Curriculum Vitae

Basaznew Belew Melak

Msc. in Mathematical Modeling

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Date of Birth: 11th September , 1990   **Nationality:** Ethiopia   **Passport No:** EP7980237

Research Areas of Interest:

- ➤ Biological Mathematics
- ➤ Mathematical Modeling (Epidemiology, Eco-Epidemiology)
- ➤ Stochastic Modeling & Applied Mathematics
- ➤ Computational Mathematics (Python, MATLAB)
- ➤ Dynamical System

Academic Qualification:

- ➤ **MSc. In Mathematical Modeling (2017-2020)**   **Woldia University Woldia Ethiopia**
- ➤ **B.Sc. In mathematics (2010-2013)**   **University of Gondar Gondar Ethiopia**

Title of MSc Thesis:

- ➤ **Modeling and Analysis of Predator-Prey Model with Fear Effect in Prey and Hunting Cooperation among Predators and Harvesting.**

Supervisor's Name:

Assoc. Prof. Dawit Melese Gebru, Department of Mathematics, Bahir Dar University Bahir Dar Ethiopia. **Email**: dawitmpg@gmail.com

Title of B.Sc. Thesis:

- ➤ Linear first order ordinary differential equation and its application
- ➤ **Supervisor's Name:** *Assi. Prof. Derso Abeji, Department of Mathematics, University of Gondar, Gondar Ethiopia.* **Email**: deab02@yahoo.com

Research Publications (ISI Listed Papers with Impact Factors):

1) Belew, B., & Melese, D. (2022). Modeling and analysis of predator-prey model with fear effect in prey and hunting cooperation among predators and harvesting. *Journal of applied mathematics*, *2022*(1), 2776698.

2) Belew, B., & Yiblet, Y. (2024). Dynamical analysis of a modified Leslie–Gower predator–prey model with disease in prey incorporating a prey refuge and treatment. *International Journal of Biomathematics*, 2450051.

3) Workineh, Y., Mekonnen, H., & Belew, B. (2024). Numerical methods for solving second-order initial value problems of ordinary differential equations with Euler and Runge-Kutta fourth-order methods. *Frontiers in Applied Mathematics and Statistics*, *10*, 1360628.

4) Yiblet, Y., Abdu, I., & Belew, B. (2024). Comprehensive literature review on metal nanoparticle for enhanced shelf life of mango fruit. *The Scientific World Journal*, *2024*(1), 4782328.

5) Belew, B., & Melese, D. Eco-epidemiological Predator-Prey Model with Fear, Hunting cooperation, Treatment and Refuge (submitted in AIMS)

6) Belew.B, Analyzing the effect of fear, and refuge on prey, harvesting, and hunting cooperation among predators on Leslie-Gower Predator Prey model (submitted in International Journal of Differential Equation, Wily and Accepted for Publication)

7) Belew, B., & Mekonnene, H. Eco-epidemiological Predator-Prey Model with Fear, Hunting Cooperation, Treatment, and Migration (submitted in Plose)

Seminars Delivered:

- **Modeling of lotteka voltera prey predator interaction** (Department of Mathematics, Mekdela Amba University Ethiopia, 27 March 2024).

Conferences Attended:

- International Conference on Faculty development program for STEM proffesions on Advancing Research Methodology through Scientific Tools and Artificial Intelligence (collaborative with Department of Mathematics Sardar Vallabhbhai National Institute of Technology, Gujarat INDIA, Poornima College of Enginering Jaipur INDIA, Nexus University, South Africa and MTTF Fazika INDIA, 05 February 2024-09 February 2024)

- International conference one day webinar on mastering Latex for Scintific Documentsation with ChatGPT In Math Thinking Foundation (MTTF),Fazilka INDIA. 17 June 2024

- International Conference on MatLab Tutorial series workshop In MTTF Fazilka INDIA, 01 Janury 2023-30 August 2023.

- One Week Faculty Development program on computing with matlab and latex software Indispensable Tools for Research, Department of mathematics, BabaFarid College, Bathinda, India & Department of Mathematics Miza Tepi Universiy Ethiopia in collaboration with MTTF India, January 05 2022-January 11 2022.

- International Conference on One week International virtual Training workshop on Data Science with Python ,School of Computing & Informatics ,Mizan Tepi University Ethiopia in collaborate with MTTF India, October 05 2021-October 11 2021.

MSc Courses are

1. Computational Mathematics
2. PDE
3. Numerical Method
4. Research Methedology
5. Topics in optimization theory and optimal control
6. Seminar

7. ODE
8. Dynamical System
9. Mathematical Modeling
10. Mathematical Ecology

11. Stochastic Process

Experience:

1. Senior Teacher in Abaymich secondary and preparatory school (Sep.2015-June 20 2020)
2. Lecturer In Mekdela Amba University Tulu Awulia Ethiopia (July 1-Present)
3. I am PI of Research project in Mekdela Amba University

References:

➢ **Asso. Prof. Dawit Melese**

Department of Mathematics, Bahir Dar University Bahir Dar Ethiopia. Email: dawitmpg@gmail.com

➢ **Asso. Prof. Legesse Lemecha**

Department of Mathematics, Adama Science & Technology University

Email: legesse.lemecha@astu.edu.et

➢ **Assi. Prof Tegegn Getachew**

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Email: gcmcs2006@gmail.com