

Meeting: Internet of Things

Committee : Innovation and Creativity of IOT

Country : Eritrea

The term Internet of Things or IoT has been around for more than 15 years, though it only began gaining wide currency more recently. The IoT, is a system that is interrelated with computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs). It has the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.

Agriculture is the main economic activity in Eritrea. Although 80% of the Eritrean workforce are employed in agriculture, there has been no improvements in almost all the sectors of its economy. It contributes very little to the Eritrea's GDP (gross domestic product). Most Eritrean farmers are into subsistence farming whereby they grow crops and rear animals just to feed themselves and their families. When times of crop failure due to weather condition, inconsistent of the weather, lack of advance technologies, many are left with nothing but poverty and despair. Just like in other countries in the horn of Africa, extreme poverty and hunger continue to threaten several innocent lives in Eritrea today.

In order to against the challenges such as extreme weather conditions and rising climate change, inconsistent rainfall, Internet of Things can contribute to the improvement of the agriculture in Eritrea. A system based on IoT, Smart Farming System can be built to monitor the crop field with the help of sensors for the light, temperature, humidity and automating the irrigation system. With this system, the farmers can monitor the field conditions from anywhere. Compared to the conventional approach, IoT-based Smart Farming System is highly efficient to improve the agriculture. The system can also provide great benefits to the agriculture include more efficient water usage or optimize the inputs and treatments. Due to inconsistent rainfall, Smart Farming System can also enable growers and farmers to reduce water usage and enhance productivity ranging from the quantity of fertilizer utilized to the number of journeys the farm vehicles have made. Besides that, with the combination of Internet, drones can be used to image crop health, monitor the crops, field analysis and more. The benefits of using drones is to save time, save energy, ease of use and more. Smart Greenhouse System can also help in enhancing the agriculture of Eritrea. It is design to controls the climate so that the inconsistent climate will not affect the agriculture.