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An Energy Efficient WSN with PSO Optimization

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Abstract – **Wireless sensor networks are an emerging technology for monitoring physical domain. The energy constraint of wireless sensor networks makes energy saving and extending the network lifetime become the most important goals of various routing protocols. Different energy efficient clustering protocols for heterogeneous wireless sensor networks and compares these protocols on several points, like location awareness, clustering method, clustering attributes and heterogeneity level. Energy efficient clustering protocols should be designed for the characteristic of heterogeneous wireless sensor networks. Many issues in WSNs are formulated as multidimensional optimization difficulties, and approached through bio-inspired techniques. Particle swarm optimization (PSO) 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, Particle Swarm Optimization and Wireless sensor networks.**