



Affiliation: School of Computing and Information Technology, Jomo Kenyatta of Agriculture and Technology (JKUAT), Kenya

Specialization: Computer Engineering

Research interest: Systems Security, Internet of Things ,Artificial Intelligence

Goal: Creating experiences using knowledge in Systems Security, Internet of Things and Artificial Intelligence that makes the world a better place for all.

Current Projects

Specification, Modelling and Analysis of IoT Malware (2015-Present)

This work involves creating formal specifications, modelling propagation and methods of analysing live heterogeneous malicious software (malware) that affect internet of things (IoT).

IoT solutions for Small Scale farmers (2020-Present)

This project entails applying IoT technologies in small scale farms . The current application is on bee farming support using IoT technologies. The system will assist farmers or beekeepers to monitor hive safety and conditions so as to maximize bees' productivity and minimize swarm mortality. The system will also yield user reports for the bee farmer on various conditions for the bees such as ambient temperature, weight changes of the hive, humidity and acoustics. Based on the cumulative data retrieved from the sensors on the beehives, predictions using machine learning techniques will be done with an aim to derive predictive patterns for the future that points to bees' productivity based on past data.

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