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ANDANJE MULAMBULA

BIODATA

Date of Birth : December 10, 1977
Marital Status : Married
Nationality : Kenyan
Gender : Male
Language : English, Kiswahili and Luyha

KEY STRENGTHS I am a team player, hardworking, resilient, willing, eager and quick to learn and share knowledge in working with others.

EDUCATION

2015-2021 Kibabii University

Doctor of Philosophy (Applied Mathematics)

2008-2010 Kenyatta University Nairobi, Kenya

Master of Science in Applied Mathematics

2002 KASNEB Examination

C.P.A PART I

1998 – 2002 University of Nairobi, Kenya

Bachelor of Education (Arts)

2002 – Graduated with B. Ed (Arts) degree (2nd Class Honours, Upper Division) Specializing in Mathematics and Accounting

1993 – 1996 Samitsi Secondary School Kakamega, Kenya

Kenya Certificate of Secondary Education

1996 Passed with Average Grade B (Plain), 68 points.

1983 – 1992 Kalenda Primary School Kakamega, Kenya

Kenya Certificate of Primary Education.

AWARDS Was awarded a grant by the National Research Fund in December, 2017 to pursue Ph.D in Applied Mathematics at Kibabii University

PROFESSIONAL/ADMINISTRATIVE EXPERIENCE

DECEMBER, 2021 TO DATE: KIBABII UNIVERSITY

POSITION: Lecturer (Applied Mathematics)

2015- NOVEMBER, 2021: KIBABII UNIVERSITY

POSITION: Tutorial Fellow (Applied Mathematics)

NOVEMBER, 2020 TO DATE: KIBABII UNIVERSITY

POSITION: University Timetabling Coordinator

2016 – NOVEMBER, 2020: KIBABII UNIVERSITY

POSITION: Exams Coordinator-Mathematics Department

2017 – NOVEMBER, 2020: KIBABII UNIVERSITY

POSITION: Warden

**2011 – 2015: MASINDE MULIRO UNIVERSITY OF SCIENCE
AND TECHNOLOGY**

POSITION: Assistant Lecturer (Part-Time)

2012 – 2015: P.A.G MAGALE SECONDARY SCHOOL

POSITION: Acting Deputy Principal

2004 – 2012: P.A.G MAGALE SECONDARY SCHOOL

POSITION: Teacher (TSC)

2002 – 2004: MALAVA BOYS HIGH SCHOOL

POSITION: Teacher (BOG)

CONFERENCES AND SEMINARS

JUNE 2021: Participated and Presented a Paper in Kibabii University 5th International Conference.

MAY 2016: Participated and Presented a Paper in Kibabii University 1st International Conference

JUNE 2015: Participated and Presented a Paper in 2nd Kenyatta University International Mathematics Conference

NOVEMBER 2014: Participated and Presented a Paper in Maasai Mara University 1st International Conference

