

SMART ENERGY REVOLUTION : TRANSFORMING AGRICULTURE WITH INNOVATIVE SOLUTIONS

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Smart Energy Revolution: Transforming Agriculture with Innovative Solutions

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PREFACE

The smart energy meter is an advanced device that leverages digital technology to measure and monitor energy consumption in residential, commercial, and industrial settings. Unlike traditional energy meters, smart energy meters provide real-time data on energy usage, enabling users to make informed decisions about their energy consumption and optimize efficiency.

This will explore the key features and benefits of smart energy meters. Firstly, smart energy meters utilize digital communication technologies such as wireless networks and the Internet of Things (IoT) to transmit energy consumption data to utility companies and end-users. This allows for accurate and timely billing, eliminating the need for manual meter reading.

Secondly, smart energy meters provide real-time energy consumption information to users. This empowers consumers to monitor their energy usage patterns and identify areas of high consumption. By gaining insights into their energy usage habits, individuals and organizations can make adjustments to reduce wastage and save on energy costs.

Moreover, smart energy meters enable demand response programs. These programs incentivize consumers to reduce their energy consumption during peak demand periods. By participating in demand response initiatives, users can contribute to overall grid stability and reduce strain on the energy infrastructure.

In addition to energy monitoring, smart energy meters may include features such as power quality monitoring, load balancing, and integration with renewable energy sources. Power quality monitoring helps identify fluctuations and disturbances in the electrical system, enabling quick troubleshooting and maintenance. Load balancing ensures the equitable distribution of electricity across different phases and prevents overloading.

Furthermore, smart energy meters can integrate with renewable energy sources, such as solar panels or wind turbines. This allows users to track the energy generated from renewable sources and optimize their usage accordingly. It promotes the adoption of clean energy and supports sustainability initiatives.

Overall, smart energy meters offer significant advantages over traditional energy meters by providing real-time data, promoting energy efficiency, enabling demand response programs, and integrating with renewable energy sources. As the world increasingly focuses on sustainable energy management, the adoption of smart energy meters plays a crucial role in achieving energy conservation goals and building a greener future.

CONTENT

Topic Name	Page No
INTRODUCTION	
1.1 Objectives	1
1.2 Methodology Overview	8
2 THEORETICAL ANALYSIS OF THE PROPOSED SYSTEM	
2.1 Literature Survey	9
2.2 Existing system	10
2.3 Advantages and Disadvantages	12
2.4 Proposed System	15
3 PROPOSED MODEL	
3.1 Architecture	17
3.2 Module Description	18
4 IMPLEMENTATION	
4.1 Thingspeak	29
4.2 MIT APP INVENTOR	33
4.3 UML for SIEMBS	41
5. RESULTS	
5.1 Discussion on results	42
5.2 The consumer app – SIEMBS	44
5.3 E-Billing App	45
6.CONCLUSION AND FUTURE SCOPE	54
7. dCrop: A Deep-Learning based Framework for Accurate Prediction of Diseases of Crops in Smart Agriculture	
7.1 Introduction	65-66
7.2 Related Works	67
7.3 The Proposed Novel System Of Dcrop	68-69
7.4 Experimental Results	70-72
7.5 Conclusions	73
7.6 References	74
8. Plant Leaf Disease Detection and Classification Based on CNN	

8.1 Introduction	76
8.2 Related Works	77
8.3 Methodology	78
8.4 Experimental Setup	79-80
8.5 Experimental Results and Discussion	81-94
8.6 Conclusion And Future Of Work	95
8.7 References	96-97