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RESEARCH ARTICLE

Secured Energy Optimization for Wireless Multimedia Sensor Networks using Fuzzy logic

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Abstract -Network congestion, data accuracy and network lifespan founds to play a major decisive concern for resource restraint in Wireless Multimedia Sensor Networks (WMSNs). Multimedia data comprises larger volume of information which is needed to be transmitted over the network. Since these multimedia collection may comprise of audio, video and scalar data. The utilization of memory and resource for transmission of multimedia data results in outsized contrast that consequences congestion, packet drop, buffer spill over declension of throughput and quality of service. To trounce this out stress in this paper the network is designed to be deployed with heterogeneous sensor networks. A new way of Fuzzy logic scheme is introduced in this paper which involves two phases, assortment phase and dispatching phase. In first phase fuzzy logic assortment technique enforces the classification of inward multimedia stream. Segregated facts are routed through designated path by using ant based routing scheme in second phase. Security litigation is accomplished by one-way hash function. Finally we compared the proposed protocol with the existing distributed predictive and verification algorithm, were the results shows that proposed scheme has a greater QoS merits.

Keywords— Congestion overhead; Data accuracy; Energy efficiency; Quality of Service; Wireless sensor networks; Fuzzy logic and Ant based routing

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