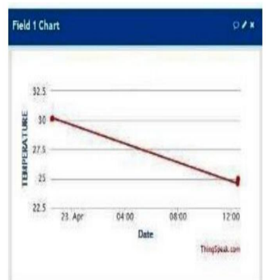
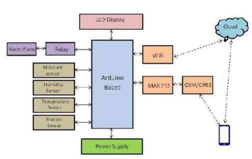
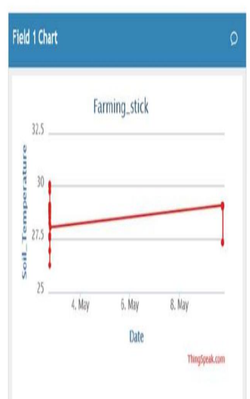
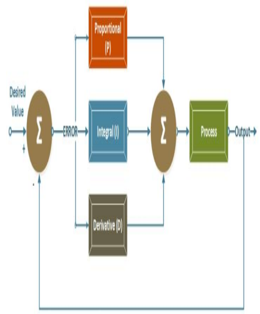
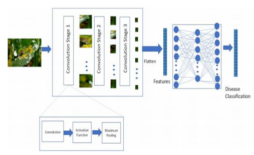
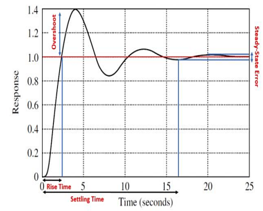
SMART FARMERS - IOT ENABLED APPLICATION
LITERATURE SURVEY

S. NO	Title	Description	Algorithm/blockdiagram	OUTPUT	FEATURES	DRAWBACKS
1	IOT BASED SMART FARMING SYSTEM - YASIR FAHIM	Agriculture IoT system accurately monitors various parameters like warehouse temperature, shipping transportation management system and also integrates cloud based recording systems.	STEP 1: START THE PROCESS STEP 2: CONNECTED TO WIFI STEP 3: READ TEMERATURE AND HUMIDITY STEP 4: GET TEMPERATURE AND HUMIDITY VALUE S FROM ANOLOG PINS STEP 5: SEND DATA TO THINGSPEAK API STEP 6: DELAY TO 10 SECONDS STEP 7: REPEAT STEP 4, 5 & 6 UNTIL THE PROCESS END STEP 8: END		IoT enables easy collection and management of tons of data collected from sensors and with integration of cloud computing services like Agriculture fields maps, cloud storage etc., data can be accessed live from anywhere and everywhere enabling live monitoring and end to end connectivity among all the parties concerned.	it needs to fetch more data with regard to pest control and also intregrating gps module in this system in enhancing the product.
2	Smart Farming stick	Internet of Things (IOT) an emerging and revolutionary technology that has brought revolutions into many fields of common man's life by making everything smart and intelligent. This project, propose an IoT based Smart Farming Agriculture Stick assisting farmers in getting live data of temperature, humidity, soil moisture, smoke			This stick will provide live data of various parameters such as temperature, humidity, soil moisture, smoke detection, pH, etc. of soil.2) This stick will warn us against pest and rodents attacks on the field.3) This stick will provide	The smart agriculture needs availability of internet continuously. Rural part of most of the developing countries do not fulfil this requirement. Moreover internet connection is slower. ➡The smart

		detection, pH, etc. for efficient environment monitoring which will enable them to do smart farming and improve their overall yield and quality of products. The agriculture system proposed in this project is integrated with Node MCU technology consisting of various sensors which provide live on field data that can be obtained on android mobile phone.			us the live data about wind speed, rainfall, sun shine, etc.4) This stick will help us in crop water management system, which will be integrated in our stick.5) This stick will provide complete safety to our field, greenhouse or terrace garden etc	farming based equipments require farmers to understand and learn the use of technology. This is major challange in adopting smart agriculture farming at large scale across the countries.
3	SMART AGRI FOOD PROJECT -Esther Mietzsch, Daniel Martini, Wolfgang Graf	SmartAgriFood aims to boost application & use of Future Internet ICTs in agri-food sector by: Identifying and developing smart agri-food-specific capabilities and conceptual prototypes, demonstrating critical technological solutions including the feasibility to further develop them in large scale experimentation and validation	Step 1: System models for the smart farming as part of the IP-based food chain Step 2: End-user needs Step 3: User requirements and use cases Step 4: Integrated design of the architecture		As available information increases it is significant to structure the information appropriately Compatibility between different systems Reliability of information and security issues Automatic input of information, automatic registration Development of a practical service pilot would be beneficial, management and maintenance are challenges Costs of services are a major challenge / are not a particular problem	As far as quality indicators are concerned, the product life time depends on the software part and the sensor network part. Issues with software can be resolved very quickly, while hardware related faults are more time consuming since they require physical access. Battery is not an issue due to the use of solar panels. Therefore, the only parameter left is the reliability of the sensors which declines over time. According to the supplier's factsheet, sensors should be replaced after a period of approximately 12 months

4	IoT-Equipped and AI-Enabled Next Generation Smart Agriculture - SAMEER QAZI	Smart agriculture techniques have recently seen widespread interest by farmers. This is driven by several factors, which include the widespread availability of economically-priced, low-powered Internet of Things (IoT) based wireless sensors to remotely monitor and report conditions of the field, climate, and crops. This enables efficient management of resources like minimizing water requirements for irrigation and minimizing the use of toxic pesticides. Furthermore, the recent boom in Artificial Intelligence can enable farmers to deploy autonomous farming machinery and make better predictions of the future based on present and past conditions to minimize crop diseases and pest infestation. Together these two enabling technologies have revolutionized conventional agriculture practices.	 		Smart Agriculture Systems (SAS) are driven by several key factors, which include the adoption of IoT technologies for remote, unmanned monitoring of the agriculture fields The associate editor coordinating the review of this manuscript and approving it for publication was Eyhab Al-Masri . and taking corrective actions to make the environment most conducive for crop growth. SAS depends on a combination of hardware and software technologies for optimum benefits. inexpensive, portable, power-efficient hardware with wireless connectivity, which enables their deployment in large numbers across vast indoor and outdoor agriculture fields.	Future crops will not be farmers choice rather dictated by data driven smart farming encounter cyber threats Hacking attack on amrt machinery and cyber threats to agrobase