Research Title: Comparative study the effect of different type's chemical admixtures in ecofriendly sand cement block

Abstract: Contaminated and unused dredged sediment may turn into national wealth if it is properly utilized. The main purpose of this research is to investigate the minimum cement content required with an appropriate water-to cement ratio (w/c) to meet given workability, strength, and durability requirements in a concrete pavement; and to reduce carbon dioxide emissions, energy consumption, and costs. Along with a small ratio of Composite Portland cement (17 to 20 percentage), a negligible percentage (0.1 to 0.5) of admixture has been used during the research at Housing and Building Research Institute. Stabilization or solidification method was conducted to remove toxic and organic contaminants. Having been made the raw blocks manually and automatically, blocks were cured for 28 days to check the ultimate compressive strength, water absorption. From the perspective of cost and benefit, we have calculated that it outright cost-effective and environment gets enormous benefit. This new, effective idea and solution can certainly lessen the problem of dredging sediment disposal and produce eco-friendly construction materials.

Key Words- Dredged Sand, Chemical Admixture, Composite Portland cement, Compressive Strength, Water Absorption

Objectives:

To reduce the cost of concrete block.

To achieve the standard quality of concrete block by adding different types of chemical admixtures

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