

## عنوان مقاله:

Reliability evaluation of rock wedge slope stability by SCM

## محل انتشار:

همایش ملی مهندسی عمران ، شهرسازی و توسعه پایدار (سال: 1393)

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## نویسندگان:

a johari - Assistant Professor Department of Civil and Environmental Engineering Shiraz University of Technology  
Shiraz, Iran

a mehrabani lari - Master of Science Candidate Department of Civil and Environmental Engineering Shiraz University  
of Technology Shiraz, Iran

## خلاصه مقاله:

This paper proposed a reliability method for evaluation of rock wedge slope stability considering correlated failure modes. A probabilistic fault tree is employed to model the system aspects of the problem. The system reliability analysis is performed by Sequential Compounding Method (SCM). An example is presented to illustrate the accuracy of the proposed method. The stability of the wedge can be evaluated efficiently using the proposed system reliability approach in a more systematic and quantitative way. The probabilities of failure of the wedge from the proposed method are fairly consistent with those from the Monte Carlo simulation method. The results demonstrate that the probability of failure will be overestimated if the correlations between different failure modes of the wedge are not taken into account.

## کلمات کلیدی:

rock wedge slope stability; sequential compounding method; probabilistic fault tree; correlated failure modes

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/345784>

