

CURRICULIM VITAE

Name: **John Wanjau Mutuguta**
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School of Pure and Applied Sciences,
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Murang'a, Kenya.
Cell: 0721 213 688
Email: jmutuguta@gmail.com
Nationality: Kenyan
Date of Birth: 4th Nov 1974
Sex: Male
Marital Status: Married.
Religion: Christian.
Career Objective: My aspiration is to work in a challenging environment that requires me to employ the acquired skills and modern technology to achieve the highest level of output.

Education Background

March 2013 – 2021: Moi University
Course: **PhD** – Applied Mathematics.
Research Area: Mathematical Biology – Mathematical Modeling of Infectious Disease Transmission
Thesis Title: Mathematical Modeling of Infectious Disease Dynamics in Metapopulations

2008 – 2010: Kenyatta University.
Course: **M.Sc.** – Applied Mathematics
Thesis Title: Three – Dimensional Buoyancy Driven Turbulent Natural Convection in an Enclosure

1996 – 2000 University of Nairobi
Qualification: **B.Sc.** Mathematics & Chemistry.
Grade: Second Class Honours (Upper Division)

1991 -1994 Warazo Jet Secondary School
Qualification: K.C.S.E. Mean Grade B- (minus)

1983 – 1990 Irigithathi Primary School
Qualification: K.C.P.E. Total Marks 473.

Other courses:

- Computer Maintenance, repairs and Computer Assembly.

- Software installation and Computer Networking.
 - Ms DOS and Ms Windows.
 - Ms Office Suite (Ms word, Ms Excel, Ms PowerPoint, Ms Access & Ms Publisher).
 - Corel Graphics (Corel Draw, Corel PhotoPaint and Corel RAVE).
 - Adobe PageMaker and Adobe Illustrator.
 - Internet and Email
 - QuickBooks Pro.
 - MathCAD
 - C++
 - MATLAB
 - LaTeX
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Work Experience

Oct 2013 – Present	Murang’a University of Technology
Position:	Assistant Lecturer
Responsibility:	<ul style="list-style-type: none"> - To contribute effectively to the creation and circulation of knowledge through effective teaching, research and publishing. - Teaching Mathematics, setting, moderating and marking of examinations. - Contribute towards the achievement of the mission and vision of the university - To participate in institution building and extra curricula activities in the school of pure and applied sciences
Key Achievements:	<ul style="list-style-type: none"> - Developed two undergraduate academic programmes that were approved by the senate (JKUAT). These are <ul style="list-style-type: none"> (i) BSc. Mathematics and Economics (ii) BSc. Applied Statistics with Programming
Mar 2011 – Nov 2013	Moi University (School of Biological and Physical Sciences)
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.
Jan 2011 – Nov 2013	Jomo Kenyatta University of Agriculture and Technology (Nairobi Campus)
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.
Sept 2011 – Nov 2013	Technical University of Kenya
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.
Sept 2000 – Nov 2013	Kenya Institute of Highways and Building Technology (Ministry of Roads).
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.
Jan 2008 –Nov 2013	Kenya Institute of Mass Communication (Ministry of Information & Communication).
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.
Oct 2004 – Dec 2011:	National Youth Service Engineering Institute (Ministry of Youth Affairs and Sports)
Responsibility:	Teaching Mathematics, setting and marking of internal examinations.

May 2007 – Dec 2007 Railway Training Institute

Responsibility: Teaching Mathematics.

Mar 2006 – Jan 2010: Tila – Tech Computer Solution.

Responsibility: Repair of Computers and training clients on various methods of malware management.

Jun 2001 – Mar 2006: Sawand Care Products Ltd.

Responsibility: Processing of Detergent, Hair Shampoo and Disinfectant and testing the pH value and researching on various methods of improving the quality of the detergent.

Jan 1995 – June 1996 Kenya Breweries Ltd

Responsibility: Casual.

UNIVERSITY ADMINISTRATION EXPERIENCE

Jun 2015 – Mar 2017 Examination Officer (School of Pure and Applied Science).

April 2017 – Nov 2019 University Timetabling Officer.

Responsibilities: Preparing the teaching and examinations timetable.

