Abstract

Ant Colony Optimization (ACO) is a technique that was introduced in the early 1990's and it is inspired by the foraging behavior of ant colonies. ACO algorithms have long been thought as generating high quality solutions for various problems in different Engineering Applications. This survey provides an overview of past and on-going research of ACO in diverse engineering applications pertaining to computer science fields such as mobile and wireless networks, sensor networks, grid computing, P2P Computing, Pervasive computing, Data mining, Software engineering, Database systems, Multicore Processing, Artificial intelligence, Image processing, Biomedical applications and also other domains relevant to Electronics and Electrical Engineering fields. We finally summarize the comprehensive study of applications in all these fields deployed ACO.

References

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1273, 2011

- Marco Dorigo, Mauro Birattari, and Thomas Stutzle, "Ant Colony Optimization Artificial Ants as a Computational Intelligence Technique", IEEE Computational Intelligence Magazine, 2006
- Lei Yang; Zhiguang Qin; Can Wang; Yao Liu; Chaosheng Feng, "A P2P Reputation Model Based On Ant Colony Algorithm", International Conference on Communications, Circuits and Systems, 2010
- Peng, Fei; Malatras, Apostolos; Hirsbrunner, Boat; Courant, Michele, "Antom: Constructing Multi-Layer Overlays for Pervasive Environments", IEEE International Conference on Pervasive Computing and Communications Workshops (PERCOM Workshops), 2012
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Index Terms
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Keywords

ACO  Mobile and Wireless Sensor Networks (WSNs)  Grid and P2P computing  
Pervasive Computing

Network Security

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Multicore Processors

Engineering Applications