

2016 8th International Symposium on Telecommunications (IST 2016)

**Tehran, Iran
27 – 28 September 2016**



**IEEE Catalog Number: CFP1609F-POD
ISBN: 978-1-5090-3436-9**

**Copyright © 2016 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:	CFP1609F-POD
ISBN (Print-On-Demand):	978-1-5090-3436-9
ISBN (Online):	978-1-5090-3435-2

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

Table of Contents

Ad hoc and Sensor Networks

◆ Data Forwarding Scheme to Minimize End-to-End Delay in Opportunistic Networks	1
Narges Arastouie, Masoud Sabaei	
◆ A Game Theoretic Approach to Joint Resource Management in Wireless Ad hoc Networks	6
Moein Aliaskari, Ali Shahzadi	
◆ A Low-Power Smart Temperature Sensor for Passive UHF RFID Tags and Sensor Nets	12
Mohammad Reza Ghaderi Karkani, Mahmud Kamarei, Ali Fotowat Ahmady	
◆ Distributed Area Coverage in Mobile Directional Sensor Networks	18
Marzieh Varposhti, Peyman Saleh, Shahryar Afzal, Mehdi Dehghan	

Optical Communications: Components and Networks

◆ Best Fit (BF): A New Spectrum Allocation Mechanism in Elastic Optical Networks (EONs)	24
Forough Shirin Abkenar, Akbar Ghaffarpour Rahbar, Amin Ebrahimzadeh	
◆ BER Performance of OFDM-Based Wireless Services Over Radio-on-FSO Links in the Presence of Turbulence and Pointing Errors	30
Mohammad Taghi Dabiri, Mohammad Javad Saber, S.Mohammad Sajad Sadogh	
◆ Improved Routing and Spectrum Assignment Formulations for Optical OFDM Networks	34
Mohammad Hadi, Mohammad Reza Pakravan	

◆ Efficient Integration of Switching Mechanisms in All-Optical Networks	40
.....	
Lida Ghaemi Dizaji, Akbar Ghaffarpour Rahbar	

◆ Spectrum-Usage-Aware Resource Allocation and Multicast Routing in Elastic Optical Networks	45
.....	
Mehrdad Moharrami, Hamzeh Beyranvand, Ahmad Fallahpour, Jawad A. Salehi	

Cognitive Networks

◆ Reputation-Based Likelihood Ratio Test with Anchor Nodes Assistance	51
.....	
Abbas Ali Sharifi, Morteza Sharifi, Javad Musevi Niya	

◆ Efficient Collaborative Wideband Soft Detection for Confronting Primary User Emulation Attack	57
.....	
Mohammad Javad Saber, S. Mohammad Sajad Sadough	

◆ Rate Optimization in NOMA Cognitive Radio Networks	62
.....	
Negar Zabetian, Mina Baghani, Abbas Mohammadi	

◆ Secure Multiple Antennas Spectrum Sensing Under Continuous Attacking Traffic	66
.....	
Ali Karimi, Abbas Taherpour, Zahra Pourgharehkhani	

◆ Sum Throughput Maximization for Downlink MIMOOFDMA Based Cognitive Radio Networks in Spectrum Overlay Model	72
.....	
Mahla Mohammadi, S.Mehdi Hosseini Andargoli	

Information Security

◆ A Multi Sender Attribute-Based Broadcast Authentication Scheme	78
.....	
Saeed Aghapour, Mohammad Hassan Ameri, Javad Mohajeri	

