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Study the Behavior of Different Composite Short Columns (DST) with Prismatic Sections under Bending Load

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Abstract : In this paper, the behavior of different types of DST columns has been studied under bending load. Briefly, composite columns consist of an internal carbon steel tube and an external stainless steel wall that the between the walls are filled with concrete. Composite columns are expected to combine the advantages of all three materials and have the advantage of high flexural stiffness of CFDST columns. In this research, ABAQUS software is used for finite element analysis then the results of ultimate strength of the composite sections are illustrated.

Keywords : DST, stainless steel, carbon steel, ABAQUS, straigh columns, tapered columns
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