Ing. Judith Leo (Ph.D)

Ing. Judith Leo (Ph.D) is a Tanzanian female Engineer and Data Scientist. Currently, working as a Senior Lecturer cum Researcher and, a Chairperson of a Research Theme responsible for Cybersecurity and Privacy in the School of Computational and Communication Science and Engineering (CoCSE), at the Nelson Mandela African Institution of Science and Technology (NM-AIST). Currently, Dr. Leo is a U.S. Fulbright Scholar in Residence (SIR) from August 2024 to May 2025 at Meharry Medical College (MMC) in the School of Applied Computational Sciences (SACS) in the Department of Biomedical Data Science which is in Tennessee, USA working in the capacity of Assistant Professor. Dr. Leo prefers to apply her expertise to healthcare-related challenges, for instance, her Master's research title was, "An Interactive Remote Doctor Consultation Registration System for Acquisition of Geo-Information to Enhance Epidemiological Analysis: A Case of Tanzania". Dr. Leo's Ph.D. research focused on modeling health and environmental data with the title of "Adaptive Reference Machine Learning (ML) Model for Prediction of Cholera Epidemics based on Seasonal Weather Changes Linkages in Tanzania.

Dr. Leo has won several scholarships and awards including her PhD Scholarship from DAAD and Queen Elizabeth at Oldenburg University in Germany and Carleton University in Canada respectively. Additionally, Dr. Leo won twice in the Business Plan Competition which was organized by Washington State University, USA, and NM-AIST. Furthermore, through DLi grants from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the Millennium Challenge Corporation (MCC), I developed and implemented a tool called Early Warning Dropout Visualization Tool (EDV-Tool). Through the EDV-Tool project, Dr. Leo has established a non-governmental organization (NGO) initiative called *Bintishule* which aims at preventing students, especially girls from school dropouts and motivates them to study Science, Technology, Engineering, Mathematics, and Innovation (STEMI) studies.

Dr. Leo is the Assistant Coordinator of the Healthcare in the AI4D Africa's Anglophone Multidisciplinary Research Lab Project and Principal Investigator of the AI Early Career Award offered by the African Centre for Technology Studies (ACTS) which is funded by the International Development Research Center / Swedish International Development Cooperation Agency (IDRC/SIDA) to develop AI and Mobile-based Tool for Early-detection and control of Mycotoxins in Maize. Dr. Leo is the Outreach, Industrial Linkage, and Innovation Transfer Coordinator for dSkills CENIT@EA Project - GIZ. Principal Investigator for Towards sustainable carbon-neutrality and climate-resilient green growth development: Using AI in Tanzania in the area of Climate Change and smart Agriculture has been selected under the Responsible Artificial Intelligence Hub for Climate Action funded by the consortium of WASCAL, RUFORUM, and AKADEMIYA and Currently a Postdoc fellow at NM-AIST, Arusha - Tanzania in collaboration with the Institute for Global Health and Development at the Aga Khan University (AKU) in Nairobi – Kenya which is funded by Bill and Melinda Gates Foundation. Dr. Leo is a 2023 OWSD Early Career (EC) Fellowship – Application of AI to solve Postpartum Hemorrhage (PPH) issues among maternal. Dr. Leo is the Co-PI for a Project titled AI for Mental Health working in collaboration with Mirembe National Mental Health

Hospital and the University of Dodoma – Funder COSTECH. Dr Leo was the head of the technical team in the development of the Tanzania Open-Health Information Mediator to solve challenges of Interoperability in Tanzanian Health Systems in the Ministry of Health and Social Welfare– Funder USAID. Furthermore, Dr. Leo has worked as a consultancy for AfriLabs as an Anglophone Lead Researcher and Report Writer on two projects; one was to Map Artificial Intelligence (AI) Ethical Policy in African countries and the other project was on Mapping the status of AI Startups in African Countries in this project Dr. Leo was able to work with different communities in about 30 African countries to understand their status, challenges, and opportunities for AI policy and startups. Moreover, Dr. Leo has participated in the validation of Continental AI Strategy: Harnessing AI for Africa's Development and Prosperity organized by the African Union and, writing the AI strategies and guidelines in the Tanzanian two Ministries, which are the Ministry of Information, Communication and Information Technology and the Ministry of Education, Science, and Technology respectively. Lastly, Dr. Leo is involved as a Lacuna Fund Technical Advisory Panel expert to review proposals on the call for Antimicrobial Resistance (AMR) and Dr. Leo has taken part as a reviewer of the 15 proposals on Natural Language Processing for the Lacuna Fund in 2024. A list of my publications can be accessed: at 0000-0002-7420-6533 and Google Scholar.