<p>♦ Deniable Encryption based on Standard RSA with OAEP</p> <p>.....</p> <p>Habib Allah Yajam, Unes Karimi Ahmadabadi, Mohammadali Akhaee</p>	<p>84</p>
<p>♦ A Conceptual Trust Model for the Internet of Things Interactions</p> <p>.....</p> <p>Abouzar Arabsorkhi, Mohammad Sayad Haghighi, Roghayeh Ghorbanloo</p>	<p>89</p>
<p>♦ A Secure and Area-Efficient FPGA-Based SR-Latch PUF</p> <p>.....</p> <p>Amir Ardakani, Shahriar Baradaran Shokouhi</p>	<p>94</p>
<p>♦ Proposed New Features to Improve Android Malware Detection</p> <p>.....</p> <p>Mahdi Vajdi, Atefeh Torkam, Marjan Bahrololum, Mohammad Hesam Tadayon, Afshin Salajegheh</p>	<p>100</p>
<p>♦ Security Considerations and Requirements for Cloud Computing</p> <p>.....</p> <p>Fariba Ghaffari, Hossein Gharaee, Mohammad Reza Forouzandehdoust</p>	<p>105</p>
<p>♦ Analysis of Xiao et al.'s Authentication Protocol Conforming to EPC C1 G2 Standard</p> <p>.....</p> <p>Behzad Abdolmaleki, Karim Baghery, Bahareh Akhbari, Mohammad Reza Aref</p>	<p>111</p>
<p>♦ A Novel Network Based Privacy Framework</p> <p>.....</p> <p>Mina Yadegari, Hossein Gharaee</p>	<p>117</p>
<p>♦ A Secure Attribute Based Keyword Search Scheme Against Keyword Guessing Attack</p> <p>.....</p> <p>Vahid Yousefipoor, Mohammad Hassan Ameri, Javad Mohajeri, Taraneh Eghlidos</p>	<p>124</p>
<p>♦ Provide a Solution for User Validation and Expertise Degree Dynamic in Collaborative Systems</p> <p>.....</p> <p>Ahmad Agha Kardan, Roghaye Ahmadi</p>	<p>129</p>
<p>♦ Secure Communications in OFDMA Decode and Forward Relay Assisted Networks in Presence of Multiple Eavesdroppers</p> <p>.....</p> <p>Mohammad Reza Javan, Saeed Sheikhzadeh, Nader Mokari</p>	<p>134</p>

♦ A New Feature Selection IDS based on Genetic Algorithm and SVM	139
.....	
Hossein Gharaee, Hamid Hosseinvand	
♦ Automated Analysis Method for Forensic Investigation of Cloud Applications on Android	145
.....	
Farid Daryabar, Mohammad Hesam Tadayon, Ashkan Parsi, Hadi Sadjadi	
♦ Malware Detection using Opcodes Statistical Features	151
.....	
Saeid Rezaei, Fereidoon Rezaei, Ali Afraz, Mohammad Reza Shamani	
♦ Welcome to Binder: A Kernel Level Attack Model for the Binder in Android Operating System	156
.....	
Majid Salehi, Farid Daryabar, Mohammad Hesam Tadayon	
♦ Lightweight, Anonymous and Mutual Authentication in IoT Infrastructure	162
.....	
Shadi Janbabaee, Hossein Gharaee, Naser Mohammadzadeh	
♦ LDPC Decoder Implementation Using FPGA	167
.....	
Mahdie Kiaee, Hossein Gharaee, Naser Mohammadzadeh	
♦ Quantum Secret Sharing Using Single States	174
.....	
Razieh Mohajer, Ziba Eslami	

Big Data

♦ An Efficient Implementation of Fuzzy C-Means and Watershed Algorithms for MRI Segmentation	178
.....	
Farnaz Hoseini, Asadollah Shahbahrani	
♦ A new density estimator based on nearest and farthest neighbor	185
.....	
Azadeh Faroughi, Reza Javidan, Mohsen Emami	

♦ Comparison of Several Sparse Recovery Methods for Low Rank Matrices with Random Samples	191
.....	
Ashkan Esmaeili, Farokh Marvasti	
♦ A Modified Hybrid Fuzzy Clustering Method for Big Data	196
.....	
Amir Khoshkbarchi, Ali Kamali, Mehdi Amjadi, Maryam Amir Haeri	
♦ Big Data: A Coevolutionary Strategic Roadmap	202
.....	
Davood Maleki, Ehsan Arianyan, Mohammad Reza Ahmadi	

Satellite and Space Communications & Wireless Communications

♦ On Singularity Extraction of Time-Domain Green's Functions of Layered Media	208
.....	
Saeed Souri, Mohsen Ghaffari – Miab	
♦ A Cooperative Spectrum Leasing Scheme with Guaranteed Secrecy Rate for Primary Link	212
.....	
Shokufeh Vatanpour, Mohammad reza Javan	
♦ A Low-Complexity Near-Optimal Algorithm for Blind Estimation of Pseudo-Noise Sequences in DSSS Communication Systems	218
.....	
Saeed Mehboodi, Ali Jamshidi, Mahmoud Farhang	
♦ On the Uplink Spectral Efficiency of Full-Duplex Cooperative OFDMA Systems	222
.....	
Jafar Banar, S. Mohammad Razavizadeh	
♦ Spatial Interference Alignment in Relay-Assisted Multi-Cell Multi-User Networks	227
.....	
Ali Golestani, Ali Habibi Bastami, Kamal Mohamed-pour	
♦ A Novel Relay Selection Scheme for SSK Modulation in Cooperative Communication	233
.....	
Mohammad Esmaeili, Abbas Mohammadi	

