



**RESEARCH ARTICLE**

**Exigent Vulnerability in Mobile Ad-hoc Network and Solutions in Context of Energy Optimization with Clustering Technique**

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**Abstract—** *Mobile ad-hoc network is collection of mobile nodes that are physically located at various location and there interconnections between nodes are capable of changing on a continual basis. Energy is a limiting factor in success of any mobile ad-hoc network. In Mobile ad-hoc network, mobile devices are mainly operated by battery so energy optimization is an important issues in MANET. Both minimization of power and other QoS requirements like delay, throughputs are have to be take care properly. Without affecting the QoS we should conserve the energy of mobile nodes but it is very complex to overcome from this. Power consumption can be reduced at device level, at transmission level or may be by using optimized power aware routing protocol. In this paper we have given a brief description of basic aspects of mobile ad hoc network and studied various power saving techniques in mobile ad hoc network & given a comparative analysis of these techniques. In this paper we also suggest an approach for energy conservation by CBIR.*

**Key Terms:** - *Mobile ad-hoc networks; Cluster Based Information Routing (CBIR) Protocol; Cluster Head (CH)*

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