

Objective

The challenge was to install 88 Soil Parameters with wireless LORA communication and a cloud-based application for Okra Tomato System in ICAR CSSRI Karnal.

Problem Statement

- LORA Communication
- Handle 88 Soil Parameter On Cloud
- Connect 19 Modbus Parameter in One Slave
- Some Sensors were Not working with some another sensor



Case Study of Wireless LORA Based Parameter Monitoring

Real Time Images





Case Study of Wireless LORA Based Parameter Monitoring



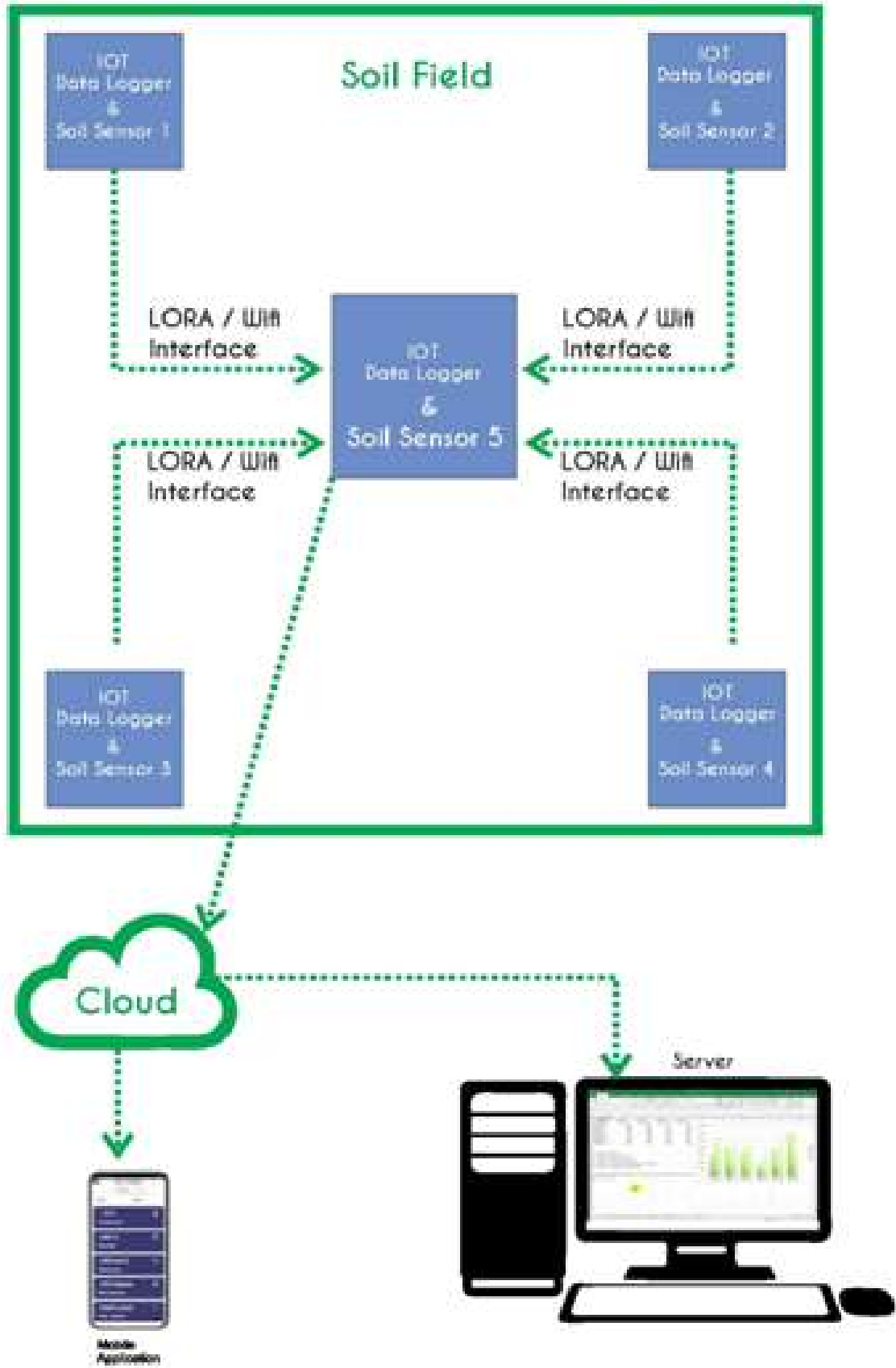
Samsung Quad Camera
Shot with my Galaxy A21s



Case Study of Wireless LORA Based Parameter Monitoring



Block Diagram



List of Items

- IoT Slave Data Logger
- IoT Gateway Master Data Logger
- Soil Moisture Sensor
- Soil Temperature Sensor
- Soil Conductivity Sensor
- Soil pH Sensor
- Soil NPK Sensor
- Solar Panel 50W
- Battery 26Ah
- Pole Mount Accessories