HX8001 - PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP

SMART FARMER – IOT ENABLED SMART FARMING APPLICATION

Domain of the Project :Internet of Things (IOT)
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Objectives

- IoT-based agriculture system helps the farmer in monitoring different parameters of his field like soil moisture, Temperature, humidity using some sensors.

- Farmers can monitor all the sensor parameters by using a web or mobile application even if the farmer is not near his field.

- Watering the crop is one of the important tasks for the farmers.

Abstract

- The growth of the global population coupled with a decline in natural resources, farmland, and the increase in unpredictable environmental conditions leads to food security is becoming a major concern for all nations worldwide.

- These problems are motivators that are driving the agricultural industry to transition to smart agriculture with the application of the Internet of Things (IoT)

- This survey of IoT solutions and demonstrates how IoT can be integrated into the smart agriculture sector.

Introduction

- The integration between technology and farmers skills is aimed to produce the best quality and quantity of the commodity.

- Smart farming is designed to bring more benefits also like higher profit, efficient planting process, premium harvest.

- IoT smart farming solutions is a system that is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, crop health, etc.) and automating the irrigation system.

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
Robustness, Security and Privacy in Location-Based Services for Future IoT	Jarvinen.K 2017	IEEE	This project has security issues there is some bugs in it.It cause very serious issues in the security.It have to been improved
4 Air-Ground UAV Communications in Smart Farming Scenarios	Bacco. M& Berton.A 2017	Science Direct	There occurs a serious issues in the Data transferring and Data analysis It have to Rectify

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
A High-End IoT Devices Framework to Foster Beyond-Connectivity Capabilities in 5G/B5G Architecture	Mishra.D Zema.N.R & Natalizio. E 2019	IRJET	There is interconnection of network due to external distubances of the 5G architecture and the architecture need to be updated.
Improved Traceability Solution Based on UHF RFID for Cheese Production Sector	Abdelnour.A & Buchin. F 2020	Science Direct	While monitoring the farm,can't trace the availability of crop needs like temperature control,water availability,etc..

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
Water Management in Agriculture	Benyamina.K & Gamatie.A 2020	IEEE	The system designed to gather meaningful and actionable data But the flow, pressure and distribution were not explained clearly.
Unmanned Aerial Vehicles in Agriculture	**Kim.J & Kim.S** 2021	IEEE	The UAV can't spot the crop picture and it can't trace path for navigation .

Literature Survey

| TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
An IoT-Enabled Smart Greenhouse for Sustainable Agriculture	Tripathy.A.K & Agarwal. A 2021	mHealth	The renewable energy devices in the network alongside adopting load-balancing strategies cause major issues in the Agriculture process
IoT-Based System Design for Controlling and Monitoring Greenhouse Temperature	Subahi.A.F & Bouazza.K.E 2021	IEEE	The project doesn't explain about the specific types of Green House gases and increases the green house effect.

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
GNSS, Localization, and Navigation Technologies	Hadi. A.K & Ilyas.M 2021	IEEE	This project doesn't localize the particular location to be monitored and there is no idea for navigation purpose.
IoT System for Forest Monitoring	**Drosu.A & Marcu.I** 2021	IRJET	The device can't identify the animals which cause the destructrion of the medicinal trees.

Problem Identification

- Poor Internet Connectivity in Farms. Most farms are located in remote locations where internet connectivity might not be strong enough to facilitate fast transmission speeds

- This means that in rural communities, especially in the developing countries where we have mass crop production, it is completely impossible to operate this farming method.

- Cope with climate change, soil erosion Satisfy consumers' changing tastes and expectations. Meet rising demand for more food of higher quality. Invest in farm productivity.

Block Diagram
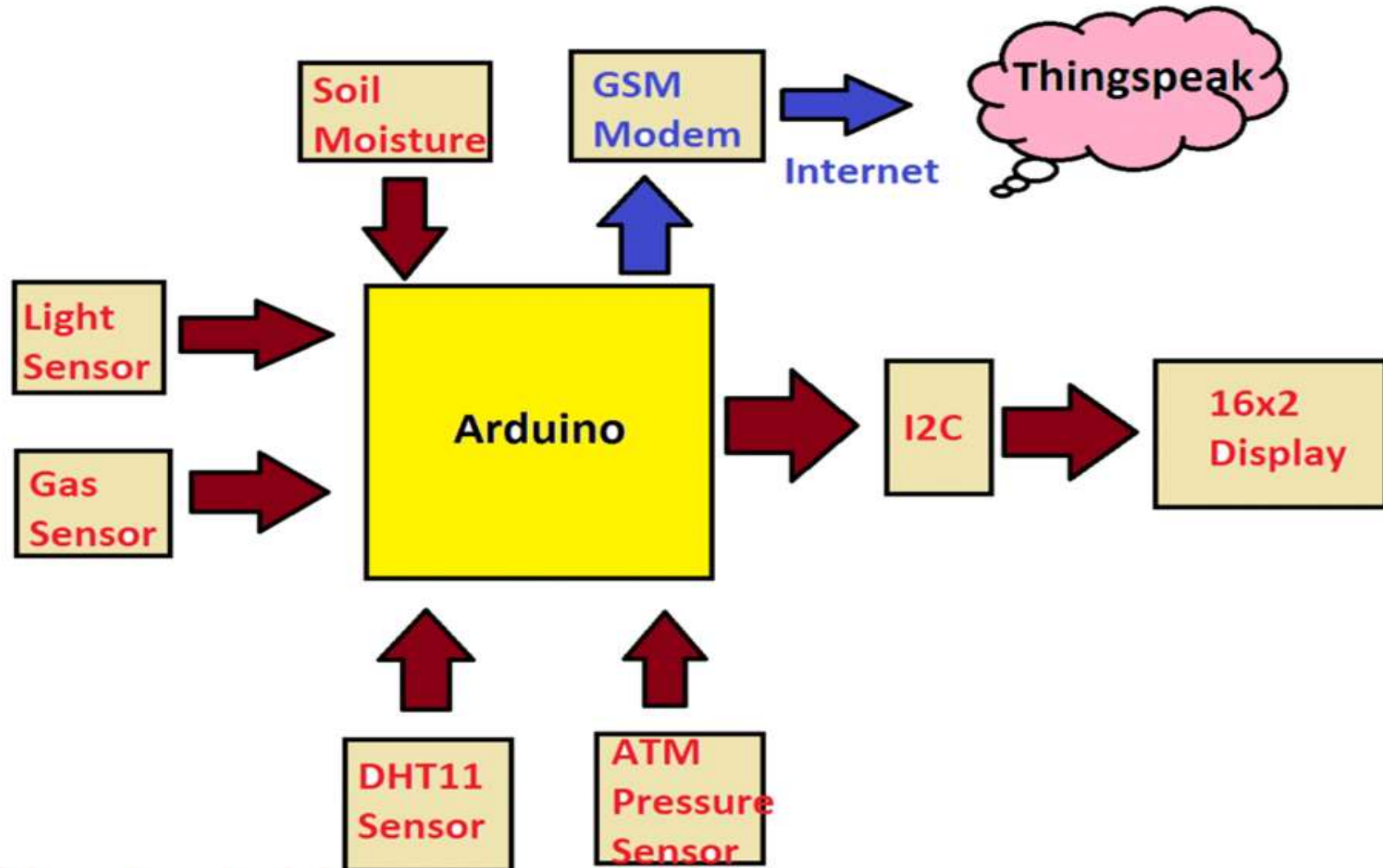
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Questions & Discussion

THANK YOU