

# Practical Access Control Protocols (PACPs) for Wireless Sensor Networks: Analysis of Security Pitfalls

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**Abstract**— Access control protocol is always highly required in wireless sensor networks (WSNs), where low cost sensors are deployed for obtaining the environments sensitive data from the real applications. In this regards, very recently, Lee et al proposed practical access control protocols (also called as PACPs) for WSNs (published in IEEE TCE) and claimed that their PACPs are practical and secure for the applications. However, a single security loophole can become a big menace to the application if possible security threats are not considered properly while designing the access control protocol. Therefore, this paper identifies that PACPs have security pitfalls and new node addition may not be highly scalable for practical (real-world) applications. Hence, PACPs have inherent security flaws, and may not be practical for the WSN.

**Keyword**— Access control protocol, authentication, key establishment, wireless sensor networks



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