









Distinguished Lecture Series on Data Analytics and Artificial Intelligence



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Developmental Brain Storm Optimization Algorithms

Abstract

Swarm intelligence (SI) algorithms, a collection of population-based optimization algorithms, have been designed and researched to solve problems which are very difficult, if not impossible, for traditional optimization approaches such as hill-climbing approaches to solve. Most existing SI algorithms are nature-inspired and/or bio-inspired, especially by objects with low level intelligence. The brain storm optimization (BSO) algorithm, a new population-based swarm intelligence algorithm, is inspired by the brainstorming process. In this talk, the brainstorming process will be introduced first, followed by the development of the brain storm optimization algorithm. Then new advances on BSO will be presented. Finally, the BSOs will be looked at from the developmental learning perspective.

(i) Biography

Dr. Yuhui Shi is a Chair Professor in the Department of Computer Science and Engineering, Southern University of Science and Technology (SUSTech), Shenzhen, China. Before joining SUSTech, he was with the Department of Electrical and Electronic Engineering at the Xi'an Jiaotong-Liverpool University (XJTLU), Suzhou, China, from January 2008 to August 2017, and was with the Electronic Data Systems Corporation (EDS), Indiana, USA, from October 1998 to December 2007. He is an IEEE Fellow, the Editor-in-Chief of the International Journal of Swarm Intelligence Research, and an Associate Editor of the IEEE Transactions on Evolutionary Computation. Dr. Shi co-authored a book on Swarm Intelligence together with Dr. James Kennedy and Dr. Russell C. Eberhart, and another book on Computational Intelligence: Concept to Implementation together with Dr. Russell C. Eberhart.



