

## CURRICULUM VITAE

### PERSONAL DATA

**Name:** Joackim Mukumbu Mutua  
**Date of Birth:** 18th November 1965  
**Nationality:** Kenyan  
**Gender:** Male.  
**Marital status:** Married, with two sons

#### 1) CONTACT INFORMATION:

Department of Environmental and Biosystems Engineering  
University of Nairobi,  
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#### 2) ACADEMIC QUALIFICATIONS

- i) M.Sc. Agricultural Engineering, University of Nairobi, 1994.
- ii) B.Sc. Agricultural Engineering (Second Class Honours - Upper division), University of Nairobi, 1990.
- iii) Post-Graduate Diploma in Occupational Safety and Health, Jomo-Kenyatta University of Agriculture and Technology, 2008.

#### 3) PROFESSIONAL QUALIFICATIONS

- i) Registered Consulting Engineer, Engineers Board of Kenya (EBK)
- ii) Registered Consulting Engineer, Ministry of Water and Irrigation
- iii) Fellow Member, Institution of Engineers of Kenya (IEK)
- iv) Lead Expert: NEMA
- v) Approved Person: Directorate of Occupational Safety and Health Services, Ministry of Labour

#### 4) BOARDS, COMMITTEES AND PANELS SERVED

- i) **June 2019 – To date:** Committee member, Membership committee – IEK.
- ii) **April 2019 – To date:** Chairman, Agricultural Engineering Interview Panel, IEK.
- iv) **2005 – March 2019: Panel Member;** Agricultural Engineering Interview Panel, IEK.
- v) **2013-To date: Panel Member,** Agricultural Engineering Interview Panel, EBK
- vi) **2000 – 2012: Board Member,** Engineers Registration Board of Kenya, (ERB).
- vi) **2002 – 2012: Chairman,** Agricultural Engineering Interview Panel, ERB.
- vii) **Board Member,** Faculty of Engineering, University of Nairobi
- viii) **Board Member,** Faculty of Engineering Board of Examiner, University of Nairobi.
- ix) **Board Member,** Board of Management, Tala High School, Machakos County.

#### 5) EMPLOYMENT

**July 2015 – To date:** Senior Lecturer; Department of Environmental & Biosystems Engineering, University of Nairobi

**2003 to 2014:** Lecturer; Department of Environmental & Biosystems Engineering, University Of Nairobi.

**2006 to 2012:** Part-Time Lecturer, Jomo Kenyatta University of Agriculture and Technology (JKUAT)

**2004 to 2021:** Part-Time Consultant in Irrigation and Drainage Design, Occupational Safety and Health and Environmental Impact assessment and Audits.

**1999-2003:** Project Engineer.  
Second Coffee Improvement Project (SCIP II) – Ministry of Agriculture.

**1995 to 1999:** Coffee Factory Engineer.  
Meru-South District under Second Coffee Improvement Project (SCIP II).

**1993 to 1995:** Coffee Factory Engineer,  
Ministry of Agriculture, Taita-Taveta District.

#### 6) **RESERCH WORK:**

**PhD Research:** **CHARACTERIZATION OF THE QUALITY OF LONG GRAIN RICE DURING MILLING USING THE DISCRETE ELEMENT METHOD.**

**Status:** **Experiment / Data collection / write-up stage.**

#### 7) **PUBLICATIONS**

1. Nicodemus K. Mwonga\*, Ayub N. Gitau, **Joackim M. Mutua**, Simon T. Mwangi, 2019. Optimization of Specific Draft Requirement and Hitch Length for an Animal Drawn Sub-Soiler: A Case of Sandy Clay Loam Soils. Open Journal of Optimization, 2019, 8, 83-99
2. Mbugua, M. W. I., **Mutua, J. M.** and Gitau, A. N., 2014. **Characterization of the Physical parameters of coffee husks towards energy production.** International Journal of Emerging Technology and Advanced Engineering. Volume 4, Issue 9, September 2014.
3. Ondiaka, M. N., **J. M. Mutua**, A. N. Gitau and B.N.K Njoroge. 2012. **Quantitative structure-activity relationship biodegradability modeling in biofiltration of petroleum volatile organic compounds.** E3 Journal of Environmental Research and Management Vol. 3(5). pp. 099-0107, June, 2012.
4. K.V. Too, E.B.K. Mutai, **J.M. Mutua**, D.A. Mutuli and D.O. Mbugue. 2012. **Viscoelastic Properties of Bulk Groundnuts.** Research Journal of Applied Sciences, Engineering and Technology 4(10): 1260-1267, 2012
5. N. W. Gichuhi, A.N. Gitau, **J. M. Mutua**, K.K. Kaberere, M.K. Mangoli. 2011. **Distributed Generation of Green Electricity for Sustainable Rural Electrification in Kenya.** ICASTOR Journal of Engineering Vo. 4, No. 1 (2011) 65 – 77.
6. **Mutua J. M.**, Mohammed A. Hassan, Stephen C. Ondieki, Yusuf Abdullahi, Jamal Issa; (2011). **Evaluation of Small Scale Irrigation Water Management in ASALs, Kenya.**

“Confronting the Challenges of Food Security in Kenya through Research. Research Dissemination Workshop held at Mombasa Beach Hotel, 26th to 30th August 2008; Research Papers and Dissemination Workshop Report (PP 97 – 104).

7. **Joackim M. Mutua, 2000. Post Harvest Handling and Processing of Coffee in African Countries. 2000.** Food Agriculture Organization Document, December 2000. (Available online – URL: <http://www.fao.org/DOCREP/003/X6939E/X6939E00.HTM>)
8. **Mutua, J.M., Gumbe, L.O. and Mutuli, S.M. 1998. Interfacial Bond Strength for Sisal Fibre Composite.** Discovery and Innovation journal. 10(1/2): 60-64.
9. **Mutua, J.M., Gumbe, L.O. and Mutuli, S.M. 1997. Some Mechanical properties of sisal fibre concrete.** Discovery and Innovation journal. 9(3/4): 189-196.

8) **1990 TO 1993 – M.SC. RESEARCH**

**Thesis title: ‘The Mechanical Properties of Sisal Fibre Reinforced Concrete’**

**1992/93** worked as a Graduate Research Assistant under supervision of Prof. L.O. Gumbe.

9) **LANGUAGES**

English	-	Good command
Swahili	-	Good command
Kamba	-	Native command