VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Project Report On

"SUITABILITY OF FLY ASH IN REPLACEMENT OF CEMENT IN POROUS CONCRETE"

Submitted in partial fulfilment of the requirements for the award of degree of

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ABSTRACT

With enhanced urban infrastructure growth, the natural available earth surface or the top soil strata has been covered with buildings roads along with footpath parking lots. If the roads are flexible or rigid it is covered with either bituminous or concrete toping. The footpaths are neatly laid with either concrete paving blocks or concrete slabs. The play area is surfaced with concrete toping. As a result there s no scope for the precipated water to get into the substrata.

Whenever there is precipitation the surface runoff is so huge that its flow velocity does not allow any percolation takes place. Hence ground water table in urban areas is depleting at an alarming rate. Also the cross and longitudinal drains get choked during heavy rains resulting in over flow and flooding at joining areas.

Porous concrete when used in such application would allow, the precipitated water to percolate thereby not only reduces the burden on road side drains but also improve the level of ground water table. In the present work porous concrete with fly ash as a blended material is tested for its strength and porosity property for assessing the adaptability of fly ash as a substitute material to cement.