Comparative Performance Analysis of AODV Parameter for ZigBee Network using Artificial Neural Network

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Abstract

This paper emphasizes on the signal transmission range of Zigbee network based on IEEE 802.15.4 standard using Simulink-based simulator called TRUE TIME 2.1. Ad hoc On-Demand Distance Vector (AODV) Routing is implemented in TRUE TIME 2.1. Here a comparison is made between the three Artificial Neural Network Architectures such as Feed forward neural network, Cascade forward neural network and Layered Recurrent Neural Network for various training functions like Levenberg-Marquardt back propagation (trainlm), Bayesian regularization back propagation (trainbr) and BFGS quasi-Newton back propagation (trainbfg) for Feed Forward Neural Network.

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Index Terms

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Keywords

AODV, Artificial Neural network, Cascade forward neural network, feed forward neural network, Layered Recurrent neural Network, Routing and Zigbee.