

Curriculum Vitae for Stephen Kimayu Musau



Personal information

First name(s) / Surname(s)

Stephen Kimayu Musau

Address(es)

657-10100, Kenya

Telephone(s)

Personal: +254726859185

E-mail

Kimayu07@gmail.com / stephen.musau@dkut.co.ke

Date of birth

08. October, 1985

Gender

Male

Career objectives

To lecture in higher institution(s) with the aim of becoming a professor in mechanical engineering.

To make a contribution in Mechanical Engineering field and academia through research, training, innovation and leadership

WORK EXPERIENCE

Dates

April 2015 - to date

Occupation or position held

a) **Assistant Lecturer, Dedan Kimathi University of Technology**

Main activities and responsibilities

1. Lecturing and examining: Thermofluids.
 2. Supervision and examination of final year projects
 3. Research in advanced fluid mechanics, thermodynamics and renewable energy
- b) **Consultant Engineer, Shabaha Engineering Ltd**

Dates

October 2014-March 2015

Occupation or position held

Tutorial Fellow, Dedan Kimathi University of Technology

Main activities and responsibilities

1. Lecturing, tutoring and examining: Fluid mechanics, thermodynamics, heat and mass transfer, Engine Technology, Engine and power transmission systems, Internal combustion Engines and industrial hydraulics
2. Supervision and examination of final year projects

Dates

September 2011- October 2014

Occupation or position held

Teaching Assistant, Dedan Kimathi University of Technology

Main activities and responsibilities	<ol style="list-style-type: none"> 1. Administering tutorial sessions to undergraduate Mechanical engineering students: Fluid mechanics, Engineering thermodynamics and industrial hydraulics. 2. Examination coordinator, Department of Mechanical Engineering: Collection of examination drafts and marked exams, submissions of draft and marked exams to external examiners, processing of moderated exams, presentation of processed exams to departmental and school boards 3. Development of experiments, Conducting and Marking of undergraduate laboratory work 4. Supervision of final year projects
Dates	January 2011-August 2011
Occupation or position held	Miwani contractors ltd (Site Supervision Engineer)
Dates	February- April 2010
Occupation or position held	Athiriver Mining ltd (Maintenance Department)
Dates	February- April 2011
Occupation or position held	Davis & Shirliff Ltd (Maintenance, Design, Workshop, Solar, Sales and field Departments)
Education and training	
Currently Area	PhD student in DeKUT. Wind energy
March 2019-July 2019	University of Siegen Germany Research and training in design and manufacture of small wind turbines
Dates	May, 2012- January 2015, JKUAT
Title of qualification to be awarded	Master of Science in Mechanical Engineering (Advanced Thermofluids)
Title of thesis	Numerical Study of NO _x Formation in Laminar Counterflow Syngas Triple Flames
Supervisors	<ol style="list-style-type: none"> 1. Prof. Eng. P. N. Kioni 2. Dr. A. Gitahi.
Dates	April 26, 2006----December, 2010, JKUAT
Title of qualification awarded	Bachelor of Science in Mechanical Engineering
Degree class	First Class Honors
Title of final year project	Design & Fabrication of biomass powered cereal drier: Characterization of temperature distribution and empirical control of temperature within the drying chamber
Dates	February, 2001----November, 2004, Kaumoni Boys Secondary School

Grade	A-(minus), Top boy, Kaiti Division 2004 award
Academic papers	<ol style="list-style-type: none"> 1. Performance assessment of local biomass powered cereal drier used by small-scale Kenyan farmers. Accepted in International Journal of Scientific & Technology Research. Published in May 2015 issue 2. Madaraka F. Mwema, Kimayu S. Musau and Mburu J. Ngugi. (2012). <i>Thermal Characterization of biomass powered cereal drier (Batch type)</i>. Submitted to 8th Annual International Conference, Moi University, Eldoret 3. Madaraka F. Mwema, Kimayu S. Musau and Muyundo J Wanyonyi. (2013). <i>Performance analysis on typical homemade biomass powered cereal drier</i>. Abstract submitted to Kabarak University 2nd Annual International Scientific Conference.. 4. Stephen K. Musau, P. N. Kioni, A. Gitahi and S. K. Musau(2013). Effect of syngas Composition on NO_x Formation in Counterflow Syngas/air Triple Flame. Presented in KSEEE-JSAEM 2013 International Engineering Conference 5. J. M. Ngugi, P. N. Kioni, A. Gitahi and S.K. Musau (2013). Effect of pressure and equivalence ratio on Nitric oxide formation in methane/air, methanol/air and Methanol formate/air homogenous ignition. Presented in KSEEE-JSAEM 2013 International Engineering Conference 6. Numerical study of NO_x formation in laminar counterflow syngas triple flames.(Paper ready for submission to combustion and flame)by S.K. Musau and P.N. Kioni.
BOOK	<ol style="list-style-type: none"> 1. S.K. musau and P.N. Kioni, Numerical Study of NO_x Formation during combustion of syngas fuel ; Laminar counterflow syngas triple flames. LAP LAMBERT Academic Publishing,2015.
Undergraduate projects supervised	<p>Year 2017</p> <ul style="list-style-type: none"> • Design and optimization of an automatic drain cleaning machine for drainage lines in urban centres • Manufacture of plastic plumber making machine-using waste polyethylene. <p>Year 2016</p> <ul style="list-style-type: none"> • Performance test of a rice husks gasifier • Analysis of combustion performance of biomass briquettes burnt in a fixed bed gasifier
Professional Body	<ol style="list-style-type: none"> 1. Engineers Board of Kenya, EBK, (Graduate engineer)
Skills and competences	
Computer skills	Proficient in: Ms office, LateX, Matlab, COSILAB, Inventor, SolidWorks, AutoCAD, Mechanical Desktop.
Other skills	Fabrication: Welding, Machining

Leadership

1. BOM chairman, Kyumu Secondary school (2016 - 2019)
2. BOM chairman, Kathamba Secondary School (2016 - 2019)
3. Vice chairman, Sakai Welfare Association (2014 - 2017)

Referees**Dr. Ngetha**

Dean, School of Engineering, DeKUT
P. O. Box 652,10100, NAIROBI.
Tel. +2547
254733833411

Prof. Nancy Karuri

Chairperson, Department of Mechanical Engineering-DeKUT
P.O.BOX 652-10100, NYERI.
Cell: +254702829039

Dr. Eng. Hiram Nderitu , PhD.

Dean, School of Mechanical, Manufacturing and Materials Engineering(SOMMME), JKUAT.
P.O BOX 62000-00200, NAIROBI
Cell:+254722421672