

An Anthology of Applied Computer Technologies

Zulkefli Muhammed Yusof
M.M Hafizur Rahman



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Editors

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13. THE IMPACT OF TRANSMISSION RANGE OVER NODE DENSITY IN VEHICULAR AD HOC NETWORK (VANET) WITH OBSTRUCTION OF ROAD INFRASTRUCTURE

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ABSTRACT

Vehicular ad hoc networks (VANETs) have the characteristic to not only experiencing rapid changes in wireless link connections but also having to deal with different types of network densities. These are some of the main characteristic that can affect the performance of the network immensely. In this paper, we evaluate the network performance of VANETs in a highway environment using SUMO traffic simulator and network simulator, NS-2 which specifically focusing at the toll booths by studying the effect of varying transmission range over node density. The results have shown that the chosen transmission range can affect the network performance significantly in accordance to node density.

13.1 INTRODUCTION

Vehicular networks, also known as (VANETs) are spontaneously formed between moving vehicles equipped with wireless interfaces, where its