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AN IMPROVED STRATEGY TO REDUCE THE PASSENGER TRAFFIC AT COASTAL AND SUBURBAN AREA DIVISION OF SRI LANKA FORT RAILWAY STATION TICKETING COUNTERS

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Abstract

Sri Lanka Railway Department (SLRD); which is the major transport organization in Sri Lanka, provides transportation for about 0.29 million passengers daily. Fort railway station is the main railway station in Sri Lanka which caters 0.2 million commuters daily. It comprises with 10 platforms and two ticketing divisions. Since the Coastal and Suburban area ticketing division is more crowded compared to the other division, the objective of the study was to introduce an improved strategy to reduce the passenger traffic at Coastal and Suburban area division ticketing counters. First, the reasons for the conjunctions were identified. Then the passenger flow was analyzed by (railway) line-wise and ticketing counter-wise. To arrive at a solution the counters were rearranged with the aid of graph theory. Then a new system was introduced and the efficiency of the system was proved using queuing theory.

Keywords: Graph Theory, Queuing Theory, Cut Sets, Ticketing Counters.

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