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# A Review on Study of Use of Scrap Mild Steel in Manufacturing Bricks

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**ABSTRACT:** As per civil engineering is concerned it is very for an engineer to know the type, quality of material to use on construction site. This project focuses on the innovative use of steel scrap in the manufacturing of soil cement reinforced bricks. To study the properties of soil cement reinforced bricks, compressive strength test, water absorption test and weight comparison were performed on bricks with different proportions of steel scraps. From the results, it is observed that the compressive strength of brick increased and the water absorption rate is decreased upon increasing the percentage of steel scrap content.

## I. INTRODUCTION

The soil cement brick also known as Stabilized mud blocks and it is a mixture of soil, Portland cement and water. The proper combination of these ingredients optimizes strength as well as water absorption rate.

Dumping of waste in an open ground causes a huge negative impact to environment, so recycling of wastes is very important to protect the environment. Numeric Controlled Lathe machines generates around 5 million tons of steel scrap every year.

### Objectives

1. To study the material used for manufacturing of brick
2. To check the suitability of RCC brick manufactured

## II. METHODOLOGY

To study the influence of steel scrap in the bricks, the soil is replaced with the steel scrap by 2%, 4%, 6% and 8% by weight of soil. The dry mix of the soil, cement and steel scrap is prepared. The soil was first air dried by spreading in an open space and the lumps were removed from it. The required quantities of steel scraps and cement were added to the dry soil and mixed uniformly. Only after homogenization, water is added in adequate amounts. After the preparation of mix in adequate consistency, the mould is placed on sand sprinkled flat surface and inner edge of mould is free from sticking by applying oil. Finally, the mix is poured into the mould by means of three layers with proper compaction and the top surface is levelled. For calculating the average strength, three bricks (B1, B2 & B3) were prepared for each and every test. After 24 hours the specimen is removed from mould and allowed for curing. The removed specimen from the mould

## III. LITERATURE REVIEW

1. **An experimental study of soil cement bricks and characteristics compressive strength of brick masonry wall**  
This project is an initiative to convert the solid waste (easily available inside Bannari Amman Institute of Technology campus, Sathyamangalam, Erode District.) to compost within a short duration of 14 to 18 days by rapid composting.
2. **New decentralized control and power-sharing strategy**  
In this paper, we propose a new decentralized control and power-sharing strategy to manage the power flow among energy sources (ESs), energy storage systems (ESSs) and the common dc-link. In the proposed technique, we



eliminate all communication among the ESSs, to reduce the complexity and increase reliability, maintaining dc-link voltage restoration.

**3. Suitability as a substitution in cement production (NG Hooi)**

Solid waste bottom ash was used to examine the suitability as a substitution in cement production. This study developed an innovative technology option for designing new equivalent cement that contains incineration solid waste bottom ash. The compressive strength of the samples was determined at 7, 14, 28 and 90 days. The result was compared to control cement

**4. An experimental study of soil cement bricks and characteristics compressive strength of brick masonry wall**

An experimental study of soil cement bricks and characteristics compressive strength of brick masonry wall, international journal of science and engineering research (ijser), vol3 issue 2.

**5. Performance Analysis of Steel Scrap in Structural Concrete**

This paper states performance analysis of steel scrap in structural concrete and iOS. Basically the life of RCC structure mainly depends upon the performance of steel within RCC members. With this performance and analysis of steel scrap in structural concrete is carried out.

#### IV. RESULT & CONCLUSION

The experimental study concluded that the addition of steel scrap increases the compressive strength and describe the water absorption rate when compared with conventional brick this recycled a method reduce the negative impact to the environment by utilizing the waste and also this process required in no fuel consumption with is also economical

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