

Study of Parameters Influencing Dwell Times for Trains

Authors : Guillaume Craveur

Abstract : The work presented here shows a study on several parameters identified as influencing dwell times for trains. Three kinds of rolling stocks are studied for this project and the parameters presented are the number of passengers, the allocation of passengers, their priorities, the platform station height, the door width and the train design. In order to make this study, a lot of records have been done in several stations in Paris (France). Then, in order to study these parameters, numerical simulations are completed. The goal is to quantify the impact of each parameter on the dwelling times. For example, this study highlights the impact of platform height and the presence of steps between the platform and the train. Three types of station platforms are concerned by this study : 'optimum' station platform which is 920 mm high, standard station platform which is 550 mm high, and high station platform which is 1150 mm high and different kinds of steps exist in order to fill these gaps. To conclude, this study shows the impact of these parameters on dwell times and their impact in function of the size of population.

Keywords : dwell times, numerical tools, rolling stock, platforms

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