

2017 2nd International Conference on Computer and Communication Systems (ICCCS 2017)

**Krakow, Poland
11-14 July 2017**



**IEEE Catalog Number: CFP17D48-POD
ISBN: 978-1-5386-0540-0**

**Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP17D48-POD
ISBN (Print-On-Demand):	978-1-5386-0540-0
ISBN (Online):	978-1-5386-0539-4

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
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

The 2nd International Conference on Computer and Communication Systems

ICCCS 2017

Table of Contents

Preface.....	vi
Conference Committees.....	vii

Session 1: Software Design and Development

Source Code Comprehension Analysis in Software Maintenance	1
<i>Nedhal A. Al-Saiyd</i>	
Modular and Flexible Coordination for Web-based Applications	6
<i>Peng Li</i>	
Embedding Symbol Algorithm for Fast Hit Rate Convergence in Slot Machine Games	11
<i>Yen-Han Chen, Shin-Hung Chang and Guan-Yun Wang</i>	
Comparative Study of recent MEA Malware Phylogeny	16
<i>Joanna Moubarak, Maroun Chamoun and Eric Filiol</i>	
Complex Project as a Knowledge Process: Conceptualisations and Examples Applying Rethinking Project Management (RPM) in Software-Intensive CoPS	21
<i>Antragama Ewa Abbas</i>	
An Algorithmic Design and Implementation of Outer-Open Gomoku	26
<i>Chih-Hung Chen, Shun-Shii Lin, and Yen-Chi Chen</i>	
Describe the Combination of Design Patterns using a new UML extension technology	31
<i>Chenghai Yu, Shupe Wang, Jiajun Guo and Jinyu Song</i>	

Session 2: Computer Science and Information Engineering

A Qualitative Comparison of Popular Middleware Distributions used in Grid Computing Environment...	36
<i>Rab Nawaz, Wuyang Zhou, Muhammad Usman Shahid, Osman Khalid</i>	
Computer Vision Based Intruder Detection Framework (CV-IDF)	41

<i>Aasma Shahid, Alina Tayyab, Musfira Mehmood, Rida Anum, Abdul Jalil, Ahmad Ali, Haider Ali</i>	
A Procedure to Build Multiword Expression Data Set	46
<i>Senem Kumova Metin, Mehmet Taze</i>	
Research on Cloud Storage Technology Based on FPGA	50
<i>Can Zhao, Jun Yang, Tengfei Ma</i>	
A Service-oriented Flexible Network Computing Model.....	55
<i>Zhanjie Wang and Yahui Wu</i>	
Sigma Shift Keying (SSK): A Paradigm Shift in Digital Modulation Techniques	60
<i>Martin Kramer, Horst Bessai</i>	
Named Data Networking Testbed for Scientific Data	65
<i>Huhnkuk Lim, Alexander Ni, Dabin Kim and Young-Bae Ko</i>	
Real-Time Scheduling For Power-Saving Of Mixed Tasks With Periodic And Aperiodic.....	70
<i>Joo-Man Kim</i>	
Designing of customer and employee churn prediction model based on data mining method and neural predictor	74
<i>Sepideh Hassankhani Dolatabadi, Farshid Keynia</i>	
Analysis of The Efficiency of Dense Stereovision Algorithm Implementation on Different Computer Architectures	78
<i>Dmitry I. Ustukov, Yevgeniy R. Muratov, Michael B. Nikiforov, Olga V. Melnik</i>	

Session 3: Image and Signal Processing

Fusion of Color and Infrared Images Using Gradient Transfer and Total Variation Minimization	82
<i>Arooj Nawaz, Irsa Kanwal, Sidra Idrees, Rida Imtiaz, Abdul Jalil, Ahmad Ali</i>	
Noise Estimation For Denoising Multi-Frame Color Images	86
<i>Somkait Udomhunsakul, Napa Sae-Bae</i>	
Development and construction of security-enhanced LTE traffic signal system in Korea	91
<i>Myunghee Son, Hoon Jung</i>	
A Comparison of Methods for Detecting Preambles with Frequency Offset at Low SNR	96
<i>Rene Wuerll, Joerg Robert, Gerd Kilianny and Albert Heuberger</i>	
An Improved Residual LSTM Architecture for Acoustic Modeling.....	101
<i>Lu Huang, Jiasong Sun, Ji Xu and Yi Yang</i>	

Session 4: Modern Communication Theory and Wireless

Technology

The Internet of things in the context of the philosophy of technique: the transformation of being	106
<i>Shaev Yury</i>	
Analysis of Optimal Power Control and Energy Efficiency in Multicast D2D Communications	110
<i>Mariem Hmila, Manuel Fernández-Veiga</i>	
Wi-Fi Direct based Mobile Ad hoc Network	116
<i>Jae Hyeck Lee, Myong-Soon Park, Sayed Chhattan Shah</i>	
Sensing-Throughput Tradeoff with Primary User Traffic and Cooperative Sensing in Cognitive Radio	121
<i>Elsayed M. Yousef, Heba Y. Soliman and Atef M. Ghuniem</i>	
Decentralized Cognitive Radio Network Spectrum Access Algorithm for Throughput Improvement	128
<i>Ibrahim E. Farrag, Samir G. Sayed</i>	
Power Adjustment Based Interference Management in Dense Heterogeneous Femtocell Networks	133
<i>Mustafa Çakır, Aykut Kalaycıoğlu</i>	
Polarization-Maintaining Photonic Crystal Fiber Vibration Sensor Based on Polarization-Diversified Loop Structure with Improved Frequency Response	138
<i>Jun Hyeok Jeong, Sungwook Choi, Seul-Lee Lee, Sun Jae Jeong, Min Seok Kim, Jihoon Kim and Dokyeong Kim</i>	
The Internet of things as socio-technological institution of civil society in post-informational era	142
<i>Shaev Yury, Elena Samoylova</i>	
Interference-Conscious Routing in Multihop D2D Communications	146
<i>Farrukh Salim Shaikh and Roland Wismüller</i>	
On MAC Design for Mobility-Aware Wireless Sensor Networks	152
<i>Syed Wajahat Abbas Kazmi, Adrian Kacso and Roland Wismüller</i>	
Centralized Adaptive Routing in Multihop Cellular D2D Communications	158
<i>Farrukh Salim Shaikh and Roland Wismüller</i>	
Long Range Robot Teleoperation System based on Internet of Things	163
<i>Mohammad Salah Uddin and Mario Gianni</i>	