

CURRICULUM VITAE

Name: Mr. George Kavulavu Ngusale

Address: P.O Box 210 - 40601

Mobile: +254726786436

E-mail: kavulavu06@yahoo.co.uk

Year of Birth: 1986

ACADEMIC QUALIFICATIONS

2017- To date: PhD Researcher (Urban Planning) – Jaramogi Oginga Odinga University of Science and Technology (Kenya)

2012-2015: MSc. Thermal and Power Engineering - Shanghai Jiao tong University (China).

2011-2012: Certificate - basic Chinese language - Beijing Language and culture University (China).

2005-2010: Bachelor of Science: Energy Engineering - Kenyatta University (Kenya).

2000-2003: Kenya certificate of secondary education - Mbale High School (Kenya).

1992-1999: Kenya certificate of primary education - Igakala Primary School (Kenya).

PROFESSIONAL COURSES

Coursera Education programmes (awarded certificates):

17th May – 18th October (2021): Regulation for Sustainable Development Goal 7 and Open Africa Power – FSR and Enel Group (Italy), awaiting certificate.

12th July – 15th August (2021): The Hidden Side of Energy Access: Understanding Clean Cooking (The World Bank, USA).

14th October – 04th November (2019): Introduction to Technology-Enabled Learning – Commonwealth of Learning and Athabasca University, Canada.

01st Oct. - 11th Nov. (2014): Introduction to Environmental Law and Policy - University of Carolina (USA).

27th Jan.-01st Mar. (2014): Turn Down the Heat: Why a 4°C Warmer World Must be avoided - The World Bank (USA).

12th Jan.-01st April (2014): Global Sustainable Energy: Past, Present & Future - University of Florida (USA). License: Y5BJPAQC58.

06th Jan.-01st Mar. (2014): Energy, the Environment and Our Future - The Pennsylvania University (USA). License: GMB4E2VLPE.

08th Oct.-05th Nov. (2013): Delivery e-Learning course, Emissions Trading Schemes: Using Markets to promote Low Emissions Development - The World Bank (USA).

AWARDS

- ✓ Yu Pengnian Grant Award (2015): School of International Education, Shanghai Jiao tong University (China) – worthy 20000 Chinese yuan (approx. Kshs. 300000).
- ✓ KERN-LIEBERS (2013-2014): School of Mechanical Engineering, Shanghai Jiao tong University (China) – worthy 10000 Chinese yuan (approx. Kshs. 150000).
- ✓ SJTU Excellent International Student (2014): School of International Education, Shanghai Jiao tong University (China).
- ✓ Certificate of appreciation (2014): Energy Globe Foundation GmbH, License 103322/56186.
- ✓ Project Design Document (PDD) in 2010: Carbon Africa Limited.
- ✓ Design Student (2008-2009): SAYE program me, TerraNuova Eastern Africa (NGO).

CONSULTANCIES

- ✓ May-July (2010): Kitchen tests and surveys; developing the project design document (for Global Sustainable LTD).
- ✓ May (2021): The Inter Region Economic Network (IREN Kenya) – IREN Technologies and Innovation (ITIP) Eligibility Processing.

EMPLOYMENT HISTORY

22nd January (2018) – To date: Industrial Attachment Coordinator, School of Engineering & Technology (JOOUST)

1st November (2016) – 10th January (2017): Acting exam officer for the School of Engineering & Technology (JOOUST)

27th April – To date: Tutorial fellow/Assistant lecturer at Jaramogi Oginga Odinga University of Science & Technology (JOOUST)

1st Aug. – 27th April (2016): Part- time Lecturer at Jaramogi Oginga Odinga University of Science & Technology (JOOUST)

1st Sept. (2010) – 31st May (2011): Research Assistant with British council funded project involving TerraNuova Eastern Africa (NGO), Kenyatta University (Kenya) and Middlesex University (UK).

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS

- ✓ Engineering Board of Kenya (EBK): B15001
- ✓ Institution of Engineering Technologists and Technicians (IET): 925
- ✓ Association of Energy Engineers (AEE)

PUBLICATIONS

Journals:

George K. Ngusale, Michael Oloko and Frankline Otiende Awuor. (2021). Briquetting as a means of recovering energy from organic market waste. *Energy Sources, part A: Recovery, Utilization and Environmental Effects*. <https://doi.org/10.1080/15567036.2021.1925784>.

Ngusale, G.K., Oloko, M., Awuor, F. O., & Kabok, P. (2021). Estimation of Methane and landfill gas emission from an open dump site. *International Journal of Environment and Waste Management*, Vol. 28, No. 3

Kabok P. Aguko, Frankline Otiende Awuor, Michael O. Oloko, and **George K. Ngusale**. (2021). Performance of selected organic wastes for available technologies for biogas, Kisumu City, Kenya. *International Journal of Renewable Energy Technology*, Volume 12, Issue 1. DOI: 10.1504/IJRET.2021.114607.

