

Optimization of recognition quality by selection of tolerances during neural network training

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Abstract

The article considers an algorithm for training a multilayer perceptron using a uniform test. It investigates the possibility to improve recognition characteristics by adjusting the criterion parameters using additional information about the achievable recognition quality obtained in the training process. An example of the algorithm application to the task of recognition of Arabic numerals is provided.

Keywords: neural network, multilayer perceptron, Arabic numerals.

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References

- [1] Sarfraz M, ed. Computer-aided intelligent recognition techniques and applications. Chichester: John Wiley and Sons Ltd; 2005.
- [2] Shustov VA. Algorithms for training neural networks in image recognition by a uniform test. Computer Optics 2003; 25: 183-189.
- [3] Gorban AN, Rossiev DA. Neural networks for personal computer [In Russian]. Novosibirsk: "Nauka" Publisher; 1996.