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The 5th Edition of the International Conference on Optimization and Applications 25-26-April 2019, Kenitra ICOA - 2019

Special Session on Recent Nature Inspired Computing, Soft Computing, Fractional Dynamical Systems and its Applications

Call for Papers

We will provide an excellent international forum for sharing knowledge and results in theory, methodology and applications of Nature Inspired, Soft Computing and Fractional Dynamical Systems. The aim of the conference is to provide a platform to the researchers and practitioners from both academia as well as industry to meet and share cutting-edge development in the field. Authors are solicited to contribute to the conference by submitting articles that illustrate research results, projects, surveying works and industrial experiences that describe significant advances in the following areas, but are not limited to.

Topics:

- **Nature Inspired techniques:** Local search, tabu search, simulated annealing, VNS, ILS, Evolutionary algorithms, swarm optimization, scatter search, Emergent nature inspired algorithms: quantum computing, artificial immune systems, bee colony, DNA computing, Parallel meta-heuristics, Hybrid methods with meta-heuristics, machine learning, game theory, mathematical programming, constraint programming, co-evolutionary, Application to: logistics and transportation, telecommunications, scheduling, data mining, engineering design, bioinformatics, Theory of meta-heuristics, landscape analysis, convergence, problem difficulty, very large neighbourhoods, Application to multi-objective optimization, Application in dynamic optimization, problems with uncertainty, bi-level optimization, Tuning of parameters (static, dynamic, adaptive, self-adaptive) and many others.
- **Soft Computing:** Genetic Programming, Genetic Algorithm, Swarm Intelligence, Machine Learning, Pattern, Recognition, Fuzzy Systems, Fuzzy Logic, Neural network, Machine Learning, Multi-Agent Systems, Neural Genetic Systems, Neural Fuzzy Systems, Pattern Recognition, Time Series, Analysis, Forecasting, Reinforcement, Learning, Statistical Data Analysis, Complex Systems, Evolutionary Systems and many others.
- **Computational sustainability:** Computational methods for a sustainable energy and environment.

- **Computational methods in energy economics:** Forecasting models for energy prices, pricing models in energy policy and electrical energy market, investment analysis models in energy projects, modeling strategic behavior for energy security, hybrid energy economy models for energy policy simulation, statistical analysis of energy cost, energy consumption and economic growth, energy risk management, etc.
- **Industrial and other Applications:** of metaheuristics in fields such as transportation, health care, bioinformatics, data mining, planning and scheduling, production and operations management, economics, marketing, telecommunications, logistics and supply chains, etc. Particularly, it is welcomed are innovative applications of metaheuristics with high impact in real business and organization, Control problems, sensor fusion, manufacturing, testing and diagnostics, semiconductor processing, modeling of complex systems, approximate reasoning, optimization, management science, decision analysis, information systems, economics, financial systems, business applications, forecasting, reliability, cost-benefit analysis, risk assessments, medical applications, forensic applications, automotive applications, robotics, automation, biomedical datasets, computer science, engineering, industry and electronic applications (or functions) etc.
- **Fractional Dynamical Systems and Applications:** Mathematical modelling of fractional dynamic systems, analytical and numerical techniques to solve these equations. Numerical methods and numerical analysis, such as finite difference method, finite element method, finite volume method, decomposition method, matrix method, meshless method, etc. Applications of fractional dynamic systems in biology, environmental science, finance, signal and image processing, fluid mechanics, electricity, chemistry, physics and medicine.

Important Dates

- **Research Paper Submissions:** January 04, 2019
- **Notification of acceptance:** March 10, 2019
- **Camera-ready:** March 25, 2019
- **Conference date:** April 25-26, 2019

Conference Link :

<http://ensa.uit.ac.ma/icoa2019>