

عنوان مقاله:

Rectangular concrete slab yield lines stochastic

محل انتشار:

چهارمین کنفرانس بین المللی مهندسی عمران، سازه و زلزله (سال: 1399)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Ali Johari - Associate Professor, Department of civil and environmental Engineering, Shiraz University of technology

Zohreh Delavar - Master's Student, Department of Civil Engineering, Persian Gulf University

Alireza Fiouz - Associate Professor, Department of Civil Engineering, Persian Gulf University

خلاصه مقاله:

In this paper, the emphasis is given to uncertainties in the evaluation of the reinforced concrete slab behavior based on yield lines theory. Predicting the real behavior of structures is nowadays largely performed using reliability methods. The stochastic analysis of reinforced concrete slab is performed by taking into account the variability of defining loads, material properties, and slab dimensions via Monte Carlo Simulation (MCS). The reliability analysis is carried out employing random variable and Monte Carlo simulation. A numerical example of a slab is presented to measure how stochastic analysis using a yield line can change its response. The results show that the input parameters' spatial variability has a more significant effect on the reinforcement area variation.

کلمات کلیدی:

Yield line analysis, Concrete slab, Stochastic analysis, Monte Carlo Simulation, Probability density function

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1131628>

