Recognition of Distorted CAD Objects using Neural Networks

Abstract

The uses of features have been considered to be the technology which bridges the gap between Computer aided design (CAD) and Computer aided manufacturing (CAM) in the CIMS (Computer Integrated manufacturing systems). Active research in the last two decades has resulted in a number of recognition techniques like rule based, graph matching, volume
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development, hint based, neural network, etc. This paper presents the development of distorted CAD objects recognition system. A well-known multi-layer Perceptron (MLP) neural network with backpropagation learning algorithm is chosen for its fast processing time and its good performance for feature recognition problems. Learning systems that learn from previous experiences and/or provided examples of appropriate behaviors, allow the people to specify what the systems should do for each case, not how systems should act for each step. The recognition system is programmed in C++.

Reference


Index Terms

Computer Science Pattern Recognition

Key words

CAD recognition artificial neural networks
backpropagation
CAM