**CURRICULUM VITAE**

Levi Mukubi Kulundu, Registered Engineer with the Engineers Board of Kenya (EBK)

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**Educational Background**

2020 - 2022: MSc. Mechanical Engineering (Renewable Energy) - PAU Institute for Basic Sciences, Technology, and Innovation (PAUISTI)

2012-2017: BSc. Mechanical Engineering (**First Class Honors**) - Kenyatta University

2016-2017: Certificate in leadership and Mentorship Program - Kenyatta University

2008-2011: Kenya Certificate of Secondary education (A-) – Musingu Boys High School

2000-2007: Kenya Certificate of Primary education (382/500 marks) – Mwikhomo Primary School

**Leadership and Work Experience**

***Metrology Officer at Kenya Bureau of standards (KEBS)- August 2019 to Date***

I currently serve as a metrology officer at KEBS’ Volume and Flow Laboratory. My duties include small and large volume calibration and preparation of calibration reports. I have successfully taken part in the calibration of MSP, AGO, JET A-1, and IK meters for Total Kenya, Gulf Energy Aviation, BE Energy, Rubis, KenolKobil, and Kenya Pipeline Corporation. I have also acquired skills on the use of 3D scanners in tank calibration and ultrasonic meters in flow measurements. Further, I have successfully calibrated volume measuring glassware for different companies including the British American Tobacco (BAT), Kenya Medical Research Institute (KEMRI), Agha Khan Hospital, Protea Chemicals, Regal Pharmaceutical and others.

My duties as a metrology officer in KEBS include:

* Provision of volume traceability and calibration services
* Maintain volume measurement standards by establishing a traceability chain to the System of Units (SI)
* Disseminate the International System of Units (SI) of measurement to the National and Regional industries
* Implement and maintains the volume and flow laboratory quality management systems (QMS)
* Guide clients on procuring, manufacturing, assembling, installing and commissioning of volume measurement projects
* Innovate and improve existing facilities and venture into new areas of volume measurement
* Ensure identified customers’ needs match with measurement solutions and equipment specifications

***Site manager at Geosquare Civil and Building Works Ltd- June 2017 to April 2019***

I lead the team of engineers, technicians, vendors, subcontractors, and supervisors in the design and erection of Electricity transmission towers along the Kenya-Ethiopia (132 kV) and Lessoss-Kabarnet (400kV) Line.

***Hovercraft Construction Project Management at Kenyatta University – 2016 to 2017***

I led the team of Mechanical Engineering students in the design, fabrication, and optimization of a functional Hovercraft.

**Research Publications**

• Performance Simulation of a Modified Geothermal Grain Dryer Based at Menengai Well 3 in Kenya- Published at the World Journal of Engineering and Technology (WJET)

• Use of multiferroic alloy to improve the efficiency of power generation in non-commercial geothermal power plants through the direct conversion of waste heat to electricity- Presented at World Geothermal Congress, 2021

**Conferences Attended**

* World Geothermal Congress-2020/2021
* International Geological Congress, 2016
* Geo East African Conference and Expo (GEOEACE) on the adoption of best mining practices for artisanal miners

**Scholarships**

**International Geothermal Association (IGA) Fellowship award to attend the 2020, 2021 World Geothermal Congress**

I won the IGA fellowship that covered conference registration and accommodation during the World Geothermal Congress that was held in Reykjavik, Iceland from 23rd to 28th October 2021. I presented a technical paper on industrial waste heat management in geothermal power plants during the congress.

**Pan African University, Fully Funded MSc. Scholarship-2019**

I won the Pan African University Scholarship to study MSc. Mechanical Engineering at the Pan African University, Institute for Basic Sciences, Technology, and Innovation (PAUSTI), hosted at the Jomo Kenyatta University of Science and Technology (JKUAT)

***The First SDG short Course 1 scholarship by the United Nations University, Geothermal Training Program (UNU-GTP) - 2016***

I was nominated from Kenyatta University to attend the training on the development and exploration of geothermal energy which was sponsored by KENGEN, Geothermal Development Company, and UNU-GTP.

The training covered: geothermal exploration (geology, geochemistry, geophysics), Seismographic tests, Transient Electromagnetics, Magnetotelliurics tests, well drilling and logging, direct uses of geothermal energy, geothermal Power plant operations, and Environmental Impact Assessment.

***Geothermal Association of Kenya scholarship on Project management and financing of geothermal Projects – 2016***

The training covered: Project financing, Cost management, Resource Management, Task Scheduling, The project environment, Project financing, Monitoring and evaluation of projects, Project tracking and Project reporting using Microsoft Project Software.

***The second Geo East African Conference and Expo (GEOEACE) scholarship by the Geological Society of Kenya - 2015***

I won the award to attend the GEOEACE conference which was themed “Adoption of the best mining practices for artisanal miners.”

**Membership to Professional Bodies**

• Engineers Board of Kenya (EBK)

• Geothermal Association of Kenya (GAK)

• International Geothermal Association (IGA)

• The institution of Engineers of Kenya (IEK)

• Young Earth scientists (YES)

**Community Service**

Voluntary teaching and mentoring underprivileged students at Shiduha Secondary and Shinyikha Primary School – 2012

Planting Trees at Muliro Gardens ground in Kakamega County – 2007

I supported the Red Cross Activities at Kenyatta University – 2017

**Sports**

I represented the Mechanical Engineering Department up to the finals of the Kenyatta University Football Tournament. Our team won the Dean’s Cup in the tournament.

**Social Clubs**

I was an active member of Debating Club at High School and University. I am also a committed member of the Christian Union of the End Time Message Assembly.

**Training and Experience**

* Uncertainty of Measurement Course- 23rd to 27th August 2021
* Quality Management Systems Implementation Course- 13th to 16th August 2019
* Engineering materials module: I was trained on engineering materials module by IOWA State University Professors in collaboration with Kenyatta University – 2017
* PLC & SCADA short course by Centurions System-January, 2016
* African Tech Challenge Training and Competition in 2014, 2015, and 2016
* Industrial Attachment at Rift Valley Railways, 2015
* Industrial Attachment at Numerical Machining Complex, 2016

**Academic Awards**

***Honorary Certificate award-EXCELLENCE PRICE (2014)***

I won a certificate of Honor (EXCELLENCE PRIZE) for outstanding performance in the first Africa Tech Challenge (ATC) competition themed “Dream and invent your future” organized by the Ministry of Education Science and Technology in collaboration with AVIC INTL, Held at the Technical University of Kenya from 27th July to 5thSeptember, 2014. The competition was on Lathe machining operations.

***Dean’s Award: Best Student (2017)***

I won the Dean’s award for being the top graduate with First Class Honors in the Department of Mechanical Engineering at Kenyatta University.

**Skills**

Computer Aided Design (CAD) and Computational Fluid Dynamics (CFD) modeling skills,

Driving Class B,C,E, and Project Management and tracking using MS Project.

**Hobbies**

Playing football, traveling, conducting research, motivational speaking

**Referees**

1. Dr. Eng. Hirum Ndiritu

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