



**RESEARCH ARTICLE**

# **Energy Efficient Routing Protocols in Mobile Ad hoc Network Based on Enhanced AODV Protocol**

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***Abstract— A Mobile Ad-hoc Network (MANET) is a self-configuring network composed of mobile nodes without any fixed infrastructure. Energy efficiency is a major issue of concern in mobile ad hoc networks as mobile nodes rely on batteries, which are limited sources of power, and in several environments, it is quite a unwieldy task to replace or renew them. Energy is limited factor in case of Ad-hoc networks. The life of a node is directly relative to the battery in the instrument operating at the node. Maximize the use of energy and maximize the life of network is still the key challenge of Mobile Ad hoc network. Different routing protocols for mobile adhoc networks could be opposed depending upon the network design and the application. This paper presents an improved the energy conservation techniques using the enhanced AODV energy efficient routing protocols in MANETs. This EAODV protocol use energy optimal routes to reduce the energy consumption of nodes. Simulations are carried out using the NS2.***

***Key Terms: - Mobile Ad-hoc Network; On-demand Routing; Energy Efficient Routing; Routing Protocols; AODV***

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Full Text: <http://www.ijcsmc.com/docs/papers/July2013/V2I7201392.pdf>