

## عنوان مقاله:

Modeling and Experimental Studies on Pre-Loaded Reinforced Concrete Beams Strengthened by External Reinforcement

## محل انتشار:

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## خلاصه مقاله:

Reinforcement and strengthening of reinforced concrete beams by unbounded external reinforcement is one of the methods of fortification used after loading and prior to failure of the beams. This method is used in different forms to strengthen members of reinforced concrete structures. To investigate the effect of fortification on cracked reinforced concrete beams, numbers of reinforced concrete beams were selected for testing. Strengthening was examined by attaching external reinforcing bars on both sides of the beams, at the level of internal flexural tensile reinforcement and by means of deflectors. The investigation was carried out through experimental data analysis and modeling using ANSYS finite element structural software. The results showed that the method of fortification used has increased the flexural capacity of the beams. It was also concluded that this method is suitable for strengthening of beams under their dead loads

## کلمات کلیدی:

Strengthening External reinforcing bars Pre-loaded Reinforced concrete beams Nonlinear analysis ANSYS

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/251977>

