

Communications and Network





www.scirp.org/journal/cn

Journal Editorial Board

ISSN Print: 1949-2421 ISSN Online: 1947-3826 http://www.scirp.org/journal/cn

Editor-in-Chief

Prof. Bharat Bhargava

Purdue University, USA

Editorial Board

Prof. Ai Chen	Chinese Academy of Sciences, China
Dr. Xiaochun Cheng	Middlesex University, UK
Prof. Nagy Ibrahim Elakalashy	Minoufiya University, Egypt
Prof. Abdullah Eroglu	Indiana University-Purdue University Fort Wayne, USA
Prof. Xiaopeng Fan	Harbin Institute of Technology (HIT), China
Prof. Cunqing Hua	Shanghai Jiao Tong University, China
Dr. Winai Jaikla	King Mongkut's Institute of Technology Ladkrabang, Thailand
Prof. Shanshan Jiang	Broadcom Corporation, USA
Prof. Xiaohong Jiang	Tohoku University, Japan
Prof. Rami Langar	University of Pierre and Marie Curie, France
Prof. Yu Liu	Qualcomm Incorporated, USA
Prof. Hussein Mouftah	University of Ottawa, Canada
Prof. Ruy de Oliveira	Institute of Technology of MT, Brazil
Dr. Lu Peng	Louisiana State University, USA
Prof. Eng. Sattar B. Sadkhan	Babylon University, Iraq
Dr. Karan Singh	Gautam Buddha University, India
Prof. Xiaojun Wang	Dublin City University, Ireland
Dr. Jonathan Wellons	Vanderbilt University, USA
Dr. Gang Yao	University of Illinois at Urbana Champaign, USA



Table of Contents

Volume 10 Number 1

February 2018

Some Complexity Results for the k-Splittable Flow Minimizing Congestion Problem	
C. W. Jiao, Q. Feng, W. C. Bu1	
Reduced Ecological Footprints of Modern Facilities Introducing the Implementation of Advanced Wireless Technologies, and Human Resources' Benefits	
S. K. Chronopoulos, E. I. Kosma, D. Tafiadis, D. Dimopoulos,	

V. Raptis, E.C. Karvounis, P. Angelidis, P. Kostarakis.....11

Communications and Network (CN) Journal Information

SUBSCRIPTIONS

The *Communications and Network* (Online at Scientific Research Publishing, <u>www.SciRP.org</u>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates: Print: \$89 per issue. To subscribe, please contact Journals Subscriptions Department, E-mail: <u>sub@scirp.org</u>

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: <u>sub@scirp.org</u>

COPYRIGHT

Copyright and reuse rights for the front matter of the journal:

Copyright © 2018 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 © 2018 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

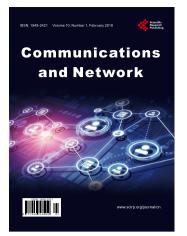
Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

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: <u>cn@scirp.org</u>



Call_for_Papers

Communications and Network

ISSN 1949-2421 (Print) ISSN 1947-3826 (Online) http://www.scirp.org/journal/cn

CN, an international journal, dedicates 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.

All manuscripts submitted to CN must be previously unpublished and may not be considered for publication elsewhere at any time during CN's review period. Additionally, accepted ones will immediately appear online followed by printed in hard copy. The topics to be covered by Communications and Network include, but are not limited to:

- ◆ Algorithms and Programs
- ◆ Applications and Value-Added Services
- ◆ Cognitive Radio
- Communication Protocols
- ◆ Complexity
- Computer and Network Security
- ◆ Cooperative Communications
- Data and Information Security
- Error Correcting Codes
- ◆ Fading/Equalization
- Green Technology
- ◆ Hardware and Software System Architecture
- ◆ High Performance Computing, Grid Computing, ◆ Source Coding/Data Compression **Cloud Computing**
- ◆ Internet/Intranet Protocols
- ◆ Internet/Intranet Services
- ◆ Location Based Services
- Mobile and Portable Communications Systems
- Mobile Computing Systems

- Mobility Networks and Protocols
- Modulation/Signal Design
- Multi Antenna/User Systems
- ◆ Multimedia Services in Wireless Networks
- Network Protocol, QoS and Congestion Control
- Operations and Management
- Optical Communications
- Overlay and Peer-to-Peer Networks
- ◆ Self-Stabilization, Autonomic Computing
- Shared and Transactional Memory, Synchronization Protocols, Concurrent Programming
- ◆ Simulation/Analytical Evaluation of Communication Systems
- Switching and Routing
- Synchronization
- ◆ Traffic Diagnosis
- Transmission and Access Systems
- ◆ Wired and Wireless Integration
- Wireless Network Design and Performance Evaluation

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 CN.

Website and E-Mail

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

E-Mail: cn@scirp.org