

# Artificial Neural Networks for Shear Strength Evaluation of Reinforced Concrete Deep Beams

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## Abstract

Shear strength is increasingly important to design of reinforced concrete structural members. An extensive numerical study was investigated to assess shear capacity of deep reinforced concrete beams subjected to concentrated load. For this purpose effects of section geometries and materials strengths of deep reinforced concrete beam were incorporated. A network consisting of nine inputs developed based on artificial neural network to investigate shear capacity of deep reinforced beams as output. Then a comparison was made between the results obtained from artificial neural networks and results of code recommendations. Based on this comparison it can be found that the presented equation gives better result than code recommendations.

**Keywords:** deep reinforced concrete beams, shear strength, artificial neural network, code

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