**SMART FARMER - IOT ENABLED SMART FARMING APPLICATION**

PROBLEM STATEMENT

* Interference: Deploying a huge number of IoT devices for smart agriculture can cause interference to different network systems, especially some IoT networks using short spectrum bands such as ZigBee, Wi-Fi, Sigfox, and LoRa.
* Security and Privacy: One of the most important problems of applying IoT in smart agriculture is the security problem, including the protection of data and systems from attacks on the Internet. In regard to system security, IoT devices’ limited capacity and ability led to complex encryption algorithms that are impossible to implement on IoT devices.
* Regarding data security, the obtained information from IoT systems in farms is collected, processed, and commercially exploited by service providers to varying degrees.
* Reliability: Most IoT devices are expected to be deployed outdoors (in fields and farms). Harsh work environments lead to the rapid degradation of IoT devices’ quality and can lead to unexpected manufacturer failures. The mechanical safety of IoT devices and systems must be ensured so they can withstand extremes of weather, such as temperature, humidity, rainstorms, and floods