

## CURRICULUM VITAE

Ms. CATHERINE TASANKHA CHAIMA-MEng

**CONTACTS:** (+265881523395)

**EMAIL:** [catherinetasankhachaima@gmail.com](mailto:catherinetasankhachaima@gmail.com)

### **PROFILE STATEMENT**

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A dedicated chemical engineering professional with a strong academic foundation and a commitment to excellence in both education and research. A team player, hard-working, and self-starter with an intention of meeting deadlines and attaining company/institution goals.

### **EDUCATION BACKGROUND**

- a) **Qualification:** Master of Engineering in Chemical Engineering (Cum-Laude)  
**Institution:** Stellenbosch University  
**Year:** 2023
- b) **Qualification:** Bachelor of Engineering in Chemical Engineering (Hon)  
**Institution:** Malawi University of Science and Technology (MUST)  
**Year:** 2019

### **WORK EXPERIENCE**

1. **Lecture in Chemical engineering at Malawi University of Science and Technology** (17<sup>th</sup> July,2023-Present).

**Duties and responsibilities:**

- Deliver engaging and effective lectures and laboratory sessions to undergraduate students
- Evaluate and grade student assignments, exams, and projects
- Hold regular office hours to provide academic support, guidance, and mentoring to students, addressing their questions and concerns.
- Engage in scholarly research activities, which including publishing research papers, securing research funding, and collaborating with colleagues on research projects
- Serve on departmental, university, or academic committees related to curriculum development, assessment, or other administrative duties.

2. **Teaching assistant at Stellenbosch university** (30<sup>th</sup> March 2021-15<sup>th</sup> January,2023)

**Duties and responsibilities:**

- Assisting students with their assignments and tutorials
- Invigilating examinations
- Marking student's examination papers and assignments
- Facilitating industrial visits for students

### 3. **Quality assurance technician at Bakhresa** (4<sup>th</sup> May 2020 – 1<sup>st</sup> February,2021)

#### **Duties and responsibilities:**

- Collecting product samples from production as required
- Conducting routine automated testing and laboratory set up
- Analyzing, recording and timely reporting related results to the production manager
- Monitoring premises to ensure compliance with the food safety systems
- Implementing hygiene and safety management policies
- Conducting employee training on food safety and industry regulation

### 4. **Internship at Illovo Sugar Company** (3<sup>rd</sup> April 2018 - 31<sup>st</sup> August 2018)

#### **Duties and Responsibilities**

- **Waste management:** conducting procedures, controls, and systems for managing waste and proper waste disposal to prevent environmental pollution.
- **Quality control:** Monitoring the quality of sugar to ensure it meets the required standard (ISO 2000).
- **Laboratory operations:** Conducting analysis of sugar samples and interpretation of results to optimise sugar production process.
- **Instrument calibration:** ovens, saccharimeter, refractometer, analytical mass balances and PH meters
- **Preparation of reagents:** juice preservatives, Resorcinol, chromic acid etc.
- **Planning and maintenance:** Coordinating the maintenance of activities to optimize factory performance.

### 5. **Research assistant: Bioethanol production from Cassava peels**

MUST in collaboration with CABMACC

15<sup>th</sup> January 2016 – 6<sup>th</sup> June 2016

#### **Duties and Responsibilities**

Conducted experiments on the following:

- Acid hydrolysis of cassava peels
- Fermentation of glucose obtained after hydrolysis,
- Distillation of ethanol
- Stove testing using ethanol obtained from cassava peels

## **PROFESSIONAL TRAINING**

1. Certificate in Technology Commercialization from lab to market, UNIMA polytechnic and an affiliate of RICE University,2018
2. Africa Prize for engineering innovation workshop (18-22 November 2019) Cape Town,
  - CiTi induction & Growth Wheel Workshop
  - Media Training
  - Value Proposition, Customer Personas &Target Markets
  - Social Innovation & business Models

- Entrepreneurship & design thinking and how to get investment ready
3. Africa Prize for engineering innovation workshop (19-24 January 2020)  
Prince Philip House, 3 Carlton House Terrace, London,
    - Business Strategy
    - Marketing and social media
    - Financial management
    - Africa Prize Pitching event

#### **LOCAL AND INTERNATIONAL CONFERENCES ATTENDED IN THE LAST 5 YEARS.**

- Interinstitutional Chemical Engineering Postgraduate Symposium (14<sup>th</sup> July 2022) Stellenbosch Institute for Advance Study (STIAS), Stellenbosch
- UK-Africa Investment summit (20<sup>th</sup> January,2020), InterContinental London O2, Waterview Drive Greenwich Peninsula, London
- Africa Prize for engineering innovation Pitching event, Prince Philip House, London

#### **AWARDS AND ACHIEVEMENTS**

- Certificate of recognition as a best Masters student in chemical engineering at Stellenbosch University for the 2023 graduation ceremony.
- Shortlisted for the 2019/2020 Africa prize for Engineering Innovation award (Royal academy of engineering).
- Certificate of recognition by Malawi Institution of Engineers (MIE) for passing with a distinction in 4<sup>th</sup> year, first semester (2017).
- Part of College ambassadors under Women in Engineering-Malawi chapter in motivating secondary school girls to pursue STEM and engineering disciplines
  - ✓Panel speaker at St Michaels Girls Secondary-Mangochi (2nd Nov,2017)
  - ✓Panel Speaker at St Lawrence Girls Secondary-Chikwawa (10th May,2019)
- Certificate of recognition as a best-performing student at Saint Michaels Girls Secondary School during 2013 MSCE graduation.

#### **REFEREES**

1. Prof Annie Chimphango, Associate professor, Process Engineering Stellenbosch University, cell: +27 21 808 4094, [achimpha@sun.ac.za](mailto:achimpha@sun.ac.za)
2. Dr Richard Nkhoma, Head of engineering department, Malawi university of science and technology, cell: +265882267747, [rnkhoma@must.ac.mw](mailto:rnkhoma@must.ac.mw)