

IEEE Communications Society
Publications Contents Digest
February/2018





Direct links to magazine and journal abstracts and full paper pdfs via IEEE Xplore

ComSoc Vice President – Publications – Nelson Fonseca

Director – Journals – Khaled B. Letaief

Director – Magazines – Raouf Boutaba

Magazine Editors

EIC, *IEEE Communications Magazine* – Tarek El-Bawab

AEIC, *IEEE Communications Magazine* – Antonio Sanchez-Esquavillas | Ravi Subrahmanyam

EIC, *IEEE Network Magazine* – Mohsen Guizani

AEIC, *IEEE Network Magazine* – David Soldani

EIC, *IEEE Wireless Communications Magazine* – Hamid Gharavi

AEIC, *IEEE Wireless Communications Magazine* – Yi Qian

EIC, *IEEE Communications Standards Magazine* – Glenn Parsons

AEIC, *IEEE Communications Standards Magazine* – Zander Lei

EIC, *China Communications* – Chen Junliang

Journal Editors

EIC, *IEEE Transactions on Communications* – Naofal Al-Dhahir

EIC, *IEEE Journal on Selected Areas In Communications (J-SAC)* – Raouf Boutaba

EIC, *IEEE Communications Letters* – O. A. Dobre

Editor, *IEEE Communications Surveys & Tutorials* – Ying-Dar Lin

EIC, *IEEE Transactions on Network & Service Management (TNSM)* – Filip De Turck

EIC, *IEEE Wireless Communications Letters* – Wei Zhang

EIC, *IEEE Transactions on Wireless Communications* – Martin Haenggi

EIC, *IEEE Transactions on Mobile Communications* – Marwan Krunz

EIC, *IEEE/ACM Transactions on Networking* – Eytan Modiano

EIC, *IEEE/OSA Journal of Optical Communications & Networking (JOCN)* – Jane M. Simmons

EIC, *IEEE/OSA Journal of Lightwave Technology* – Peter J. Winzer

Co-EICs, *IEEE/KICS Journal of Communications & Networks (JCN)* – Anthony Ephremides | Saewoong Bahk

EIC, *IEEE Transactions on Multimedia* – Wenwu Zhu

EIC, *IEEE Transactions on Cloud Computing* – Hui Lei

EIC, *IEEE Transactions on Cognitive Communications and Networking* – Michele Zorzi

EIC, *IEEE Transactions on Molecular, Biological, and Multi-Scale Communications* – Urbashi Mitra

EIC, *IEEE Transactions on Signal and Information Processing over Networks* – Petar Djuric

EIC, *IEEE Internet of Things Journal* – Sherman Shen

EIC, *IEEE Transactions on Green Communications* – Ender Ayanoglu

EIC, *IEEE Journal on Biomedical Health Informatics* – Dimitrios I. Fotiadis

EIC, *IEEE Life Sciences Letters* – Paolo Bonato

EIC, *IEEE Transactions on Applied Superconductivity* – Britton L. T. Plourde

EIC, *IEEE Transactions on Network Science and Engineering* – Dapeng Oliver Wu

EIC, *IEEE Transactions on Smart Grid* – Juanhui Wang

IEEE Communications Society

3 Park Avenue

New York, NY 10016 USA

212 705 8900

[Front cover]
PDF (6866 KB)

[Front inside cover]
PDF (488 KB)

Table of contents
PDF (256 KB)

IEEE REMCOM
PDF (596 KB)

The President's Page
Khaled B. Letaief ; Stefano Bregni
PDF (1501 KB)

Conference Calendar
PDF (98 KB)

Global Communications Newsletter
Anum Talpur ; Edward Smith ; Xudong Wang ; Chong Han ; Xinwan Li ; Keattisak Chong
PDF (2465 KB)

Comsoc Membership
PDF (585 KB)

Advanced Industrial Wireless Sensor Networks and Intelligent IoT
Djallel Eddine Boubiche ; Al-Sakib Khan Pathan ; Jaime Lloret ; Huiyu Zhou ; Seongik Hong ; Syed Obaid Amin ; Mohamed Ali Feki
PDF (550 KB)

Trust-Based Communication for the Industrial Internet of Things
Chunsheng Zhu ; Joel J. P. C. Rodrigues ; Victor C. M. Leung ; Lei Shu ; Laurence T. Yang
PDF (944 KB)

An SNR-Assured Anti-Jamming Routing Protocol for Reliable Communication in Industrial Wireless Sensor Networks
Li Liu ; Guangjie Han ; Sammy Chan ; Moshen Guizani
PDF (206 KB)

A Multi-Level DDoS Mitigation Framework for the Industrial Internet of Things
Qiao Yan ; Wenyao Huang ; Xupeng Luo ; Qingxiang Gong ; F. Richard Yu
PDF (269 KB)

Big Data Analytics in Industrial IoT Using a Concentric Computing Model
Muhammad Habib ur Rehman ; Ejaz Ahmed ; Ibrar Yaqoob ; Ibrahim Abaker Targio Hashem ; Muhammad Imran ; Shafiq Ahmad
PDF (190 KB)

Edge Computing in the Industrial Internet of Things Environment: Software-Defined-Networks-Based Edge-Cloud Interplay
Kuljeet Kaur ; Sahil Garg ; Gagangeet Singh Aujla ; Neeraj Kumar ; Joel J. P. C. Rodrigues ; Moshen Guizani
PDF (521 KB)

Toward Dynamic Resources Management for IoT-Based Manufacturing
Jiafu Wan ; Baotong Chen ; Muhammad Imran ; Fei Tao ; Di Li ; Chengliang Liu ; Shafiq Ahmad
PDF (1388 KB)

Integration of LoRaWAN and 4G/5G for the Industrial Internet of Things
Jorge Navarro-Ortiz ; Sandra Sendra ; Pablo Ameigeiras ; Juan M. Lopez-Soler
PDF (789 KB)

Workshop Networks Integration Using Mobile Intelligence in Smart Factories
Yun Luo ; Ying Duan ; Wenfeng Li ; Pasquale Pace ; Giancarlo Fortino
PDF (309 KB)

Emerging Trends, Issues, and Challenges in Big Data and Its Implementation toward Future Smart Cities: Part 2
Guangjie Han ; Moshen Guizani ; Jaime Lloret ; Sammy Chan ; Liangtian Wan ; Wael Guibene
PDF (454 KB)

