Krishi Mitra App

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Abstract- **The system proposed in this paper is an advanced solution for monitoring the weatherconditions at a particular place and making the information visible anywhere in the world. Thetechnology behind this is the Internet of Things (IoT), which is an advanced and efficientsolution for connecting things to the internet and connecting the entire world of things in a network. Here things might be whatever like electronic gadgets, sensors, and automotiveelectronic equipment. The system deals with monitoring and controlling the environmentalconditions like temperature, relative humidity, and CO level with sensors and sends theinformation to the web page, and then plots the sensor data as graphical statistics. The dataupdated from the implemented system can be accessible in the internet from anywhere in theworld.**

Keywords– **Sensors.**

1 INTRODUCTION

The history of agriculture in India dates back to the Indus Valley Civilization. India ranks second worldwide in farm outputs. As per 2018, agriculture employed more than50% of the Indian work force and contributed 17–18% to country's GDP. In 2016, agriculture and allied sectors like animal husbandry, forestry and fisheriesaccounted for 15.4% of the GDP (gross domestic product) with about41.49% of the workforce in 2020.India ranks first in the world with highest net cropped area followed by US and China.The economic contribution of agriculture to India's GDP is steadily declining with thecountry's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significantrole in the overall socio-economic fabric of India [21]. Technologies is updating day by day and it is applying in all the areas in the world. It also implemented in the agriculture field to increase the quality and quantity of thecrops and give farmers some rest. Technology in agriculture affects many areas of agriculture, such as fertilizers, pesticides, seed technology, etc .Biotechnology and genetic engineering have resulted in pest resistance and increased crop yields. Mechanization has led to efficient tilling, harvesting, and a reduction in manual labour. Irrigation methods and transportation systems have improved, processingmachinery has reduced wastage etc., and the effect is visible in all areas

2. STUDY AREA & DATA COLLECTIONS

This can be done in any Agricultural Field, where the cultivation of crops can be done easily. It is mainly Design to perform agricultural practices in Northern part of India(mainly in Uttar Pradesh and Bihar).
Where people has to suffer a lot in terms of yield of crops. India is a vast country with a large population and a wide variety of agricultural practices. India, with its vast agricultural sector, is in the midst of a technological revolution that promises to transform the way farmers operate. In recent years, agricultural apps have emerged as powerful tools that provide farmers with real-time information, market trends, weather forecasts, and expert advice at their fingertips. This essay explores the study area of agricultural apps in India, shedding light on their significance, benefits, challenges, and potential for revolutionizing the agricultural landscape. Agricultural apps hold immense significance in India due to the country's heavy reliance on agriculture and the need to enhance agricultural productivity. These apps bridge the information gap between farmers and crucial data required for decision-making. They empower farmers by providing access to information regarding crop patterns, pest control, soil health, fertilizer usage, and market prices. This enables farmers to make informed choices, leading to improved productivity and increased incomes. The benefits of agricultural apps are multifaceted. Firstly, they facilitate precision farming by offering personalized advice based on real-time data. Farmers can monitor soil moisture, temperature, and nutrient levels, enabling them to optimize irrigation, fertilization, and crop management. This precision-driven approach helps conserve resources, reduces input costs, and minimizes environmental impact.. Secondly, agricultural apps provide market insights, helping farmers make informed decisions about when, where, and how to sell their produce. These apps offer price trends, demand forecasts, and market access, enabling farmers to negotiate better deals and reduce Moreover, agricultural apps promote sustainability by encouraging responsible resource management. By providing real-time data on weather patterns, soil health, and crop disease management, these apps enable farmers to adopt climate-smart practices and mitigate risks associated with climate change. Furthermore, these apps have the potential to strengthen the agricultural value chain. By facilitating direct farmer-to-consumer or farmer-to-business connections, agricultural apps eliminate intermediaries, reduce transaction costs, and ensure fair prices for farmers. This can transform the agrarian economy and improve the livelihoods of millions. Agricultural apps are transforming the agricultural landscape in India, empowering farmers with real-time information, market insights, and expert guidance. Despite challenges related to accessibility, language, and data reliability.

