IJIRCCE

e-ISSN: 2320-9801 | p-ISSN: 2320-9798

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 12, Issue 4, April 2024

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 8.379

International Journal of Innovative Research in Computer and Communication Engineering

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 | Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 4, April 2024 ||

| DOI: 10.15680/IJIRCCE.2024.1204145 |

Integrated Agricultural Service Platform

Prof. Sushma Shinde, Sujit Shankar Khandare, Santosh Ashok Mirewad, Rohan Dayanand Gaikwad, Swapnil Shankar Khandare

Dept. of Comp. Engineering, Siddhant College of Engineering, Pune, India

ABSTRACT: This paper is based on the idea of hiring equipment. This project has upgraded the E-commerce website to close the gap between the farmer and the seller on a lease basis. Before logging into the main application the user must go through the login system to access, only the user can select and book resources. In this paper it is full and full of data about the products. This paper provides assistance to farmers. The main purpose of this website is to manage a series of agricultural machinery including various agricultural machinery such as Harvester, JCB, Tractor, Pickup, Rotor and more. The proposed system is easy to use for end users. The website allows the seller and farmer to update their previous information. Several farmers are reported to be utilizing substandard fertilizer as a result of supply chain concerns such as inappropriate storage and adulteration by dealers, resulting in soil infertility, low yields, water pollution, and biodiversity loss. We also provide a way to find if fertilizer is valid or not.

KEYWORDS: - Fake Fertilizers Identification, Equipment's on Rent, Ecommerce Services, Soil Infertility, Low Yields, and Biodiversity Loss.

I. INTRODUCTION

Agriculture forms the backbone of Indian economy and there is always a need of supporting and improving it .As a part of which some of Indian NGO's are with an initiative of supporting the farmers by facilitating them with the modern agricultural equipment's on rental basis .Modern agricultural equipment's make farmers work more efficient and easy .As a part of which there are some organizations that are set up to help those farmers who are in need of such equipment's ,where the organization owns the equipment's and rent those on request of farmers at liable amounts. At present, farmers need to travel to a place to borrow all the essential needs, which is a tiresome and not a cost effective work. So a smart digital farming is listed as the highest ranking technology opportunity in the latest Global Opportunity report in terms of its expected positive impact on society. This paper is on digitizing the process of renting the agricultural equipment's by the farmers .We aim at developing an application that farmers can use to get their equipment's on rent and also check the availability and renting .We also allow them to book the equipment's in advance .It also helps us to get the track of equipment's that are on rent .We also aim at developing analytic for the state heads to make better availability of equipment's and to keep track of the equipment's as well, which could help in providing better support for farmers.

II. LITERATURE SURVEY

1. IOT in Precision Agriculture Applications Using Wireless Moisture Sensor Network.

1. Wireless sensor network (WSN) and Wireless Moisture Sensor Network (WMSN) are components of IOT.
2. Proper irrigation system could be achieved by using WSN technology.
3. Monitoring and control applications have been tremendously improved by using WSN technology.
4. It enabled efficient communication with many sensors. WMSN is a WSN with moisture sensors.

2. An Extensible Software Platform for Cloud-based Decision Support and Automation in Precision Agriculture.

1. The precision agriculture is a decision support system (DSS) that acquires data from various sources, analyzes them, and recommends actions.
2. DSS to control various field devices through unified software defined interfaces.

The proposed system in [2] i.e. automatic irrigation controller is open loop, automatic and adaptive. This system determines the soil moisture and necessity of water to crop in order to supply just the right amount of water just enough to maintain moisture level. A microcontroller is used to control the operation along with relay switch and pump.

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 | Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 4, April 2024 ||

| DOI: 10.15680/IJIRCCE.2024.1204145 |

The proposed system in [3] uses the sensor node that include JN5121 module, an IEEE 802.15.4/ZigBee wireless microcontroller. The sink node for data aggregating was based on ARM9. GPRS gateway was used for long distance data transmission. The mobile unit was used as monitoring device.

The proposed system in [4], a study of ZigBee based wireless sensor network in agriculture was carried out. This paper has reviewed few issues regarding ZigBee in agriculture. That how the factors like node spacing, antenna height, crop canopy and density of leaves affects the signal strength.

III. PROPOSED SYSTEM

This system is designed (or) developed for the help of the administrators and the marriage parties who wants to register and to get the marriage certificates properly and quickly. This application has the following Modules.

- Admin Module.
- User Module.
- Fertilizer Module.
- Equipment Details.