Soft Sensing in Smart Cities: Handling 3Vs Using Recommender Systems, Machine Intelligence, and Data Analytics
Hadi Habibzadeh ; Andrew Boggio-Dandry ; Zhou Qin ; Tolga Soyata ; Burak Kantarci ; Hussein T. Mouftah
PDF (325 KB)

GLOBECOM
PDF (508 KB)

QoE-Driven Big Data Architecture for Smart City
Xiaoming He ; Kun Wang ; Huawei Huang ; Bo Liu
PDF (487 KB)

Enabling Cognitive Smart Cities Using Big Data and Machine Learning: Approaches and Challenges
Mehdi Mohammadi ; Ala Al-Fuqaha
PDF (540 KB)

Recent Advances and Challenges in Mobile Big Data
Ejaz Ahmed ; Ibrar Yaqoob ; Ibrahim Abaker Targio Hashem ; Junaid Shuja ; Muhammad Imran ; Nadra Guizani ; Sheikh Tahir Bakhsh
PDF (680 KB)

IEEE.TV
PDF (594 KB)

A Mobility-Aware Optimal Resource Allocation Architecture for Big Data Task Execution on Mobile Cloud in Smart Cities
Asma Enayet ; Md. Abdur Razzaque ; Mohammad Mehedi Hassan ; Atif Alamri ; Giancarlo Fortino
PDF (346 KB)

Optimized Big Data Management across Multi-Cloud Data Centers: Software-Defined-Network-Based Analysis
Rajat Chaudhary ; Gagangeet Singh Aujla ; Neeraj Kumar ; Joel J. P. C. Rodrigues
PDF (391 KB)

Call for Papers
PDF (27 KB)

A Big Data Analytics Architecture for the Internet of Small Things
Moneeb Gohar ; Syed Hassan Ahmed ; Murad Khan ; Nadra Guizani ; Awais Ahmed ; Arif Ur Rahman
PDF (199 KB)

Human-Driven Edge Computing and Communication: Part 2
Jiannong Cao ; Aniello Castiglione ; Giovanni Motta ; Florin Pop ; Yanjiang Yang ; Wanlei Zhou
PDF (595 KB)

Connecting the Edges: A Universal, Mobile-Centric, and Opportunistic Communications Architecture
Christos-Alexandros Sarros ; Sotiris Diamantopoulos ; Sergi Rene ; Ioannis Psaras ; Adisorn Lertsinsrubtavee ; Carlos Molina-Jimenez ; Paulo Mendes ; Rute Sofia ; Arjuna Sathiaselalan ; George Pavlou ; Jon Crowcroft ; Vassilis Tsaoussidis
PDF (356 KB)

A Survey on Access Control in Fog Computing
Peng Zhang ; Joseph K. Liu ; F. Richard Yu ; Mehdi Sookhak ; Man Ho Au ; Xiapu Luo
PDF (336 KB)

I Walk, Therefore I Am: Continuous User Authentication with Plantar Biometrics
Kuo-Hui Yeh ; Chunhua Su ; Wayne Chiu ; Lu Zhou
PDF (541 KB)

Securing Edge Devices in the Post-Quantum Internet of Things Using Lattice-Based Cryptography
Zhe Liu ; Kim-Kwang Raymond Choo ; Johann Grossschadl
PDF (153 KB)

PrivacyProtector: Privacy-Protected Patient Data Collection in IoT-Based Healthcare Systems
Entao Luo ; Md Zakirul Alam Bhuiyan ; Guojun Wang ; Md Arafatur Rahman ; Jie Wu ; Mohammed Atiquzzaman
PDF (310 KB)

Deep Learning: The Frontier for Distributed Attack Detection in Fog-to-Things Computing
Abebe Abeshu ; Naveen Chilamkurti
PDF (1226 KB)

Advances in Optical Communications Technologies
Xiang Liu ; Zuqing Zhu
PDF (151 KB)
Call for Papers
PDF (24 KB)

NEPHELE: An End-to-End Scalable and Dynamically Reconfigurable Optical Architecture for Application-Aware SDN Cloud Data Centers
Paraskevas Bakopoulos ; Konstantinos Christodoulopoulos ; Giada Landi ; Muzzamil Aziz ; Eitan Zahavi ; Domenico Gallico ; Richard Pitwon ; Konstantinos Tokas ; Ioannis Patronas ; Marco Capitani ; Christos Spatharakis ; Konstantinos Yiannopoulos ; Kai Wang ; Konstantinos Kontodimas ; Ioannis Lazarou ; Philipp Wieder ; Dionysios I. Reisis ; Emmanouel Manos Varvarigos ; Matteo Biancani ; Hercules Avramopoulos
PDF (707 KB)

Ultra-Dense Wavelength Switched Network: A Special EON Paradigm for Metro Optical Networks
Gangxiang Shen ; Ya Zhang ; Xu Zhou ; Yang Sheng ; Ning Deng ; Yiran Ma ; Andrew Lord
PDF (229 KB)

A Software-Defined Multi-Element VLC Architecture
Sifat Ibne Mushfique ; Prabath Palathingal ; Yusuf Said Eroglu ; Murat Yuksel ; Ismail Guvenc ; Nezhil Pala
PDF (398 KB)

Undersampled-Based Modulation Schemes for Optical Camera Communications
Pengfei Luo ; Min Zhang ; Zabih Ghassemlooy ; Stanislav Zvanovec ; Shulan Feng ; Philipp Zhang
PDF (1607 KB)

Technical Issues on IEEE 802.15.7m Image Sensor Communication Standardization
Trang Nguyen ; Amirul Islam ; Takaya Yamazato ; Yeong Min Jang
PDF (291 KB)

Carrying Data on the Orbital Angular Momentum of Light
Leslie A. Rusch ; Mohammad Rad ; Karen Allahverdyan ; Irfan Fazal ; Eric Bernier
PDF (1045 KB)

[Back inside cover]
PDF (565 KB)

[Back cover]
PDF (558 KB)

IEEE NETWORK[®]

JANUARY/FEBRUARY 2018, VOL. 32, NO. 1

THE MAGAZINE OF GLOBAL INTERNETWORKING

[Front cover]
PDF (100 KB)

[Front inside cover]
PDF (565 KB)

