

# Smart Farmer - IoT Enabled Smart Farming Application

## INTRODUCTION

Agricultural information processing, conjointly said as agriculture is an area which approach farming info, farming progress and sensor devices to produce services regarding agriculture to upgrade technology, propagation, and knowledge delivery via information and communications technologies (ICTs) [1]. Agriculture's target on improvising farming and rural development by providing useful information to the farmers. Farming includes the conceptualization, architecture, advancement, analysis and different types of elements that uses Information Communication Technologies within the rural and urban area with a spotlight on agriculture industry [2]. Information Communication Technology is a protected term that features something from radio to mobile phones. There is developing significance within the future of web of things innovations to bolster poorness mitigation in rural areas mostly. The helping hand of this analysis is that the research of the possible inputs of Internet of Things to the area of agriculture for rural and urban areas in India. Internet of Things on the opposite hand is that the associating of phenomenal stuff to the net that assembles it attainable to approach remote detector knowledge and deal with this present reality [3]. The Internet of Things has the aim of rendering in ICT-framework which help the internet of things in an exceedingly protected and positive way, i.e., its objective is to beat the space between facts inside this present reality and their illustration in data framework [4]. The boost in Information Communication an

## PROBLEM STATEMENT

Rural and urban areas in our country face variety of similar problems within the field of agriculture, communion framework, water resources, highway & transport, passage to markets, healthiness & schooling, that entails identical however regionally significant result to be organized towards determination problems associated with these similarities . So as to reply to the requirements of the agricultural commodities, mitigate poorness and slim the intelligence partition among town and village areas, this analysis suggest the acceptance of knowledge and ICTs, specifically IoT, to dispatch servicing to rural commodities of our country . The objective of this analysis is to spot desires and suggest internet of things in return to those desires which will share to change the impact of poorness within the rural domain of our country.

The queries asked are:

- What are the rural desires of the agricultural commodities that, once self-interest, can cause the upliftment of their lives and poorness mitigation?
- What internet of things automation are breathing and what internet of things will within the coming up architecture and developed to fulfill these requirements.

The analysis aim can be:

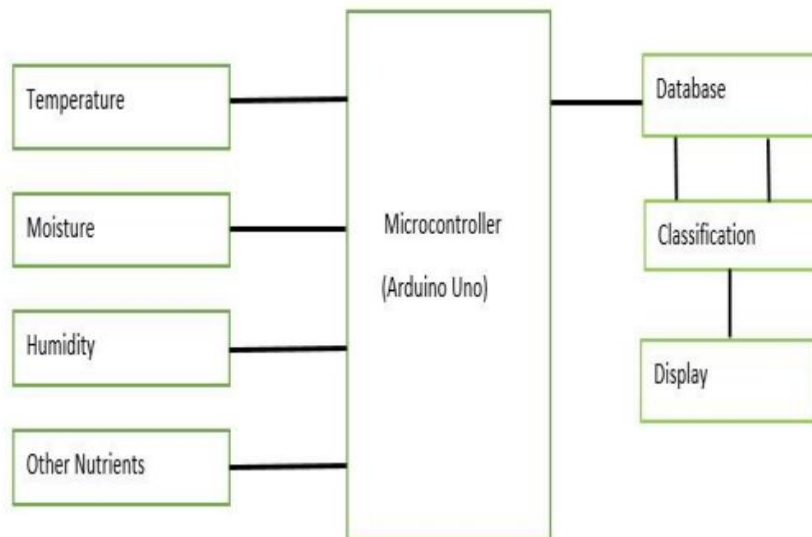
- Analyze current research on the rural challenges in our country.

- Establish the internet of things automation which will direct these requirements via use cases. In the name of directing the analysis drawback, an informative path is employed

#### Sensor Node:

The primary assignment of the sensor control node is to gather the soil temperature, humidity, moisture and other parameters, and transfer data to the master node i.e. microcontroller. We select the soil temperature sensor, soil humidity, soil moisture sensor. These sensors have the qualities: they have fast response time, higher accuracy, broad range, good stability. This microcontroller module is a series of surface mount modules that enable users to realize WSN compatible system in the shortest time and at the lowest cost. The field sensor can send the data to the micro control node through the WSN or any other device. Fig. 3 explain how sensors are deployed on microcontroller

#### BLOCK DIAGRAM



## CONCLUSION

The result has known possible functions of IoT in rural and urban areas for feasible agriculture evolution. It shown the benefits which will be derived from internet of things by many regions of rural areas as well as urban areas. These regions embody water administration, meteorology, life administration, investments, weed and infection administration, shipment and storage of rural-agricultural manufacturing. The research is supposed to significance guideline on the acceptance of internet of things in rural and urban agriculture. The research may be utilized by researchers of latest internet of things (IoT) technologies to create nation specific techniques supported the known. The agricultural folks can develop once the techniques are refined to guide poorness mitigation and rising the specification of the individuals.