

Editors

Nikos E. Mastorakis

Josip Mušić

**Recent Advances in
Information Technology**

*Proceedings of the 5th European Conference
of Computer Science (ECCS '14)*

Geneva, Switzerland, December 29-31, 2014



RECENT ADVANCES in INFORMATION TECHNOLOGY

Proceedings of the 5th European Conference of Computer Science (ECCS '14)

**Geneva, Switzerland
December 29-31, 2014**

Recent Advances in Computer Engineering Series | 25

ISSN: 1790-5109
ISBN: 978-1-61804-264-4

RECENT ADVANCES in INFORMATION TECHNOLOGY

Proceedings of the 5th European Conference of Computer Science (ECCS '14)

**Geneva, Switzerland
December 29-31, 2014**

Published by WSEAS Press
www.wseas.org

Copyright © 2014, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. 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, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by no less than two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.

ISSN: 1790-5109
ISBN: 978-1-61804-264-4

RECENT ADVANCES in INFORMATION TECHNOLOGY

Proceedings of the 5th European Conference of Computer Science (ECCS '14)

**Geneva, Switzerland
December 29-31, 2014**

Editors:

Prof. Nikos E. Mastorakis, Technical University of Sofia, Bulgaria

Prof. Josip Musić, University of Split, Croatia

Committee Members-Reviewers:

Nenad Lalic

Dragan Martinovic

Perica Gojkovic

Josip Musić

Sarantos Kapidakis

Theodore B. Trafalis

Claudio Talarico

Zhuo Li

Charles Suffel

Shuliang Li

Dimitrios A. Karras

Kun Chang Lee

Alejandro Fuentes-Penna

Alina Adriana Minea

Daniel Hunyadi

Dzenana Donko

Ed Wilson Tavares Ferreira

Evangelos Markopoulos

Ioana Adrian

Ivo Stancic

Jainshing Wu

Jui-Jen Chen

Jussi Koskinen

Kandarpa Kumar Sarma

Massimiliano Todisco

Mirela-Catrinel Voicu

Panagiotis Gioannis

Sandor Szenasi

Santhosh Kumar B B

Saravanan Saravanan Kumarasamy

Sergey Stankevich

Tiberiu Socaciu

Xiaoguang Yue

Zahéra Mekkioui

Table of Contents

Fuzzy Logic Data Mining without Linguistic Rules	9
<i>Les M. Sztandera, John F. Sanford</i>	
Security Issues in Data Warehouse	15
<i>Saiqa Aleem, Luiz Fernando Capretz, Faheem Ahmed</i>	
Online Peer Learning: Understanding Factors Influencing Students' Learning Experience	21
<i>Songlak Sakulwichitsintu, Douglas Colbeck, Leonie Ellis, Paul Turner</i>	
Information Security Policy Development and Implementation Piggybacking onto Finnish National Security Auditing Criteria KATAKRI	30
<i>Jyri Rajamäki</i>	
Computational MATLAB-Based Optimal Design of Laminated Composite Plates	38
<i>Dongkyu Lee, Soomi Shin, Luu Anh Tuan, Jaehong Lee</i>	
Effects of Agile Practices on Predictors of System Reliability	41
<i>Lucas Segismundo Moreno Lago, Marvin Ferreira Da Silva, Edison Spina</i>	
A Solution Design and Test Case for Invoice Generation System in Operational Dynamic Telco Industry	47
<i>Mohd Ridzam Ahmad, Ahairul Afza Abdul Wahad, Koh Tieng Wei, Khaironi Yatim Sharif</i>	
Topology Optimization of Multi-Material with Heat Conduction Problem	54
<i>Dongkyu Lee</i>	
Using a Real-time Video to Allocate Public Protection and Disaster Relief Resources in Rescue Service Process. Case: Natural Disaster in the Viksu 2014 Young Firefighters Camp	56
<i>Jussi Simola, Jyri Rajamäki</i>	
A New Cost Model for Comparison of Point to Point and Enterprise Service Bus Integration Styles	63
<i>Michał Kókörčený</i>	
Content-Based Image Retrieval Algorithm Based on the Dual-Tree Complex Wavelet Transform: Efficiency Analysis	71
<i>Stella Vetova, Ivan Ivanov</i>	
Topological Optimized Multi-Material Distribution of Cahn-Hilliard Model	78
<i>Dongkyu Lee</i>	
HOME : HiveQL Optimization in Multi-Session Environment	80
<i>Marwah N. Abdullah, Mohamed H. Khafagy, Fatma A. Omara</i>	
Median Filter Based Wavelet Transform for Multilevel Noise	90
<i>H. S. Shuka, Narendra Kumar, R. P. Tripathi</i>	

Quantitative Analysis of PCA, ICA, LDA and SVM in Face Recognition	96
---	----

Liton Jude Rozario, Mohammad Reduanul Haque, Md. Ziarul Islam, Mohammad Shorif Uddin

Authors Index	100
----------------------	-----

Authors Index

Abdullah, M. N.	80	Rajamäki, J.	30, 56
Ahmad, M. R.	47	Rozario, L. J.	96
Ahmed, F.	15	Sakulwichitsintu, S.	21
Aleem, S.	15	Sanford, J. F.	9
Capretz, L. F.	15	Sharif, K. Y.	47
Colbeck, D.	21	Shin, S.	38
Da Silva, M. F.	41	Shuka, H. S.	90
Ellis, L.	21	Simola, J.	56
Haque, M. R.	96	Spina, E.	41
Islam, M. Z.	96	Sztandera, L. M.	9
Ivanov, I.	71	Tripathi, R. P.	90
Khafagy, M. H.	80	Tuan, L. A.	38
Kökörčený, M.	63	Turner, P.	21
Kumar, N.	90	Uddin, M. S.	96
Lago, L. S. M.	41	Vetova, S.	71
Lee, D.	38, 54, 78	Wahad, A. A. A.	47
Lee, J.	38	Wei, K. T.	47
Omara, F. A.	80		