

**College of Science and Technology** 



## **PhD public defense**

## **Dissertation title:**



Avoiding ecological sustainable development trade-offs with renewable energy in sub-Saharan Africa

**Summary**: This dissertation study seeks to understand the challenge of balancing economic growth, energy development and environmental sustainability. It looks at how most nations in sub-Saharan Africa (SSA) are governed by traditional economic models of using various types of capital, technological, and natural methods to produce goods and services to achieve economic growth, improved living conditions and social well-being without considering the environmental degradation and several social challenges that SSA is confronted with because of these traditional economic models. The selected case study countries: Zambia, the Democratic Republic of Congo and Rwanda whose major economic activities include energy generation, agriculture, and mining, are analyzed in this dissertation, using green growth and ecological sustainable development principles to enhance sustainable energy development, resource efficiency and a balanced ecosystem in SSA. The socio-economic and socio-technical roadmap and optimization models developed are significant because they can help nations in SSA to achieve economic growth (SDG 8), sustainable energy development (SDG 7) and net-zero emission economies in SSA.

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**Defense date and venue:** 6<sup>th</sup> October 2021, ACE-ESD Boardroom **Time**: 05:00 PM Kigali Time

Webinar Link: <u>Click here to join the meeting</u> Microsoft Teams

Google Scholar profile: <u>https://scholar.google.com/citations?user=t4eh9LoAAAAJ&hl=en</u> LinkedIn profile: <u>https://www.linkedin.com/in/katundu-imasiku-a9754673/</u>