Contents

Swarm Intelligence and Evolutionary Computation: Overview and Analysis ........................................... 1
Xin-She Yang and Xingshi He

Globally Convergent Hybridization of Particle Swarm Optimization Using Line Search-Based Derivative-Free Techniques ............. 25
A. Serani, M. Diez, E.F. Campana, G. Fasano, D. Peri and U. Iemma

Fireflies in the Fruits and Vegetables: Combining the Firefly Algorithm with Goal Programming for Setting Optimal Osmotic Dehydration Parameters of Produce ................... 49
Raha Imanirad and Julian Scott Yeomans

Hybrid Metaheuristic Algorithms: Past, Present, and Future ........ 71
T.O. Ting, Xin-She Yang, Shi Cheng and Kaizhu Huang

Binary Flower Pollination Algorithm and Its Application to Feature Selection ........................................... 85
Douglas Rodrigues, Xin-She Yang, André Nunes de Souza and João Paulo Papa

Bat Algorithm Application for the Single Row Facility Layout Problem .............................................. 101
Sinem Büyükşaatçi

Discrete Cuckoo Search Applied to Job Shop Scheduling Problem ...................................................... 121
Aziz Ouaarab, Belaïd Ahiod and Xin-She Yang
Cuckoo Search and Bat Algorithm Applied to Training Feed-Forward Neural Networks ....................... 139
Milan Tuba, Adis Alihodzic and Nebojsa Bacanin

The Potential of the Firefly Algorithm for Damage Localization and Stiffness Identification .................. 163
Sara Casciati and Lorenzo Elia

Synthesizing Cross-Ambiguity Functions Using the Improved Bat Algorithm ........................................ 179
Momin Jamil, Hans-Jürgen Zepernick and Xin-She Yang

Sustainable Building Design: A Review on Recent Metaheuristic Methods ........................................... 203
Somayeh Asadi and Zong Woo Geem

Firefly Algorithm for Flow Shop Optimization ..................... 225
M.K. Marichelvam, T. Prabaharan and M. Geetha

Evaluation of Harmony Search and Differential Evolution Optimization Algorithms on Solving the Booster Station Optimization Problems in Water Distribution Networks ............. 245
Şerife Gökçe and M. Tamer Ayvaz

Web Document Clustering by Using PSO-Based Cuckoo Search Clustering Algorithm .............................. 263
Moe Moe Zaw and Ei Ei Mon

Geometrically Nonlinear Analysis of Trusses Using Particle Swarm Optimization ................................. 283
Rasim Temür, Yusuf Sait Türkan and Yusuf Cengiz Toklu