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## BIOGRAPHICAL SKETCH FOR EDWIN ANDIONE KHUNDI

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**NAME:** Edwin Khundi

**eRA COMMONS USERNAME** (credential, e.g., agency login): EDWINKHUNDI

**eRA COMMONS NUMBER:** 79406890

**POSITION TITLE:** Engineering Lecturer

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### EDUCATION/TRAINING

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INSTITUTION AND LOCATION	DEGREE (if applicable)	Start Date MM/YYYY	Completion Date MM/YYYY	FIELD OF STUDY
University of Malawi – The Polytechnic, Malawi.	BSc	01/2009	03/2014	Mechanical Engineering
University of Strathclyde, United Kingdom.	MSc	09/2014	09/2015	Biomedical Engineering
University of Strathclyde, United Kingdom.	PhD	01/2017	08/2022 (Pending)	Biomedical Engineering

### A. Personal Statement

I have been interested in science and technology since my childhood days. That interest in science and technology led me to select an engineering career pathway after completing my high school. However, after a couple of years while studying mechanical engineering degree program at University of Malawi – The polytechnic, I had a privilege to attend a biomedical engineering innovation summer school which was organized by United Economic Commission for Africa (UNECA). The conference highlighted the health care challenges in Africa and other low- and middle-income countries (LMICs). One of the problems that was highlighted was the lack of biomedical engineers in many African countries which led to many technological healthcare challenges since there was no or inadequate personnel to manage and maintain medical devices. After the conference I committed to specialize in medical devices design and biomechanical rehabilitation so that I could train more biomedical engineers. I Joined Malawi University of Science and Technology with the aim to train biomedical engineers and participate in medical research so that I could make a difference.

### B. Positions, Scientific Appointments, and Honors

#### Positions and Scientific Appointments

2022 – Present    Chairperson of Malawi Bureau of Standards (MBS) Technical Committee (TC 40)  
2016 – 2018     Head of Department– Engineering Department, Malawi University of Science and Technology  
2016 – Present    Lecturer – Engineering Department, Malawi University of Science and Technology  
2016 – Present    Member, Institute of Physics and Engineering in Medicine (IPEM)  
2014 – 2015     Associate Lecturer – Engineering Department, Malawi University of Science and Technology  
2014 – Present    Member, Malawi Engineering Institution (MEI)

#### Honors

2013             Polytechnic best student award provided by Total Malawi  
2012             Polytechnic best student award provided by Total Malawi  
2011             Polytechnic best student David Livingstone Award

## C. International Conferences and Publications

### Publications

1. Atwine, D., Karanja, Y.W., Ahluwalia, A., De Maria, C., Assefa, D., Konde, V., **Khundi, E.**, Makobore, P.N., Moshi, M., Nzomo, M. and Rushdi, M.A., 2020. **Nurturing next-generation biomedical engineers in Africa: The impact of Innovators' Summer Schools.** *Global Health*, 3(2), p.4.
2. De Maria, C; Ahluwalia, A; Di Pietro, L; Magliaro, C; Nossa, R; Aranda, I; Rojas, C; Agarwal, N; Lantada, Ad; Munoz-Guijosa, Jm; Ballesteros-Sanchez, L; Rodriguez-Rivero, R; Candorcio-Simon, R; Johansen, E; Cosimati, A; Kiat, Jly; Madete, J; Musembi, S; Assefa, D; Buenrostro, Cm; Sarroukh, Be; Murage, B; William, W; Nuriat, N; Dzwauro, Rb; **Khundi, E**; Nwaneri, Sc; Popoola, Op; Mikeka, C; Etim, Naa; Etim, Nn; Gobin, A; Mama, P; Montero, L; Konde, V, 2021. **On-Line Project-Based Learning on Healthcare Technologies Against Epidemic Diseases: A COVID-19 Case Study.** *International Journal of Engineering Education*, 1518-1532
3. E Khundi, 2023. **Low-cost ride-on toy cars for children living with mobility disability in low- and middle-income countries.** *Advances in Science and Arts* 1. <https://asa.must.ac.mw/journal/published-papers/low-cost-ride-on-toy-cars-for-children-living-with-mobility-disability-in-low-and-middle-income-countries>
4. E Khundi, P Rowe, 2023. **Three-Dimensional Measurement and Visualisation of Spine as Assistive Intervention Tool When Diagnosing and Treating Scoliosis: New Method** Available at SSRN 4070388

### International Conferences

1. Computerized alignment systems for alignment of below-knee prosthesis, 2018, Institute of Physics and Engineering in Medicine MPEC conference, United Kingdom.
2. Developing d-flow applications for measuring parameters and visualizing geometry of spine of patients with scoliosis, 2015, Institute of Physics and Engineering in Medicine MPEC conference, United Kingdom.
3. Developing d-flow applications for measuring parameters and visualizing geometry of spine of patients with scoliosis, 2015, Institute of Physics and Engineering in Medicine MPEC conference, United Kingdom.
4. Design, manufacture, and test of baby monitoring machine, 2013, African Biomedical Engineering Consortium conference (ABEC), Kenya.
5. Design, manufacture, and testing of an automated drug dispenser, 2012, African Biomedical Engineering Consortium conference (ABEC), Uganda