

ISSN: 1945-3116 Vol. 4, No. 10, October 2011



Scientific
Research

JOURNAL OF SOFTWARE ENGINEERING AND APPLICATIONS

ISSN: 1945-3116



9 771945 311001 10

www.scirp.org/journal/jsea

Journal Editorial Board

ISSN 1945-3116 (print) ISSN 1945-3124 (online)

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

Executive Editor in Chief

Prof. Yanxiang He

Wuhan University, China

Editorial Advisory Board

Prof. Hengda Cheng

Utah State University, USA

Dr. Mengchi Liu

Carleton University, Canada

Prof. Yi Pan

Georgia State University, USA

Editorial Board (According to Alphabet)

Dr. Ognjen Arandjelović

University of Cambridge, UK

Dr. Cinzia Bernardeschi

University of Pisa, Italy

Prof. Stéphane Bordas

Cardiff University, UK

Prof. Guoliang Chen

University of Science and Technology of China, China

Dr. Kim-Kwang Raymond Choo

University of South Australia, Australia

Prof. Steven A. Demurjian

The University of Connecticut, USA

Dr. Zonghua Gu

Zhejiang University, China

Prof. James Kwangjune Hahn

The George Washington University, USA

Dr. Nabil Hameurlain

University of Pau, France

Prof. Keqing He

Wuhan University, China

Dr. Wolfgang Herzner

Austrian Institute of Technology, Austria

Dr. Vassilios (Bill) Karakostas

City University, UK

Prof. Chang-Hwan Lee

Dongguk University, Korea (South)

Dr. Weiping Li

Peking University, China

Prof. Kasi Periyasamy

University of California, USA

Prof. Miodrag Potkonjak

University of Wisconsin-La Crosse, USA

Dr. Ruben Prieto-Diaz

James Madison University, Spain

Prof. Juergen Rilling

Concordia University, Canada

Prof. Michael Ryan

Dublin City University, Ireland

Dr. Midthe V. Srinath

Anna University, India

Dr. Ladan Tahvildari

University of Waterloo, Canada

Prof. Marinus G. J. van den Brand

Eindhoven University of Technology, Netherlands

Prof. Shi Ying

Wuhan University, China

Prof. Xin Yuan

Florida State University, USA

Dr. Mao Zheng

University of Wisconsin-La Crosse, USA

Editorial Assistant

Alline Xiao

Scientific Research Publishing, USA

TABLE OF CONTENTS

Volume 4 Number 10

October 2011

An Adaptive Method Based on High-Level Petri Nets for E-Learning

F. Omrani, A. Harounabadi, V. Rafe.....559

Genetic Algorithms-Based Optimization of Cable Stayed Bridges

V. Lute, A. Upadhyay, K. K. Singh.....571

Paraconsistent Algorithm Extractor of Contradiction Effects—*ParaExtr_{ctr}*

J. I. Da S. Filho, G. Lambert-Torres, L. F. P. Ferrara, M. C. Mário, M. R. dos Santos, A. S. Onuki, J. de M. Camargo,
 A. Rocco.....579

Architecture of Dynamic Service Composition Using Logic Petri Nets

X. Jiang, B. Wu, Y. Y. Du.....585

Issues in Global Software Development: A Critical Review

S. ul Haq, M. Raza, A. Zia, M. N. A. Khan.....590

Using Artificial Neural-Networks in Stochastic Differential Equations Based Software Reliability Growth

Modeling

S. K. Khatri, P. Trivedi, S. Kant, N. Dembla.....596

Journal of Software Engineering and Applications (JSEA)

Journal Information

SUBSCRIPTIONS

The *Journal of Software Engineering and Applications* (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

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

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2011 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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: jsea@scirp.org



Journal of Software Engineering and Applications (JSEA)

ISSN 1945-3116 (print) ISSN 1945-3124 (online)

www.scirp.org/journal/jsea

JSEA publishes four categories of original technical articles: papers, communications, reviews, and discussions. Papers are well-documented final reports of research projects. Communications are shorter and contain noteworthy items of technical interest or ideas required rapid publication. Reviews are synoptic papers on a subject of general interest, with ample literature references, and written for readers with widely varying background. Discussions on published reports, with author rebuttals, form the fourth category of JSEA publications.

Subject Coverage

- Automated Software Design and Synthesis
- Automated Software Specification
- Component-Based Software Engineering
- Computer-Supported Cooperative Work
- Formal Methods
- Knowledge Acquisition
- Object-Oriented Technology
- Patterns and Frameworks
- Process and Workflow Management
- Program Understanding Issues
- Programming Languages and Software Engineering
- Reflection and Metadata Approaches
- Reliability and Fault Tolerance
- Requirements Engineering
- Reverse Engineering
- Software Architecture
- Software Design Methods
- Software Domain Modeling and Meta-Modeling
- Software Engineering Decision Support
- Software Engineering Education
- Software Maintenance and Evolution
- Software Process Modeling
- Software Quality
- Software Reuse
- Software Testing
- Tutoring, Help, Documentation Systems

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

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

E-Mail: jsea@scirp.org