IJARSCT



International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.67

Volume 5, Issue 7, June 2025 Impact Factor: 7

Experimental and Analytical Investigation on Composite Column

R. Gnana Sownder

Assistant Professor, Department of Civil Engineering Thangavelu Engineering College, Chennai, India

Abstract: In this project, a study was carried out produce composite column and to study the properties and behavior of composite column experimentally and analytically. Concrete mix designs are prepared using the IS code method for M40 concrete grade. The specimens were produced with different shapes (square, rectangular and circular) and sizes. These tests are conducted to ensure the quality of material and to reduce the cost. Laboratory tests were carried out on the prepared cft column specimens. The compressive strength of the composite column are determined. Then the samples of composite columns are modelled using abaqus software and its behavior is studied analytically. Finally, the results of experimental and abacus modeling is compared.

Keywords: Composite column, cft columns, steel, tubes, compression







