THE TECHNICAL UNIVERSITY OF KENYA

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NAME: PROF FRANCIS KIMANI GATHERI

Faculty:	Applied Sciences and Technology
School:	Mathematics and Actuarial Science
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EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	COMPUTATIONAL FLUID DYNAMICS AND HEAT TRANSFER	UNIVERSITY OF NEW SOUTH WALES(Kenya)	1994
Doctor of Philosophy (PhD)	COMPUTATIONAL FLUID DYNAMICS AND HEAT TRANSFER	UNIVERSITY OF SOUTH WALES(Australia)	1994
Masters of Science (M.Sc.)	APPLIED MATHEMATICS	KENYATTA UNIVERSITY(Kenya)	1989
Bachelor of Education (B.Ed)	MATHEMATICS,COMPUTER, AND EDUCATION	KENYATTA UNIVERSITRY(Kenya)	1987
Certificate	Mathematics, Physics and Eduation	Kenya Science Teachers College(Kenya)	1983

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
01/04/2014 - TO DATE	THE TECHNICAL UNIVERSITY OF KENYA	PROFESSOR
SEPTEMBER 1989 - JANUARY 1990	EGERTON UNIVERSITY- NJORO	Assistant Lecturer
1994 - 2010	KENYATTA UNIVERSITY	SENIOR LECTURER
1990 - 1994	UNIVERSITY OF SOUTH WALES	PART-TIME TUTOR
10/02/2010 - 01/04/2014	THE TECHNICAL UNIVERSITY OF KENYA	ASSOCIATE PROFESSOR

GENERAL STATEMENT ON RESEARCH AREAS

Numerical Simulation of Turbulent flows, Mathematical modelling of MhD flows and Brain tumour growth using ADM

SELECTED PUBLICATIONS

TITLE	LINK TO PULICATION
BUOYANCY DRIVEN NATURAL CONVECTION HEAT TRANSFER IN AN ENCLOSURE	SUBMITTED 2008 FOR PUBLICATION BY EAJPS.
THE USE OF MESH GENERATION FUNCTIONS FOR THE SOLUTIONS OF NATURAL CONVENTION PROBLEMS	EAST AFRICAN JOURNAL OF PHYSICAL SCIENCES VOL.6 (1):21-31, 2005
VARIABLE FALSE TRANSIENT FOR THE SOLUTION OF COUPLEDELLIPTIC EQUATIONS	EAST AFRICAN JOURNAL OF PHYSICAL SCIENCES VOL.6(2):107-116 2005
BUOYANCY DRIVEN FREE- CONVECTION TURBULENT HEAT TRANSFER IN AN ENCLOSURE.	SUBMITTED FOR PUBLICATION 2007 BY JAGST-JKUAT.
NUMERICAL STUDY OF FREE CONVECTION TURBULENT HEAT TRANSFER IN AN ENCLOSURE	ENERGY CONVERSION AND MANAGEMENT VOLUME/ISSUE 45/15-16, PP. 2571-2582,2004
NATURAL CONVECTION IN AN ENCLOSURE WITH LOCALIZED HEATING AND COOLING: A NUMERICAL STUDY	HEAT TRANSFER 1994, G.F. HEWITT (ED)VOL.2,PP 361-3661 1994. (PAPER AVAILABLE AT http://De vahl davis pubs 1994)
DEVELOPING A NUMERICAL SIMULATION OF VASCULAR BRAIN TUMOR GROWTH USING 2-DIMENSIONALPARTIAL DIFFERENTIAL EQUATION	http://www.ikpress.org/abstract/5015#.Vmf5_uKmQjA
DEVELOPING A NUMERICAL SIMULATION OF VASCULAR BRAIN TUMOR GROWTH USING 1-DIMENSIONALPARTIAL DIFFERENTIAL EQUATION	http://www.ikpress.org/abstract/5030#.Vmf5luKmQjA
A numerical investigation of turbulent natural convection in a 3-D enclosure Using Finite Volume method and stagged grid- International journal of engineering sciences and research -Volume 6 Issue 12, December, 2017	http://www.ijerst.com
A numerical investigation of turbulent natural convection in a 3-D enclosure using k-wSST model and Simplec method-Internal Journal of Engineering Science and Research Technology- Vol.7(1), January, 2018	http://www.ijesrt.com
Mathematical modelling of MHD unsteady heat and mass transfer of a micropolar fluid past a vertical semi-infinite porous inclined plate and magnetic field with soret and Dufour effects.Vol 9(3) pp47-56, March 2019	http://www.ijera.com
Numerical solution of the transient free convection in magneto-micropolar fluid past vertical semi-infinite porous plate with heat generation, mass transfer and constant heat flux subjected to magnetic fluid;IJSER Vol.10(3) March, 2019	http://www.ijser ISSN 2229-5518
On the Trivariate spectral collocation method of solution for two dimensional partial differential equations arising in fluid mechanics. Vol. 8 Issue 3, March 2019 pp 14-24 series IV	http://www.ijesi.org

