Green Network Approach for Integrated Wireless Network Used in Rural India

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Abstract

India being known as an agricultural country, power for the crop cultivation is one of the major concern in rural part of India. An efficient system to provide continuous power supply in rural area is still not available due to which production of proper crop is becoming difficult. Many Wireless Sensor Networks are designed for recording different parameters as temperature, humidity, soil moisture, fertilizer content in soil etc. All these Wireless Sensor Networks need continuous power to communicate all required parameters to researchers for giving proper solutions to farmers. Most of the power is generated by nuclear reactors, coal and renewable sources of energy. Most of the power requirement is furnished by thermal power plants which use coals as primary fuel but it increases the carbon percentage in environment. So, in this paper power generation by various renewable sources is discussed and a solar based electricity generation solution is proposed for integrated wireless networks. A solar based power supply is used as it is abundantly available to provide the energy required by sensor nodes in integrated wireless networks. A prediction algorithm is also implemented for prediction of suitable crop to be cultivated by gathering environmental information.
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References


Index Terms

Computer Science Networks

Keywords
ICT, Carbon content, PV, SOC.