

OPTIMUM SIZE FOR REINFORCED CONCRETE BEAM

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ABSTRACT

This paper is all about finding the optimum size of a reinforced concrete beam. The optimum size of a beam can be found by calculating many different kinds of sizes of beam for a kind of ultimate load, or moment, and others and comparing them all to find which one is the optimum or the best size of all.

To find the optimum size, we must be comparing many sizes of beam with same considerations, which means that same cases should be applied in the design for each of the sizes compared, such as the live load and the span length. And to compare each size, repetitive calculations are required. And to ease and speed my work, I should be making a program to calculate the repetitive calculation. And I chose Excel software to do it.

The advantages of this project are that beam design can be more economical, and to produce a beam, which minimum material is needed and still server its function, and also a program to ease in designing a beam.