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IJCA Proceedings on International Conference
on Emergent Trends in Computing and Communication

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ETCC 2015 - Number 1

Year of Publication: 2015

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{bibtex}etcc4553.bib{/bibtex}

Abstract

Flood is a frequently occurring natural disaster in the coastal areas. We, the human beings and our resources are victims of such natural catastrophe. For example, flood. Though flood cannot be totally uprooted by human being still it can be predicted hence major steps can be taken to prevent it. In order to predict & prevent flood structural and non-structural methods are available. In this paper we propose a model to deploy different types of sensors in the river bed

forming a Wireless Sensor Network (WSN) for predicting the flood situation and warn the local office & administration regarding the situation and could take preventive steps. WSN is preferred due to its cost effectiveness, faster data transfer and accurate computation of required parameters for flood prediction & prevention. Our model is a simple and cost effective one to predict and prevent flood by regulated flushing of excess amount of water at the barrage. It has an easy computation for managing the barrage water by sensing the upcoming water amount and water speed at some distance in a coordinated manner. The flush rate for draining water is computed before the excess amount of water is reached the barrage causing flood. Hence the computed amount of water is drained out at the barrage to prevent the flood. The wireless sensor network in our model was simulated by using NS2 and the computations made by different sensors are implemented at barrage using MATLAB.

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Computer Science

Index Terms

Wireless

Keywords

Wireless Sensor Networking (wsn) Flood Prediction Sensor Computational Node Manning's Rule.