<p>◆ A Realistic Receiver Model for Neuro-spike Communication </p>	239
Reyhaneh Bigharaz, Ali Jamshidi, Alireza KeshavarzHaddad	
<p>◆ On Distributed Transmission of Remote Correlated Gaussian Sources over an Orthogonal Gaussian Multiple-Access Channel </p>	245
Mehdi Setayesh, Hamid Behroozi, Babak Hossein Khalaj	
<p>◆ A New Bargaining Approach on the N-user Gaussian Interference Channel </p>	251
Atena Ebrahimkhani, Babak Seyfe	
<p>◆ How to Select an Optimum Set of Modes for a Link Adaptive Transmission </p>	256
Mehrdad Taki, Reza Mahin Zaeem	
<p>◆ Reduce Impact of False Detection of Adversary States on the Secure Cooperative Network </p>	261
Moslem Forouzesh, Paeiz Azmi, Nader Mokari	
<p>◆ MUSIC-BASED Approaches for Hybrid Millimeter-Wave Channel Estimation </p>	266
Majid Shakhsi Dastgahian, Hossein KhoshbinGhomash	
<p>◆ Minimizing The Expected Distortion of Two-Hop Networks Using Multi-layer Source Coding </p>	272
S.Ali Khodam Hoseini, Soroush Akhlaghi, Mina Baghani	
<p>◆ A New Channel Code for Decreasing Inter-Symbol-Interference in Diffusion Based Molecular Communications </p>	277
Parvin Akhkandi, Alireza keshavarz-Haddad, Ali Jamshidi	
<p>◆ A Selective Physical Layer Network Coding for Wireless Two-Way Relaying </p>	282
Ala Mahdavi, Ali Jamshidi, Alireza Keshavarz-Haddad	
<p>◆ Performance Enhancement of the Golden Code by Utilizing the ORIOL Antenna </p>	288
Vahid AmiriKooshki, Mohammad Ali SadatHosseini, Ali Lotfi-Rezaabad, Siamak Talebi	

<p>♦ Robust Resource Allocation in Cloud-RAN Network Based on COMP Technology </p> <p>Atefeh Rezaei, Paeiz Azmi, Nader Mokari</p>	<p>293</p>
<p>♦ QoS Improvement in IEEE802.11e using Smart Nodes </p> <p>Ali Vaezi, Mohammad Yousef Darmani</p>	<p>299</p>
<p>♦ Closed-Form Error Probability of Blind Detection for Free Space Optical Systems </p> <p>Mohammad Taghi Dabiri, S. Mohammad Sajad Sadough, Hossein Safi</p>	<p>304</p>
<p>♦ Price-based Device-to-Device Communication Underlying Cellular Networks </p> <p>Sara Sharifi, Mohammad Fathi</p>	<p>309</p>
<p>♦ Power Control for D2D Underlay Cellular Communication: Game Theory Approach </p> <p>Mohammadamin Baniasadi, Behrouz Maham, Hamed Kebriaei</p>	<p>314</p>
<p>♦ Performance Analysis of the Clustered Caching Wireless Networks Considering Stochastic Geometry Approach </p> <p>Leila Enamipour, Zolfa Zeinalpour-Yazdi, Babak Hossein Khalaj</p>	<p>320</p>
<p>♦ Analysis of Energy Efficiency and Area Spectral Efficiency in Small Cell Networks with Multi-Antenna Base Stations </p> <p>FahimeSadat Mirhosseini, Aliakbar Tadaion</p>	<p>325</p>
<p>♦ Performance Analysis of a Multi-User Diversity in a SIMO Spectrum Sharing System </p> <p>Behnam Aghazadeh, Mohammad Torabi</p>	<p>331</p>
<p>♦ Transmit Precoding Aided Spatial Modulation for Multi-User Correlated Large-Scale MIMO Channels </p> <p>Marjan Maleki, Kamal Mohamed-Pour</p>	<p>337</p>
<p>♦ Joint CFO and Channel Estimation in OFDM-based Massive MIMO Systems </p> <p>Hamed Hojatian, Hamid Saeedi-Sourck, Mohammad Javad Omid, Arman Farhang</p>	<p>343</p>

