

Andrew Lucio Mbewe
University of Zambia
School of Natural and Applied Sciences
Lusaka, Zambia

February 26, 2026

ANSTT 2026 Organizing Committee
iThemba LABS
Cape Town, South Africa

Subject: Letter of Motivation for ANSTT 2026 Bursary Application

Dear Members of the Organizing Committee,

I am writing to formally express my interest in attending the Advanced Nuclear Science and Technology Techniques (ANSTT6) Workshop at iThemba LABS. As an MSc Physics student at the University of Zambia nearing the submission of my thesis, I am eager to present my research titled “Computer-Aided Diagnosis of Breast Cancer via Mammography” under the Radiation and Health Physics category.

My research addresses a critical healthcare challenge in Zambia: a severe shortage of radiologists and limited infrastructure, which leads to diagnostic delays and high mortality rates. To combat this, I have developed a computer-aided diagnosis (CAD) system using the YOLOv11 deep learning architecture.

I am deeply committed to the field of Medical Physics and have already begun engaging with the broader scientific community. In 2025, I had the privilege of presenting my work at the SAMSA conference in Livingstone. That experience was instrumental in allowing me to connect with peers and professionals, providing me with invaluable insights that have shaped my current research. Attending ANSTT 2026 represents the next vital step in my professional journey, offering a “wonderful opportunity” to showcase my findings to an international audience and network with experts in Radiation Physics.

Despite my dedication, I currently face significant financial constraints. I am pursuing my Master’s degree without sponsorship, as the University of Zambia is currently unable to fund postgraduate research due to budget limitations. As noted by my supervisor, Dr. Maluba Vernon Chisapi, being awarded an ANSTT 2026 bursary is my only viable path to participating in this workshop.

I am confident that my background in machine learning and medical imaging aligns perfectly with the goals of the workshop. Thank you for considering my application and for supporting emerging researchers from Sub-Saharan Africa.

Sincerely,

Andrew Lucio Mbewe