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An Experimental Study of Concrete by Partial Replacement of Cement By Bagasse Ash And Coarse Aggregate By Recycled Aggregate

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Abstract: Increasing demand and consumption of cement investigators, researchers and scientist made in examination of alternate binders that are biodegradable and contribute towards waste management. The construction industry is the foremost consumer of natural resources which led to exhaustion of good quality natural aggregate (coarse aggregate). This situation constrains us to explore alternative materials for cement and coarse aggregate. Sugarcane bagasse ash (SCBA) is a left-over industrial by-product which is used as a replacement for cement. This research scrutinizes the possibility of using sugarcane bagasse ash as partial replacement of specific ingredients in concrete. In this paper SCBA has been chemically and substantially categorized and partially replacing cement in the ratio of 10% by the weight of cement in concrete. RA has been partially replacing coarse aggregate in the ratio of 15%, 20%, 25% and 30% by the weight of the coarse aggregate in concrete. The mix proportion for M_{25}grade concrete was derived.
Keywords: Sugarcane bagasse ash, Recycled aggregate, Physical and Chemical properties**.**

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