Table of contents
PDF (163 KB)

Editor's Note
Nei Kato ; Mohsen Guizani
PDF (221 KB)

Scanning the Literature
Xiaohua Tian
PDF (59 KB)

Edge computing for the internet of things
Ju Ren ; Yi Pan ; Andrzej Goscinski ; Raheem A. Beyah
PDF (238 KB)

A Robust Dynamic Edge Network Architecture for the Internet of Things
Beatriz Lorenzo ; Juan Garcia-Rois ; Xuanheng Li ; Javier Gonzalez-Castano ; Yuguang Fang
PDF (301 KB)

Multiagent-Based Flexible Edge Computing Architecture for IoT
Takuo Suganuma ; Takuma Oide ; Shinji Kitagami ; Kenji Sugawara ; Norio Shiratori
PDF (432 KB)

Edge Computing Gateway of the Industrial Internet of Things Using Multiple Collaborative Microcontrollers
Ching-Han Chen ; Ming-Yi Lin ; Chung-Chi Liu
PDF (554 KB)

IEEE Globecom
PDF (508 KB)

KID Model-Driven Things-Edge-Cloud Computing Paradigm for Traffic Data as a Service
Bowen Du ; Runhe Huang ; Zhipu Xie ; Jianhua Ma ; Weifeng Lv
PDF (325 KB)

A Cost-Efficient Cloud Gaming System at Scale
Yiling Xu ; Qiu Shen ; Xin Li ; Zhan Ma
PDF (1050 KB)

Multi-User Computation Offloading in Mobile Edge Computing: A Behavioral Perspective
Ling Tang ; Shibo He
PDF (559 KB)

Selective Offloading in Mobile Edge Computing for the Green Internet of Things
Xinchen Lyu ; Hui Tian ; Li Jiang ; Alexey Vinel ; Sabita Maharjan ; Stein Gjessing ; Yan Zhang
PDF (258 KB)

ThriftyEdge: Resource-Efficient Edge Computing for Intelligent IoT Applications
Xu Chen ; Qian Shi ; Lei Yang ; Jie Xu
PDF (274 KB)

Collaborative Mobile Edge Computation Offloading for IoT over Fiber-Wireless Networks
Hongzhi Guo ; Jijia Liu ; Huiling Qin
PDF (327 KB)

Joint Admission Control and Resource Allocation in Edge Computing for Internet of Things
Shichao Li ; Ning Zhang ; Siyu Lin ; Linghe Kong ; Ajay Katangur ; Muhammad Khurram Khan ; Minming Ni ; Gang Zhu
PDF (412 KB)

Toward Efficient Content Delivery for Automated Driving Services: An Edge Computing Solution
Quan Yuan ; Haibo Zhou ; Jinglin Li ; Zhihan Liu ; Fangchun Yang ; Xuemin Sherman Shen
PDF (558 KB)

Comsoc Memberships
PDF (585 KB)

A Tensor-Based Holistic Edge Computing Optimization Framework for Internet of Things
Huazhong Liu ; Laurence T. Yang ; Man Lin ; Dexiang Yin ; Yimu Guo
PDF (723 KB)

Learning IoT in Edge: Deep Learning for the Internet of Things with Edge Computing
He Li ; Kaoru Ota ; Mianxiang Dong
PDF (211 KB)

Consolidate IoT Edge Computing with Lightweight Virtualization
Roberto Morabito ; Vittorio Cozzolino ; Aaron Yi Ding ; Nicklas Beijar ; Jorg Ott
PDF (379 KB)

Hyperconnected Network: A Decentralized Trusted Computing and Networking Paradigm
Hao Yin ; Dongchao Guo ; Kai Wang ; Zexun Jiang ; Yongqiang Lyu ; Ju Xing
PDF (1186 KB)

MECPASS: Distributed Denial of Service Defense Architecture for Mobile Networks
Van Linh Nguyen ; Po-Ching Lin ; Ren-Hung Hwang
PDF (332 KB)

IEEE Standards
PDF (488 KB)

Block-Stream as a Service: A More Secure, Nimble, and Dynamically Balanced Cloud Service Model for Ambient Computing
Jackson He ; Yaoxue Zhang ; Ju Lu ; Ming Wu ; Fujin Huang
PDF (236 KB)

COAST: A Cooperative Storage Framework for Mobile Transparent Computing Using Device-to-Device Data Sharing
Jiahui Jin ; Junzhou Luo ; Yunhao Li ; Runqun Xiong
PDF (487 KB)

A Multi-Level Cache Framework for Remote Resource Access in Transparent Computing
Di Zhang ; Yuezhi Zhou ; Yaoxue Zhang
PDF (193 KB)

Transparent Learning: An Incremental Machine Learning Framework Based on Transparent Computing
Kehua Guo ; Zhonghe Liang ; Ronghua Shi ; Chao Hu ; Zuoyong Li
PDF (362 KB)

Anomaly Detection and Array Diagnosis in Wireless Networks with Multiple Antennas: Framework, Challenges and Tools
Bo Wang ; Fengye Hu ; Yanping Zhao ; Terry N. Guo
PDF (192 KB)

Unlocking the Door to Mobile Social VR: Architecture, Experiments and Challenges
Lanshan Zhang ; Linhui Sun ; Wendong Wang ; Jiangchuan Liu
PDF (328 KB)

Toward Secure Outsourced Middlebox Services: Practices, Challenges, and Beyond
Cong Wang ; Xingliang Yuan ; Yong Cui ; Kui Ren
PDF (137 KB)

Fine-Grained Scheduling in Cloud Gaming on Heterogeneous CPU-GPU Clusters
Wei Zhang ; Xiaofei Liao ; Peng Li ; Hai Jin ; Li Lin ; Bing Bing Zhou
PDF (361 KB)

From Software-Defined to Human-Defined Networking: Challenges and Opportunities
Elisa Rojas
PDF (603 KB)

SSDNet: Small-World Super-Dense Device-to-Device Wireless Networks
Wei Cheng ; Jiguo Yu ; Feng Zhao ; Xiuzhen Cheng
PDF (440 KB)

[Back inside cover]
PDF (594 KB)

[Back cover]
PDF (558 KB)

China 中国通信 Communications

January 2018 Vol.15 No.1

Indexed by SCIE

Front and back cover
PDF (2681 KB)