◆ A Small Dual Band Antenna with Simple Structure for WLAN/WIMAX Application	349
.....	
Kioumars Pedram, Javad Nourinia, Changiz Ghobadi	
◆ Outage Probability for Underlying Device to Device Communications	353
.....	
Hossein Ghavami, Shahriar Shirvani Moghaddam	
◆ A Ray Tracing Model for Beam Footprint Boundary in Cognitive Satellite Communication Applications	359
.....	
Hamed Montazeri-Shatouri, Amir R. Forouzan, Kamal Shahtalebi	

Wireless Networks

◆ Non-stationary Sparse System Identification over Adaptive Sensor Networks with Cyclic Cooperation	364
.....	
Amir Bazdar, Afsaneh Akhbari, Ehsan Mostafapour, Changiz Gobadi	
◆ Computing Diversity-Multiplexing Trade-off of Static QMF Communication Strategy in Half-Duplex Diamond Relay Channels	368
.....	
Hediyeh Soltanzadeh, Farzad Parvaresh, S. Mohammad Saberali	
◆ A Genetic Approach in Relay-Jammer Selection and Power Allocation for Physical Layer Security	374
.....	
Niloofar Okati, Mohammad Reza Mosavi, Hamid Behroozi	
◆ Performance Analysis of Cooperative Wireless Body Area Networks over Gamma Fading Channels	380
.....	
Maryam Abbaspour-Asadollah, Ehsan Soleimani-Nasab	

Antennas and Propagation

◆ Gain and Lower Cut-Off Frequency Improvement of Antipodal Vivaldi Antenna	386
.....	
Majid Amiri, Ali Ghafoorzadeh-Yazdi, Abbas-Ali Heidari	

<p>♦ Gravitational Search Algorithm Used to synthesis a Planar Array Antenna for Nulling Control and Side Lobe Level Reduction</p> <p>.....</p> <p>Ataollah Ebrahimzade ,Hajar Abedi,Maryam Hesari</p>	<p>391</p>
<p>♦ Object Locating in Anisotropic Dielectric Background Using MUSIC Algorithm</p> <p>.....</p> <p>Faezeh Shirmehenji, Abolghasem Zeidaabadi Nezhad, Zaker Hossein Firouzeh</p>	<p>396</p>
<p>♦ Propagation and Scattering Analysis in a 2D Rectangular Room Using the Closed-Form Green's Function</p> <p>.....</p> <p>Mohammad Hossein Sadrearhami,Amir Ahmad Shishegar</p>	<p>401</p>
<p>♦ Analytical Approach to Design the Metasurface Based Infrared Cloaking</p> <p>.....</p> <p>Mohammad Danaeifar, Nosrat Granpayeh</p>	<p>405</p>
<p>♦ Ultra Wideband Electromagnetic DORT Time-Reversal Localization of Single-Defect in Pipe</p> <p>.....</p> <p>Javad Ebrahimi-Zadeh, Mojtaba Dehmollaian, Karim Mohammadpour-Aghdam</p>	<p>409</p>
<p>♦ Composite Right/Left-Handed Transmission-Line Based Wideband Antenna for WLAN, WiMAX and WiFi Applications</p> <p>.....</p> <p>Mohammad Alibakhshi-Kenari, Bal Singh Virdee, Mohammad Naser-Moghadasi, Ernesto Limiti, Ramazan Ali Sadeghzadeh</p>	<p>415</p>
<p>♦ Metallic Grating on a Periodic Anisotropic Substrate as a Planar Artificial Magnetic Conductor</p> <p>.....</p> <p>Mahmood Rafaei-Booket, Zahra Atlasbaf, Mahmoud Shahabadi</p>	<p>419</p>
<p>♦ Electromagnetic scattering from a PEC target buried beneath a rough surface using KA-PO method</p> <p>.....</p> <p>Mahdi Behdani, Ahad Tavakoli, Parisa Dehkoda, Mohammad Zoofaghari</p>	<p>424</p>
<p>♦ Novel Band-Pass Frequency Selective Surface with Stable Response</p> <p>.....</p> <p>Mahdi Taghizadeh, Mohsen Maddahali, Reza Abed</p>	<p>428</p>

