Thesis Title   Analysis Of Neural Network Software for Alphanumeric Pattern Recognition

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Abstract

The purpose of this thesis is to analyse the application of Backpropagation Neural Network to the 2 dimension alphanumeric pattern recognition. In learning process , the internal weights of the network are adjusted according to the trainning data matrix. The trained network is then tested its efficientcy to recognize the character form the scanner. The program is written by Object-Orient Turbo Pascal for Windows. The results form the test show that the speed of learning process of the system is increased by increasing learning rate parameter and the number of node in hidden layer and the ossilation of the learning process is decreased as the momentum parameter is increased. The accuracy of between 87 - 99 percent depending upon the training data pattern.