

SYLLABUS :-

Introduction, examples of foundation problems, site characterization, site investigation methods, in situ tests, bearing capacity - general, local and punching shear failure, effect of size, shape, depth and water table, settlement of foundations - elastic, consolidation and total settlement; stress distribution in soil, types of foundation - shallow/deep, isolated, combined, mat etc., contact pressure distribution, basics of design of shallow foundation, deep foundation - type, load transfer mechanism in piles, pile capacity, laterally loaded pile, test pile and pile load test, efficiency of pile group, settlement of pile, stability analysis of different earth retaining structures - gravity, cantilever, counterfort, reinforced earth etc, ground improvement methods.