



UNIVERSITY of
RWANDA

College of Science and Technology

Africa Center of Excellence in Internet of Things (ACEIoT)

Research Seminar

GPRS Protocol for IoT Applications: Challenges and Opportunities

Abstract:

Physical things can communicate through the internet of things (IoT). Many communication protocols are being used in IoT and the protocol to be used is chosen during the networking planning stage. GPRS protocol is one of the protocols which is used in IoT, this protocol has some advantages such as long- range and low initial cost. This protocol uses the ready present cellular network, so the coverage of this protocol depends on the cellular network coverage.

However, the power consumption for this protocol seems to be higher. In this presentation, some experimental results about the power consumption of a GPRS module are detailed. A mathematical model which links the energy consumption of GPRS based sensor node with signal quality RSSI at a particular location has been presented. This even proves why a mobile phone (or GPRS sensor node) consumes a lot of power in locations with bad signal quality.



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