ISSN (Print): 2320-5504
ISSN (Online): 2347-4793

Asia Pacific Journal of Research
A peer reviewed international Journal
IMPACT FACTOR : 6.58
Print -ISSN -2320 - 5504
Online-E-ISSN - 2347 - 4793
University Grants Commission
Approved Journal S.N.45797

MERGING OF CLUSTERING GSTEB WITH GRID BASED MULTIPATH CONGESTION AVOIDANCE ROUTING PROTOCOL FOR WIRELESS SENSOR NETWORK.

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Wireless sensor network is one of the prominent communication network in recent technology.one of the main challenges in wireless sensor network is energy efficient. When the sensor node is deployed it cannot be recharged. A new clustered GSTEB energy efficient routing protocol handles a real and non-real-time application in wireless sensor network. In large network load balancing among the cluster causes delay, redundancy and congestion. Intention of achieving better overall amenities among sensor in the cluster, so we employ the idea of merging cluster GSTEB with Grid. In grid, dividing the sensor network field into grid structure, in that one node is selected as a master node which is responsible for data delivery generated by any node in that grid. For each master node, multiple paths which is connected the master node to the sink are stored as routing entries in the routing table of that node. These paths are the diagonal paths between the sink and the master node. In case of congestion occurrence, a novel congestion control mechanism is also proposed in order to relieve the congested areas. Simulation results have shown that our proposed protocol has the capability to extend the lifetime of the sensor network and to utilize the available storage.
Keyword: Wireless sensor network, Cluster GSTEB, Congestion Control.