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(57) Abstract :
The proposed invention investigates ternary ground pond ash blended dolomitic limestone powder concrete with M-sand as the fine aggregate. Here, the ideal coupled substitution percentages of ground pond ash and limestone to replace cement are calculated. Concrete's mechanical properties, such as its Compressive, Split, and Flexural strengths, are determined. The durability properties of concrete, such as water absorption and porosity, are determined. It has been noted that the performance of ternary blended concrete and conventional concrete are comparable. To establish a connection between the compressive strength of concrete and other concrete parameters, statistical analysis is used. In addition, a concrete cost analysis is performed. Experimental investigation concludes that x % of ground pond ash in combination with Y % of dolomitic lime stone powder is the optimal % replacement with cement in concrete.

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