World Academy of Science, Engineering and Technology
International Journal of Civil and Architectural Engineering
Vol:8, No:12, 2014

Performance of Fiber Reinforced Self-Compacting Concrete Containing Different Pozzolanic Materials

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Abstract : Steel fiber adds to Self-Compacting Concrete (SCC) to enhance it is properties and achieves the requirement. This research work focus on the using of different percentage of steel fiber in SCC mixture contains fly ash and microwave incinerator rice husk ash (MIRHA) as supplementary material. Fibers affect several characteristics of SCC in the fresh and the hardened state. To optimize fiber-reinforced self-compacting concrete (FSCC), The possible fiber content of a given mix composition is an essential input parameter. The aim of the research is to study the properties of fiber reinforced self–compacting (FRSCC) and to develop the expert system/computer program of mix proportion for calculating the steel fiber content and pozzolanic replacement that can be applied to investigate the compressive strength of FSCC mix.

Keywords : self-compacting concrete, silica fume, steel fiber, fresh taste
Conference Title : ICBSE 2014 : International Conference on Building Science and Engineering
Conference Location : Penang, Malaysia
Conference Dates : December 16-17, 2014