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Prediction of Concrete Compressive Strength by Machine Learning

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Abstract: *This Project report investigates the application of "PREDICTION OF CONCRETE COMPRESSIVE STRENGTH BY MACHINE LEARNING" . The advanced techniques and its applications on other engineering disciplines accelearated the different aspects and phase in engineering process. Nowadays there are so many computer aided methods widely used in civil engineering domains. The mathematical relationship between ratios of different concrete components and other influencing factors with its compression strength need to be analyzed for different engineering needs. This paper aims to develop a mathematical relationship after analyzing the above factors and to foresee the compressive strength of concrete by applying various regression techniques such as linear regression, support vector regression, decision tree regression and random forest regression on assumed data set., It was found that the accuracy of the random forest regression was considerable as per the result after applying the various regression techniques*

Keywords: Compressive Strength, Tree Based Method, K-Neural Network

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