IV. SYSTEM ARCHITECTURE

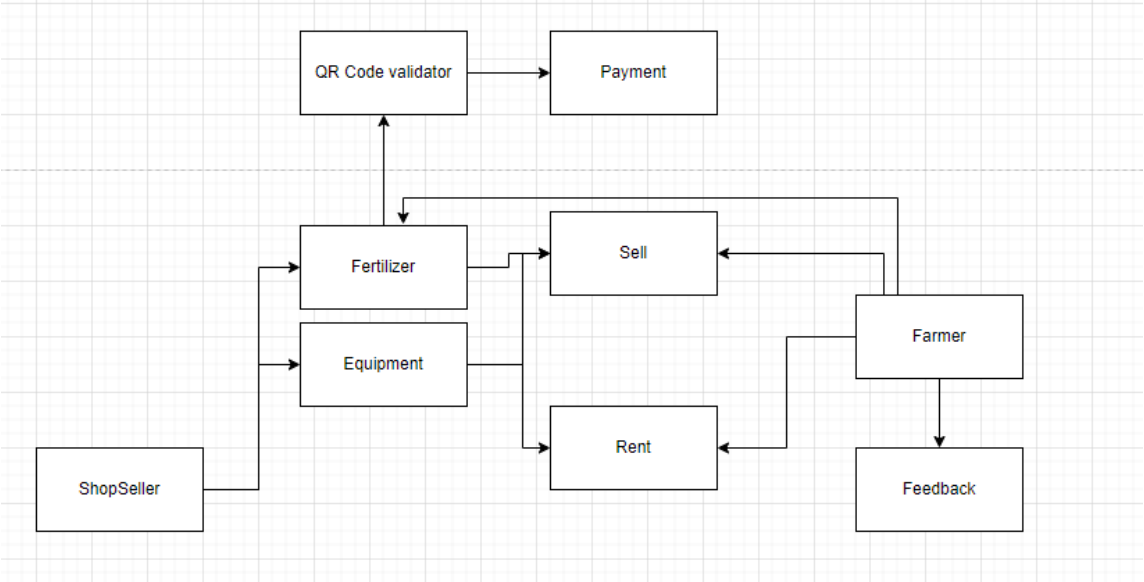

Fig 1. System Architecture

V. ADVANTAGES AND LIMITATIONS

5.1 Advantages:

1. Use anywhere.
2. Low-cost rent basis.
3. Fertilizer is fake or not, give status on one scan.

5.2 Limitations:

1. It can be exhausting and time-consuming.
2. Sometimes Taking More Time.
3. Heavy Crowd issues.

5.3 Applications:

1. Farmer.
2. Fertilizer company.
3. Any other user who is doing farming at home or anywhere else.

| e-ISSN: 2320-9801, p-ISSN: 2320-9798| www.ijircce.com | |Impact Factor: 8.379 | Monthly Peer Reviewed & Referred Journal |

|| Volume 12, Issue 4, April 2024 ||

| DOI: 10.15680/IJIRCCE.2024.1204145 |

VI. CONCLUSION

One of the most important and challenging tasks is website design. Information transmitted by the seller or farmer while registering on the site is stored on the website. Products with copyright, description and image are stored on the website. In addition, when the administrator reviews any of the installed products it will be updated on the website. Therefore, the system is closely related to the website.

REFERENCES

[1] Ginigaddara, G.A.S., 2021. Plant and Animal Based Fertilizers and Pesticides.
[2] Stewart, W.M., Dibb, D.W., Johnston, A.E. and Smyth, T.J., 2005. The contribution of commercial fertilizer nutrients to food production. Agronomy journal, 97(1), pp.1-6.
[3] Bennett, M. and Franzel, S., 2013. Can organic and resource-conserving agriculture improve livelihoods? A synthesis. International journal of agricultural sustainability, 11(3), pp.193-215
[4] Crawford, E.W., Jayne, T.S. and Kelly, V.A., 2005. Alternative approaches for promoting fertilizer use in Africa, with particular reference to the role of fertilizer subsidies (No. 1099-2016-89384).
[5] Hernandez, M.A. and Torero, M., 2013. Market concentration and pricing behaviour in the fertilizer industry: a global approach. Agricultural Economics, 44(6), pp.723-734.
[6] Sanabria, J., Ariga, J., Fugice, J. and Mose, D., 2018. Fertilizer Quality Assessment in Markets of Uganda. International Fertilizer Development Centre.
[7] Naik, G. and Suresh, D.N., 2018. Challenges of creating sustainable Agri-retail supply chains. IIMB management review, 30(3), pp.270-282.
[8] Dogbatse, J.A., Arthur, A., Awudzi, G.K., Quaye, A.K., Konlan, S. and Amaning, A.A., 2021. Effects of Organic and Inorganic Fertilizers on Growth and Nutrient Uptake by Young Cacao (Theobroma cacao L.). International Journal of Agronomy, 2021.
[9] Gowariker, V., Krishnamurthy, V.N., Gowariker, S., Dhanorkar, M. and Paranjape, K., 2009. The fertilizer encyclopedia. John Wiley & Sons.
[10] Anago, F.N., Dieudonné, D.G., Emile, A.C., Brice, O.C. and Guillaume, A.L., 2020. Inorganic Fertilizer Adoption, Use Intensity and Rainfed Rice Yield in Benin. Open Journal of Soil Science, 10(01), p.1.
[11] Kumar, R.P.S. and Bhallaji, V.K.S., 2014, July. A novel approach towards the design of an efficient embedded system for optimizing the usage of fertilizers. In 2014 International Conference on Embedded Systems (ICES) (pp. 291-296). IEEE.
[12] Mangale, N., Muriuki, A., Kathuku-Gitonga, A.N., Kibunja, C.N., Mutegi, J.K., Esilaba, A.O. and Gikonyo, E.W., 2016. Field and laboratory research manual for integrated soil fertility management in Kenya. Kenya Soil Health Consortium, 77, pp.25202016-080118.

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

INNO SPACE SJIF Scientific Journal Impact Factor

doi crossref

निस्केयर NISCAIR

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

9940 572 462 6381 907 438 ijircce@gmail.com

www.ijircce.com

Scan to save the contact details