- Workability of SCC mixtures decreases due to increase of iron slag percentage cause may be multi-angle and rough in surface of iron slag aggregates. Increases friction between particles may responsible for the results.
- Compressive strength of SCC mixtures increases with iron slag content, and also with age. At 28 days, strength increases by 21% over control SCC.
- Water absorption of SCC mixtures with iron slag was lesser than control SCC mixtures at all curing ages.
- SCC mixtures without iron slag performed slightly better than SCC mixture with iron slag under external sulphate attack. There were only 10 and 16% loss in compressive strength at 7 and 28days after immersion in Mg_2SO_4.
- Iron slag SCC mixture gives good resistance to chloride ion penetration. The cumulative charge passed through iron slag mixtures was lesser than that passed through SCC mixture without iron slag.
- SEM images indicate that internal structure of concrete gets denser after the inclusion of iron slag.
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