

Methodology to Predict Structure Damage and Vehicle Running Safety due to Earthquake

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In order to ensure the seismic safety of railway system, it is important to consider the following points. First, we have to investigate the safety of the railway, which spreads extensively. Second, we should consider not only the safety of structures but also the vehicle running safety as seismic required performance. In this study, we have developed the methodology to predict the seismic damage of railway structures and the seismic running safety of the railway vehicle using only four parameters, which are peak ground acceleration, peak ground velocity, yield strength, and equivalent natural period.