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TITLE OF PROJECT: **DESIGN OF SLAB BY OPTIMISATION TECHNIQUES**

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ABSTRACT (150-300 words):

This paper presents an experimental investigation into the behavior of a bubble deck slab with varying thickness, variation in hollow plastic balls and optimization of materials. Test were conducted on two slab specimens to evaluate the effect of the slab thickness on flexural capacity. Slab thickness was varied from 120 to 150mm. All specimens will be a cast with a normal concrete of approximately 30MPa. A compressive strength results. show that the flexural capacity of slab increases with an increase in slab thickness. The reduction of the dead load is about 35%. The principle of this slab is to connect hollow plastic balls (bubbles) of 65mm and 55mm with reinforcing elements in an industrial prefabrication phase, which leads to more efficient method of construction.

KEYWORDS: **Bubble deck slab thickness deflection behaviour, flexural capability, prefabrication.**

CATEGORY: Concrete Technology