SMARTFARMER-IOT ENABLED SMART FARMING APPLICATION

Submitted by

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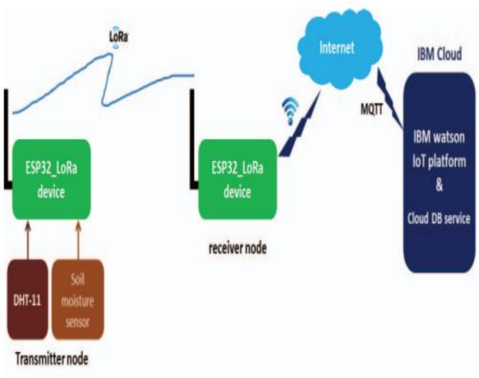
LITERATURE SURVEY

S.NO	JOURNAL PAPER	BLOCK DIAGRAM	ALGORITHM/ METHODOLOGY/ SOLUTION	FEATURES	DRAWBACK
1.	**Smart Farm Monitoring Using LoRa Enabled IOT**		1.Agricultural practices need to be transformed in order to overcome future food scarcity due to overpopulation across the globe. By employing emerging, disruptive technologies like IoT in the agricultural sector, it is possible to monitor farm fields using low-cost and low-power consuming devices, to automate irrigation systems for efficient usage of water resources. 2. LPWAN technologies serve IOT applications in a better possible way so that LoRa WAN protocol or LoRa in LPWAN space gives additional advantages like scalability, security and robustness in designing IoT applications	1.Scalable bandwidth 2.High Robustness 3.Doppler resistance 4.Fading resistance 5.Long range link 6.Low power 7.Low cost	1.This system has Gateway infrastructure barriers such as public network coverage scarce. 2.It takes skill and commitment to deploy and maintain own gateways. 3.It has integration complexity (Gaps in the standardization)

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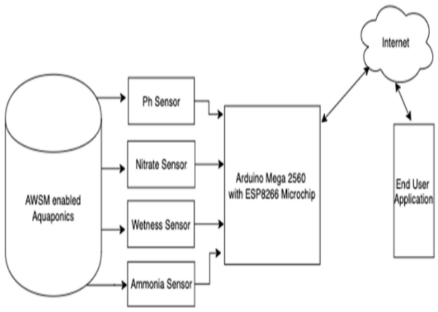
2.	**IOT enabled aquaponics with wireless Sensor smart monitoring**		1.Aquaponics is an advanced and emerging farming style in which fish farming and vegetable farming turned out to be more professional and precise. 2.AWSM enabled aquaponics system which was placed under the same Controlled environment. Sensor readings will go to the Arduino Mega 2560 for processing and the data will be processed with AWSM algorithm. The results are sent to farmers and response from the farmer is executed through Arduino Mega 2650 which will reflect in the farm. 3.The presence of Chlorine and nitrate is detected quickly and will be intimated so that farmer can stop filling water through online instruction which will be implemented through Arduino Mega 2650 in the farm.	1.User friendly 2. A mobile application is developed in the Android platform to support the farmers. 3. It proposes an effective way to monitor and improve farming and will help farmers track the progress of the growth of the farm from anywhere in the globe. 4.It is an efficient way of precision farming	1.AWSM is a notification based app and less control over the devices and pieces of equipment connected to the system. 2.It requires an unlimited or continuous internet connection to be successful.

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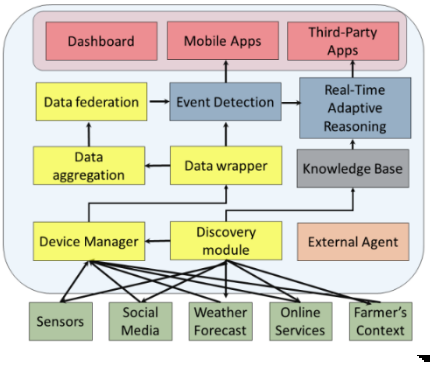
3.	**Agri-IoT: A Semantic Framework for Internet of Things -enabled Smart Farming Applications**		1.Agri-IoT,focused on the feasibility of using RSP in agricultural Applications 2.This system uses a machine running Debian GNU/Linux 6.0.10, with 8-cores of 2.13 GHz processor 64 GB RAM 3.Two realistic scenarios were considered: **Scenario A:** Fertility management of dairy Cows. **Scenario B:** Soil fertility for crop cultivation.	1.Agri-IoT, a semantic framework for IoT based smart farming applications, which supports reasoning over various heterogeneous sensor data streams in real-time. 2.It can integrate multiple cross-domain data streams, providing a complete semantic processing pipeline offering common framework for smart farming applications. 3.Agri-IoT has the capabilities of combining and analyzing data streams	Some limitations of Agri-IoT include 1.Dynamicity 2.dutonomy 3.Full adaptability to heterogeneity.

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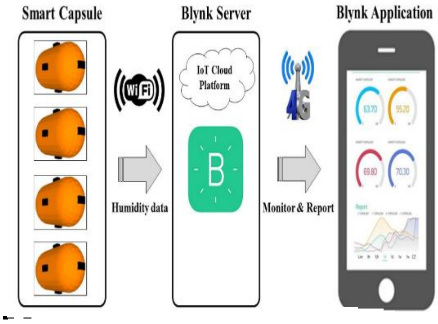
4.	**Smart Farm Monitoring via the Blynk IoT Platform**		1.Blynk is an IoT platform that support both iOS and Android 2. Blynk application, which is used to control a device and display data. 3. Blynk server, which is a cloud service responsible for all communications between smartphones and things. 4.This system Composed of **A.** Smart Farm Monitoring **B.** Super Chart Widget **C.** Database **D.** Smart Capsule System Status **E.** Blynk Notification 5. This indicated that the developed system was suitable for monitoring the humidity of paddy in order to prevent excessive humidity, is the main cause of paddy rotting.	1.This smart system can be used to improve the productivity and quality of modern farming. 2.The prototype of smart capsule developed to measure the humidity. 3.The Blynk Mobile application was used to monitor and display real-time humidity data through the digital dashboard.	1.Leakage monitoring technologies are expensive, limited in their application 2.Space for paddy storage is less. 3.Dificult to Installation and Removal.