

**A Method to Evaluate Earthquake Induced Residual Displacement of Slope  
with Reflecting Resistance and Failure Mechanism of Ground Anchor**

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On the basis of the results of a centrifugal model test on a slope reinforced with ground anchors, the authors proposed a method for evaluating the residual displacement of the anchor-reinforced slope during an earthquake. In the proposed method, we evaluate the effects of the stepwise development and loss of anchor resistance by static nonlinear FEM analysis, which cannot be evaluated with the usual Newmark method. The residual displacement of the anchor reinforced slope can be evaluated with the Newmark sliding block method by changing the anchor resistance with the deformation of the slope. Verification analysis shows that the calculated value using the proposed method agreed well with the measured ones.