International Journal of Civil Engineering (IJCE)
ISSN(P): 2278-9987; ISSN(E): 2278-9995
Vol. 3, Issue 3, May 2014, 9-18

International Academy of Science, Engineering and Technology
Connecting Researchers; Nurturing Innovations

STUDY ON PROPERTIES OF CONCRETE WITH COLOUR ADSORBED FLY ASH, RICE HUSK ASH, STEEL SLAG AND POLYPROPYLENE FIBRES

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ABSTRACT

The main objective of the project is to solve the waste management of Textile Industries, Thermal Power plants and Steel Manufacturing Industries. The solution for current environmental problems of disposal of steel slag and fly ash has been dealt by use of Fly ash as an adsorbent and using Colour Adsorbed Flyash as partial replacement for cement, use of steel slag as partial replacement for coarse aggregate and use of Rice Husk ash as partial replacement for cement in concrete. The key importance is to use the waste materials and combining the advantages of Fiber Composites (Polypropylene fibers) in concrete. In this experimental investigation an attempt is made to study the effect of partial replacement (30%) of coarse aggregate by the waste materials (steel slag) obtained from Steel Industry and Cement by (30%) Colour Adsorbed fly ash and (20%) Rice husk Ash on properties of Concrete. Also a detailed investigation is made to study the effect on the addition of fiber composites (organic polymers-POLYPROPYLENE FIBRES) on the properties of concrete.

KEYWORDS: Colour Adsorbed Flyash, Rice Husk Ash, Steel Slag, Water Management, Polypropylene Fibers