

## عنوان مقاله:

Improvement of lateral and oblique pull-out capacity of piles in sand-An experimental study

## محل انتشار:

اولین کنفرانس ملی مکانیک خاک و مهندسی پی (سال: 1393)

تعداد صفحات اصل مقاله: 9

## نویسندگان:

Sina Borzooei - Graduate student

E. Saibaba Reddy - Professor of civil engineering

G. V. Narasimha Reddy - Associate professor of civil engineering Department of Civil Engineering, J.N.T.U.H. College of Engineering, Kukatpally, Hyderabad (A.P) 500085, INDIA

## خلاصه مقاله:

This paper presents the details of two series of experiments carried out on model piles embedded in sand. The first part of the paper presents details of tests carried out on model piles, under lateral loads, where four attachments were made onto the pile to improve its lateral capacity. The test results are compared with the results obtained from an equivalent plain pile. The additions of attachments have shown considerable increase in the lateral capacity of a pile. For these piles, theoretical estimates are made and compared with the experimental results. The theoretical estimates and the experimental results are found to be in good agreement. The second part of the paper presents the details of the test series carried out on model vertical piles under oblique pull. Experiments were carried out on three model piles of different lengths. The load was applied, on each pile, at three angles of obliquity. The load and the displacement of the pile head were observed till failure of the pile. The uplift capacity is analyzed as a function of obliquity of load. The theoretical estimates of the pile capacity under oblique pull were made. A good agreement between the experimental results and the theoretical estimates is observed.

## کلمات کلیدی:

Pull-out capacity, Oblique pull-out capacity of pile, Pile attachments

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/332506>

