LAIKIPIA UNIVERSITY STAFF PROFILE

DEPARTMENT OF MATHEMATICS

Name of Faculty/Staff: Judith J.E.J Ogal

Designation/Rank: Tutorial Fellow

Laikipia University: School of Science

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Educational Background:

Masters in Applied Mathematics, The Catholic University of Eastern Africa, Kenya, 2016

Bachelors in Education (Arts), Egerton University, Kenya, 2006

Brief Auto-biography of the Faculty/Staff

I am a Tutorial Fellow of Applied Mathematics in the Faculty of Science at Laikipia University, Kenya. My research is primarily focused around Partial Differential Equations (PDEs). I have worked in the domains of dynamical systems and mathematical modeling. My current research is on the numerical solution of PDEs. I am passionate about research work and teaching geared towards improving the daily lives of Africans. I have co-authored and published five articles with various scholars in peer reviewed journals.

Selected Publications

1. **Judith J.E.J Ogal**, N.B. Okelo, Predator-Prey Mathematical System Analysis through Lyapunov Function, IJMCICT, 3(1), (2020), 5-11.
2. I.O. Okwany, N.B. Okelo, **Judith J.E.J Ogal**, Characterization of Properties of Aluthge Transforms in Banach Algebras, IJMCICT, 3(2), (2020), 19-23.
3. N.B. Okelo, **Judith J.E.J Ogal**, Properties of Norm-attainable Classes and Applications to Signal Processing, IJMST, 5(2), (2020), 40-44.
4. **Judith J.E.J Ogal**, N.B Okelo, Roy Kiogora and Thomas Onyango, Numerical Solutions of Mathematical Model on Effects of Biological Control on Cereal Aphid Population Dynamics, *International Journal of Modern Science and Technology*, 01 [04]: (2016), 138-143.

5. **Judith J.E.J Ogal**, N.B Okelo, Roy Kiogora and Thomas Onyango, Construction and Qualitative Analysis of Mathematical Model for Biological Control on Cereal Aphid

Research Interest

- Numerical methods for PDEs
- Finite Elements
- Mathematical modeling