Control Method of Multiple Level Crossings for Obstruction Reduction of Road Traffic Flow

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So far several methods for reducing warning time of level crossings have been studied to decrease the obstruction of road traffic flow during rush hours. However, the influence of the warning time reduction on the road traffic flow has been not sufficiently considered in these methods. For this problem, we propose a multiple level crossing group control method which considers the traffic flow of road network. Furthermore, to evaluate the effectiveness of the proposed method, we develop two simulators: level crossing and train operation simulator, and road traffic flow simulator. As a result of evaluation by coupling these two simulators, we confirm that the obstruction of road traffic flow can be effectively reduced by using the proposed method.