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IJCA Proceedings on National Conference on Growth of Technologies in Electronics, Telecom and Computers - India Perception

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GTETC-IP

Year of Publication: 2014

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{bibtex}gtetc1304.bib{/bibtex}

Abstract

This paper discuss proposed model for an energy efficient smart wireless multi-nodal sensor network. It is used for the collection of greenhouse related parameters at different locations inside and outside the greenhouse. The sensing nodes are the independent embedded system units which calculate sensing parameters under observation and measures them at different locations inside and outside greenhouse using close loop control. To achieve this it is decided use of MSPez430RF2500T target board embedded system for each sensor node, which contains 16 bit microcontroller with eight analog channel, 10 bit SAR ADC and RF trans-receiver for wireless communication. At receiving end the same trans-receiver will be employed along with the host computer (base station). A special communication protocol called SensitiviTI TM which is designed by Texas Instruments Inc. establishes RF communication between a node and base station. Furthermore this data will be processed in tabular and graphical format by the host computer. This information is use to control the motion of cooling fans and foggers On and Off remotely or manually. The same information can also be communicated via internet.

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Computer Science

Index Terms Wireless

Keywords

Greenhouse Mspez430rf2500t Communication Protocol Sensitiviti Tm