



An Efficient Distributed Detection in Sensor Networks with Mobile Access under Byzantine Attacks

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Abstract: Wireless Sensor Networks (WSNs) have played a vital role, and that is considered to be one of the immense and emerging technologies as there are various innovative applications both for public sector and military organizations. A serious threat is the Byzantine attack in the wireless sensor networks where the adversary has full control over some of the authenticated nodes and it can perform arbitrary behavior to disrupt the system. The byzantine attacks detection is very important to avoid the system degradation. SENMA has two types of nodes sensors and mobile access points (APs). To detect both static and dynamic Byzantine attacks in reliable data fusion in wireless sensor networks with mobile access points (SENMA) the paper uses linear q-out-of-m-rule. This rule can achieve satisfying accuracy with low false alarm rate. It can also perform malicious node detection using adaptive data fusion under time-varying attacks.

Keywords: Security in wireless sensor networks, Byzantine attacks, distributed detection

