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Estimation of Train Operation Using an Exponential Smoothing Method

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Abstract : The purpose of this research is to improve the convenience of waiting for trains at level crossings and stations and to prevent accidents resulting from forcible entry into level crossings, by providing level crossing users and passengers with information that tells them when the next train will pass through or arrive. For this paper, we proposed methods for estimating operation by means of an average value method, variable response smoothing method, and exponential smoothing method, on the basis of open data, which has low accuracy, but for which performance schedules are distributed in real time. We then examined the accuracy of the estimations. The results showed that the application of an exponential smoothing method is valid.

Keywords : exponential smoothing method, open data, operation estimation, train schedule
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