

## Detecting and Secluding Route Modifiers by Neural Network Approach in Wireless Sensor Networks

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**Abstract :** In a real world scenario, the viability of the sensor networks has been proved by standardizing the technologies. Wireless sensor networks are vulnerable to both electronic and physical security breaches because of their deployment in remote, distributed, and inaccessible locations. The compromised sensor nodes send malicious data to the base station, and thus, the total network effectiveness will possibly be compromised. To detect and seclude the Route modifiers, a neural network based Pattern Learning predictor (PLP) is presented. This algorithm senses data at any node on present and previous patterns obtained from the en-route nodes. The eminence of any node is upgraded by their predicted and reported patterns. This paper propounds a solution not only to detect the route modifiers, but also to seclude the malevolent nodes from the network. The simulation result proves the effective performance of the network by the presented methodology in terms of energy level, routing and various network conditions.

**Keywords :** neural networks, pattern learning, security, wireless sensor networks

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