Editorial board
PDF (151 KB)

Contents
PDF (372 KB)

Call for papers
PDF (322 KB)

COMMUNICATIONS SYSTEMS AND THEORIES

A low-complexity resource allocation scheme for OFDMA multicast systems with proportional fairness
Lijing Jiang ; Rongfang Song
PDF (2509 KB)

An optimal resources configuration scheme for caching-based content distribution in backhaul-limited small cell networks
Jingfeng Cai ; Ronghui Hou ; Yinghong Ma
PDF (1007 KB)

Distributed contact plan design for multi-layer satellite-terrestrial network
Wenfeng Shi ; Deyun Gao ; Huachun Zhou ; Bohao Feng ; Haifeng Li ; Guanwen Li ; Wei Quan
PDF (1153 KB)

Energy efficient MAC protocol for wireless full-duplex networks
Yu Song ; Wangdong Qi ; Wenchi Cheng
PDF (995 KB)

SIGNAL PROCESSING FOR COMMUNICATIONS

Performance analysis of non-identically distributed FSO systems with dual- and triple-branch based on MRC over Gamma-Gamma fading channels
Tao Liu ; Hailin Zhang ; Jiaoying Wang ; Huihua Fu ; Ping Wang ; Jing Li
PDF (761 KB)

Fairness-oriented hybrid precoding for massive MIMO maritime downlink systems with large-scale CSIT
Chengxiao Liu ; Wei Feng ; Te Wei ; Ning Ge
PDF (933 KB)

Performance analysis of outage probability and error rate of square M-QAM in mobile wireless communication systems over generalized α - μ fading channels with non-Gaussian noise
Fares S. Almechadi ; Osamah S. Badarneh
PDF (850 KB)

Nonlinear prediction with deep recurrent neural networks for non-blind audio bandwidth extension
Lin Jiang ; Ruimin Hu ; Xiaochen Wang ; Weiping Tu ; Maosheng Zhang
PDF (1305 KB)

NETWORKS & SECURITY

HASG: Security and efficient frame for accessing cloud storage
Shenling Liu ; Chunyuan Zhang ; Yujiao Chen
PDF (603 KB)

An SDN-based publish/subscribe-enabled communication platform for IoT services
Yali Wang ; Yang Zhang ; Junliang Chen
PDF (947 KB)

Energy efficient modelling of a network
Anish Kumar Saha ; Koj Sambyo ; Chandan Tilak Bhunia
PDF (815 KB)

Probabilistic model checking-based survivability analysis in vehicle-to-vehicle networks
Li Jin ; Guoan Zhang ; Jue Wang
PDF (808 KB)

Smart caching for QoS-guaranteed device-to-device content delivery
Yanli Xu
PDF (555 KB)

EMERGING TECHNOLOGIES & APPLICATIONS

Source recovery in underdetermined blind source separation based on artificial neural network
Weihong Fu ; Bin Nong ; Xinbiao Zhou ; Jun Liu ; Changle Li
PDF (881 KB)

REVIEW PAPER

A survey of multimedia big data
Zaijian Wang ; Shiwen Mao ; Lingyun Yang ; Pingping Tang
PDF (468 KB)

NEWS

CAICT symposium on ICT in-depth observation report and white paper release announcing "ten development trends of ICT industry for 2018–2020"
PDF (976 KB)

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY AND THE IEEE SIGNAL PROCESSING SOCIETY



FEBRUARY 2018

VOLUME 17

NUMBER 2

ITWCAX

(ISSN 1536-1276)

Table of contents
PDF (318 KB)

IEEE Communications Society
PDF (97 KB)

Revisiting Error Analysis in Convolutionally Coded Systems: The Irregular Constellation Case
Mehmet Cagri Ilter ; Pawel A. Dmochowski ; Halim Yanikomeroglu
PDF (1743 KB)

On the Design of Multi-Dimensional Irregular Repeat-Accumulate Lattice Codes
Min Qiu ; Lei Yang ; Yixuan Xie ; Jinhong Yuan
PDF (1520 KB)

Circular Buffer Rate-Matched Polar Codes
Mostafa El-Khamy ; Hsien-Ping Lin ; Jungwon Lee ; Inyup Kang
PDF (2203 KB)

LDPC Code Design for Distributed Storage: Balancing Repair Bandwidth, Reliability, and Storage Overhead
Hyeyeong Park ; Dongwon Lee ; Jaekyun Moon
PDF (1772 KB)

A New Construction and an Efficient Decoding Method for Rabin-Like Codes
Hanxu Hou ; Yunghsiang S. Han
PDF (2147 KB)

An Improved Energy Detector for Mobile Cognitive Users Over Generalized Fading Channels
Lokesh Gahane ; Prabhat Kumar Sharma ; Neeraj Varshney ; Theodoros A. Tsiftsis ; Preetam Kumar
PDF (1882 KB)

Secrecy Performance of Transmit Antenna Selection for MIMO Relay Systems With Outdated CSI
Rui Zhao ; Hongxin Lin ; Yu-Cheng He ; Dong-Hua Chen ; Yongming Huang ; Luxi Yang
PDF (1242 KB)

Exploiting Full/Half-Duplex User Relaying in NOMA Systems
Xinwei Yue ; Yuanwei Liu ; Shaoli Kang ; Arumugam Nallanathan ; Zhiguo Ding
PDF (1532 KB)

Joint Relay Beamforming and Receiver Processing for Multi-Way Multi-Antenna Relay Networks
Wen Li ; Min Dong
PDF (2061 KB)

Performance Analysis of Millimeter-Wave Relaying: Impacts of Beamwidth and Self-Interference
Guang Yang ; Ming Xiao
PDF (1184 KB)

Capacity of Energy Harvesting Binary Symmetric Channels With a (σ, ρ) -Power Constraint
Zhengchuan Chen ; Guido Carlo Ferrante ; Howard H. Yang ; Tony Q. S. Quek
PDF (1294 KB)

When Does Output Feedback Enlarge the Capacity of the Interference Channel?
Victor Quintero ; Samir M. Perlaza ; Iñaki Esnaola ; Jean-Marie Gorce
PDF (1531 KB)

On the Capacity of the AWGN Channel With Additive Radar Interference
Sara Shahi ; Daniela Tuninetti ; Natasha Devroye
PDF (830 KB)

