

## عنوان مقاله:

Modified General-Purpose Binary-Coded Ant Algorithm

## محل انتشار:

دومین کنگره مشترک سیستمهای فازی و هوشمند ایران (سال: 1387)

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## نویسندگان:

Maryam Kouzehgar - *Research Lab of Intelligent Systems, Faculty of Electrical & Computer Engineering, University of Tabriz*

M.T Vakil-Baghmisheh

## خلاصه مقاله:

In this paper a new general purpose ant algorithm is presented. The proposed binary-coded ant algorithm (BCAA) is very similar to a binary genetic algorithm (GA), thus can be used on all optimization problems on which a binary GA can be used. The BCAA allocates some bits for each variable and one node for each bit. If the ant passes through a node, the value of the corresponding bit is one, otherwise zero. By decoding these bits, we obtain variables values. Also two methods for pheromone updating are suggested. Performance of the new algorithm is evaluated on two benchmark problems with adjustable dimensions (10, 20, 50 and 100), and compared with that of the PSO algorithm. The simulation results show that our ant algorithm leads to more precise answers, but in longer times; the PSO is faster, but its answers are less precise

## کلمات کلیدی:

Binary-Coded ant algorithm, Particle swarm, Optimization

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/203734>

