# **Table of Contents**

# International Journal of Swarm Intelligence Research

Volume 7 • Issue 4 • October-December-2016 • ISSN: 1947-9263 • eISSN: 1947-9271 An official publication of the Information Resources Management Association

## **Research Articles**

1 5 by 5 Microstrip Antenna Array Design by Multiobjective Differential Evolution based on Fuzzy Performance Feedback

Chatkaew Jariyatantiwait, Oklahoma State University, Stillwater, OK, USA Gary G. Yen, Oklahoma State University, Stillwater, OK, USA

### 23 An Adaptive Population-based Simplex Method for Continuous Optimization Mahamed G.H. Omran, Department of Computer Science, Gulf University for Science and Technology, Hawally, Kuwait Maurice Clerc, Independent Consultant, Groisy, France

#### 52 Utilizing Social Insect-Based Communities for Routing in Network-based Sensor Systems

Li-Minn Ang, School of Computing and Mathematics, Charles Sturt University, Bathurst, Australia Kah Phooi Seng, School of Computing and Mathematics, Charles Sturt University, Bathurst, Australia Adamu Murtala Zungeru, Department of Electrical, Computer and Telecommunications Engineering, Botswana International University of Science and Technology, Palapye, Botswana

#### COPYRIGHT

The International Journal of Swarm Intelligence Research (IJSIR) (ISSN 1947-9263; eISSN 1947-9271), Copyright © 2016 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

The *International Journal of Swarm Intelligence Research* is indexed or listed in the following: ACM Digital Library; Bacon's Media Directory; Cabell's Directories; DBLP; Google Scholar; INSPEC; JournalTOCs; MediaFinder; The Standard Periodical Directory; Ulrich's Periodicals Directory