



**NAME:** DR. KIEMA DIONYSIUS WAMBUA, Ph.D  
**DESIGNATION :** Lecturer (Applied Mathematics), Department of Mathematics and Computer Sciences, Pwani University.  
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#### **BRIEF ACADEMIC HISTORY**

1. Ph.D (*Applied Mathematics*) . Research Title: "*Study of Steady and Unsteady Viscous Incompressible M H D fluid flow*",2017- **University of Eldoret (UoE) – Kenya.**
2. MSc. (*Applied Mathematics*) -Fluid Mechanics, 2006-2008 , **University of Nairobi-Kenya.**
3. Bed (Hons)-(*Maths and Business Studies*)-1999-2004- **University of Nairobi-Kenya**
4. Dip.Sc.Ed.(First Class Honours)-(Mathematics, Biology,Physical Education)  
- 1994-1996- **Kenya Science Teachers College (KSTC), Nairobi-Kenya**
5. KCSE- **Shimba Hills Secondary School**- Kwale County, 1988-1991.

#### **EMPLOYMENT RECORD**

1. **JAN 2018-PRESENT** LECTURER, PWANI UNIVERSITY - KILIFI
2. **SEPT 2011-DEC 2011** TUTORIAL FELLOW, SOUTH EASTERN KENYA UNIVERSITY -KITUI.
3. **2006 –SEP 2011** SENIOUR LECTURER (*JOB GROUP ``M``*)MOMBASA TECHNICAL TRAINING INSTITUTE,TEACHING MATHEMATICS IN DIPLOMA ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING, ANALYTICAL CHEMISTRY AND APPLIED BIOLOGY.
4. **1997-2006** TEACHER (*JOB GROUP ``L``*) ST.MARY'S HIGH SCHOOL-LUSHANGONYI, P.O BOX 1010 WUNDANYI-TEACHING MATHEMATICS AND BIOLOGY.

## UNITS TAUGHT

1. BASIC MATHEMATICS
2. PLANE AND ANALYTICAL GEOMETRY
3. CALCULUS I,11,111
4. NUMERICAL ANALYSIS 1 ,11
5. FLUID MECHANICS 1,11
6. PARTIAL DIFFERENTIAL EQUATIONS 1,11
7. ORDINARY DIFFERENTIAL EQUATIONS 1, 11
8. INTRODUCTION TO STATISTICS AND PROPABILITY
9. DISCRETE STRUCTURES
10. METHODS OF FLUID MECHANICS
11. VECTOR ANALYSIS
12. MATHEMATICS FOR SCIENCES 1,11
13. LINEAR AND BOOLEAN ALGEBRA
14. DIFFERENTIAL GEOMETRY

## REFEREED JOURNAL PUBLICATIONS

1. Manyonge, W.A. **Kiema D.W** and Iyaya, C.C. 2012.*Steady MHD Poiseuille Flow Between Two infinite Parallel Porous Plates In An Inclined Magnetic field*, International journal of pure And Applied Mathematics.**76(5)**, 661-668.
2. Alfred W. Manyonge , Jacob K. Bitok and **Dionysius W. Kiema**.2013. *On the Steady MHD Poiseuille Flow Between Two Infinite Parallel Porous Plates In An Inclined Magnetic Field* , American Journal Of Computational and Applied Mathematics, **3(4)**, 220-224.
3. **D.W. Kiema** , W.A. Manyonge , J.K Bitok, R.K Adenyah and J.Barasa, 2015. *On the Steady Couette Flow Between Two Infinite Parallel Plates In An Uniform Transverse Magnetic Field*, Journal Of Applied Mathematics and Bioinformatics,**5 (1)**, 87-99
4. **D.W. Kiema** , W.A. Manyonge , J.K Bitok, 2015. *On the Steady MHD Poiseuille Fluid Flow Between Two Infinite Parallel Porous Plates ,International Journal Of Scientific Research And Innovative Technology*,**2(2)**,100-108
5. Adenyah,R.K. **Kiema D. W** , Barasa S, J. And Oganga D.O.2015 . *Effect of a Forcing Term On Solution of A Homogenous Burger'sEquation* , International journal of Engineering and Scientific Research, **3( 3)**, 58-68
6. Rodgers K. Adenyah, **Kiema D. Wambua** , Barasa S, Joel. 2015 . *A numerical solution of a Burger's Equation by use of Line Method*, International Journal of Engineering and Scientific Research ,**3(8 )**, 87-92.
7. Barasa J.S, Okello B.N, **Kiema D.W**, Adenya R.K. 2016. *Circularity of the Numerical Range of Isometrically Bounded Linear Operators on a Hilbert space*, International Journal of Engineering and Scientific Research, **4(1)**, 64-70.

### HONOURS AND AWARDS.

<b>OCT 2004-OCT 2006:</b>	GADHI SMARAK NIDHI TRUSTEE FUND SCHOLARSHIP-Masters of Science at the University of Nairobi.
<b>2002-2003:</b>	GADHI SMARAK NIDHI TRUSTEE FUND PRIZE –Best final year student B.ED (Arts) UNIVERSITY OF NAIROBI
<b>1994-1996</b>	ACADEMIC AWARD BEST BIOLOGY STUDENT –KSTC
<b>1994-1996</b>	ACADEMIC AWARD BEST EDUCATION STUDENT –KSTC
<b>1997-1999</b>	DISTRICT KCSE BIOLOGY TROPHY TAITA TAVETA DISTRICT –FIRST POSITION
<b>2000</b>	DISTRICT KCSE BIOLOGY TROPHY TAITA TAVETA DISTRICT –THIRD POSITION

### SEMINARS/ WORKSHOPS TRAINING

<i>COURSE/WORKSHOP/SEMINAR</i>	<i>PLACE</i>	<i>FROM</i>	<i>TO</i>
Third East Africa School on Topics in Algebra, Geometry and Combinatorics	Makerere University, Kampala-Uganda	19-6-2006	30-6-2006
Eastern African Mathematics Conference 2006 and Mathematics workshop	Nairobi-Kenya	4-12-2006	10-12-2006
First Kenyatta University workshop Of Mathematical Modelling , 2013	Kenyatta University -Kenya	17-6-2013	21-6-2013

### INTERESTED RESEARCH AREAS

1. Numerical and Analytical solutions to linear and non-linear Partial Differential Equations .
2. Magnetohydrodynamic couette and Poiseuille fluid flows between two infinite parallel porous plates subjected to transverse and inclined magnetic field.
3. MHD turbulence and Laminar flows with varying physical properties.

### DEPARTMENTAL DUTIES

1. EXAMINATION COORDINATOR, DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE, PWANI UNIVERSITY -2013-2017
2. ACADEMIC RESEARCH LEADER FOR BSC MATHEMATICS AND Ph.D IN MATHEMATICS, PWANI UNIVERSITY -2018

## **SOCIAL SKILLS AND COMPETENCES**

- ❖ A team worker
- ❖ Self motivated
- ❖ Coordination of projects
- ❖ Ability to work with minimal supervision
- ❖ Ability to work for long hours when need arises