

## **INNOV 2017**

The Sixth International Conference on Communications, Computation, Networks and Technologies

October 8 - 12, 2017

Athens, Greece

## **INNOV 2017 Editors**

Alexandros Kaloxylos, University of Peloponnese, Greece Igor Kotenko, ITMO University and Russian Academy of Sciences (SPIIRAS), Russia Kiriakos Patriarcheas, Hellenic Open University, Greece Ioannis Moscholios, University of Peloponnese - Tripolis, Greece 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© (2017) by International Academy, Research, and Industry Association (IARIA) Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2017)

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: 845-758-2633 Email: curran@proceedings.com Web: www.proceedings.com

## **Table of Contents**

TCP Vegas-L An Adaptive End-to-End Congestion Control Algorithm over Satellite Communications <i>Lianqiang Li, Jie Zhu, and Ningyu He</i>	1
A Study on the Improvement of National R&D History Data Management Eungyeong Kim and Chulsu Lim	6
A Solution for Bufferbloat Problem in Upload TCP Communication over IEEE 802.11n WLAN Only by Modifying Access Point Masataka Nomoto, Celimuge Wu, Satoshi Ohzahata, and Toshihiko Kato	8
A Study on Support of Project Planning Competency for Small & Mid-sized Enterprises Using National Science & Technology Data Sunghee Lee, Wonkyun Joo, Myungseok Yang, Eunji Yu, and Kiseok Choi	14
Implementation of An Access Control Technology for Internet of Things Environments Daewon Kim and Jeongnyeo Kim	17
Formal Verification of Key Establishment for Dual Connectivity in Small Cell LTE Networks <i>Vassilios G. Vassilakis, Ioannis D. Moscholios, Michael D. Logothetis, and Michael N. Koukias</i>	20
Monitoring the State of Elements of Multi-service Communication Networks on the Basis of Fuzzy Logical Inference Igor Kotenko, Igor Saenko, and Sergey Ageev	26
TCP on Large Scale Network Topologies: Performance Analysis and Issues on Real Networks' Topology Design Konstantinos Paximadis, Vassilis Triantafillou, Anna Galanopoulou, and Pavlos Kalpakioris	33
A Framework for Self-Organized Adaptive Routing in Disaster Scenarios Thomas Finke, Silvia Krug, Sebastian Schellenberg, and Jochen Seitz	39
On a Fuzzy AHP Weight for Partial Inner Dependence Structure Shin-ichi Ohnishi and Takahiro Yamanoi	46
A Mobile Learning Combinative Application for Comparing Educational Techniques <i>Kiriakos Patriarcheas</i>	50
SGASDP: Smart Glasses Application Software Development Platform Jing Chen, Yu-Chieh Pai, and Jian-Hong Liu	56
A Call Procedure Design for Underwater Cellular Networks Hee-won Kim, Junho Cho, and Ho-Shin Cho	62

An Implementation of MAC Protocol for Underwater Cellular Networks Junho Cho, Hee-won Kim, and Ho-Shin Cho	64
5G Network Resources Requirements for Mobile Immersive Digital Environments Danaisy Prado-Alvarez, David Garcia-Roger, and Jose F. Monserrat	66
Network Functions Evaluation of Hardware Accelerated NFV Platform in View of 5G Requirements <i>Athanasia Alonistioti</i>	72
On V2X Network Slicing: Using Context Information to Improve Mobility Management <i>Panagiotis Spapis, Chan Zhou, and Alexandros Kaloxylos</i>	77