عنوان مقاله:

Prediction of shear strength of RC beams using decision tree method

محل انتشار:

دومین کنگره بین المللی سازه ، معماری و توسعه شهری (سال: 1393)

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خلاصه مقاله:

This paper reports the shear strength of reinforced concrete (RC) beams without stirrups predictive model based on the decision tree method. This method is capable to classify and predict categorical variables: its competitive advantage over other extensively used modeling techniques, such as regression method and artificial neural network (ANN) method, lies in the ability to generate accurate predictive models with explainable flowchart-like tree structures that make possible users to rapidly extract useful information. Another advantage of this methodology is that it can be utilized by users without requiring much computation knowledge. To show its applicability, the method is applied to estimate shear strength of RC beams. A set of published database containing 165 experimental test results is used to develop the model. The results reveal that the use of decision tree method can predict shear strength of RC beams accurately.

کلمات کلیدی:

RC beam, Shear strength, Decision tree, Modeling

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