Ensuring efficient utilization of teaching space.

Nov. 2019 – Present Ag. Chairman, Department of Mathematics and Actuarial Science

Develop new programmes in consultation with the teaching staff and ensure that the said programmes are practical and market driven.

Ensure availability and functionality of teaching resources, equipment and other university property within the department and ensure the effective utilization of the said resources.

Prepare departmental budgets, procurement plans and make draft estimates for onward transmission to the Finance Officer.

Coordinate the performance appraisal within the department in line with departmental strategic and academic master plan

Research and Publications:

1. **J. W. Mutuguta**, F.K. Gatheri, M.M. Maina, Natural Convection in a Rectangular Enclosure with Colliding Boundary Layers, *Journal of Applied Mathematics and Bioinformatics*, Vol. 4, No. 2 (2014), pp. 85-97
2. Kiragu M. M. and **Mutuguta J. W.**, Effect of Grashoff Parameter on Velocity for Unsteady Fluid Flow Past an Infinite Vertical Porous Flat Plate, *Journal of Applied Mathematics and Bioinformatics*, Vol. 5, No. 1 (2015), pp. 1-12.

3. **Mutuguta John Wanjau**, Turbulent Natural Convection in an Enclosure with Colliding Boundary Layers, *Journal Mathematical Theory and Modeling*, Vol. 8, No. 6 (2018), pp. 79-84.
4. **Mutuguta John**, Rotich Titus and Chepkwony Isaac, Dynamics of 2014 Ebola Epidemic in West Africa, *Journal of Mathematical Theory and Modeling*, Vol. 9, No. 2, (2019), pp. 33-41
5. **Mutuguta John Wanjau**, Rotich Titus and Chepkwony Isaac, Mathematical Modeling of the Transmission Dynamics of Measles under the Effect of Vaccination, *IOSR Journal of Mathematics (IOSR-JM)*, Vol. 15, No. 4, Ser II, (2019) pp. 10-19, e-ISSN: 2278-5728, Doi: 10.9790/5728-1504021019
6. **Mutuguta John Wanjau**, Rotich Titus and Chepkwony Isaac, Mathematical Modeling of Infectious Disease Transmission Dynamics in a Metapopulation, *IOSR Journal of Mathematics (IOSR-JM)*, Vol. 15, No. 6, Series II, (2019) pp. 18-36, e-ISSN: 2278-5728, Doi: 10.9790/5728-1506021836.
7. **Mutuguta John Wanjau**, Mathematical Modeling of COVID-19 Transmission with Mass Testing and Contact Tracing, *IOSR Journal of Mathematics (IOSR-JM)*, Vol. 16, No. 4, Series III, (2020) pp. 55-64, e-ISSN: 2278-5728, Doi: 10.9790/5728-1604035564.

Participation in Conferences, Workshops.

1. Second Kenyatta University workshop on Mathematical Modeling 2017. Held at Kenyatta University, Nairobi from 12th June 2017 to 16th June 2017
 2. Quality Assurance Workshop. Held at Murang'a University of Technology, Murang'a, Kenya on 17th October 2016.
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Extra-Curricular Activities

1996 – 2000: Member of the Nairobi University Chemical Club.
 1996 – 2000: Member of Young Christian Student (Y.C.S).
 1993 – 1994: Vice – Chairman Catholic Action Association.
 1991 – 1994: Member of Young Farmers Association.

Membership to Professional bodies

- Member of Kenya Chemical Society.

Hobbies

- Participating in communal activities.
- Listening to Gospel Music.

Referees

1. Dr Joseph Eyang'an Esekon
Senior Lecturer.
Tom Mboya University College
P.O. Box 199 – 40300
Homabay, Kenya
Cell: 0721 806 281.
2. Prof. John M. Mutiso
Professor of Statistics, Department of Mathematics and Physics,
School of Sciences and Aerospace Studies
Moi University
P. O. Box 3900,
Eldoret
Cell: 0733 945 729
3. Prof. Francis K. Gatheri
Dean, Schools of Mathematics and Statistics
Technical University of Kenya
P. O. Box 52428 – 00200,
Nairobi.
Cell: 0722 238 082