Mahmud Ibrahim

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RESEARCH

Interests: Optimal Control · Fisheries Bioeconomics · Ecology · Computational Mathematics · Modelling and Simulation

Areas: Public Health, Environmental and Occupational Health · Genetics · Artificial Intelligence · Ecology · Electrical and Electronic Engineering · Global and Planetary Change

RESEARCH SUMMARY

12	109	5	4	0.71	0%
Publications	Citations	h-index	i10-index	Field-weighted impact	World top 10%

Counted from the 12 publications listed below, 2002–2026. Field-weighted impact is the mean over the 4 works scored for it; 1.00 is the world average for works of the same field, type and year. 0 of the 4 papers scored for it are among the world's most cited tenth for their field, type and year.

POSITIONS

Senior Lecturer 2004–present
Mathematics, University of Cape Coast, Cape Coast, Ghana

EDUCATION AND QUALIFICATIONS

PhD 2014–2018
Mathematics, University of Cape Coast, Cape Coast, Ghana

PUBLICATIONS

Journal articles 10

1. **Mahmud Ibrahim** (2026). Global dynamics of a ratio-dependent commensalism model with non-selective harvesting and partial closure for the populations. *Journal of Mathematical and Computational Science*. https://scholar.google.com/scholar?cluster=12779945752190520966&hl=en&oi=scholarr
2. **Mahmud Ibrahim**, Sahabuddin Sarwardi (2025). Global analysis of a generalist predator–prey model with Holling type IV response function and harvesting. *Franklin Open*. https://doi.org/10.1016/j.fraope.2025.100302
3. **M.I Ibrahim** (2023). Application Of Adaptive Neuro Fuzzy Inference System (ANFIS) In Predicting Thermal and Electrical Efficiency of a Photovoltaic Thermal (PvT) System. https://doi.org/10.61352/2023at14
4. **Mahmud Ibrahim** (2022). Numerical simulation and optimal fishing effort for a fishery with total allowable catch (TAC). *Mathematics and Computational Sciences*. https://mcs.qut.ac.ir/article_700741.html
5. **Mahmud Ibrahim** (2021). A Bioeconomic Analysis of a Renewable Resource in the Presence of Illegal, Unreported and Unregulated Fishing. *Asian Research Journal of Mathematics*. https://doi.org/10.9734/arjom/2021/v17i230279
6. **Mahmud Ibrahim** (2021). Optimal harvesting of a predator-prey system with marine reserve. *Scientific African*. https://doi.org/10.1016/j.sciaf.2021.e01048
7. **Mahmud Ibrahim** (2020). Optimal control of a fishery utilizing compensation and critical depensation

models. *Applied Mathematics & Information Sciences*. https://www.academia.edu/download/64102614/Ibrahim_AMIS.pdf

8. **Mahmud Ibrahim** (2019). An application of optimal control to the marine artisanal fishery in Ghana. *Communications in Mathematical Biology and Neuroscience*. https://ir.ucc.edu.gh/server/api/core/bitstreams/dee2232e-ff63-45b6-aa7e-1c50ea1a5d35/content

9. **Mahmud Ibrahim** (2017). An application of optimal control to the effective utilization of a renewable resource. *Afrika Statistika*. https://doi.org/10.16929/as/2017.1313.106.short

10. **Mahmud Ibrahim** (2005). A simulation study on SPSS ridge regression and ordinary least squares regression procedures for multicollinearity data. *Journal of Applied Statistics*. https://doi.org/10.1080/02664760500078946

Theses 2

1. **Mahmud Ibrahim** (2018). An Application of Optimal Control to the Sustainable Harvesting Srategies of Ghana's Sardinella Fishery. *University of Cape Coast*. https://www.academia.edu/download/67396835/Ibrahim_Thesis.pdf

2. **Mahmud Ibrahim** (2002). Simulation Studies on Some Selected Regression Topics. *Indiana University of Pennsylvania*. https://scholar.google.com/scholar?cluster=13103757581473199176&hl=en&oi=scholarr