A review of the applications of bio-inspired Flower Pollination Algorithm

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Abstract

The Flower Pollination Algorithm (FPA) is a novel bio-inspired optimization algorithm that mimics the real life processes of the flower pollination. In this paper, we review the applications of the Single Flower Pollination Algorithm (SFPA), Multi-objective Flower Pollination Algorithm an extension of the SFPA and the Hybrid of FPA with other bio-inspired algorithms. The review has shown that there is still a room for the extension of the FPA to Binary FPA. The review presented in this paper can inspire researchers in the bio-inspired algorithms research community to further improve the effectiveness of the FPA as well as to apply the algorithm in other domains for solving real life, complex and nonlinear optimization problems in engineering and industry. Further research and open questions were highlighted in the paper. © 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license.

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Flower Pollination Algorithm, Hybrid flower pollination algorithm, Multi-Objective Flower Pollination Algorithm, Single Objective Flower Pollination Algorithm

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Engineering controlled terms: Nonlinear programming, Optimization, Soft computing, Software engineering

Bio-inspired algorithms, Bio-inspired optimizations, Life process, Multi objective, Non-linear optimization problems, Research communities, Single objective

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