An Implementation and Verification on a Model for Predicting Level of Train Congestion during Disruptions

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In recent years, train operators have started to provide real-time information on the levels of congestion on trains to improve customer satisfaction. However, during disruptions such as train service cancellations or schedule changes, the levels of congestion are different from the norm. At such times, it would be beneficial for passengers to receive information about future congestion, since it would help them decide whether or not to change trains. In this study, we developed a model to predict congestion levels during disruptions. The test of the developed model confirmed that it was possible to predict the level of congestion with around 75 % accuracy by using features such as the level of congestion at one to three stations and the headway ahead of the train.