عنوان مقاله:

A numerical study for Strengthening of RC Beam-column joints with CFRP materials

محل انتشار:

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خلاصه مقاله:

This paper presents a numerical study to strengthen the capacity of RC beam-column joints using Carbon Fiber Reinforced Plastic (CFRP) materials. Several specimens were modeled in order to improve the strength and performance of reinforced concrete interior beam-column joints by applying embedded CFRP bars and CFRP sheets. The interface between concrete and CFRP were considered as perfect bond and cohesive zone. The results showed that strengthening with CFRP materials can improve the overall structural performance of beam-column joints such as strength, energy dissipation and ductility. Also the perfect bond model cannot account for debonding failure of CFRP .and it is necessary to consider the debonding of composites

کلمات کلیدی:

RC joints, Strengthening, CFRP bars, CFRP sheets, Debonding