ICES 2024

TITLE OF PROJECT: **EXPERIMENTAL STUDY ON CONCRETE CONTAINING FLY ASH AND ACTIVATED CHARCOAL**

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ABSTRACT (150-300 words):
Concrete stands out as a remarkably versatile material, boasting numerous advantages that make it the cornerstone of the construction industry. Recognizing the ever-growing importance of sustainability, researchers have diligently explored ways to incorporate waste materials into concrete formulations.This dual objective aims to address disposal challenges while concurrently enhancing concrete properties. In the pursuit of elevating compressive strength, a novel approach has been undertaken, leveraging the synergies of activated carbon and fly ash.To achieve this, a concrete mix was meticulously crafted, with a strategic substitution of 20% of the traditional cement with fly ash. Building upon this foundation, varying percentages of activated carbon—0.4%, 0.8%, and 1.2%—were introduced into the concrete mix. The intention was to investigate the impact of these additions on the compressive strength of the concrete. The assessment of compressive strengths was conducted following a 28-day curing period. This research not only aligns with the imperative to address waste disposal challenges but also seeks to pioneer sustainable practices that enhance the overall performance of concrete. By incorporating fly ash and activated carbon, this study aims to contribute to the evolution of concrete formulations, ensuring a more resilient and eco-friendly construction material for the future.

KEYWORDS: ACTIVATED CARBON, FLY ASH, COMPRESSIVE STRENGTH, CONCRETE FORMULATIONS

CATEGORY: CONCRETE TECHNOLOGY AND BUILDING MATERIALS