Ofosuhene Okofrobour Apenteng Assistant Professor of Mathematical Epidemiology

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Research Interests

I am a mathematical epidemiologist who is interested in using and developing parameter estimation and identifiability techniques to model disease dynamics. My main areas of expertise are advanced mathematical epidemiology, and mathematical and statistical modelling. Estimating the causal impacts of economic interventions, focusing on simulations to study the spread of infectious disease transmission, including examining the impact of tourists, migrants, and injectable drug users on HIV/AIDS, COVID-19 vaccination hesitancy model, and population dynamics. I am eager to develop new modelling approaches, and theories, and to answer highly focused applied research questions that can aid in prevention control. I have developed a surveillance program based on metagenomics to detect antimicrobial resistance in Danish livestock production. I have collaborated with national and international authorities, researchers, experts, and stakeholders. I'm now working on HORIZON Europe-funded project "Enhanced and cost-effective biosecurity in livestock production" (BIOSECURE) and Ecology of Wildlife, Livestock, huMan and Infectious Diseases in changing environments (WiLiMan-ID), and Salmonella Dublin in cattle, Denmark. I have worked on several EU projects, including Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance, and emerging microbiological hazards.

Education

| 2013-2027 | PhD in Mathematical Epidemiology, University of Malaysia, Malaysia. |
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| 2011-2013 | MPhil in Computer and Mathematical Sciences, Auckland University of Technology, New Zealand. |
| 2007-2009 | MSc in Technomathematics, Lappeenranta University of Technology, Finland. |
| 2001-2005 | BSc in Mathematics, University of Cape Coast, Ghana. |

Career History

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|------------------------|---|
| Since 02/2023 | Assistant Professor of Mathematical Epidemiology, University of Copenhagen, Denmark. |
| Since 2021 | Adjunctive Professor and Visiting Lecturer: The Nelson Mandela African Institution of Science and Technology The School of Computational and Communication Science and Engineering (CoCSE). Arusha, Tanzania. |
| Nov.2022-Jan. 2023 | Postdoc: Department of Clinical and Immunology, Zealand University Hospital, Næstved. |
| 2018-2012 | Postdoc: Research Group for Genomic Epidemiology, National Food Institute, Technical University of Denmark, Denmark. |
| Since 2019 | Co-Lecturer: Fighting infectious diseases. Course Type: MSc, Research Group for Genomic Epidemiology, National Food Institute, Technical University of Denmark, Denmark. |
| 2013-2017 | Research Assistant: Investigating the network demographic modelling of infectious diseases, Department of Applied Statistics University of Malaya, Malaysia. |
| 2011-2013 | Teaching Assistant: Mathematical Sciences, Department Auckland University of Technology, New Zealand. |
| Oct.2011 – Mar.2012 | Research Assistant: Mobile services and applications adoption modelling and coding Department of Information Technology and Software Engineering School of Engineering, Auckland University of Technology, New Zealand. |

Supervision

2022 Co-Supervisor: Stochastic-Based Model of Prostate Cancer Metastasis (Master's Thesis). On going

Awards

| 2023 | Med-Vet-Net Association funding 2023 |
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| 2013-2017 | Research Assistantship Grant, University of Malaya, Malaysia. |
| Oct 2014 | Best Paper Award: International Conference in Modeling Health Advances, San Francisco, USA. 22-24. |

2011–2013 Research Assistantship Scholarship, Auckland University of Technology, New Zealand.

Dec 2011 - Mar
2012 DCT Faculty Summer Studentship, Auckland University of Technology, New Zealand.

Publication

- 25 Publications (Total)
- 17 Peer reviewed publications
- 11 Publications as First Author
- 7 Conference Proceeding
- 7 Oral/Poster presentation at scientific conferences

Academic Editors/Journal Reviewer

| Since 2022 | Editorial Board of PLOS ONE |
|------------|---|
| Since 2021 | Soft Computing |
| Since 2020 | International Journal of Biomathematics |
| Since 2017 | Preventive Veterinary Medicine |
| Since 2016 | American Journal of Epidemiology |
| Since 2016 | Applied Mathematical Modelling |
| Since 2016 | Global Health Action |
| Since 2015 | PLOS One |
| Since 2013 | Applied Mathematics and Computation |