

Master 2012

Nitin Singh Makhloga

Performance Evaluation and Security Analysis of WiFire in Wireless Sensor Network Scenario.

ABSTRACT - Masterthesis

This thesis evaluates WiFire comprehensively in a realistic wireless sensor network (WSN). Objectives along this way are to identify and implement a relevant WSN scenario that benefits from WiFire's protection. An attacker model helps to formulate possible threats, and to design and implement a security policy to mitigate them. Using experiments, the performance of WiFire in protecting the implemented WSN is evaluated, answering the question whether WiFire can thwart all attacks in the attacker model using different strategies. As the placement of WiFire is expected to play a major role in its performance, the thesis also provides solutions on how to find optimal locations for WiFire instances and also the factors which affects WiFire's performance.