

## Evaluation of Collect Tree Protocol for Structural Health Monitoring System Using Wireless Sensor Networks

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**Abstract :** Routing protocol may enhance the lifetime of sensor network, it has a highly importance, especially in wireless sensor network (WSN). Therefore, routing protocol has a big effect in these networks, thus the choice of routing protocol must be studied before setting up our network. In this work, we implement the routing protocol collect tree protocol (CTP) which is one of the hierarchic protocols used in structural health monitoring (SHM). Therefore, to evaluate the performance of this protocol, we choice to work with Contiki system and Cooja simulator. By throughput and RSSI evaluation of each node, we will deduce about the utility of CTP in structural monitoring system.

**Keywords :** CTP, WSN, SHM, routing protocol

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