WSNs BASED ON SUGAR CANE INDUSTRIAL MONITORING & CONTROL USING ENERGY EFFICIENT ALGORITHM

N. S. V. L. SOWJANYA[1], Y. CHALAPATHI RAO[2], CH. SANTHI RANI[3] & B. SIRI DHATRI[4]

[1,4]Rearsch Scholar (ECE) Pursuing, BIET, Pennada, Andhra Pradesh, India

[2]HOD of ECE, BIET, Pennada, Andhra Pradesh, India

[3]Professor, Department of ECE, DMSSVH College of Engineering, MTM, Andhra Pradesh, India

ABSTRACT

Nowadays wireless sensor networks (WSNs) have attracted a great deal of study due to their wide range applications and low cost in the field of wireless networking. Advances in microelectromechanical systems, embedded microprocessors, wireless communications, and networking technologies have made WSN of large scale applicable to a wide range of applications, such as environmental monitoring, navigation and control of moving vehicles, machine condition monitoring and maintenance, disaster recovery and health care. This paper focuses on a low cost distributed data collection system using WSNs based on embedded Ethernet. Embedded Ethernet is nothing but a microcontroller which is able to communicate with the network. Enabling a microcontroller to communicate to a data communication network would allow greater flexibility and enhance their usage in several applications that require distributed data collection, monitoring or controlling such applications [1]. We stress emphasis on sugarcane industrial management using Ethernet. PIR sensor, load cell, color and temperature sensor are used to detect the industrial conditions such as presence of human using PIR sensor; load cell to find the weight of sugar cane; color sensor to find the color of baggage and temperature sensor to find Boiler temperature. We can fix some threshold values for sensors, if determined value exceeds then automatically motor can be stopped. The result would be a lower cost program with more frequent data collection, increased safety, and lower spare parts inventors.

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