Grid based Fuzzy Optimized Routing Protocol for Underwater Sensor Networks

Abstract

In Underwater Sensor Network (UWSNs) there are several problems with limited bandwidth, long propagation delay, low battery power, location problems because of having adverse environment. In Grid Based Fuzzy Optimized (GBFO) routing protocol the whole network is divided by different virtual grids. Then energy estimation of an active node within a grid has been performed. After making sequence of active nodes, only one node is in active mode and remaining nodes will perform as sleeping node. Having multiple characteristics and packet forwarding among active nodes in fuzzy optimized active node selection phase the activeness ratio takes into account the eligible neighbor's based on link expiration time, Number of packets within a node. Active node will select from fuzzy. It will compensate loss energy of networks. Provides facilities where a node can communicate with centroid infrastructure.

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\textbf{Index Terms}

\begin{tabular}{ll}
Computer Science & Fuzzy Systems
\end{tabular}

\textbf{Keywords}

\begin{tabular}{llll}
UWSNs & Activeness Ratio & GBFO & FIS
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