

عنوان مقاله:

Mesh-Free Upper Bound Shakedown Analysis of Strip Footing Resting on Cohesive Soil

محل انتشار:

یازدهمین کنگره ملی مهندسی عمران (سال: 1398)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Zohre Nosrati - Graduate student, Civil and Envir. Eng. Dept., Shiraz University of Technology

Seyed Mohammad Binesh - Associate Prof., Civil and Envir. Eng. Dept., Shiraz University of Technology

Hosein Rahnema - Assistant Prof., Civil and Envir. Eng. Dept., Shiraz University of Technology

خلاصه مقاله:

A new mesh-free approach has been proposed for the upper bound bearing capacity determination of strip footing resting on cohesive soil. The Von-Mises yield criterion is assumed for the cohesive soil behavior. By the application of associated flow rule, the relation between stress and strain and the plastic strain increment at the yield condition are assessed. In order to express the strain increment field in terms of nodal velocities, the radial basis point interpolation method has been adopted. Finally, the upper bound shakedown problem is expressed as an optimization problem which is solved by a repetitive scheme. The efficiency of proposed method is investigated by solving an example at the end of the paper.

کلمات کلیدی:

Upper bound, Mesh-free, Strip footing

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/917833>

