

Anticipation of Bending Reinforcement Based on Iranian Concrete Code Using Meta-Heuristic Tools

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Abstract : In this paper, different concrete codes including America, New Zealand, Mexico, Italy, India, Canada, Hong Kong, Euro Code and Britain are compared with the Iranian concrete design code. First, by using Adaptive Neuro Fuzzy Inference System (ANFIS), the codes having the most correlation with the Iranian ninth issue of the national regulation are determined. Consequently, two anticipated methods are used for comparing the codes: Artificial Neural Network (ANN) and Multi-variable regression. The results show that ANN performs better. Predicting is done by using only tensile steel ratio and with ignoring the compression steel ratio.

Keywords : adaptive neuro fuzzy inference system, anticipate method, artificial neural network, concrete design code, multi-variable regression

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