

## ABSTRACT

Today researches all over the world are focusing on ways of utilizing both industrial good or agricultural wastes as a source of raw materials for the construction industry. These wastes utilization would lead the concrete industry in economical, and also help to create a sustainable and pollution free environment.

Sugar-cane bagasse is one such fibrous waste-product of the sugar refining industry, along with ethanol vapor. Bagasse ash mainly contains aluminum ion and silica. Rice husk ash is a green supplementary material that has applications in small to large scale. RHA is grayish-black in color due to unburned carbon. At burning temperatures of 550–800 °C, amorphous silica is formed, while crystalline silica is produced at higher temperatures. The specific gravity of RHA varies from 2.11 to 2.27; it is highly porous and light weight, with a very high specific surface area.

In this paper, untreated bagasse ash has been partially replaced in the ratio of 5% & RHA 5%, 10%, 15% by volume of fine aggregate in concrete.

Fresh concrete tests slump cone test, L-Box, U-box, V-box were undertaken along with hardened concrete tests like compressive strength, slump cone test and flexural strength. The result shows that bagasse ash can be a suitable replacement to fine aggregate.