

V.S.B.ENGINEERING COLLEGE, KARUR

DEPARTMENT OF INFORMATION TECHNOLOGY

IBM - NALAYA THIRAN

LITERATURE SURVEY

TITLE : SMART FARMER IOT-ENABLED
SMART FARMING APPLICATION

DOMAIN NAME : INTERNET OF THINGS

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ABSTRACT

Using Internet of Things (IoT) devices and cutting-edge technology like cloud technology, smart farming has significantly changed the way that farming is done .Data analytics, technology, and fog computing. It permits farmers.to be informed about the farm in real time and assist them in making shrewd and well-informed choices. In this essay, we suggest a Model based on Distributed Data Flow (DDF) for smart farming an application made up of interconnected modules. We two deployments are used to assess the proposed application paradigm. fog-based and cloud-based approaches, depending on the application modules are installed in the

cloud and fog data centre respectively. We contrast the fog- and cloud-based. Using Internet of Things (IoT) devices and cutting-edge technology like cloud technology, smart farming has significantly changed the way that farming is done. We contrast the fog- and cloud-based approach for network use and end-to-end latency.

INTRODUCTION

The application of modern IOT technology in agricultural areas has been intensively investigated and the subject of innumerable exploits. IoT for agriculture, however, must be viewed from a different perspective than it is for other industries like industrial and logistics. This report demonstrates IoT-based agricultural production for supply chain stabilisation, all requirements for agricultural production at the time of environmental sensor development, a system for predicting crop maturity, and the amount spent on crop production after gathering all the necessary environmental data. One of the biggest areas for IoT innovation is precision agriculture, a discipline that employs analytical metrics to optimise farming operations. Enhanced crop yields are now more important than ever for global food security. This crop production maximisation is made possible by cloud-connected, wireless technology, which automate routine agricultural chores and provide real-time monitoring for daily intelligent decision-making. To assist farmers in analysis and for better management of the agricultural field, from companies own various GPS connections, monitors, and controls. Most of the food and farming sectors would adopt expanded production once the organic business becomes more well-known in order to acquire effective and affordable pesticide substitutes. Numerous sons of the soil are capable of detecting leaks, measuring moisture, and effectively managing energy use with the aid of implanted wireless devices and other automated electronic systems. It is essential to pay close attention to all large-scale solutions.

LITERATURE SURVEY

**TITLE : SMART FARMING – IOT
AGRICULTURE**

AUTHOR : RAHUL DAGAR

DESCRIPTION

IoT is a revolutionary technology that represents the future of communication & computing. These days IoT is used in every field like smart homes, smart traffic control smart cities etc. The area of implementation of IoT is vast and can be implemented in every field. This paper is about the implementation of IoT in Agriculture. IoT helps in better crop management , better resource management, cost efficient agriculture, improved quality and quantity , crop monitoring and field monitoring etc. can be done. The IoT sensors used in proposed model are air temperature sensor, soil pH sensor, soil moisture sensor, humidity sensor, water volume sensor etc. In this paper I surveyed typical agriculture methods used by farmers these days and what are the problems they face, I visited poly houses for further more information about new technologies in farming. The proposed model is a simple architecture of IoT sensors that collect information and send it over the Wi-Fi network to the server, there server can take actions depending on the information. In The present scenario the fruit of farming is not enjoyed by the farmers due to various reasons like insects attacks, plant disease, not having proper knowledge of essential supplements for the crops and there are also other various obstacles. In order to get rid of these obstacles and make farming more profitable and smart and friendly for farmers they need technological advancement. Traditional Farming & Precision Farming are very different from each other in every way. Traditional Farming uses the old and traditional methods of agriculture and using those old devices for work and growing seasonal crop without any pre assessment of demands in market, rates, weather reports of weather department etc. smart faming uses new technologies like smart connected devices, IoT sensors , Internet , Farmers chatting community , time to time assessment of various factors like best conditions for plant to grow, how much nutrients are needed , soil quality , water quality check etc. .Smart Farming makes farming easy, economical (cost effective), minimize labor cost and improve crop yielding and provide better production.

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**TITLE : INTERNET OF THINGS APPLICATION
MODEL FOR SMART FARMING**

AUTHOR : JAGRUTI SAHOO

DESCRIPTION

Smart Farming has brought a major transformation in the agriculture process by using the Internet of Things (IoT) devices, emerging technologies such as cloud computing, fog computing, and data analytics. It allows farmers to have real-time awareness of the farm and help them make smart and informed decisions. In this paper, we propose a distributed data flow (DDF) based model for the smart farming application that is composed of interdependent modules. We evaluate the proposed application model using two deployment strategies: cloud-based, and fog-based where the application modules are deployed on the fog and the cloud data center respectively. We compare the cloud-based and fog-based strategy in terms of end-to-end latency and network usage.

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