Secure Broadcasting Using Independent Secret Keys
Rafael F. Schaefer ; Ashish Khisti ; H. Vincent Poor
PDF (1016 KB)

Hybridly Connected Structure for Hybrid Beamforming in mmWave Massive MIMO Systems
Didi Zhang ; Yafeng Wang ; Xuehua Li ; Wei Xiang
PDF (1623 KB)

Dynamic Small Cell Clustering and Non-Cooperative Game-Based Precoding Design for Two-Tier Heterogeneous Networks With Massive MIMO
Wanming Hao ; Osamu Muta ; Haris Gacanin ; Hiroshi Furukawa
PDF (1944 KB)

On Detection and Mitigation of Reused Pilots in Massive MIMO Systems
Jitendra K. Tugnait
PDF (1175 KB)

Blind Signal Detection in Massive MIMO: Exploiting the Channel Sparsity
Jianwen Zhang ; Xiaojun Yuan ; Ying-Jun Angela Zhang
PDF (1868 KB)

Sequential and Global Likelihood Ascent Search-Based Detection in Large MIMO Systems
Abhay Kumar Sah ; A. K. Chaturvedi
PDF (1906 KB)

Design of 5G Full Dimension Massive MIMO Systems
Qurrat-Ul-Ain Nadeem ; Abia Kammoun ; Mérouane Debbah ; Mohamed-Slim Alouini
PDF (1457 KB)

Reconfigurable Hybrid Beamforming for Dual-Polarized mmWave MIMO Channels: Stochastic Channel Modeling and Architectural Adaptation Methods
Sau-Hsuan Wu ; Lin-Kai Chiu ; Jing-Wen Wang
PDF (2455 KB)

Triangular Constellations for Adaptive Modulation
Mahmoud Abdelaziz ; T. Aaron Gulliver
PDF (2915 KB)

Robust MISO Beamforming With Cooperative Jamming for Secure Transmission From Perspectives of QoS and Secrecy Rate
Hui Ma ; Julian Cheng ; Xianfu Wang ; Piming Ma
PDF (879 KB)

Frequency-Domain Joint Channel Estimation and Decoding for Faster-Than-Nyquist Signaling
Qiaolin Shi ; Nan Wu ; Xiaoli Ma ; Hua Wang
PDF (1585 KB)

Packet Structure and Receiver Design for Low Latency Wireless Communications With Ultra-Short Packets
Byungju Lee ; Sunho Park ; David J. Love ; Hyungju Ji ; Byonghyo Shim
PDF (2104 KB)

On Channel Selection for Carrier Aggregation Systems
Christos G. Tsinos ; Fotis Foukalas ; Tamer Khattab ; Lifeng Lai
PDF (1037 KB)

Compressive Random Access With Coded Sparse Identification Vectors for MTC
Jinho Choi
PDF (1274 KB)

Power Beacon-Assisted Millimeter Wave Ad Hoc Networks
Xiaohui Zhou ; Jing Guo ; Salman Durrani ; Marco Di Renzo
PDF (1925 KB)

A New Asymptotic Analysis Technique for Diversity Receptions Over Correlated Lognormal Fading Channels
Bingcheng Zhu ; Julian Cheng ; Jun Yan ; Jin-yuan Wang ; Lenan Wu ; Yongjin Wang
PDF (1938 KB)

An Analytical Framework for Modeling a Spatially Repulsive Cellular Network
Chang-Sik Choi ; Jae Oh Woo ; Jeffrey G. Andrews
PDF (1884 KB)

Out-of-Band Millimeter Wave Beamforming and Communications to Achieve Low Latency and High Energy Efficiency in 5G Systems
Morteza Hashemi ; C. Emre Koksal ; Ness B. Shroff
PDF (2221 KB)

Cooperative Interference Neutralization in Multi-Hop Wireless Networks
Huacheng Zeng ; Xiaoqi Qin ; Xu Yuan ; Yi Shi ; Y. Thomas Hou ; Wenjing Lou
PDF (2182 KB)

Introducing IEEE Collabratec
PDF (2154 KB)

IEEE Communications Society
PDF (75 KB)

IEEE COMMUNICATIONS LETTERS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY



FEBRUARY 2018

VOLUME 22

NUMBER 2

ICLEF6

(ISSN 1558-2558)

Table of contents
PDF (284 KB)

IEEE Communications Society
PDF (85 KB)

On Constructions of Reed-Muller Subcodes
Johannes Van Wouwerghem ; Joseph J. Boutros ; Marc Moeneclaey
PDF (538 KB)

Design of Capacity-Approaching Constrained Codes for DNA-
Based Storage Systems
Kees A. Schouhamer Immink ; Kui Cai
PDF (300 KB)

New Constructions of Binary and Ternary Locally Repairable Codes
Using Cyclic Codes
Chanki Kim ; Jong-Seon No
PDF (485 KB)

MDP-Based Model for Interest Scheduling in IoT-NDN Environment
Shapna Muralidharan ; Abhishek Roy ; Navrati Saxena
PDF (875 KB)

Placement Delivery Array Design Through Strong Edge Coloring of
Bipartite Graphs
Qifa Yan ; Xiaohu Tang ; Qingchun Chen ; Minquan Cheng
PDF (306 KB)

An Efficient Implementation of Lattice Staggered Multicarrier
Faster-Than-Nyquist Signaling
Siming Peng ; Aijun Liu ; Xinhai Tong ; Giulio Colavolpe
PDF (455 KB)

Power Control by GDoF Duality of Treating Interference as Noise
Chunhua Geng ; Syed A. Jafar
PDF (401 KB)

Optimum Placement of UAV as Relays
Yunfei Chen ; Wei Feng ; Gan Zheng
PDF (599 KB)

Shaped Polar Codes for Higher Order Modulation
Onurcan İşcan ; Ronald Böhnke ; Wen Xu
PDF (524 KB)

LLR-Based SC Decoding of Polar Codes for Two-User Binary-Input
MAC
Jong-Hwan Kim ; Yeon Joon Choi ; Sang-Hyo Kim ; Keunyoung
Kim
PDF (531 KB)

A Novel Construction of Complementary Sets With Flexible Lengths
Based on Boolean Functions
Chao-Yu Chen
PDF (312 KB)

