**EXPERIMENTAL STUDY FOR THE DETERMINATION OF INFILTRATION RATE OF SOILS IN FIELD USING DOUBLE RING INFILTROMETER**

**ABSTRACT**

Infiltration is the process of penetration of water into the ground surface and the intensity of this process is known as infiltration rate. The infiltration rate is expressed in term of volume of water poured per ground surface per unit of time. Soil erosion, surface runoff & ground water recharge are affected by this process. At a certain moment the maximum infiltration rate can be indicated by the infiltration capacity of soil. Infiltration of water into the soil can be determined by a simple instrument called Double ring infiltrometer. The cylindrical ring infiltrometer consist of single metal cylinder. These cylinders are partially inserted into the ground and water is filled up to a margin inside the cylinder and after that the speed of penetration of water is measured with respect to the time and depth of penetration of water inside the cylinder.

Four types of cylinders are taken for this experiment of diameter 15cm, 30cm, 45cm & 60cm and they are experimented as 15-45cm & 30-60cm double ring infiltrometer. To spread the water vertically after infiltration we use double ring infiltrometer. Double ring infiltrometer is better than single ring infiltrometer. In single ring infiltrometer the water will spread horizontally & vertically both, from which water will not move only towards the ground water but using double ring infiltrometer the water will penetrate in one direction that is towards the ground water without much wastage of water