Abstract

Understanding the neuron-logic and natural sense with which humans can recognize textual pattern and characters had actually called for computational artifact to mimic human behaviour. Character recognition is a key part of applying processing to safeguard transcribed data in order to recover it at a later stage, just as encouraging its method of correspondence utilizing computational intelligence and data mining approach. Character recognition with computing gadget allows easy access, content storage and distributed capacity. In this work, self-organizing map of the neural network was used to distinguish alphabetic characters by assigning them to different bins; using the ASCII values to represent each of the graphic characters and train the network with anticipated responses to recognize them. Each line has a 5x7 dot representation of each character with simple 3-bit representation; each of the output categories was named as well with a binary map of 35 pixel values. The simulator completed the learning in fewer cycles, and training patterns were learned very well while smaller tolerance was used. The results showed each foreign character in the match category closest to it. The middle layer of the network acts as a feature detector with much influence on training time and
generalization capability.

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Index Terms

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Keywords

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