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E-Toll Information Technology In Gto And Hybrid In Toll Gate Menanggal - Surabaya

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Abstract

The increase in population and users of motorized vehicles is increasing in Indonesia. One of the increasing numbers of toll road users. The toll road payment system has varied. The problem is the use of a ticket system that can lead to congestion queues. The development of the current payment system is the use of the toll card system. The toll card cannot perfectly overcome congestion at the toll gate. On the Menanggal toll gate is the main entrance with 2 types of toll booths (GTO and Hybrid). It can be said that there are quite a lot of vehicles that run daily at the gate and not infrequently there is a long queue density during office hours and during work breaks. This study aims to compare GTO and Hybrid systems. The methodology used was using the Indonesian road capacity manual MKJI 1997. The conclusion of this study was that the rate of arrival that occurred on each shift was shift 1, the level of vehicles coming was 1083 pcs / hour, shift 2, 1308 pcs / hour. For Shift 3, 209 pcs / hour. Next is the number of vehicles that pass per second. In each second time, it is divided by 6 substations, 3 HYBRID substations and 3 automatic toll booths (GTO). But for shift 3 there is a difference because the substations that operate are only 4 substations, which consist of 1 HYBRID substation and 3 automatic toll booths (GTO). So it can be concluded that the capacity of the abandoning Menanggal is still safe. The difference in the efficiency of transaction time on GTO and HYBRID is 1; 1.5 of these results are obtained from the number of vehicles passing between the 2 types of substations.

Keywords
e-toll, information technology, gto and hybrid

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