



BANDWIDTH CALCULATION OF SHORT RANGE COMMUNICATION VEHICULAR NETWORK

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ABSTRACT

As we know, high bandwidth wireless local area networks are gaining popularity. This paper offers a cyclic model of a wireless vehicular network and presents a bandwidth calculation of each network node. When assessing the performance of a wireless LAN, it is especially important to consider how this LAN will be used. When analyzing wireless networks, there arises a need to evaluate the whole network or a part of it. Whole Vehicular network, discussed in this work, consist of three layer networks. When analyzing wireless networks, the theory of queues net is used. During the research involving analytical methods, wireless network performance characteristics of various types were assessed.

In fact, the cyclic model was developed which is applicable to determine data transfer rate depending on the number of moving objects in the area of the wireless base station. In this article was found bandwidth of depending on the distance to the base station. Buzen's method was used for the cyclic closed network performance calculation.

In the result of the experiment, the mathematical models for cyclic Vehicular wireless networks were selected as ones who are to be used for choosing an optimal method for performance evaluation of Short range communication Vehicular network.