

## ABSTRACT

Nowadays the construction is possible for only building materials such as cement, sand, aggregates and steel. The demand for building materials has been continuously rising with the increasing need for housing both in rural and urban areas. The resources used to manufacture construction materials affect the environment by depleting natural resources, using energy and releasing pollutants to the land, water. Commercial exploitation of traditional building materials by various industries has aggravated the situation. It has, therefore, become necessary to think over this problem seriously and to provide some sustainable solution to make the alternative materials available to solve the housing materials. Alternative natural materials have many practical uses in areas sustainable architecture and engineering. The main purpose of using such materials is to minimize the negative effect that our built environment, sand increasing efficiency and adoptability of the structure.

Some of most commonly used alternative materials for cement is fly ash and GGBS (ground granulated blast furnace slag) and for wood is bamboo, cardboard, cork and wood composites these materials are mostly used in present days. The results showed that the eco-friendly system had better sustainability rank (67%) than the conventional system (56%) from various studies.

This project describes about details of fly ash such as manufacturing process, applications, advantages, limitations, strength properties over conventional of clay bricks.

**Keywords:** Alternative, fly ash, GGBS, building materials.