

## PERFORMANCE STUDY OF BI-ANGLE SKIRTS; A SPECIAL CASE OF MULTI SKIRTED FOOTING FOR ISOLATED SQUARE FOOTING

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## **ABSTRACT**

Numbers of foundation performance improvement techniques are used to overcome settlement problems for the footings. Skirted footing is one of the techniques commonly being used for offshore structures. Now it has attracted the attention in using it for clayey soils. It has been reported that the skirts can be effectively used as one of the foundation performance improvement techniques for clayey soils. In this study, performance of Bi-angle skirts, a special case of multi skirted footing has been focused upon. In this study two types of soils, three locations of skirts, and three different sizes of footings have been considered. The study shows that provision of semi Bi-angle skirt on two diagonally opposite corners of the footing is the most efficient technique to control settlement as well as rotation (differential settlement) of footing. Analysis is carried out using finite element based software SAP2000 Vs.18.

KEYWORDS: Differential Settlement, Location of Skirt, Multi Skirted Footing, SAP2000 Vs.18, Semi Bi-Angle Skirt

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