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عنوان مقاله:
Strengthening Of Square RC Columns With CFRP

محل انتشار:
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خلاصه مقاله:
Recent earthquakes have been left catastrophic economical damages. Evaluation of major infrastructures and buildings demonstrate that most of important structures are vulnerable to lateral seismic forces. And will need to repair or strengthening in near future. Therefore, innovative, time and cost saving rehabilitation methods for reinforced concrete structures need to be developed. One of these methods is the wrapping of RC Columns with Fiber Reinforced Polymers (FRP). This effective strengthening method has been gained acceptance over the past two decades. Numerous analytical models exist for the prediction of the load carrying behavior of confined circular concrete columns nowadays. However, columns with a rectangular or square cross section are common for structures especially bridge piers. In this paper two models are presented which have been modified for the application of square RC columns. Most important parameters as the number of wrap layers, the radius of rounded corners and the amount of transverse steel reinforcement were studied. Additionally, the models were compared with existing models and .design codes. The comparison of test results found in published literatures and calculations showed good agreement

کلمات کلیدی:
CFRP Jacket, Square Column Strengthening, Analytical Model, Ultimate Strain

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