3 METHODOLOGY

The main aim to make a multipurpose robot which can do multiple agricultural thingswhich farmer sdo like sensing the moisture of the

field sowing seed, digging in the field, water spraying, pesticide and insecticide spraying and levelling the field. The whole system of the robot works on a power supply of 12V battery. The wholebase is on a 4 DC motor which is connected to motor driver (L293d) which gives equal voltages to all the DC motor. There is also a flatter which level the field. The robot can be moved with the help of NodeMCU which is connected to thesmartphone Wi-Fihotspot. The soil moisture sensor is connected with the one servo motor. The plough shape thing is attach to the second servo motor and last the seed sowing machine is attach isthird servo motor.. When the user gives the input from the Smartphone, the servo motor start rotating according to the angle given in the program.
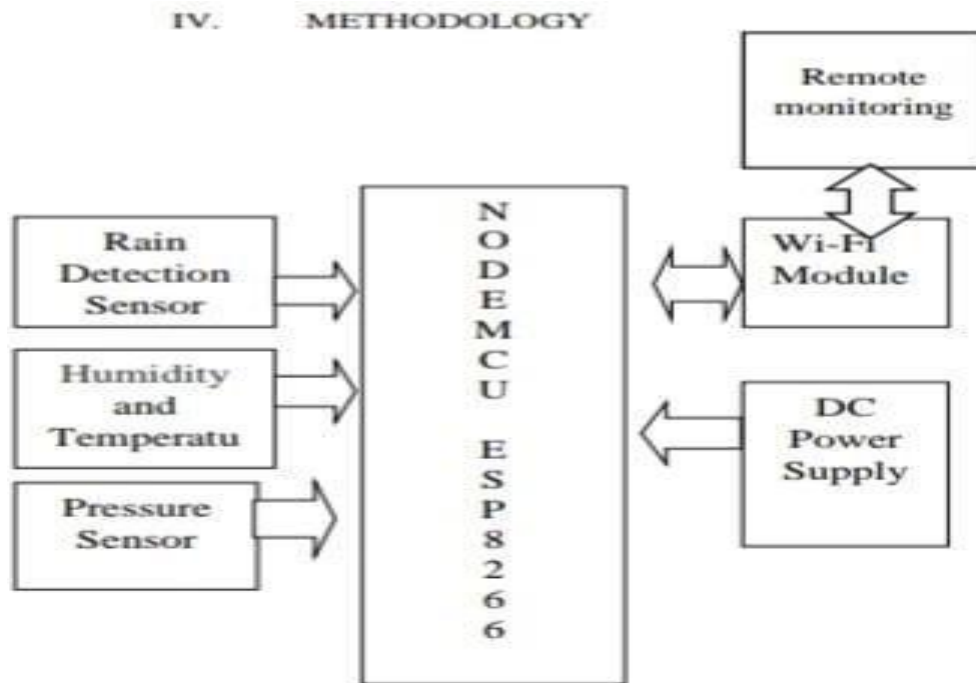
Methodology

Setup Arrangement

3.   CONCLUSION

The agricultural app in India has proven to be a significant tool in revolutionizing the agricultural sector. With the increasing adoption of smartphones and internet connectivity in rural areas, these apps have empowered farmers by providing them with valuable information, resources, and tools at their fingertips. Here are some key conclusions regarding the impact of agricultural apps in India:

Improved access to information: Agricultural apps have bridged the information gap for farmers, providing them with real-time data on weather forecasts, market prices, crop diseases, and pest management techniques. This information helps farmers make informed decisions about crop planning, harvesting, and selling their produce, leading to increased productivity and profitability.

Enhanced financial inclusion: Many agricultural apps also integrate financial services, allowing farmers to access credit facilities, insurance schemes, and government subsidies. This has promoted financial inclusion among farmers, who previously faced

challenges in accessing formal banking services. By availing these financial services, farmers can invest in better farming practices, purchase high-quality seeds and fertilizers, and mitigate risks associated with crop failure.

Facilitated market linkages: Agricultural apps have created direct linkages between farmers and buyers, eliminating intermediaries and ensuring fair prices for farm produce. Farmers can showcase their products through the app and connect with potential buyers, both local and distant. This has reduced post-harvest losses, improved market efficiency, and increased farmers' income.

Knowledge sharing and capacity building: These apps serve as platforms for knowledge sharing and capacity building among farmers. They provide educational resources, training modules, and expert advice on various agricultural practices. Farmers can learn about modern farming techniques, sustainable practices, and crop-specific guidance, ultimately enhancing their skills and productivity.

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