

# Journal of Intelligent Learning Systems and Applications



ISSN: 2150-8402



# Journal Editorial Board

ISSN Print: 2150-8402 ISSN Online: 2150-8410

<http://www.scirp.org/journal/jilsa>

---

## Editors-in-Chief

Dr. Steve S. H. Ling

University of Technology Sydney, Australia

Prof. Xin Xu

National University of Defense Technology, China

## Editorial Advisory Board

Prof. Haibo He

University of Rhode Island, USA

Prof. Rob Law

Hong Kong Polytechnic University, China

Prof. Mengchi Liu

Carleton University, Canada

Prof. Yi Pan

Georgia State University, USA

## Editorial Board (According to Alphabet)

Prof. Tao Ban

National Institute of Information and Communications Technology, Japan

Dr. Vitoantonio Bevilacqua

Polytechnic of Bari, Italy

Dr. Rifai Chai

University of Technology, Sydney, Australia

Dr. Kit Yan Chan

Curtin University, Australia

Dr. Peng Chen

Chinese Academy of Sciences, China

Prof. Hengda Cheng

Utah State University, USA

Dr. Ying Guo

Commonwealth Scientific and Industrial Research Organization, Australia

Prof. Kao-Shing Hwang

National Sun Yat-sen University, Chinese Taipei

Dr. Frank Jiang

University of New South Wales, Australia

Dr. Michail G. Lagoudakis

Technical University of Crete, Greece

Dr. Hak-Keung Lam

King's College London, UK

Prof. Shutao Li

Hunan University, China

Prof. Yiguang Liu

Sichuan University, China

Prof. Kin Huat Low

Nanyang Technological University, Singapore

Dr. Vincenzo Pacelli

University of Foggia, Italy

Prof. George Panayiotakis

University of Patras, Greece

Dr. Phyo Phyo San

Nanyang Technological University, Singapore

Prof. Steven Weidong Su

University of Technology Sydney, Australia

Prof. Theodore B. Trafalis

The University of Oklahoma, USA

Prof. Evangelos Triantaphyllou

Louisiana State University, USA

Dr. Jue Wang

Chinese Academy of Sciences, China

Prof. Xuesong Wang

China University of Mining and Technology, China

Prof. Simon X. Yang

University of Guelph, Canada

Prof. Shi Ying

Wuhan University, China

Dr. Yudong Zhang

Columbia University, USA

Prof. Wei Zhong

University of South Carolina Upstate, USA

Prof. Dingxuan Zhou

City University of Hong Kong, China

Prof. Antanas Zilinskas

Institute of Mathematics and Informatics, Lithuania

# Table of Contents

Volume 7    Number 2

May 2015

**Iterated Function System-Based Crossover Operation for Real-Coded Genetic Algorithm**

S. H. Ling.....37

**An Online Malicious Spam Email Detection System Using Resource Allocating Network with Locality Sensitive Hashing**

S.-H.-A. Ali, S. Ozawa, J. Nakazato, T. Ban, J. Shimamura.....42

**Classifying Unstructured Text Using Structured Training Instances and an Ensemble of Classifiers**

A. Lianos, Y. Yang.....58

# **Journal of Intelligent Learning Systems and Applications (JILSA)**

## **Journal Information**

### **SUBSCRIPTIONS**

The *Journal of Intelligent Learning Systems and Applications* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$89 per copy.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **SERVICES**

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **COPYRIGHT**

#### **COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:**

Copyright © 2015 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

#### **COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:**

Copyright © 2015 by author(s) and Scientific Research Publishing Inc.

#### **REUSE RIGHTS FOR INDIVIDUAL PAPERS:**

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### **DISCLAIMER OF LIABILITY**

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact:

E-mail: [jilsa@scirp.org](mailto:jilsa@scirp.org)

## *What is SCIRP?*

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## *What is Open Access?*

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Scientific  
Research  
Publishing

Website: <http://www.scirp.org>

Subscription: [sub@scirp.org](mailto:sub@scirp.org)

Advertisement: [service@scirp.org](mailto:service@scirp.org)