



FUTURE COMPUTING 2014

The Sixth International Conference on Future Computational Technologies and
Applications

May 25 - 29, 2014

Venice, Italy

FUTURE COMPUTING 2014 Editors

Kendall E. Nygard, North Dakota State University - Fargo, USA

Dan Tamir, Texas State University, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2014) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2014)

International Academy, Research, and Industry Association (IARIA)
412 Derby Way
Wilmington, DE 19810

Phone: (408) 893-6407
Fax: (408) 527-6351

petre@iaria.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

FUTURE COMPUTING 1: COMPUTING TECHNOLOGIES

A Novel Realization of Sequential Reversible Building Blocks	1
<i>V. Pareek, S. Gupta, S. Jain</i>	
Improved AODV Protocol to Detect and Avoid Black Hole Nodes in MANETs	7
<i>M. Yassein, Y. Khamayseh, B. Nawafleh</i>	
Building a Portable Talking Medicine Reminder for Visually Impaired Persons	13
<i>H. Lee, T. Sheu</i>	
Physarum Syllogistic L-Systems	15
<i>A. Schumann</i>	

FUTURE COMPUTING 2: LARGE-SCALE COMPUTING STRATEGIES

Using Fuzzy Inference System to Estimate the Minimized Effective Dose and Critical Organ in Pediatric Nuclear Medicine	21
<i>Y. Bai, D. Wang</i>	
Level-Synchronous Parallel Breadth-First Search Algorithms for Multicore and Multiprocessor Systems	26
<i>R. Berrendorf, M. Makulla</i>	
Multi-Level Queue-Based Scheduling for Virtual Screening Application on Pilot-Agent Platforms on Grid/Cloud to Optimize the Stretch	32
<i>B. Quang, N. Quang, E. Medernach, V. Breton</i>	
Power-Aware Work Stealing in Homogeneous Multicore Systems	40
<i>S. Shankar, G. LaKovski, C. Alvarado, R. Hay, C. Hyatt, D. Tamir, A. Qasem</i>	

FUTURE COMPUTING 3: TECHNOLOGY-ORIENTED COMPUTING

Protecting and Sharing of Semantically-Enabled, User-Orientated Electronic Laboratory Notebook Focusing on a Case Study in the e-Science Domain	50
<i>T. Farooq, R. Kavanagh, P. Dew, Z. Zaki</i>	
Intelligent BEE Method for Matrix-Vector Multiplication on Parallel Computers	59
<i>S. Fujino, Y. Onoue, G. Abe</i>	
A Network Architecture for Distributed Event-Based Systems in an Ubiquitous Sensing Scenario	65
<i>C. Munoz, P. Leone</i>	
An Improvement on Acceleration of Distributed SMT Solving	69
<i>L. Liu, W. Kong, T. Ando, H. Yatsu, A. Fukuda</i>	
Merchant Facial Expressions and Customer Trust in Virtual Shopping Environment	76
<i>N. Nassiri, D. Moore</i>	
Author Index	