Project kickoff

Agriculture IOT

Project Name

Smart Agriculture System based on IOT

project Manager

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1. INTRODUCTION

Agriculture is the main backbone of Indian Economical growth.The most important barrier is that arise in tradition farming is climate change.The number of effect of climate change include heavy rainfall most intense storm and heat ,less rainfall etc, due to these productivity decreases to major extent. Climate change also raise the environmental consequence such as seasonal change in the life cycle of the plant.To boost the productivity and minimize the barrier in agricultural field there is need to use innovative technology and technique called Internet of things .The technological advances in their areas gather increasing monentum and this means that maintaining as the overview. The most important things of smat farming are environmental measurment and water managment.The reason is that the environmental measurment and water management .The reason is that the environmental and water management affect plant growth[6].

PURPOSE

The paper aims at making agriculture smart using automation and IOT technologies. The highlighing features of this paper include smart irrigation with smart control base on real time fired data. Secondly temperature maintenance ,humidity maintenance and other environmental parameters. And finally the recomondation of farmer for smart agriculture.

2. LITERATURE SURVEY (problem / solution)

The scenario of decreasing water tables, drying up of rivers and tanks unpredictable environment present an urgent need of proper utilization of water .

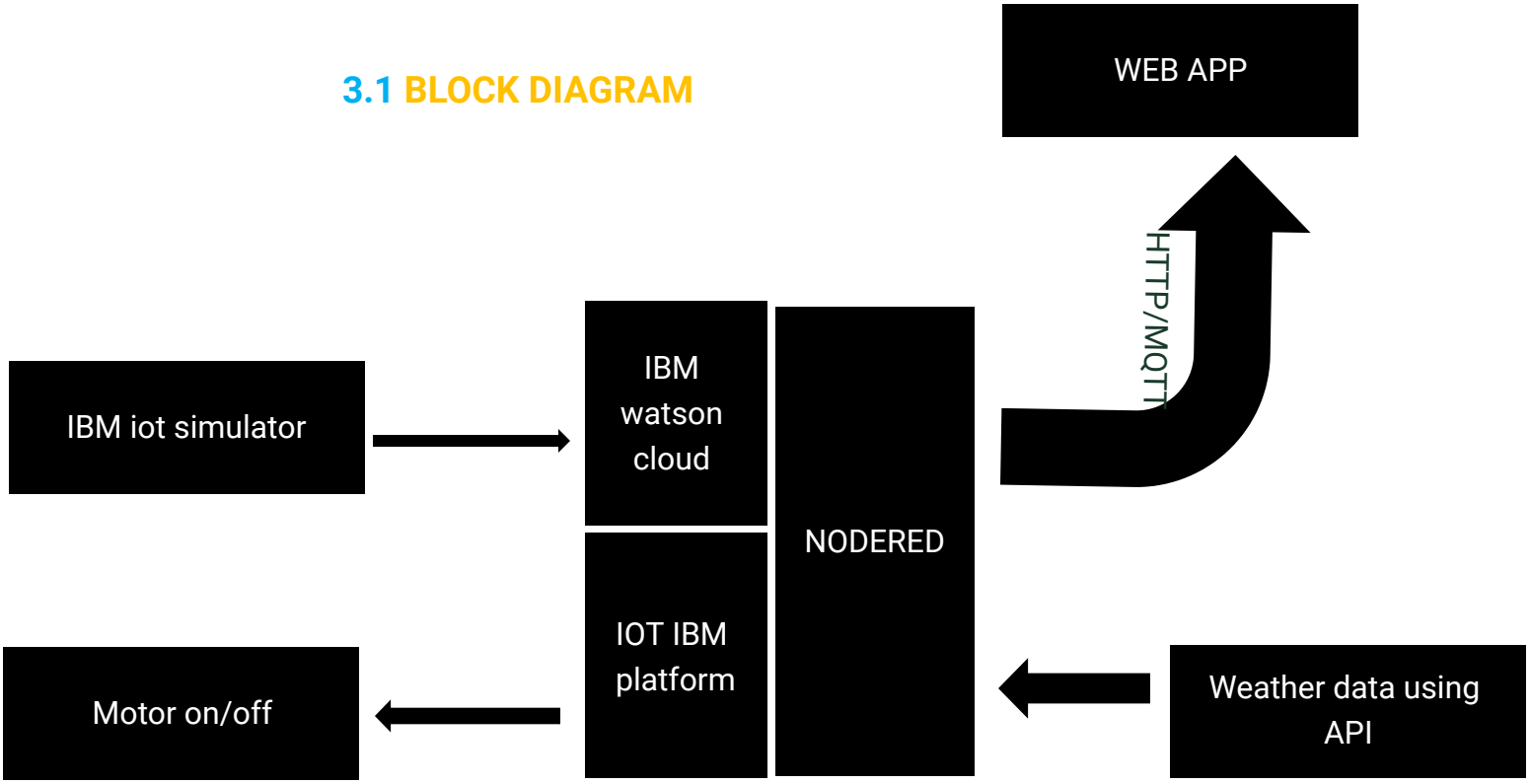
To cope up with this use of temperature and moisture sensore at suitable locations for monitoring of crops is implemented in [8].

An algorithm developed with thresold values of temperature and soil moisture can be programmed into micro controller based gateway to control water quantity .The system can be powered by Photo voltaic panels and can have duplex communication link based on cellular - Internet interface thar allow data inspection and irrigation scheduling to be programmed through web page.[9].

The technological development in open source software and hardware make it easy to develop the device which can make better monitoring and wireless sensor network made it possible to use in monitoring and control of green house parameter in precision agriculture.[7].

3. THEORITICAL ANALYSIS

3.1 BLOCK DIAGRAM



3.2 Hardware /Software

To make the system one micro-controller which will process the data coming from the sensor? Off-Course sensors are the heart of the system and in this system use LM35 temperature sensor because this sensor gives the output in degree Celsius and also easy to interface.

A. Temperature

Figure.1 Temperature sensor LM35

The change of soil moisture keep and sport .[5] The soil temperature plays a certain role on many of the physical processes of soil.

B. Humidity Sensor

Figure 4.Humidity Sensor

Humidity sensors senses ,measure the relative

C. Pressure Sensor

Figure 3. Barometric Pressure Sensor

It is known that heavy shower can be expected when the atmospheric pressure is high .Rainfall is inversely proportional to atmospheric pressure .The pressure sensors connected to the micro controller also regulate the water flow by stopping the supply when the pressure is lower than a threshold value.The plant are watered using sprinklers or small nozzels.To avoid errors in pressure values due to external factors like animal or flapping of wing of birds,etc, the pressure value is determined by an avg. of pressure values taken from a number of sensors installed at different points in the field.

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