عنوان مقاله:

Prediction of Deflection of High Strength Steel Fiber Reinforced Concrete Beams Considering the Cracking Effect

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خلاصه مقاله:

In the present study, a numerical procedure for the prediction of the deflection and ultimate moment carrying capacity of high strength steel fiber reinforced concrete beams is presented. Force equilibrium and strain compatibility equations for a beam section divided into a number of segments are numerically solved due to the non-linear behavior of concrete. Based on the aforementioned procedure, a computer program has been developed. Several reinforced concrete beams available in the literature have been analyzed by using this procedure, and the influence of steel fiber on the deflection and moment capacity of the beams has been investigated. It has been found that, the results show that the presence of steel fibers increases the flexural rigidity of high strength reinforced concrete members, thus causing the reduction in the deflection of these members

کلمات کلیدی:

steel fiber; high strength concrete; beam; deflections

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