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Intelligent and Efficient Cluster Based Secure Routing Scheme for Wireless Sensor Network using Genetic Algorithm

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Abstract – **Wireless sensor networks are an emerging technology for monitoring physical domain. The energy limitation of wireless sensor networks makes energy sparing and augmenting the network lifetime turn into the most essential objectives of different routing protocols. Heterogeneous wireless sensor network (WSN) comprises of sensor nodes with distinctive capability, for example, diverse computing power and sensing range. Contrasted with homogeneous WSN, arrangement and topology control are more perplexing in heterogeneous WSN. Distinctive energy efficient clustering protocols for wireless sensor networks systems and thinks about these protocols on a few focuses, in the same way as clustering method, location awareness, heterogeneity level and clustering attributes. Energy efficient clustering protocols ought to be intended for the normal for wireless sensor networks systems. Many issues in WSNs are formulated as multidimensional optimization difficulties, and approached through bio-inspired techniques. Genetic Algorithm (GA) is a modest, effective and computationally effective optimization algorithm. It uses to address WSN issues such as node localization, optimal deployment, clustering and data-aggregation.**

Keywords – **Clustering, Data-Aggregation, Node Localization, Optimal Deployment, Genetic Algorithm and Wireless sensor networks.**