PUBLICATIONS

- JULY 2025:** Caren T. M, Mutwiwa J. M, Mulambula A. Mathematical Modeling and Equilibrium Analysis of Early Life Stress Using a Modified SEIR Framework. *Asian Research Journal of Mathematics*, 2025, 21 (7), pp.21-31.
- JULY 2025:** Nyongesa Fatuma Nandaha; **Andanje Mulambula** ; Martha Muthoni Konje. "Assessment of Mathematical Model for Predicting Climate Change Impact on Water Availability and Quality: A SWAT-SEIR Framework" *Iconic Research And Engineering Journals* Volume 9 Issue 1 2025 Page 866-870.
- JULY 2025:** Nyongesa Fatuma Nandaha; **Andanje Mulambula** ; Martha Muthoni Konje. "Mathematical Model for Predicting Climate Change Impact on Water Availability and Quality: A SWAT-SEIR Framework" *Iconic Research And Engineering Journals* Volume 9 Issue 1 2025 Page 851-855.
- JUNE 2025:** John W. Wafula; Mulambula Andanje ; Brian D. Oduor. "A Novel Black-Scholes Framework: Mean Reverting European Logistic Option Pricing with Jump Diffusion and Transaction Costs" *Iconic Research And Engineering Journals* Volume 8 Issue 12 2025 Page 745-752
- JUNE 2025:** Maina Erick, Andanje Mulambula, Brian D. Oduor "Deriving the Black-Scholes Differential Equation Using Dividend Yielding Logistic Brownian Motion with Jump Diffusion Process" *Iconic Research And Engineering Journals* Volume 8 Issue 12 2025 Page 753-760.
- MAY 2025:** Mutwiwa, Jacinta M., and **Mulambula Andanje**. 2025. "Mathematical Model of Cervical Cancer Incorporating Prevention Measures Against the Disease". *Asian Research Journal of Mathematics* 21 (6):30-42.
- SEPTEMBER 2021:** Wanjala Victor., Vincent Marani and **Andanje Mulambula** . On N Quasi $(p+k)$ -D-Operator Operators. *Iconic Research and Engineering Journals* Volume 5 Issue 3 2021 Page 168-169.
- SEPTEMBER 2021:** Wanjala Victor., **Andanje Mulambula** and Vincent Marani . On $(n+k, m)$ - D-Operator Operators. *Iconic Research And Engineering Journals* Volume 5 Issue 3 2021 Page 159-161.
- SEPTEMBER 2021:** **Andanje Mulambula**, Logistic Brownian Motion with Jumps. *Iconic Research and Engineering Journals*. Volume 5 Issue 3 2021 Page 98-101 September 2021.
- MARCH 2021:** **Andanje Mulambula**, Estimation of Volatility Using European Logistic-Type Brownian Motion when Asset Price is Discontinuous. *Iconic Research and Engineering Journals*. Volume 4 Issue 9 March 2021.
- JANUARY 2020:** **Andanje Mulambula**., D. B. Oduor and B. Kwach *Volatility Estimation Using European-Logistic Brownian Motion with Jump Diffusion Process* *International Journal of Mathematics*

- JUNE 2019:** *and its Applications* 7(3) (2020), 85-93
Andanje Mulambula., D. B. Oduor and B. Kwach *Derivation of Black-Scholes-Merton Logistic Brownian Motion Differential Equation with Jump Diffusion Process* *International Journal of Mathematics and its Applications* Volume 8 Number 2 (2019), 155–163.
- JUNE 2016:** N Cedric, W., M Vincent, N., C Lucy, W., **A Mulambula**, (2016) Suborbital Graphs and their Properties for ordered Triples in An (n = 5, 6, 7) Through Rank and Subdegree Determination, *International Journal of Engineering and Mathematics* 9 (1), 18 – 23.
- APRIL 2015:** **A Mulambula.**, M John, Wanyonyi (2015) Controllability Of A Quasi-Linear Heat Equation, *Asian Academic Research Journal of Multi - Disciplinary* 1 (32), 383 – 399.
- JANUARY 2015:** **M Andanje** *Exact Controllability of a Quasi-linear heat equation* LAP Lambert Academic Publishing, 56 (2015)

COMPLETED SUPERVISIONS:

1. PhD, Nyongesa Fatuma Nandaha: Mathematical Modeling of The Impact of Climate Change on Water Security: A Case Study of Budalangi in Lake Victoria Basin.
2. Msc, Maina Erick: Volatility Estimation Using A Dividend Yielding Logistic Brownian Motion With Jump Diffusion Process.
3. Msc, Tobokwa Caren Mutonyi: Mathematical Modeling for The Effects of Early Life Stress on Brain Development and Mental Health Trajectories.
4. Msc, Wafula John Werunga: Volatility Estimation Using Mean Reverting European Logistic Type Option With Jump Diffusion Process and Transaction Cost.

RESEARCH AREAS OF INTEREST

1. Financial mathematics
2. Ordinary Differential Equations
3. Areas of Applied mathematics

REFEREES

1. DR. VINCENT MARANI,

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 Kibabii University,
 Email: vmarani@kibu.ac.ke,
 Mobile: 0716211787.

2. DR. MARTHA MUTHONI KONJE,

Dean Faculty of Science,
 Kibabii University,
 Email: Mkonje@kibu.ac.ke,
 Mobile: 0711259863.