Special Issue

New Trends in Learning-Based Techniques Hybridizing Bio-Inspired Optimization Algorithms

Message from the Guest Editors

Bio-inspired optimization algorithms belong to the field of artificial intelligence and study the behavior of natural phenomena to achieve efferent solutions in less time. Methods such as Genetic Algorithm, Differential Evolution, Particle Swarm Optimization, and Ant Colony System, among several others, are solvers devoted to tackling large instances of complex optimization problems.Nevertheless, these studies often do not consider the generated information during the run and focus mainly on the final result. In this context, a new trend has recently emerged: hybridizing bio-inspired optimization algorithms with intelligence mechanics coming from various areas. These techniques use data to detect patrons and boost local and global search procedures towards more promising zones. Approaches based on context and environment learning allow us to design and create reactive bio-inspired optimization algorithms able to auto-govern behavior through parameter self-tuning or reduce the space of solutions. This Special Issue is devoted to publishing high-quality papers that employ hybridization to solve complex engineering problems. Reviews on this topic are also welcome.
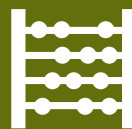
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Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

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