A Secure Intrusion Detection System for Heterogeneous Wireless Sensor Networks

Abstract

The intrusion detection is defined as a mechanism for a wireless sensor network to detect the existence of incorrect and inappropriate moving attackers in the network. We consider the intrusion detection issue according to two sensing models such as homogeneous and heterogeneous sensing models. We derive the detection probability by considering these two sensing models. Further, we discuss the broadcast reachability and network connectivity, which are very important conditions to make sure the detection probability in wireless networks. In this paper Watchdog monitoring technique is presented to detect misbehaving nodes. It is based on the broadcast concept of communication in sensor networks, where each node hears the communication of surrounding nodes even if it is not intended.

References

16. Hyeran Mun, Kyusuk Han, Yan Sun Lee, Chan Yeob Yeun, and Hyo Hyun Choi.


Index Terms

Computer Science  Security

Keywords

WSN, Intrusion detection, Security, Privacy, Heterogeneous networks