A

Dissertation

On

# **Energy Preserving Adhoc On-Demand Distance Vector**

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Submitted By

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## **CERTIFICATE**

This is to certify that the dissertation titled "Energy Preserving Adhoc On-Demand Distance Vector" is a bonafide record of work done at Delhi Technological University by Jatin Arora, Roll No. 2K12/CSE/07 for partial fulfilment of the requirements for the degree of Master of Technology in Computer Science & Engineering. This project was carried out under my supervision and has not been submitted elsewhere, either in part or full, for the award of any other degree or diploma to the best of my knowledge and belief.

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#### **ABSTRACT**

Wireless devices use has been increased drastically in the last decade. To provide communication between the node which are mobile in nature and using wireless network some protocols were developed to provide faster transmission between the nodes in the network. But most of them lack in conserving the energy of the nodes to maximize the network lifetime. Energy is the main constraint in a wireless network. Each network device is running on the battery which is always limited source of energy. Hence the routing protocol should take energy of nodes as a valuable metric to perform routing which results in maximum network lifetime. Several protocols were already developed for routing in Mobile Adhoc Network (MANET) in this dissertation we enhance the Adhoc On-Demand Distance Vector (AODV) and Distance Sequenced Distance Vector (DSDV) which is widely used for routing in MANET's. This dissertation improves AODV, DSDV protocol to optimize the routing which preserves energy to increase the network lifetime.

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## **LIST OF ABBERIVATIONS**

#### ACRONYM DEFINATION

AODV Adhoc On-Demand Distance Vector.

DSDV Distance Sequenced Distance Vector.

EPAODV Energy Preserving Adhoc on-Demand Distance Vector.

EPDSDV Energy Preserving Distance Sequenced Distance Vector.

NS Network Simulator.

MANET Mobile Adhoc Network.

EPV Energy Preserving Value.

EPVT Energy Preserving Value Total.

NAM Network Animator.

RREQ Route Request.

RREP Route Reply.

RERR Route Error.