عنوان مقاله:

Finite element modelling of bolted shear connectors

محل انتشار:

هفتمین کنفرانس بین المللی مهندسی عمران، سازه و زلزله (سال: 1401)

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خلاصه مقاله:

A three-dimensional finite element modelling of a composite connection having prefabricated concrete slabs and friction-grip bolted shear connectors are presented in this study. A finite element model of the composite connection considering the non-linearities of the geometry, interfaces between the components, and materials is developed by means of ABAQUS software. Numerical model was verified against experimental results available in literature, and was shown to accurately simulate their observed structural behaviour. The calibrated FE model can be employed for a parametric study in which the effects of different parameters can be investigated.

کلمات کلیدی:

Bolt shear connectors; composite beam; deconstructability; steel-concrete composite connection; Finite element model.