

Behaviour of Laterised Concrete Columns Reinforced with Bamboo Strips

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Abstract

This paper reports the results of investigation on the behavior of bamboo strip reinforced laterised concrete columns. Seventy-five (75) No. 150 x 150 x 1000mm laterised concrete column specimens were prepared using varying percentages of laterite content in the fine aggregate and bamboo strip reinforcement, ranging from 1.92 – 7.68% of cross-sectional area. The results showed that all the columns failed due to the crushing of concrete in compression and the bamboo reinforcement did not contribute to the load carrying capacity of the columns. However, the reinforced laterised column could sustain increased deformation and strain with superior post-yielding and post-cracking behavior.

Keywords: Bamboo strip, reinforcement, laterised concrete column, strength, lateral deflection.