Cryptanalysis of a Public Key Encryption Scheme Based on QC-
LDPC and QC-MDPC Codes
Vlad Dragoi ; Hervé Talé Kalachi
PDF (325 KB)

Evolutionary Stability of Reputation-Based Incentive Mechanisms in
P2P Systems
Antriksh Goswami ; Gopal Sharan Parashari ; Ruchir Gupta
PDF (611 KB)

Uncoded Space-Time Labeling Diversity—Application of Media-
Based Modulation With RF Mirrors
Narushan Pillay ; Hongjun Xu
PDF (705 KB)

Artificial-Noise-Aided Zero-Forcing Synthesis Approach for Secure
Multi-Beam Directional Modulation
Tao Xie ; Jiang Zhu ; Yang Li
PDF (1046 KB)

Dual-Mode Generalized Spatial Modulation MIMO for Visible Light
Communications
C. Rajesh Kumar ; R. K. Jeyachitra
PDF (467 KB)

Exact Bit Error Rate Analysis for Color Shift Keying Modulation
Jian Tang ; Lin Zhang ; Zhiqiang Wu
PDF (979 KB)

Mobility and Popularity-Aware Coded Small-Cell Caching
Emre Ozfatura ; Deniz Gündüz
PDF (300 KB)

Mitigation of the Background Radiation for Free-Space Optical
IM/DD Systems
Tianyu Song ; Ming-Wei Wu ; Pooi-Yuen Kam
PDF (429 KB)

- Investigating Route Cache in Named Data Networking
Xin Chen ; Guoqiang Zhang ; Huajun Cui
PDF (1025 KB)
- Distributed Caching Based on Matching Game in LEO Satellite Constellation Networks
Shuajun Liu ; Xin Hu ; Yipeng Wang ; Gaofeng Cui ; Weidong Wang
PDF (889 KB)
- Secrecy Rate Maximization With Outage Constraint in Multihop Relaying Networks
Jianping Yao ; Yuan Liu
PDF (411 KB)
- Secure Communications in Three-Step Two-Way Energy Harvesting DF Relaying
Furqan Jameel ; Shurjeel Wyne ; Zhiguo Ding
PDF (575 KB)
- Robust Relay Beamforming Against Jamming Attack
Mohammad Amin Maleki Sadr ; Mahmoud Ahmadian Attari ; Rouhollah Amiri
PDF (348 KB)
- Distributed TOA-Based Positioning in Wireless Sensor Networks: A Potential Game Approach
Mingxing Ke ; Yuhua Xu ; Alagan Anpalagan ; Dianxiong Liu ; Yuli Zhang
PDF (529 KB)
- Channel Estimation for mmWave MIMO With Transmitter Hardware Impairments
Yue Wu ; Yuantao Gu ; Zhaocheng Wang
PDF (410 KB)
- Joint 2-D DOA and TOA Estimation for Multipath OFDM Signals Based on Three Antennas
Longliang Chen ; Wangdong Qi ; En Yuan ; Yuxin Zhao
PDF (881 KB)
- Analysis of DFT-Based Channel Estimation for Uplink Massive MIMO Systems
Hao Wu ; Yuan Liu ; Kai Wang
PDF (624 KB)
- Stochastic Channel Switching of Frequency-Encoded Signals in Molecular Communication Networks
Peng He ; Tadashi Nakano ; Yuming Mao ; Pietro Lio ; Qiang Liu ; Kun Yang
PDF (631 KB)
- Outage Analysis and Power Allocation in Uplink Non-Orthogonal Multiple Access Systems
Ye Liu ; Mahsa Derakhshani ; Sangarapillai Lambotharan
PDF (339 KB)
- Performance of SWIPT for AF MIMO Relay Systems With Direct Link
Zhigang Wen ; Wenxia Guo ; N. C. Beaulieu ; Xiaoqing Liu ; Wenjun Xu
PDF (503 KB)
- Joint Altitude and Beamwidth Optimization for UAV-Enabled Multiuser Communications
Haiyun He ; Shuowen Zhang ; Yong Zeng ; Rui Zhang
PDF (561 KB)
- Aggregation-Assisted Combining for MIMO Multiple ARQ Systems
Sangjoon Park
PDF (594 KB)
- Throughput Analysis of Two-Way NCed-HARQ With Reverse-Link Assistance and Estimated Channel State Information
Hongyi Zhu ; Besma Smida ; David J. Love
PDF (488 KB)
- Simple and Accurate Low SNR Ergodic Capacity Approximations
Bitan Banerjee ; Ahmad Abu Al Haija ; Chintha Tellambura ; Himal A. Suraweera
PDF (561 KB)
- On the Stability of Fast Retrial Multichannel ALOHA With Rate Control for MTC
Jinho Choi
PDF (455 KB)
- Dynamic SCMA Codebook Assignment Methods: A Comparative Study
Milad Dabiri ; Hamid Saeedi
PDF (755 KB)
- Cooperative Low-Power Wideband Sensing Based on 1-bit Quantization
Abdelmohsen Ali ; Walaa Hamouda
PDF (625 KB)
- Starvation Analysis of CDF-Based Scheduling Over Nakagami- m Markov Fading Channels
Yoora Kim
PDF (496 KB)
- Graph-Based Modeling of Mobile Molecular Communication Systems
Satoru Iwasaki ; Tadashi Nakano
PDF (687 KB)
- Bayesian Test for Detecting False Data Injection in Wireless Relay Networks
Xudong Liu ; Yong Guan ; Sang Wu Kim
PDF (435 KB)
- Scheduling Policies for Wireless Downlink With Correlated Random Connectivity and Multislot Reconfiguration Delay
Amit Kumar ; Vineeth Bala Sukumaran
PDF (710 KB)
- Distributed Resource Allocation for D2D Communications Underlying Cellular Networks in Time-Varying Environment
Susan Dominic ; Lillykutty Jacob
PDF (565 KB)
- Complexity of Energy Efficient Localization With the Aid of a Mobile Beacon
Hüseyin Akcan ; Cem Evrendilek
PDF (342 KB)
- Complete Targets Coverage in Wireless Sensor Networks With Energy Transfer
Changlin Yang ; Kwan-Wu Chin ; Ying Liu ; Junbao Zhang ; Jizhao Liu
PDF (425 KB)
- AIF: An Artificial Intelligence Framework for Smart Wireless Network Management
Gang Cao ; Zhaoming Lu ; Xiangming Wen ; Tao Lei ; Zhiqun Hu
PDF (1139 KB)