♦ Competition Over Resources Algorithm and Its Application for Planar Array Pattern Synthesis	432
.....	
Hajar Abedi, Bijan Zakeri, Reza Gholami, Sina Mohseni	
♦ Electromagnetic DORT Time Reversal Dielectric Spectroscopy	437
.....	
Javad Ebrahimi Zadeh, Hadi Balegh, Rajab Fallahi	
♦ A Very Small Broadband CPW-Fed Circular Polarized Antenna With Two Semicircles Etched On Ground Plane	442
.....	
Mohsen Karamirad, Changiz Ghobadi, Fereshteh Samadi, Javad Nourinia	
♦ A Dual Band Circularly Polarized Antenna with Parasitic Element for Gain Enhancement	447
.....	
Fereshteh Samadi, Javad Nourinia, Mohsen Karamirad, Rahim Barzeghari, Changiz Ghobadi	
♦ Development of a Wideband and Inclined Polarized Cavity Backed Slot Antenna Using SIW Structure	452
.....	
Abbas Soltan, Mohammad Hassan Neshati	

Signal Processing in Communications

♦ Hyperspectral Images Classification by Spectral-Spatial Processing	456
.....	
Maryam Imani, Hassan Ghassemian	
♦ Feature Level and Decision Level Fusion in Kernel Sparse Representation based Classifiers	462
.....	
Tahereh Zare, Mohammad Taghi Sadeghi	
♦ A New Pansharpening Method Based On Cartoon+Texture Decomposition	468
.....	
Meysam Lotfi, Hassan Ghassemian	
♦ A Multimodal Image Fusion via Sparse Representation and Clustering-Based Dictionary Learning Algorithm in Nonsampled Contourlet Domain	472
.....	
Fahim shabanzade, Hassan ghassemian	

◆ Inter-Symbol Interference Analysis in Neuro-Synaptic Communications	478
.....	
Abolfazl Amiry, Behrouz Maham	
◆ Automatic Modulation Classification Using Combination of Wavelet Transform and GARCH Model	484
.....	
Sara Mihandoost, Mehdi Chehel Amirani	
◆ Study of Speech Features Robustness for Speaker Verification Application in Noisy Environments	489
.....	
Mohsen Mohammadi, Hamid Reza Sadegh Mohammadi	
◆ Supervised speech enhancement using online Group-Sparse Convolutional NMF	494
.....	
Midia Yousefi, Mohammad Hassan Savoji	
◆ Clipping Noise Estimation in Uniform Tone Reservation Scenario Using OMP Algorithm	500
.....	
Mohammad Javad Azizpour, Kamal Mohamed-pour	
◆ Saliency-guided Wireless Transmission of Still Images Using SoftCast	506
.....	
Hadi Hadizadeh	
◆ Mapping Mel Sub-band Energies Using Deep Belief Network for Robust Speech Recognition	510
.....	
Mojtaba Gholamipour, Babak Nasersharif	
◆ Game Theory Modeling of MIMO Radar and ARM Missile Engagement	515
.....	
Neda Henareh, Yaser Norouzi	

Software Defined Networks

◆ Detecting malicious packet drops and misroutings using Header Space Analysis	521
.....	
Amir Ahmad Mohammadi, Peyman Kazemian, Mohammad Reza Pakravan	

♦ QRTP:QoS-Aware Resource Reallocation Based on Traffic Prediction in Software Defined Cloud Networks	527
.....	
Mohammad Mahdi Tajiki, Behzad Akbari, Nader Mokari	

♦ QRVE: QoS-Aware Routing and Energy-Efficient VM Placement for Software-Defined DataCenter Networks	533
.....	
Pooyan Habibi, Masoud Mokhtari, Masoud Sabaei	

Social Networks

♦ On the Modularity Improvement for Community Detection in Overlapping Social Networks	540
.....	
Samaneh Ghaderi, Alireza Abdollahpouri, Parham Moradi	

♦ An agent based positional model for opinion formation in social networks	547
.....	
Sajjad Salehi, Fattaneh Taghiyareh	

♦ Opinion Influence Network Identification, using Convex Programming	553
.....	
Mahmood Nematollahzadeh, Sadjad Ozgoli, Mehdi Sojoodi	

