"EFFECT ON ADDITION OF POLYVINYL ACETATE TO IMPROVE STRENGTH IN POROUS CONCRETE"

PROJECT REPORT

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In partial fulfillment of the requirements for the degree of

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In

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CERTIFICATE

Certified that the project work entitled **"Effect on Addition of Polyvinyl Acetate to Improve Strength in Porous Concrete"** is a bonafide work carried out by

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ABSTRACT

Earth gets water in the form of rain. The construction of pavements by using Bitumen and Concrete covers the soil surface which restricts the rain water from infiltration and ground recharge and also results in flooding. Pervious concrete is a special type of concrete which allows water to percolate through it, pervious concrete is a mixture of Cement and Aggregates, fine sand is not used for mix preparation, so also called as 'No Fine Concrete'. The percentage of voids in pervious concrete can vary from 15% to 35% due to which it allows rain water to infiltrate, increases ground water recharge and also decreases flooding possibilities. The main disadvantage of pervious concrete is its low strength which restricts its applications in areas where high load carrying capacity is required.

The aim of this experimental investigation is to improve the mechanical strength of pervious concrete using poly vinyl acetate ($C_4H_6O_2$) and poly vinyl alcohol (C_2H_2OH). In the present study dosage of poly vinyl acetate is taken as constant (0.25 % by weight of cement). The effect of poly vinyl acetate on the mechanical strength of pervious concrete is studied by varying the dosage (0.25, 0.5, 0.75 and 1.0 percent by weight of cement). It is found through this experimental study that the strength of pervious concrete is improved by 20% for 0.75% addition of poly vinyl acetate.