

## عنوان مقاله:

Study of the Capacity of a Pile Group due to Tunneling by Three-Dimensional Numerical Analysis

## محل انتشار:

چهارمین همایش بین المللی مهندسی ژئوتکنیک و مکانیک خاک ایران (سال: 1389)

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## خلاصه مقاله:

Construction of tunnels in urban cities inevitably affect the near by structures which are supported on deep foundations such as pile groups. In the literature, a lot of research is available regarding soil-tunnel-pile interaction. But most of studies available in literature concern only about two dimensional tunneling effects on single pile. In this paper, a three dimensional, elasto-plastic coupled finite element analysis has been carried out to investigate the effects of a 6m open-face advancing tunnel on a two by two pile group in stiff clay. The objectives of this study are to determine the induced axial forces in front and rear piles, settlement of pile cap and change of pile group capacity due to the advancing open-face tunnel.

## کلمات کلیدی:

Numerical modeling, coupled analysis, open face tunneling, pile group and pile group capacity

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/94480>

