

عنوان مقاله:

MPI-Based Parallel Method for Bees Optimization Algorithm

محل انتشار:

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خلاصه مقاله:

In this paper, the Artificial Bee Colony algorithm is implemented using Message Passing Interface (MPI) in a parallel form. Bees Algorithm was emerged to solve optimization problems. Randomly generated initial solutions and obtaining the optimal solution among all the possible solutions are the cases which optimize Speedup of the algorithm in a parallel basis. In this paper, using the capabilities of MPI including making connections among various processes, a method was used for paralleling this optimization algorithm. In this method, for further optimization of the responses at the end of each loop, master process is specified to collect the best solutions for each processor. Master process finds the best solutions and replaces the worst ones to the processor which has not the optimal solution.

کلمات کلیدی:

Bees Algorithm; Collective Intelligence; Evolutionary Algorithms; Parallel Bee Algorithm and Optimization; MPI interface

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