Kabok P. Aguko, Michael O. Oloko, and **George K. Ngusale**. (2021). Three B's Local Bio-Material Wastes to Energy: Potential for Environmental Management and Sustainability. *International Journal of Waste Resources*, Vol. 11 Iss. 5 No: 412.

Ngusale, G.K. and Oloko, M.O. (2018) 'Flow of materials in a market system: food security and environmental sustainability perspective', *Int. J. Markets and Business Systems*, Vol. 3, No. 4, pp.317–332

George K. Ngusale, Michael Oloko, Stephen Agong', Belinda Nyakinya. (2017). Energy Recovery from Municipal Solid Waste. Energy Sources, part A: Recovery, Utilization and Environmental Effects, Pages 1807-1814.

George K. Ngusale, Yonghao Luo*, Rui-zhi Zhang, Ren-hao Yin, Wan-li Zhao. (2016). Gasification of wood pellets in a bench-scale updraft gasifier. Energy Sources, part A: Recovery, Utilization and Environmental Effects, 38:13, 1875-1881.

George K. Ngusale, Yonghao Luo*, Jeremiah K. Kiplagat. (2014). Briquette making in Kenya: Nairobi and peri-urban areas. Renewable and Sustainable Energy Reviews 40 pages 749-759.

Conferences:

George K. Ngusale, Yonghao Luo*, Isaac K. Kiunga, Cao Yang. The Role of Renewable Energy in providing Energy in Rural Kenya (6th International Conference on Appropriate Technology, Nairobi-Kenya). November 25-29 (2014).

Ren-hao Yin, **George Kavulavu Ngusale**, Rui-qu Deng, Rui-zhi Zhang, Yonghao Luo*. (2015). Formation of NO_x Precursors during Updraft Gasification Process: Using Furfural Residues as the Fuel. Asian Bioenergy Conference and International Bioenergy (Shanghai) Exhibition 2015 – IBSCE.

殷仁豪, 罗永浩, **G. K. Ngusale**. 糠醛渣气化燃烧过程中 NO_x 排放特性的研究. 2015 年中国工程热物理学会燃烧学会议. (In Chinese)

WORKSHOPS, SEMINARS & CONFERENCES ATTENDED

- ✓ Participated in Commonwealth Digital Education Leadership Training in Action (C-DELTA) training at JOOUST main campus (26th June, 2019);
- ✓ Participated in Technology-Enabled Learning training at Kisumu campus, JOOUST (June, 2019);
- ✓ Participated in a Sustainable Development Goal (SDG) No. 11 workshop held at Kisumu hotel, Kisumu (9th and 10th August, 2018);
- ✓ Participated in Recycling networks and waste governance conference held at St. John Manor hotel, Kisumu (23rd to 28th April, 2018);
- ✓ Local Organizing Committee (LOC) plus did a Poster presentation in Realizing Just Cities Conference (RJC) held at Imperial hotel, Kisumu (13th to 16th November, 2017);

RESEARCH PROJECTS

- ✓ Researches on Low NO_x combustion technologies;
- ✓ Tar & synthesis gas test protocols using the latest techniques such as GC-MS;
- ✓ Flue gas Analysis and abatement technologies using both current technologies & equipment;
Clean energy technologies such as biomass gasification, combustion and pyrolysis processes
- ✓ Modelling & Simulation using Computation Fluid Dynamics software(s).
- ✓ Data Analysis using OriginLab and Excel tools.
- ✓ Fuel characteristics analysis using TGA-FTID equipment.
- ✓ Municipal Solid waste in Kisumu County.

VOLUNTEER EXPERIENCE

- ✓ United Nations online volunteers (2013- present): Rooster No. 596819
- ✓ Kenyatta University/Equity-Bank Community-Service Program me (2008)

LINKS

[HTTPS://WWW.LINKEDIN.COM/IN/GEORGE-NGUSALE-231AA725/](https://www.linkedin.com/in/george-ngusale-231aa725/)

[HTTPS://WWW.RESEARCHGATE.NET/PROFILE/GEORGE-NGUSALE](https://www.researchgate.net/profile/george-ngusale)

[HTTPS://ORCID.ORG/MY-ORCID](https://orcid.org/my-orcid)

REFEREES

1. Dr. Michael Oloko
moloko@jooust.ac.ke
Jaramogi Oginga Odinga University of Science and Technology
+254722356645
2. Dr. Arch. Raphael Rauf Dida Ochieng'
rochieng06@gmail.com
Jaramogi Oginga Odinga University of Science and Technology
+254722819386
3. Dr. Jeremiah Kiplagat
jeremykiplagat@yahoo.co.uk
Kenya Power Limited.
+254702476094