PUF-Assisted Group Key Distribution Scheme for Software-Defined
Wireless Sensor Networks
Meigen Huang ; Bin Yu ; Sensen Li
PDF (610 KB)

Space-Time Signal Optimization for SWIPT: Linear Versus
Nonlinear Energy Harvesting Model
Shuai Wang ; Minghua Xia ; Yik-Chung Wu
PDF (302 KB)

Resource Allocation for Multiple Device-to-Device Cluster Multicast
Communications Underlay Cellular Networks
Jong-Ho Kim ; Jingon Joung ; Jeong Woo Lee
PDF (503 KB)

Efficient Receive Antenna Selection for Pre-Coding Aided Spatial
Modulation
Peibo Wen ; Xu He ; Yue Xiao ; Ping Yang ; Rong Shi ; Ke Deng
PDF (414 KB)

Theoretical Analysis of 3-D Channel Spatial Correlation and
Capacity
Yawei Yu ; Jianhua Zhang ; Peter J. Smith ; Pawel A. Dmochowski
PDF (753 KB)

Robust Update Algorithms for Zero-Forcing Detection in Uplink
Large-Scale MIMO Systems
Chao-Yi Wu ; Wan-Jen Huang ; Wei-Ho Chung
PDF (524 KB)

Impact of Imperfect CSI on ASER of Hexagonal and Rectangular
QAM for AF Relaying Network
Praveen Kumar Singya ; Nagendra Kumar ; Vimal Bhatia
PDF (520 KB)

Cooperative Spectrum Sensing Under Ambient Malicious
Interferences
Mingyang Sun ; Ming Jin ; Qinghua Guo ; Youming Li
PDF (783 KB)

IEEE Communications Society
PDF (75 KB)

IEEE COMMUNICATIONS SURVEYS & TUTORIALS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY



FIRST QUARTER 2018

VOLUME 20

NUMBER 1

ICSTCF

(ISSN 1553-877X)

Table of contents
PDF (368 KB)

Editorial: First Quarter 2018 IEEE Communications Surveys and Tutorials
Ying-Dar Lin
PDF (105 KB)

Integration of Networking, Caching, and Computing in Wireless Systems: A Survey, Some Research Issues, and Challenges
Chenmeng Wang ; Ying He ; F. Richard Yu ; Qianbin Chen ; Lun Tang
PDF (4216 KB)

A Critical Analysis of Research Potential, Challenges, and Future Directives in Industrial Wireless Sensor Networks
Mohsin Raza ; Nauman Aslam ; Hoa Le-Minh ; Sajjad Hussain ; Yue Cao ; Noor Muhammad Khan
PDF (5267 KB)

State-of-the-Art Medium Access Control (MAC) Protocols for Underwater Acoustic Networks: A Survey Based on a MAC Reference Model
Shengming Jiang
PDF (4416 KB)

Waveforming: An Overview With Beamforming
Qinyi Xu ; Chunxiao Jiang ; Yi Han ; Beibei Wang ; K. J. Ray Liu
PDF (1642 KB)

Spectrum Inference in Cognitive Radio Networks: Algorithms and Applications
Guoru Ding ; Yutao Jiao ; Jinlong Wang ; Yulong Zou ; Qihui Wu ; Yu-Dong Yao ; Lajos Hanzo
PDF (4349 KB)

Fragmentation Problems and Management Approaches in Elastic Optical Networks: A Survey
Bijoy Chand Chatterjee ; Seydou Ba ; Eiji Oki
PDF (4057 KB)

A Survey of Optical Carrier Generation Techniques for Terabit Capacity Elastic Optical Networks
Muhammad Imran ; Prince M. Anandarajah ; Aleksandra Kaszubowska-Anandarajah ; Nicola Sambo ; Luca Potì
PDF (9115 KB)

Simultaneous Wireless Information and Power Transfer (SWIPT): Recent Advances and Future Challenges
Tharindu D. Ponnimbaduge Perera ; Dushantha Nalin K. Jayakody ; Shree Krishna Sharma ; Symeon Chatzinotas ; Jun Li
PDF (4403 KB)

Towards Energy-Efficient Wireless Networking in the Big Data Era: A Survey
Xianghui Cao ; Lu Liu ; Yu Cheng ; Xuemin Sherman Shen
PDF (3469 KB)

Distributed SDN Control: Survey, Taxonomy, and Challenges
Fetia Bannour ; Sami Souihi ; Abdelhamid Mellouk
PDF (1232 KB)

A Survey on Multicasting in Software-Defined Networking
Salekul Islam ; Nasif Muslim ; J. William Atwood
PDF (3835 KB)

Unicast QoS Routing Algorithms for SDN: A Comprehensive Survey and Performance Evaluation
Jochen W. Guck ; Amaury Van Bemten ; Martin Reisslein ; Wolfgang Kellerer
PDF (2349 KB)

A Comprehensive Survey on Fog Computing: State-of-the-Art and Research Challenges
Carla Mouradian ; Diala Naboulsi ; Sami Yangui ; Roch H. Glitho ; Monique J. Morrow ; Paul A. Polakos
PDF (5957 KB)

Systematic Classification of Side-Channel Attacks: A Case Study for Mobile Devices
Raphael Spreitzer ; Veelasha Moonsamy ; Thomas Korak ; Stefan Mangard
PDF (1772 KB)

Privacy in the Smart City—Applications, Technologies, Challenges, and Solutions
David Eckhoff ; Isabel Wagner
PDF (1880 KB)

Survey and Systematization of Secure Device Pairing
Mikhail Fomichev ; Flor Álvarez ; Daniel Steinmetzer ; Paul Gardner-Stephen ; Matthias Hollick
PDF (1857 KB)

The Pitfalls of Hashing for Privacy
Levent Demir ; Amrit Kumar ; Mathieu Cunche ; Cédric Lauradoux
PDF (1536 KB)

Security, Privacy, and Access Control in Information-Centric
Networking: A Survey
Reza Tourani ; Satyajayant Misra ; Travis Mick ; Gaurav Panwar
PDF (3441 KB)