♦ A Comprehensive Analysis of Tweet Content and Its Impact on Popularity	559
.....	
Mohammad Mahdavi, Masoud Asadpour, S.Morteza Ghavami	

♦ Centrality Measures Analysis in Overlapped Communities: An Empirical Study	565
.....	
Zahra Ebadi Abouzar, Leila Esmaeili, Alireza Hashemi Golpayegani	

Microwave, Millimeter Wave and Terahertz Wireless Components

♦ Design of a TEM Cell Using Both Multi-Step and Piecewise Linear Tapering	571
.....	
Masoud Arezoomand, Mohsen Kalantari Meybodi, Narges Noori	

♦ Design of a Wideband Low Noise Amplifier using Modified Cascode Structure for 45GHz Band Applications	575
.....	
Mehran Nazari, Javad Yavand Hassani, Reza Rezaei Siahrood, Alireza Farahani	
♦ A Compact 0.18-μm CMOS 5-Bit Phase-Shifter MMIC for X-Band application	581
.....	
Mina Amiri, Mohammad Moghaddam, Nasser Masoumi	
♦ Development of a Forward-Wave Directional Coupler Loaded with a Periodic Shunt Structure	586
.....	
Zahra S.Tabatabaeian, Mohammad Hassan Neshati	
♦ Travelling-Wave Ka-band Frequency Scanning Antennas For Millimeter-wave Imaging Applications	591
.....	
Mohammadreza Ranjbar Naeini, Mohammad Fakharzadeh, Forouhar Farzaneh	
♦ A Low power UWB CMOS Low Noise Amplifier for 3.1-10.6 GHz in Receivers	596
.....	
Amir Mahdavi, Fatemeh Geran	

ICT Development Strategies and Regulatory & Internet of Things & Internet Related Technologies and Communication Services

♦ A Hybrid Intrusion Detection Architecture for Internet of Things	601
.....	
Mansour Sheikhan, Hamid Bostani	
♦ Domain Specific Ontology Enrichment Using Public Knowledge Resources	607
.....	
Maedeh Mosharraf, Fattaneh Taghiyareh	
♦ Analyzing the effect of game-elements in e-Learning environments through MBTI-based personalization	612
.....	
Negar Shabihi, Fattaneh Taghiyareh, Mohammad Hossein Abdoli	
♦ An Optimized Bandwidth Allocation in Broadband Digital Economy	619
.....	
Leila Mansourifar, Nasser Mozayani, Mohsen Pazari	

♦ A new approach to designing a roadmap: A case study for e- services with respect to rural and less developed regions in Iran	626
.....	
Molood Arman, Mahmood Kharrat	
♦ Designing E-Services in Rural and Least Developed Areas Using Technology Road Mapping	632
.....	
Nasrin Dastranj, Tahereh Mirsaeed Ghazi, Masoomeh Sadeghi, Kolsoom Abbasi, Sogol Babazadeh, Molood Arman, Maryam Gharaee, Mahmood kharrat	
♦ Personalization of Gamification-elements in an E-Learning Environment based on Learners' Motivation	637
.....	
Fatemeh Roosta, Fattaneh Taghiyareh, Maedeh Mosharraf	
♦ Similarity based Automatic Web Search Engine Evaluation	643
.....	
Farzaneh Shoeleh, Masoomeh Azimzadeh, Akbar Mirzaei, Mojgan Farhoodi	

Cloud Networks & Communications

♦ Assignment Look-ahead HEFT for Scheduling Workflows of Communicating Tasks	649
.....	
Elham Dolkhani, Hamid Abrishami, Amin Rezaeian, Mahmoud Naghibzadeh	
♦ Multi Objective Consolidation of Virtual Machines for Green Computing in Cloud Data Centers	654
.....	
Ehsan Arianyan	
♦ Mobile Cloud Computing: A Multisite Computation Offloading	660
.....	
Mohammad Goudarzi, Zeinab Movahedi, Masoud Nazari	
♦ SDN-based Scheduling Strategy on Load Balancing of Virtual Sensor Resources in Sensor-Cloud	666
.....	
Fatemeh Banaie, Mohammad Hossein Yaghmaee, S.Amin Hosseini	

- ◆ **A Multi-Dimensional Fairness Combinatorial Double-Sided Auction Model in Cloud Environment**

