

(54) Title of the invention : DETERMINATION OF MODIFIED CORRELATION OF SHEAR STRENGTH PARAMETERS OF COARSE AND FINE GRAINED SOILS BASED ON SPT (N1)60 FOR GUJARAT SOILS

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## (71)Name of Applicant :

**1)ANDHRA UNIVERSITY**

Address of Applicant :Department of Civil Engineering, Andhra University, Visakhapatnam, Andhra Pradesh, PIN-530003  
 Visakhapatnam -----

**Name of Applicant : NA****Address of Applicant : NA**

## (72)Name of Inventor :

**1)PHANINDRA SK LAKSHMI M**

Address of Applicant :Research scholar, Department of Civil Engineering, Andhra University, Visakhapatnam, Andhra Pradesh, PIN-530003  
 Visakhapatnam -----

**2)CHIRLA N V SATYANARAYANA REDDY**

Address of Applicant :Professor & Head of the Department, Civil Engineering, Andhra University, Visakhapatnam, Andhra Pradesh, PIN-530003.  
 Visakhapatnam -----

## (57) Abstract :

DETERMINATION OF MODIFIED CORRELATION OF SHEAR STRENGTH PARAMETERS OF COARSE AND FINE GRAINED SOILS BASED ON SPT (N1)60 FOR GUJARAT SOILS The present invention relates to a comparative study of the (i) angle of shearing resistance Phi value of soil obtained from correlation using relative density and Phi value obtained from Lab tests, and (ii) angle Cohesion value C of fine grained soil obtained from correlation using plasticity index & SPT (N1)60 value, and C(cohesion) value obtained from Lab tests In the design of reinforced concrete (RC) bridges, the error in considering the shear parameters of soil may lead to insufficient reliability levels. For this reason, it is necessary to estimate more reliable values of shear parameters and variability of soil properties which can significantly affect the bridge behavior. This study investigates the error in prediction of angle of shearing resistance of soil (Phi) for coarse grained soils adopted from correlations based on relative density and C Value of fine grained soils adopted from correlations based on SPT (N1)60 and plasticity index used for Bridge foundation design. Figure of abstract: FIG. 3

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