# International Journal on Advances in Networks and Services

2011 vol. 4 nr. 3&4

**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© (2011) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2012)

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

**International Journal on Advances in Networks and Services**
**Volume 4, Numbers 3 & 4, 2011**

**CONTENTS**

**Packet Scheduling Architecture with Service Specific Queue Sorting and Adaptive Time Domain Scheduling Algorithms for LTE-Advanced Networks** **244 - 256**
Yue Chen, Queen Mary University of London, U.K
Kok. Keong Chai, Queen Mary University of London, U.K
John Schormans, Queen Mary University of London, U.K

**A Modular Platform for Wireless Body Area Network Research and Real-life Experiments** **257 - 277**
Rune Hylsberg Jacobsen, Aarhus University School of Engineering, Denmark
Finn Overgaard Hansen, Aarhus University School of Engineering, Denmark
Jens Kargaard Madsen, Aarhus University School of Engineering, Denmark
Henrik Karstoft, Aarhus University School of Engineering, Denmark
Peter Høgh Mikkelsen, Aarhus University School of Engineering, Denmark
Tore Arne Skogberg, Aarhus University School of Engineering, Denmark
Esben Sune Rasmussen, Aarhus University School of Engineering, Denmark
Claus Andersen, Aarhus University School of Engineering, Denmark
Michael Alrøe, Aarhus University School of Engineering, Denmark
Thomas Skjødeberg Toftegaard, Aarhus University School of Engineering, Denmark

**A One-Shot Dynamic Optimization Methodology and Application Metrics Estimation** **278 - 291**
Model for Wireless Sensor Networks
Arslan Munir, University of Florida, USA
Ann Gordon-Ross, University of Florida, USA
Susan Lysecky, University of Arizona, USA
Roman Lysecky, University of Arizona, USA

**REST-Event: A REST Web Service Framework for Building Event-Driven Web** **292 - 301**
Li Li, Avaya, USA
Wu Chou, Avaya, USA

**Generic Function Schema as a Means for Similar-Fashioned Operations on Heterogeneous Connection Properties** **302 - 312**
Mark Yampolskiy, Vanderbilt University (VU), U.S.
Wolfgang Hommel, Leibniz Supercomputing Centre (LRZ), Germany
David Schmitz, Leibniz Supercomputing Centre (LRZ), Germany
Michael Schiffers, Ludwig Maximilians University Munich (LMU), Germany

**Community Tools for Massively Multiplayer Online Games** **313 - 323**
Shakeel Ahmad, De Montfort University, UK
Christos Bouras, Computer Technology Institute & Press ``Diophantus'', Greece

Raouf Hamzaoui, De Montfort University, UK
Jiayi Liu, Telecom Bretagne, France
Andreas Papazois, Computer Technology Institute & Press ``Diophantus'', Greece
Erez Perelman, Exent Technologies, Israel
Alex Shani, Exent Technologies, Israel
Gwendal Simon, Telecom Bretagne, France
George Tsichritzis, Computer Technology Institute & Press ``Diophantus'', Greece

**A Cognitive Handoff: Holistic Vision, Reference Framework, Model-driven Methodology and Taxonomy of Scenarios** **324 - 342**
Francisco A. Gonzalez-Horta, INAOE, Mexico
Rogerio A. Enriquez-Caldera, INAOE, Mexico
Juan M. Ramirez-Cortes, INAOE, Mexico
Jorge Martinez-Carballido, INAOE, Mexico
Eldamira Buenfil-Alpuche, UPEG, Mexico

**Evaluation of Middleware for Bandwidth Aggregation using Multiple Interface in Wireless Communication** **343 - 352**
Etsuko Miyazaki, Ochanomizu University, Japan
Masato Oguchi, Ochanomizu University, Japan

**Opportunistic Sensing in Train Safety Systems** **353 - 362**
Hans Scholten, University of Twente, Netherlands
Pascal Bakker, University of Twente, Netherlands

**Access Control in a Form of Active Queuing Management in Multipurpose Operation Networks** **363 - 374**
Vladimir Zaborovsky, St. Petersburg state Polytechnical University, Russia
Vladimir Mulyukha, St. Petersburg state Polytechnical University, Russia
Alexander Ilyashenko, St. Petersburg state Polytechnical University, Russia
Oleg Zayats, St. Petersburg state Polytechnical University, Russia

**Performance Analysis and Strategic Interactions in Service Networks** **375 - 385**
Marina Bitsaki, University of Crete, Greece
Christos Nikolaou, University of Crete, Greece
Manolis Voskakis, University of Crete, Greece
Willem-Jan van den Heuvel, Tilburg University, The Netherlands
Konstantinos Tsikrikas, University of Crete, Greece

**Constituting a Musical Sign Base through Score Analysis and Annotation** **386 - 398**
Véronique Sébastien, University of Reunion Island, France
Didier Sébastien, University of Reunion Island, France
Noël Conruyt, University of Reunion Island, France