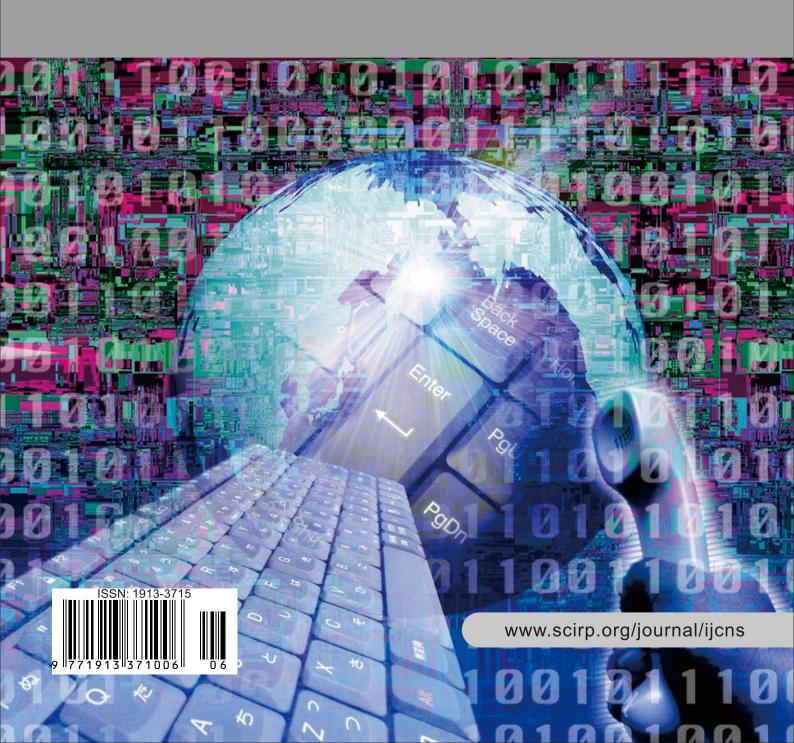


# International Journal of

Communications, Network and System Sciences



## **JOURNAL EDITORIAL BOARD**

ISSN 1913-3715 (Print) ISSN 1913-3723 (Online) http://www.scirp.org/journal/ijcns/

#### Editor-in-Chief

Prof. Boris S. Verkhovsky New Jersey Institute of Technology, USA

#### **Editorial Advisory Board**

Prof. Sartaj K. Sahni University of Florida, USA

#### **Editorial Board**

Prof. Sabri Arik Istanbul University, Turkey

Prof. Satya N. Atluri University of California, Irvine, USA

**Prof. Jalel Ben-Othman** Université de Paris, France

**Prof. Ko Chi Chung** National University of Singapore, Singapore

Prof. Daniel B. da Costa

Federal University of Ceará, Brazil

Dr. Franca Delmastro

National Research Council, Italy

Prof. Md. B. El-Mashade

Al-Azhar University, Egypt

Prof. Kurt J. Engemann Iona College, USA

Prof. Morteza Esmaeili Isfahan University of Technology, Iran

**Prof. George Ghinea** Brunel University, UK

Prof. William A. GruverSimon Fraser University, CanadaDr. Yujie GuUniversity of Oklahoma, China

**Prof. Ehud Gudes** Ben-Gurion University of the Negev, Israel

**Dr. Zhiyi Huang** University of Otago, New Zealand

Prof. Anca Daniela Ionita University Politehnica of Bucharest, Romania

Prof. Hiroaki IshiiKwansei Gakuin University, JapanDr. Chris JoslinCarleton University, CanadaDr. Dimitri KanevskyGoogle Research, USA

**Prof. Jozef Kelemen** Silesian University, Czech Republic

Prof. Alexander M. Korsunsky Oxford University, UK

Prof. Felipe Lara-Rosano National Autonomous University of Mexico, Mexico

Prof. Shahram LatifiUniversity of Nevada, Las Vegas, USADr. Nicola MastronardiNational Research Council, Italy

Dr. Lyudmila Mihaylova Lancaster University, UK

Dr. Yuriy PolyakovNew Jersey Institute of Technology, USAProf. Jianbin QiuHarbin Institute of Technology, ChinaProf. Kosai RaoofJoseph Fourier University, France

Prof. Gerhard Ritter
University of Florida, USA
Dr. Ashok N. Rudrapatna
Bell Labs, Alcatel-Lucent, USA
Prof. Innokentiy V. Semushin
Ulyanovsk State University, Russia
Prof. Sergei Silvestrov
Mälardalen University, Sweden

**Dr. Maolin Tang** Queensland University of Technology, Australia

Prof. Zahir TariRMIT University, AustraliaProf. Hrishikesh VenkataramanDublin City University, Ireland

Prof. Lotfi A. Zadeh University of California, Berkeley, USA



## **Table o Contents**

Volume 7 Number 6	June 2014
An Analytical Framework for Disconnection Prediction in Wireless Networks	
G. Bhutani	165
Creation of Virtual Wi-Fi Access Point and Secured Wi-Fi Pairing, through NFC	
O. Stiti, O. Braham, G. Pujolle	175
Multi-Cultural Dynamics on Social Networks under External Random Perturbations	
J. Chandra, G. S. Ladde	181
Analysis of Rate One Quasi-Orthogonal Space-Time Block Coding over Rayleigh Fading Chan	nel
Ndd A Al Amin Paniu P C Pafi	106

#### International Journal of Communications, Network and System Sciences (IJCNS)

#### **Journal Information**

#### **SUBSCRIPTIONS**

The *International Journal of Communications*, *Network and System Sciences* (Online at Scientific Research Publishing, <a href="https://www.SciRP.org">www.SciRP.org</a>) is published monthly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$89 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### **SERVICES**

#### Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

#### **COPYRIGHT**

#### COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

#### COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright © 2014 by author(s) and Scientific Research Publishing Inc.

#### REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### DISCLAIMER OF LIABILITY

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ijcns@scirp.org



# International Journal of Communications, Network and System Sciences (IJCNS)

ISSN 1913-3715 (Print) ISSN 1913-3723 (Online) http://www.scirp.org/journal/ijcns

**IJCNS** is an international refereed journal dedicated to the latest advancement of communications and network technologies. The goal of this journal is to keep a record of the state-of-the-art research and promote the research work in these fast moving areas.

#### Editor-in-Chief

Prof. Boris S. Verkhovsky

New Jersey Institute of Technology, USA

#### **Subject Coverage**

This journal invites original research and review papers that address the following issues in wireless communications and networks. Topics of interest include, but are not limited to:

Ad Hoc and Mesh Networks	Network Protocol, QoS and Congestion Control
Coding, Detection and Modulation	Network Survivability
Cognitive Radio	Next Generation Network Architectures
Communication Networks Architecture Design	Reconfigurable Networks
Communication Reliability and Privacy	Resource Management
Communication Security and Information Assurance	Satellite Communication
Cooperative Communications	Sensor Networks
Embedded Distributed Systems	Simulation and Optimization Tools
Global Networks	UWB Technologies
Heterogeneous Networking	Wave Propagation and Antenna Design
MIMO and OFDM Technologies	Wireless Personal Communications

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of the IJCNS.

#### **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

E-Mail: ijcns@scirp.org

Website and E-Mail

http://www.scirp.org/journal/ijcns