Analysis of Chemotaxis in Bacterial Foraging Optimization Algorithm

Abstract

For the last few decades, algorithms like Genetic Algorithms, Evolutionary Programming, and Evolutionary Strategies etc. are being used for optimization of various problems. Nowadays various swarm inspired algorithms have replaced them. Bacterial Foraging Optimization (BFO) is the latest among these algorithms. It has been widely accepted as global optimization technique due to its ease of implementation. In this paper we analyzed chemotactic behavior of bacteria by minimizing various mathematical benchmark functions. MATLAB simulations of these functions for different step sizes are shown in graphical form. Work is concluded by discussing the effect of varying step size on chemotactic movement of bacteria.

References

- M. Dorigo, V. Maniezzo, and A. Coloni, "Ant system: Optimization by a colony of

**Index Terms**

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**Keywords**

Aso Pso Bfo Bfoa.