

## ABSTRACT

---

*One of the problems experienced by areas with lots of trees is illegal logging. Land owners often experience timber theft by criminals. Based on the problems experienced, WSN energy monitoring was made in illegal logging in the form of a simulation that was developed and took the energy model from previous research. Energy monitoring will be implemented 2 energy routing protocols. The first routing protocol used is the LEACH protocol. Meanwhile, the second routing protocol is the EAMMH protocol. In this research, the writer tries to simulate the network by applying both protocols and analyzing the simulation results. The simulation will be carried out using the Matlab application.*

*The simulation results show that the simulation results using the EAMMH routing protocol work better in maintaining live nodes in the routing loop and use slightly better energy than the LEACH protocol.*

*Keywords: illegal logging, routing protocols, LEACH, EAMMH.*