

Research on English network teaching system Based on artificial intelligence and WBIETS system

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SUBJECT AREAS

Technical Communication

KEYWORDS

English teaching network system, test papers, genetic algorithm, fitness function

Abstract

The English teaching network system is a distant teaching based on Web. This teaching method can stimulate students' interests, so that students can acquire knowledge voluntarily, and automatic test paper generation is one of the most important modules in English teaching network system. This paper first describes the automatic test problems, is a constrained multi-objective problem; then the design of genetic algorithm to improve the test paper, put forward questions based encoding method and based on the difficulty and test points of F fitness function for dynamic adjustment of the parameters in the iterative process. Finally, it is verified by experiments that the test paper made by this method satisfies users' requests for questions, contents and scores, and at the same time, it also improves the running efficiency of random optimization algorithm by 7-17 times.

Full-text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed.

However, the manuscript can be downloaded and accessed as a PDF.

Figures

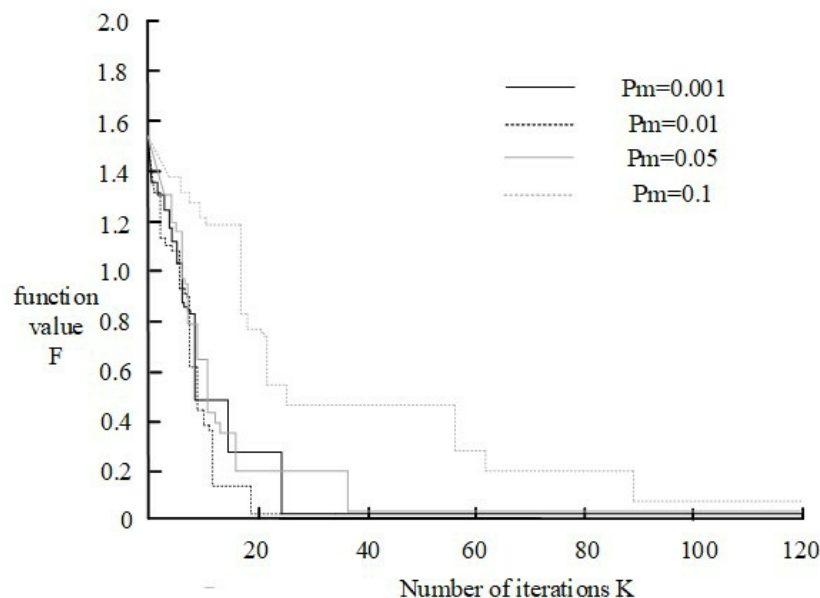


Figure 1

The convergence graph of the algorithm under different values of Legend: Figure 1 show

The convergence graph of the algorithm under different values of pm

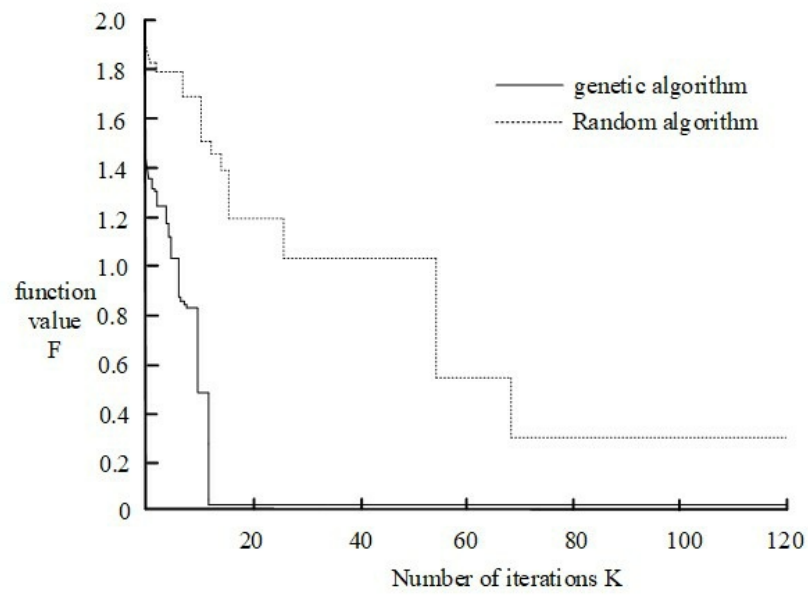


Figure 2

Title: Two algorithm contrastive convergent graphs Legend: Figure 2 show Two algorithm contrastive convergent graphs