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An Experimental Investigation on Fresh and Hardened Properties of Self Compacting Concrete with Various Fineness Modulus of Robo Sand

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Abstract: Concrete is a composite material that is produced from the combination of cement, aggregate and water. In those materials cement plays an important role in the concrete. In the present experimental study investigates about self compacting concrete, cement is replaced partially by Fly ash by 25% and metakaoline by 10%. Whereas the river sand is replaced with 100% of Robo sand.Glenium 6100 is used as a superplasticiszer and as well as viscosity modifying agent (VMA), the design and mix procedures followed according to European Federation of National Associations for Representing Concrete (EFNARC) guidelines. In this investigation the properties of SCC Is studied for the different Fineness Modulus of robo 2.5, 2.7 and 2.9 the fresh properties I.e. Filling ability and passing ability were studied by conducting the tests Slump flow, V- funnel test and L- box test. And the hardened properties Compressive strength, Split tensile strength and Flexure strength were calculated for 7, 28 and 90 days of curing.

Key words: : Self Compacting Concrete, Fineness Modulus, robo sand and Flyash, Metakaoline, Glenium 6100.

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