..... 672
Reihaneh Hassanzadeh, Ali Movaghar, Hamid Reza Hassanzadeh

Network Science and Technologies

- ◆ **XY-Axis and Distance Based NoC Mapping (XY-ADB)**

..... 678
Elnaz Alikhah-Asl, Midia Reshadi

- ◆ **The Conceptual Model to Solve The Problem of Interoperability in Health Information Systems**

..... 684
Nahid Zeinali, Abbas Asosheh, Sougand Setareh

- ◆ **Predicting election outcomes based on voters' weighted networks**

..... 690
Mohammad Khansari, Mojtaba Sadeghian, Farid Dehgan

- ◆ **Aspect and Distance Based NoC Mapping (ADB)**

..... 694
Elnaz Alikhah-Asl, Midia Reshadi

Communications for Smart Grids & Smart Computing

- ◆ **Location-Based Scheduling: An Approach To Address Challenges of Big Data and Mobile Cloud Computing**

..... 700
Mohammad Reza Bagheri, Sohrab Mortazavi Ghalati, Reza Gholami, Mehdi Sedighi

- ◆ **A Multimarket Approach To Peak-shaving in Smart Grid Using Time-of-Use Prices**

..... 707
Hamid Manoochehri, Alireza Fereidunian

System and Network Security

♦ An Anomaly Based VoIP DoS Attack Detection and Prevention Method Using Fuzzy Logic	713
.....	
Mahsa Hosseinpour, Mohammad Hossein Yaghmaee Moghaddam, S.Amin Hosseini Seno, Hossein Khosravi Roshkhari	
• SRAM Hardware Trojan	719
.....	
Roghayeh Saeidi, Hossein Gharaee Garakani	
• An Attack Graph Based Procedure for Risk Estimation of Zero-Day Attacks	723
.....	
Marjan Keramati	
♦ Optimal Response to Computer Network Threats	729
.....	
Farzaneh Abazari, Afsaneh Madani, Hossein Gharaee	
♦ A Multi-Level Reputation-Based Pollution Attacks Detection and Prevention in P2P Streaming	735
.....	
Hassan Kooshkaki, Behzad Akbari, Abdollah Ghaffari Sheshjavani	
♦ RFID Light Weight Server-Less Search Protocol Based on NLFSRs	741
.....	
Abolfazl Falahati, Hamid Azizi, Robert. M. Edwards	
♦ New Vulnerability Scoring System for Dynamic Security Evaluation	746
.....	
Marjan Keramati	
• On The Security of YRL, An Anonymous Broadcast Encryption Scheme	752
.....	
Reyhaneh Rabaninejad, Mahshid Delavar, Mohammad Hassan Ameri, Javad Mohajeri	
♦ Secure Hardware Key Based on Physically Unclonable Functions and Artificial Neural Network	756
.....	
Nima Alimohammadi, Shahriar Baradaran Shokouhi	
♦ Probability of Infectious nodes in Backward time	761
.....	
Tala Tafazzoli, Babak Sadeghiyan	

◆ Security Operation Center Implementation on OpenStack	766
.....	
Tala Tafazzoli, Hossein Gharaee Garakani	

Communications Software, Services and Multimedia Applications

◆ A Free-riding Resiliency Incentive Mechanism for VoD Streaming Over Hybrid CDN-P2P Networks	771
.....	
Abdollah Ghaffari Sheshjavani, Behzad Akbari, Hamid Reza Ghaeini	

◆ Head Pose Estimation based on Fuzzy Systems using Facial Geometric Features	777
.....	
Arezoo Sadeghzadeh, Hossein Ebrahimnezhad	

◆ CMPVoD: A Cluster Mesh-based Architecture For VoD Streaming over Hybrid CDN-P2P Networks	783
.....	
Abdollah Ghaffari Sheshjavani, Behzad Akbari, Hamid Reza Ghaeini	

◆ Adaptive CSK Modulation Guaranteeing HEVC Video Quality Over Visible Light Communication Network	789
.....	
Hamed Alizadeh Ghazijahani, Milad Abdollahzadeh, Hadi Seyedarabi, Mir Javad Musevi Niya	

◆ A New Incentive Scheduling Mechanism for Live Video Streaming in Mesh-Based P2P Networks	795
.....	
Sajjad Momeny, Mehdi Dehghan	

◆ A Temporal Feature Vector Which is Robust against Aspect Ratio Variations	801
.....	
Farzad Zargari, Farzaneh Rahmani	