ABSTRACT

WSN is usually applied to environmental monitoring, monitoring bridges, monitoring volcanic activity, supporting components of smart city, or also for monitoring and control of agricultural activities. WSN are difficult to implement security, because in WSN there is no default security system due to limited processing and resource levels. One of the attacks on WSN technology is Hello Flood Attack. This Hello Flood Attack floods neighboring nodes with hello messages, so the energy of its neighboring nodes is reduced to exhaustion. In this study discusses methods for detecting and mitigating using signature based IDS and system shutdown implementation on sink nodes. IDS is a mechanism to detect suspicious activity or attacks on the network. IDS is passive and can only detect suspicious activity, can not take precautions and sound an alarm. At the time of the hello flood attack occurs, IDS will detect the attack and system shutdown will be implemented on the sink node. System shutdown method can be used to mitigate hello flood attacks.

Keywords: WSN, intrusion detection system, signature based IDS, node, sink node, hello messages, hello flood attack, system shutdown.