**STUDY ON LIQUEFACTION OF SOIL**

**ABSTRACT**

Liquefaction is the phenomena when there is loss of strength in saturated and cohesion-less soils because of increased pore water pressures and hence reduced effective stresses due to dynamic loading. It is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. In this paper the field datas of two major earthquakes, namely Chi-Chi, Taiwan earthquake (magnitude Mw =7.6) and Kocaeli, Turkey earthquake (magnitude Mw = 7.4) in 1999,a study of the SPT and CPT case datas has been undertaken. In this paper, some methods have been studied namely, Semi-empirical method of evaluating soil liquefaction potential, Practical reliability based method for assessing soil liquefaction, Robertson method, Olsen method and Juang method. A comparative study has been done using all the above mentioned methods and the error percentages have been calculated for each of them with respect to the actual on field test results to conclude which of the models is better for both SPT and CPT case datas.