RESEARCH PROFILE

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Affiliation: Jomo Kenyatta University of Agriculture and Technology, Department of Information Technology, School Of Computing and Information Technology (SCIT)

Specialization: Information Communication Technology (ICT)

Research Interest: To apply Intelligent System Theory and Techniques to solve problems facing different sectors of our society, especially Machine Learning, Data Mining, Process Mining and Business Intelligence.

Objective: To provide solutions to challenges facing industry using Machine Learning and available data

CURRENT RESEARCH INTEREST AND ONGOING PROJECTS

Detailed Tasks Assigned	Work Undertaken that Best Illustrates Capability
	Project: ICT Support for Legumes, **Year: 2016 – Present** **Client**: Jomo Kenyatta University of Agriculture and Technology **Main project features**: Development of ICT infrastructure and innovative tools to support the legume value-chain in Kenya, with a key focus on legume breeding, storage, post-harvest processing, human nutrition and health. The project has incorporated mobile data collection tools for efficiency and timely collection of data. The project is being implemented as Project 4 within the context of the Legume Centre of Excellence in Food and Nutrition Security (LCEFoNS) (www.jkuat.ac.ke/centres/lcefons), an Institutional University Cooperation (IUC) Programme led by Prof. Daniel Ndaka Sila and funded by the Belgian government through VLIR-UOS (www.vliruos.be).
	Project: Kenyan-German Data Analytics Project, **Year:** 2015 - 2018 **Client**: Jomo Kenyatta University of Agriculture and Technology **Main project features**: The project created the Kenyan-German Centre for Data Analytics (KGDA), a BSc program in Business Computing and an MSc program in Business Computing, with an emphasis on practice oriented teaching in co-operation with companies, internships, project work/theses on questions of current interest. The aim is to build capacity in Kenya and JKUAT in Data Science methods and techniques to extract meaning from data through teaching, research, partnerships with industry and knowledge transfer. In particular, build capacity in ICT infrastructure and tools for data analytics, business intelligence (BI), data warehousing and information visualization. The project was funded by DAAD (Germany).
	Project: Characterization of Indigenous Poultry and Wild Relatives from Different Agroecological Zones in Kenya**, Year**: 2013 - 2016 **Client**: Jomo Kenyatta University of Agriculture and Technology **Main project features**: The main project aim was to characterize the different poultry ecotypes found in the different agro-climatic zones of Kenya. This was achieved by designing manual questionnaires, digitization and collection of data using smart mobile phones. We finally created a metadatabase of the indigenous poultry species, and a portal aggregating all the information collected (https://www.kenyanpoultry.org/).
	Project: Northern Corridor Skills Audit Project, **Year: 2016-2017** **Client**: Ministry of Education, Kenya **Main project features**: The project entailed collecting data on human resources, storing, processing and analyzing the data in order to identify the skills gaps, and consequently developing a human resource capacity building strategy for the following sectors in the Northern Corridor region: ICT sub-sector. The project was funded by the governments of Kenya, Uganda, Rwanda and South Sudan. **Positions held**: Project Team Member