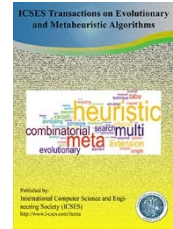




Proposal for a Special Issue

ICSES Transactions on Evolutionary and Metaheuristic Algorithms (ITEMA)

Journal Homepage: <http://www.i-cses.com/itema>



Special Issue Title: Cuckoo Optimization Algorithm (COA) and Its Applications

Main Subject: Optimization via Metaheuristics.

Three up to five brief Highlights about this Special Issue:

1. First of all, to better introduce Cuckoo Optimization Algorithm (COA) and its pros and cons.
2. Secondly, to investigate proper industrial and engineering applications better matched with characteristics of this metaheuristic.
3. Thirdly, as an outstanding resource and reference on this algorithm and its application.

Abstract: Most of the combinatorial optimization problems in Engineering and Industry are of such problems cannot be solved using heuristics or exact methods in an efficient way. Meanwhile, another interesting paradigm inspired by biology and artificial life was introduced named Metaheuristics with significant power and potential to cope with such difficult problems. Particle Swarm Optimization (PSO), Ant colony Optimization (ACO), Artificial Bee Colony (ABC), Shuffled Frog Leaping (SFL), Biogeography-Based Optimization (BBO), Teaching-Learning-Based Optimization (TLBO) are considered as some of these metaheuristics. Cuckoo Optimization Algorithm (COA) is also a newly proposed swarm-intelligence-based metaheuristic algorithm first introduced by Rajabioun in 2011, inspired from the exotic lifestyle of a bird family called cuckoo. Indeed, specific egg-laying and breeding characteristics of cuckoos called parasite-brooding is the basis of constituting this novel optimization algorithm. To the best of our knowledge, this metaheuristic algorithm has not been attended and studied a lot since its first introduction in 2011, and a few applications of it on well-known industrial and engineering problems have been reported in the literature so far; hence, we believe that this Special Issue will be going to be an outstanding Resource and Reference on this algorithm and its application.

Keywords: Artificial Intelligence; Cuckoo Optimization Algorithm (COA); Metaheuristics, Optimization; Engineering Optimization Problems.

Significance Justification: Although about 6 years has been elapsed since the first introduction of Cuckoo Optimization Algorithm (COA) in 2011, this metaheuristic algorithm has not been attended and studied a lot, and a few applications of it on the engineering problems have been proposed so far; therefore, this Special Issue will be an outstanding Resource and Reference on this subject.

Related Works: Cuckoo Optimization Algorithm (COA) was first introduced by Rajabioun in 2011 [1]. Since then, it has been applied on some different Industrial and Engineering applications such as task scheduling [2], cancer classification [3], Prediction of blast-induced ground vibration [4], and load balancing in transshipment terminal [5].

References:

- [1]. Rajabioun, Ramin. "Cuckoo optimization algorithm." Applied soft computing 11, no. 8 (2011): 5508-5518.
- [2]. Akbari, Mehdi, and Hassan Rashidi. "A multi-objectives scheduling algorithm based on cuckoo optimization for task allocation problem at compile time in heterogeneous systems." Expert Systems with Applications 60 (2016): 234-248.
- [3]. Elyasigomari, V., D. A. Lee, H. R. C. Screen, and M. H. Shaheed. "Development of a two-stage gene selection method that incorporates a novel hybrid approach using the cuckoo optimization algorithm and harmony search for cancer classification." Journal of Biomedical Informatics 67 (2017): 11-20.
- [4]. Faradonbeh, Roohollah Shirani, and Masoud Monjezi. "Prediction and minimization of blast-induced ground vibration using two robust meta-heuristic algorithms." Engineering with Computers (2017): 1-17.
- [5]. Bazgosha, Atiyeh, Mohammad Ranjbar, and Negin Jamili. "Scheduling of loading and unloading operations in a multi stations transshipment terminal with release date and inventory constraints." Computers & Industrial Engineering 106 (2017): 20-31.

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- Review Process Due Date: 2017-12-15
- Providing Final Camera-Ready Manuscripts: 2017-12-25
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