

Evaluation of Seismic Slope Stability
Based on Model Tests Using Different Scale Shaking Tables

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A series of shaking table model tests using two different size shaking tables belonging to the Railway Technical Research Institute and the National Research Institute for Earth Science and Disaster Prevention (E Defense) respectively were conducted to develop a procedure to evaluate seismic slope stability. It was found out from the model tests that the types of slope failure could be categorized into two groups. One is the sliding failure, which could trigger the catastrophic failure of the slope and the other is the progressive deformation mode in which the displacement of the sliding mass of the slope would increase gradually. In this paper, the outline of the model tests and the proposed method to evaluate seismic slope stability are introduced.