**THERMAL ANALYSIS OF ENGINEERED MULTI BARRIER SYSTEM FOR HAZARDOUS WASTE MANAGEMENT**

**ABSTRACT**

Soil thermal properties are of great importance in many engineering projects and other situations where heat transfer takes place in the soil. Estimation of soil thermal properties are of prodigious importance in design and laying of buried high voltage power cables, pipe lines of oil and gas, nuclear waste disposal facilities, Modification techniques of ground engaging heating and freezing and soil shrinkage studies etc.. Due to daily temperature fluctuations the solar and diffuse radiations exchange takes place at the earth‟s surface. Particularly changes in the amount, phase and condition of water. This leads to variations in the thermal properties of the soil. The present research deals with the thermal properties of soils and the factors influencing them. Heat transfer depends upon thermal properties of the soil, such as specific heat, conductivity and thermal diffusivity. Thermal properties affect the soil temperature profile and soil heat flux transport and distribution. With this in view, efforts were made to develop an apparent soil method for long-term scenarios that can be applied to thermal modeling for various soils.