong piezo-phototronic effect in 2D monochalcogenides for multi-junction solar cells. *Physica Scripta*. https://doi.org/10.1088/1402-4896/ad7cdc
9. Fortune Addo-Wuver, Victor Antwi, **Isaac Kwesi Acquah**, Desmond Appiah, Michael Gyan, Cynthia Jebuni-Adanu, Peter Opoku (2023). IMPROVEMENT OF SENIOR HIGH STUDENTS' PERFORMANCE IN HEAT TRANSFER USING PRACTICAL ACTIVITIES IN EFFUTU MUNICIPAL, GHANA. *European Journal of Education Studies*. https://doi.org/10.46827/ejes.v10i9.4997
10. Cynthia Jebuni-Adanu, Victor Antwi, **Isaac Kwesi Acquah**, Desmond Appiah, Michael Gyan, Fortune Addo Wuver, Issahaku Sontaa Jakalia, Bernard Sarkyi (2023). Utilizing Physics Education Technology (PhET) for Improving Students' Understanding of Energy Conversion and Conservation in a Senior High Technical School. https://doi.org/10.7176/jep/14-8-06