**ABSTRACT**

Analysis and comparison of properties of various clayey soils is accomplished with and without reinforcement. Jute geo-textile (grade TD-5) became used as reinforcing material to stabilize both peat and black cotton soil. Almost all the standard laboratory tests as well as field tests have been carried out. Finally study of the contribution of jute geo-textile at the properties of clayey soils and its feasibility for various civil engineering installations is evaluated. The results show the increment of soil properties like shear strength, dry density and CBR (California Bearing ratio) while permeability and settlement decreased on introduction of jute geo-textile, indicating sizeable improvement within the engineering behaviour.