2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015)

Bali, Indonesia
7 – 9 December 2015



IEEE Catalog Number: ISBN:

CFP1514W-POD 978-1-4673-8502-2

Copyright © 2015 by the Institute of Electrical and Electronic Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP1514W-POD

 ISBN (Print-On-Demand):
 978-1-4673-8502-2

 ISBN (Online):
 978-1-4673-8501-5

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com
Web: www.proceedings.com



2015 3rd International Symposium on Computational and Business Intelligence

ISCBI 2015

Table of Contents

Message from the General Chair	
Message from the Program Chairs	
Symposium Committees	
Optimization and Algorithms	
Elephant Herding Optimization	1
Gai-Ge Wang, Suash Deb, and Leandro dos S. Coelho	
Effects of Weight Initialization in a Feedforward Neural Network for Classification Using a Modified Genetic Algorithm Dino Nienhold, Kilian Schwab, Rolf Dornberger, and Thomas Hanne	6
Facility Layout Planning Using Fuzzy Closeness Computation and a Genetic Algorithm	13
An Improved Simulated Annealing Algorithm and Area Model for the Fixed-Outline Floorplanning with Hard Modules	21
Optimizing SMOTE by Metaheuristics with Neural Network and Decision Tree	26
Preferred Region Based Evolutionary Multi-objective Optimization Using Parallel Coordinates Interface	33
A Hybrid PBIL-Based Krill Herd Algorithm	39
A Semi-supervised Algorithm for Indonesian Named Entity Recognition	45

Applying a Chaos-Based Firefly Algorithm to the Permutation Flow Shop	
Scheduling Problem	51
Hui-long Lo, Simon Fong, Yan Zhuang, Xi Wang, and Thomas Hanne	
Visualizing Irrelevant Attributes Classification Using Mosaicplot	58
Machine Learning and Applications	
An Ensemble Associated Feature Subset Selection for Classification Problems	63
Attributing Conversion Credit in an Online Environment: An Analysis and Classification	68
C. H. W. Jayawardane, S. K. Halgamuge, and U. Kayande	
Automatic Recognition of Books Based on Machine Learning	74
Beibei Zhu, Lei Yang, Xiaoyu Wu, and Tianchu Guo	
On Learning Software Effort Estimation	79
Sidra Tariq, Muhammad Usman, Raymond Wong, Yan Zhuang, and Simon Fong	
Data Engineering and Computer Applications	
ASTERISK Based Open Source IP-PBX System for Accountable Customer	
Support Service	85
Mohammad Azam Khan and Khaled Mahmud Shahriar	
Control of Variable Exchange Probability for Directed Mating in Evolutionary	
Constrained Multi-objective Continuous Optimization	89
Minami Miyakawa, Keiki Takadama, and Hiroyuki Sato	
An Ergonomics Evaluation to Chatbot Equipped with Knowledge-Rich Mind	95
Driver Face Image Enhancement Based on Guided Filter	100
A Critical Review of Security Threats in Cloud Computing	105
Comparative Study of Moving Average on Rainfall Time Series Data	
for Rainfall Forecasting Based on Evolving Neural Network Classifier	112
Fhira Nhita, Deni Saepudin, Adiwijaya, and Untari Novia Wisesty	
Author Index	117