**Abstract**

In India, there is an enormous development in the field of pavement construction due to the growth of traffic. Basically, flexible pavement is preferred in most of the areas as it has certain advantages such that they can be strengthened and improved in stages with the growth of traffic. Since black cotton soil has a high shrinkage and swelling properties, it may be weak to resist the oncoming vehicle loads moving on the pavement. Hence, it requires soil stabilization to improve the properties of the soil to resist the oncoming vehicle loads. Methods like chemical stabilization, lime stabilization, etc. Adversely affects the chemical composition of the soil. Soils which are unstable nature can create problems for structures or pavements. With soil stabilization techniques we can ensure the good stability of soil to withstand pavement loads especially in case highly active soil. Disposal of fly ash is essential as they cause hazardous effects on the environment. Hence it can be used in combination with lime for the stabilization of soil and their performance is discussed. The experimentation is carried out keeping 4% of lime as constant and 10%, 20%, 30% and 40% of fly ash. It was found to be effective for the sample with the combination of 66% S + 4% L + 30% F.