Abstract

As it is well known, Monitoring and controlling of green house parameters plays a crucial role for quality production of crops. Different techniques have been developed in past for actual monitoring and controlling of major green house parameters such as temperature, humidity, soil moisture, light intensity and CO2 in atmosphere. Controlling of parameters is done by means of relays. The main target of proposed system is to develop hardware implementation module which is capable of measuring temperature, humidity, soil moisture, light intensity and CO2 concentration of crops in green house. This paper also presents the analysis and prediction of green house parameters. Crops selected for analysis and prediction are namely Cucumber, Tomato, Brinjal, Papaya and Chilies. The wireless media of communication used is global system for mobile communication (GSM) technology to assist the control and monitoring of process plants. Five samples of crops are taken as mentioned above and the system had been tested for these crops in green house environment. Finally estimation of total power consumption and total expense consume per annum has been done for controlling devices. This will be helpful for farmers as he will be able to predict the total expense of controlling action for crops. At the same time, it is seen that quality and quantity of products with controlling action is increased than crops grown without controlling action.
Referencess

- Jifeng Ding; Jiyin Zhao; Biao Ma; &quot;Remote Monitoring System of Temperature and Humidity 4. Based on GSM Image and Signal Processing;&quot; 2009. CISP &apos;09. 2nd International Congress on Digital Object Identifier: 10. 1109/CISP. 2009. 5304519 Publication Year: 2009, Page(s): 1 – 4 IEEE CONFERENCES
- Qiang, G. and C. Ming, Research and Design of Web-Based Wireless Sensor Network
- Rangan, K. and Vigneswaran, T. "An Embedded systems approach to monitor green house", Published in: Recent Advances in Space Technology Services and Climate Change (RSTSCC), 2010.
- Zhisong Wang and Shihua Li ; Qi Hao ; Linlin Li "Research of intelligent greenhouse remote monitor system based on embedded network and wireless transmission technology", Published in: Electrical and Control Engineering (ICECE), 2011 International Conference on 16-18 Sept. 2011.

Index Terms
Computer Science 
Applied Sciences

Keywords
green house parameters     controlling devices     GSM     sensors