

DR. Amos Ng'ang'a Magua

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CAREER OBJECTIVE

To contribute to teaching, learning and application of mathematics through multi-disciplinary research and innovation at all levels of tertiary education and offer consultancy services in the field of mathematic modeling.

EDUCATION

2012- 18th Dec 2015 **Doctorate degree in applied mathematics (PhD) (Kenyatta university)**

(Simulating the Effects of Dam Breakage on the Downstream Topography: Morphological Evolution of Mounds and a Furrow)
Kenyatta University. Graduated on 18th December 2015

2006-2008 **Master of Science in Applied Mathematics.** (Hall Current Effects on Free Convection Flow and Mass Transfer past Semi-infinite Vertical Flat Plate). Kenyatta University

2000-2002 **Bachelor of Education Science (Mathematics and Physics)**
Second Class (Upper Division) Kenyatta University

WORK EXPERIENCE

2016-to DATE:

Coordinator Teaching Practicum and Mentorship Programme incharge of Meru-Laikipia and Isiolo Zone-Kenyatta University

Duties include coordination of activities of all activities involving professional growth of student teachers such as posting of student teachers to various schools, supervision of assessment of the students by KU lecturers and trained mentors in various schools, Analysing the assessment marks and posting to students portal.

Programme Leader Bachelor of Education Science Kenyatta university Mombasa Campus.

Duties include; Academic advisor on all matters pertaining the development of bachelor of education science.

Being a link between the Kenyatta university Mombasa campus and Main campus on all matters pertaining the bachelor of education science.

February 2013-to date

Coordinator school of pure and applied sciences (SPAS)-Kenyatta University
Mombasa Campus.

Duties include; coordination of all the examination related activities at the School of pure and applied sciences.

Coordinating and supervising the teaching and attendance of classes by students and the lecturers.

Preparing the teaching time tables for the school.

Preparing examination time table, handling examination queries from students and exam coordinators from other departments.

2nd January 2015-to date

Lecturer, Kenyatta University

Duties include; teaching& examination of mathematics, academic research, Supervision of Post graduate students and participation in community development activities through the university's social corporate responsibility

14th April 2011- December 2015

Tutorial Fellow, Kenyatta University

Duties include; teaching& examination of mathematics, academic research and participation in community development activities through the university's social corporate responsibility and mentoring of students.

2013-to date: part time lecturer at **Technical University of Mombasa**. Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS.

2010-to date: part time lecturer at Kimathi university college Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS.

2009-To date: part time lecturer at **Taita -taveta University College**. Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS

2009-2013: part time lecturer at **Jomo Kenyatta University of agriculture and Technology**. Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS.

2009-2013: part time lecturer at **Technical University of Kenya**. Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS.

2013-2014: part time lecturer at **University of Nairobi**. Duties: Lecture and offer tutorials, set exam and invigilate exam and CATS.

2009-2010: Lecturer **Kinyanjui Technical Training Institute**.

Duties: Prepare schemes of work and lesson plans, teach according to syllabus and administer exams, mark and grade.

2008-2010, Mathematics teacher at **America Advisory Centre**.(Maksons Plaza Westlands)

Duties: Preparing students for entry in American universities by facilitating mathematics proficiency tests in SAT I, SATII,

2000-2006, Maths and Physics Teacher **Kegonge boys High School**.

Duties: Prepare schemes of work and lesson plans, teach according to syllabus and administer exams, mark and grade.

2009-to date Kenya National Examination Council (KNEC)

- i) **Examiner in charge** of Mathematics Diploma in teacher education examinations in Kenya(DTE)
- ii) **Examiner in charge** of Civil engineering, mechanical, electrical and surveying Mathematics technical national examination (Diploma and Higher diploma)

Research Publications

- 1) Magua A N Hall Current Effects on Free Convection Flow and Mass Transfer past Semi-infinite Vertical Flat Plate). Kenyatta University published in 2013
- 2) Magua An, kimathi Simulating the Effects of Dam Breakage on the Downstream Topography: Morphological Evolution of Mounds (2016)
- 3) Magua AN Simulating the Effects of Dam Breakage on the Downstream Topography: Morphological Evolution of Furrow(2016)
- 4) Kamau, Kituku Kimathi Magua Transforming the non linearPDEs governing the Viscous fluid into Non-Linear ODEs and investigation of influence of Inclined magnetic Field and Thermophoresis on Heat and Mass Transfer Wedge -Status
- 5) Kituku, kamau, magua kimathi Effect of Variable Fluid Properties and Thermophoresis on Unsteady forced Convective Magnetohydrodynamics Boundary Layer Flow along a Permeable Stretching Shrinking wedge

Post graduate supervision

MASTERS STUDENTS

- 1) **Festus Kituku**: Transforming the non linearPDEs governing the Viscous fluid into Non-Linear ODEs and investigation of influence of Inclined magnetic Field and Thermophoresis on Heat and Mass Transfer Wedge -Status Thesis Complete and the student graduated
- 2) **Kamau Nganga John- Reg No I56 CE 25869/14**- Effect of Variable Fluid Properties and Thermophoresis on Unsteady forced Convective Magnetohydrodynamics Boundary Layer Flow along a Permeable Stretching Shrinking wedge -Status Thesis Complete and the student due for graduated
- 3) **Rwanda Alex Mutegi I56/CE/26154/2014 Effect of inclined magnetic field and injection on magnetic hydrodynamic layer over a porous exponentially stretching sheet in presence of thermal radiation status Graduated**

- 4) Zeinab Ali Mohammed Reg No 156/CE/26265/14 “ Effect of inclined magnetic field in MHD flow past a vertical plate in the presence of hall current Satus Graduated
- 5) Atunga Reg No 156/CE/28092/2015 Effect of magnetic induction on a Williamson fluid past a stretching wedge Status ongoing
- 6) Aori Momanyi Christopher Reg No 156/CE/ 34131/2016 Numerical model using smoothed particle hydrodynamics to simulate the effect of steady flow caused by intensive storm or dam break Status ongoing

Conferences Attended

- 1) First workshop on Kenyatta university mathematical modeling held at Kenyatta university conference centre on august 2014
- 2) Second workshop on Kenyatta university mathematical modeling held at Kenyatta university conference centre on august 2015
- 3) Item writing workshop on mathematics setting organized by KNEC at the Kenya Institute of curriculum development.

Professional Experience

2018-To date Member of BOM Njiris School

2018-To Date Member Academic board committee member

2019-To date Member of BOM Kihara High School

2020-To date Academic Committee chairman Kihara High School

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REFERENCES

1. Prof. Francis Kimani Gatheri,
Executive Dean School of Mathematics,
Technical university of Kenya ,
Nairobi.
Tel No: 0738678811
2. Prof. David Malonza
Associate Dean SPAS
Kenyatta University
P.O Box 43844,
Nairobi.
Tel No: 0723911638
3. Prof. Jeconiah Okelo

Director Teaching Programmes
Jomo Kenyatta University of agriculture and Technology
P.O Box 6200
Nairobi.
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