Design of Integrated Wireless Network for Rural India

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Abstract

India is known as an agricultural country and has a variety of land with different climatic conditions throughout the year. After understanding and analyzing the different physical parameters, implementation of a good strategy for crop cultivation is needed. To provide development in all regions it is very much needed to connect rural part with urban India. Wired technology is a costly affair and hence wireless technology can be thought for implementing this system. Due to a large geographical area and less income it is very difficult to setup a network for connectivity. GSM networks are available with limitations of range in rural part of India. Single network cannot serve this purpose of setting up a network with all signal availability to solve this problem. An integrated wireless network is designed to establish last mile connectivity to enhance the livelihoods of these rural areas. A sensor based network and integration of three most popular technologies using Bluetooth, Wi-Fi and GSM is combined to form an integrated network to sense and communicate the physical parameters of farm from anywhere anytime to any part of the world. Also, the server is created to store the parameters sensed by sensors which can be displayed on PDA using android app.
References


Index Terms

Computer Science Wireless

Keywords
PDA, GSM, Wi-Fi, NodeMCU, HC-05.