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Title: Performance analysis on cluster-based intrusion detection techniques for energy efficient and secured data communication in MANET

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Abstract: Mobile ad hoc network (MANET) is a network which includes the number of mobile nodes (MN) is joined without any access point (AP). In MANET, the numbers of mobile devices are deployed for communication within the transmission range. MANET has large number of vulnerabilities that degrades the network and makes communication as difficult one. Challenges in MANET include non-existence of reliability in-between nodes because of their mobility and topology variation. Lack of security in network makes the intruder to interrupt the data transmission that resulted in data loss. Most of the routing protocols perform efficient routing but the networks are more susceptible to various attacks. The conventional security method protects wired network however it is not effectual for detecting the variants of intrusive attack in MANET. Our main objective is to detect the variants of attacks in MANET with lesser EC and higher IDR. To improve the performance of routing, various intrusion detection techniques are discussed and examined using clustering process.

Keywords: mobile ad hoc network; MANET; access point; transmission range; security; mobility; topology variation; attacks.

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