**A Project Report**

**On**

**Title**

submitted for partial fulfillment of the requirements

for the award of the degree of

Bachelor of Technology

in

Computer Science

**Submitted by**

Name(Roll Number)

**Under supervision of**

Prof. ……….



**KIET Group of Institutions, Ghaziabad**

**Dr. A.P.J. Abdul Kalam Technical University, Lucknow**

**May, 2022**

**DECLARATION**

I/We hereby declare that this submission is our own work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Signature

Name:-

Roll No.:-

Date:-

## **CERTIFICATE**

This is to certify that Project Report entitled “ ” which is submitted by in partial fulfillment of the requirement for the award of degree B. Tech. in Department of Computer Science of Dr. A.P.J. Abdul Kalam Technical University, Lucknow is a record of the candidates own work carried out by them under my supervision. The matter embodied in this report is original and has not been submitted for the award of any other degree.

.

**Date: Supervisor**

Name

(Designation)

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Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

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**ABSTRACT**

Mobile Ad hoc network is network where nodes communicate without any central administration or network infrastructure. They are connected via wireless channels and can use multiple hops to exchange data. Routing protocols are needed for communication in such Ad hoc networks, where it targets for efficient and timely delivery of message. There are various performance metrics to compare Ad hoc routing protocols. It also provides a step by step approach based on assumption on how to carry out such a comparative study, which could be used for future research. The cardinal concept of TCP development was to carry data within the network where network congestion plays a vital role to cause packet loss. On the other hand, there are several other reasons to lose packets in Mobile Ad Hoc Networks due to fading, interfaces, multi-path routing, malicious node and black hole. Along with throughput, fairness of TCP protocols is important to establish a good communication. The simulation work has been done in NS2 environment on platform Linux (Ubuntu) using X-graph, trace graph and Nam file. Based on the simulation results we carried out observations for different TCP packets under several QoS metrics in AODV and DSDV on Drop, Packet Delivery Fraction , End to end delay and Normalized Routing load while varying the number of nodes, speed, Pause time, throughput, delay, and jitter. After simulating on these parameters we have come to conclusion that AODV (Ad-hoc On-Demand Distance vector) performs better than DSDV (Destination Sequence Distance Vector). In future we would work on traffic congestion and other similar parameters with other protocols as well.

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**LIST OF ABBREVIATIONS**

NAM Network Animator

MANET Mobile Ad-hoc Network

DSDV Destination Sequence Distance Vector

DSR Dynamic Sequence Resource

AODV Ad-hoc On-Demand Vector

OSI Open System Interconnections

TCP/IP Transmission Control Protocol/Internet Protocol

Pdf Packet Drop Fraction

GSR Global State Routing

**CHAPTER 1**

**INTRODUCTION**

**1.1 INTRODUCTION**

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