**KARIIHTI ANNE WANJIKU FULL BIO**

My name is Anne Wanjiku Kariithi, and I am a passionate and driven individual with a deep-rooted commitment to excellence in the field of Electronics and Computer Engineering.

My journey began with my enrollment in a Bachelor of Science program in Electronics and Computer Engineering at the Jomo Kenyatta University of Agriculture and Technology, where I dedicated myself to academic resilience and personal growth. I am proud to share that I am on track to graduate with a Bachelor of Science degree in Electronics and Computer Engineering.

Beyond the confines of the classroom, I have actively engaged in various leadership roles and extracurricular activities that have enriched my university experience. I had the pleasure of serving as committee chairperson of the Society of Engineering Students, 2021-2022. I serve as a co-founder of Code-Arc, an initiative started by some friends to introduce and train high school students Internet of Things, Cloud, and Programming. In the same aspect, I lead the publicity committee JKUAT Chapter of the Working to Advance Science and Technology Education for African Women Foundation (WAAW) which is an international non-profit organization that aims to bring more women into tech.

The hallmark of my time at the university is being part of the Nakuja Project in partnership with the Kenya Space Agency and The Japan International Cooperation Agency. As part of the airframe team, I played a pivotal role in fabricating the avionics bay of the Nakuja N3 rocket and designing the rocket fuselage, a project that culminated in a successful launch in Isiolo last year. In Nakuja I had the privilege of writing two research papers on rocket design which were. presented at the Sustainable Research and Innovation Conference held in October last year with the hope of contributing to future advancements in rocket research and inspiring further investigations that will lead to remarkable breakthroughs in Low Eart Orbi (LEO) model rockets.

1. 1st author (**Design and computational analysis of the Nakuja N-3 rocket**)

* Improving the flight performance by increasing the flight apogee from 500m to 2000m.

1. 2nd author (**Design analysis and simulation of a Launchpad for the Nakuja N3 rocket**)
   * Improved the design of the rail has lower stresses on the rail and by extension smaller deflection during lift-off.

In the same aspect, I developed a telemedicine device that aimed at providing healthcare services to cardiovascular disease patients remotely. The project was a three-part innovation consisting of the ICMS medical kit, a mobile application for the doctor to track, get notifications, and access patient data, and the predictive model whose inference would alert the doctors on time therefore reducing the mortality rates due to poor emergency response. This project got international recognition in China during the Huawei ICT Competition, the Hult Prize Foundation, and the Kenya Innovation Week held by KENIA and UNESCO early this year.

I am an embedded systems enthusiast (IoT), network technology, data analytics, and CAD Design. I am looking forward to doing a master's in biotechnology specializing in the use of AI to develop solutions in the medical field to help people in marginalized areas get access to medical care. And CEMA is the right place for me to achieve my dreams. I am excited to leverage my expertise to make meaningful contributions to the world of engineering and technology in the medical space.