POSTGRADUATE STUDENTS SUPERVISION

NAME	PROJECT TITLE	PERIOD
PHD THESIS - KINYANJUI MATHEW :	MHD FLOWS WITH HALL AND ION-SLIP CURRENTS , JKUAT	1999
PHD THESIS- SIGEY,J. KIBET	NUMERICAL STUDY OF FREE CONVENCTION IN ENCLOSURES	2005
MSC THESIS -RUTO NELSON KIPKOECH	CANOIDS EQUATIONS	1996
MSC THESIS- NJOROGE GEORGE KARIUKI	NUMERICAL SIMULATION OF NATURAL CONVENCTION IN AN ENCLOSURE	1997
MS THESIS - SIGEY J. KIBET	TURBULENT NATURAL CONVENCTION IN AN ENCLOSURE	1999
MSC THESIS- THOYA PATRICK KITSAO	LAMINAR CONVENCTION IN A RECTANGULAR CAVITY	2002
MSC THESIS -KENNEDY OTIENO	TURBULENT NATURAL CONVENCTION FLOWS	2004
MSC THESIS - BETH MENGE KEMBO	NUMERICAL STUDY OF BUOYANCY DRIVEN TURBULENT NATURAL CONVENCTION IN AN ENCLOSURE	2004
MS THESIS - MWANGI ELIAS GITAU	TURBULENT NATURAL CONVENCTION IN AN ENCLOSURE WITH LOCALIZED HEATING AND COOLING	2005
MSC THESIS - NDOLO HUDSON MUSYOKI	NUMERICAL COMPUTATION OF TURBULENT CONVENCTION WITH LOCALIZED HEATING AND COOLING	2005
MSC THESIS- MUTUKU WINFRED NDUKU	UNSTEADY FLOW OF HYDROMAGNETIC FLUID PAST ANIFORMLY INFINITE VERTICAL POROUS PLATE	2006
MSC THESIS- NDANO ROSE W.	THE MEHOD OF VARIABLE FALSE TRANSIENT FACTORS FOR THE SOLUTION OF NATURAL CONVENCTION PROBLEMS	2006
MSC THESIS- NJOROGE HANNAH I. NJOKI	TWO DIMENSIONAL BUOYANCY DRIVEN TURBULENT NATURAL CONVENCTION IN A SQUARE ENCLOSURE	2008
MSC THESIS- KIPNGENO JOEL	TURBULENT NATURAL CONVENCTION WITH LOCALIZED HEATING AND COOLING ON OPPOSITE VERTICAL WALLS OF AN EN	2008
Ph.D Thesis-Kennedy Awour	Turbulent Natural Convection in a enclosure: Numerical study of different k-epsilion models	2012
Ph.D Thesis- Paul Maina Wanjau	Numerical Simulation of Vascular Brain Tumour Growth Using Adomian Decomposition Method	2016
PhD-Thesis Kimunguyi Joseph	Three Dimensional Turbulent Natural Convection using the PISO algorithm and k-w-sst Model	2016
Msc-Thesis- Ndungu Maina	Natural Convection in an enclosure	2014
Msc-Data Communication: Mutua simon	A Wireless Sensor Network Medical tool for Monitoring Heart related Ailment	2015
PhD-Stephen Karanja-JKUAT	Turbulent Natural Convection in an enclosure at Varying Ra Number and Aspect ratios	2014-2018
Mutua Nicholas Muthama-JKUAT	PhD Thesis	2013-2019