

Prediction of Compressive Strength in Geopolymer Composites by Adaptive Neuro Fuzzy Inference System

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Abstract : Geopolymers are highly complex materials which involve many variables which makes modeling its properties very difficult. There is no systematic approach in mix design for Geopolymers. Since the amounts of silica modulus, Na₂O content, w/b ratios and curing time have a great influence on the compressive strength an ANFIS (Adaptive neuro fuzzy inference system) method has been established for predicting compressive strength of ground pumice based Geopolymers and the possibilities of ANFIS for predicting the compressive strength has been studied. Consequently, ANFIS can be used for geopolymer compressive strength prediction with acceptable accuracy.

Keywords : geopolymer, ANFIS, compressive strength, mix design

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