Securing Fog Computing for Internet of Things Applications:
Challenges and Solutions
Jianbing Ni ; Kuan Zhang ; Xiaodong Lin ; Xuemin Sherman Shen
PDF (2224 KB)

Modulation and Multiple Access for 5G Networks
Yunlong Cai ; Zhijin Qin ; Fangyu Cui ; Geoffrey Ye Li ; Julie A.
McCann
PDF (1904 KB)

LTE on License-Exempt Spectrum
Jingjing Zhang ; Mao Wang ; Min Hua ; Tingting Xia ; Wenjie Yang ;
Xiaohu You
PDF (3804 KB)

Dynamic Spectrum Sharing in 5G Wireless Networks With Full-
Duplex Technology: Recent Advances and Research Challenges
Shree Krishna Sharma ; Tadilo Endeshaw Bogale ; Long Bao Le ;
Symeon Chatzinotas ; Xianbin Wang ; Björn Ottersten
PDF (3728 KB)

Toward an Efficient C-RAN Optical Fronthaul for the Future
Networks: A Tutorial on Technologies, Requirements, Challenges,
and Solutions
Isiaka Ajewale Alimi ; António Luís Teixeira ; Paulo Pereira
Monteiro
PDF (8065 KB)

A Survey on Pseudonym Changing Strategies for Vehicular Ad-Hoc
Networks
Abdelwahab Boulouache ; Sidi-Mohammed Senouci ; Samira
Moussaoui
PDF (3005 KB)

Radio Resource Management in Machine-to-Machine
Communications—A Survey
Nian Xia ; Hsiao-Hwa Chen ; Chu-Sing Yang
PDF (3506 KB)

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY AND THE IEEE SIGNAL PROCESSING SOCIETY



FEBRUARY 2018

VOLUME 17

NUMBER 2

ITWCAX

(ISSN 1536-1276)

Table of contents
PDF (241 KB)

IEEE Transactions on Wireless Communications
PDF (82 KB)

Distributed Resource Allocation in SDCN-Based Heterogeneous Networks Utilizing Licensed and Unlicensed Bands
Chunyu Pan ; Changchuan Yin ; Norman C. Beaulieu ; Jian Yu
PDF (2057 KB)

Downlink Resource Allocation Under Time-Varying Interference: Fairness and Throughput Optimality
Ravi Kiran Raman ; Krishna Jagannathan
PDF (1838 KB)

Cache-Enabled Physical Layer Security for Video Streaming in Backhaul-Limited Cellular Networks
Lin Xiang ; Derrick Wing Kwan Ng ; Robert Schober ; Vincent W. S. Wong
PDF (1416 KB)

Hybrid LISA Precoding for Multiuser Millimeter-Wave Communications
Wolfgang Utschick ; Christoph Stöckle ; Michael Joham ; Jian Luo
PDF (918 KB)

Optimizing Cluster Size Through Handoff Analysis in User-Centric Cooperative Wireless Networks
Wei Bao ; Ben Liang
PDF (2012 KB)

Caching Meets Millimeter Wave Communications for Enhanced Mobility Management in 5G Networks
Omid Semiari ; Walid Saad ; Mehdi Bennis ; Behrouz Maham
PDF (1826 KB)

Compressed-Sensing Assisted Spatial Multiplexing Aided Spatial Modulation
Lixia Xiao ; Yue Xiao ; Chao Xu ; Xia Lei ; Ping Yang ; Shaoqian Li ; Lajos Hanzo
PDF (2175 KB)

On Protocol and Physical Interference Models in Poisson Wireless Networks
Jeffrey Wildman ; Steven Weber
PDF (1363 KB)

Secure Transmission in Linear Multihop Relaying Networks
Jianping Yao ; Xiangyun Zhou ; Yuan Liu ; Suili Feng
PDF (1356 KB)

Complementary Coded Scrambling Multiple Access and Its Performance in Downlink MIMO Channels
Xiqing Liu ; Hong-Ming Syu ; Hsiao-Hwa Chen ; Weixiao Meng ; Meng Wei
PDF (1753 KB)

A General Approach Toward Green Resource Allocation in Relay-Assisted Multiuser Communication Networks
Keshav Singh ; Ankit Gupta ; Tharmalingam Ratnarajah ; Meng-Lin Ku
PDF (1516 KB)

Performance Analysis of Near-Optimal Energy Buffer Aided Wireless Powered Communication
Rania Morsi ; Diomidis S. Michalopoulos ; Robert Schober
PDF (2761 KB)

Dynamic Spectrum Reservation for CR Networks in the Presence of Channel Failures: Channel Allocation and Reliability Analysis
Indika A. M. Balapuwaduge ; Frank Y. Li ; Vicent Pla
PDF (3572 KB)

An Information-Theoretic Analysis of the Gaussian Multicast Channel With Interactive User Cooperation
Victor Exposito ; Sheng Yang ; Nicolas Gresset
PDF (1756 KB)

Ergodic Rate of Millimeter Wave Ad Hoc Networks
Andrew Thornburg ; Robert W. Heath
PDF (1140 KB)

Power Control for Multi-Cell Networks With Non-Orthogonal Multiple Access
Zhaohui Yang ; Cunhua Pan ; Wei Xu ; Yijin Pan ; Ming Chen ; Maged Elkashlan
PDF (1581 KB)

Blind Channel Estimation and Symbol Detection for Multi-Cell Massive MIMO Systems by Expectation Propagation
Kamran Ghavami ; Mort Naraghi-Pour
PDF (1407 KB)

Energy Efficiency in Cache-Enabled Small Cell Networks With Adaptive User Clustering
Salah Eddine Hajri ; Mohamad Assaad
PDF (1361 KB)

Gibbsian On-Line Distributed Content Caching Strategy for Cellular Networks
Arpan Chattopadhyay ; Bartłomiej Błaszczyszyn ; H. Paul Keeler
PDF (791 KB)

Degrees of Freedom of Full-Duplex Multiantenna Cellular Networks
Sung Ho Chae ; Sung Hoon Lim ; Sang-Woon Jeon
PDF (1944 KB)

Macrodiversity in Cellular Networks With Random Blockages
Abhishek K. Gupta ; Jeffrey G. Andrews ; Robert W. Heath
PDF (2665 KB)

Multi-Channel Resource Allocation Toward Ergodic Rate Maximization for Underlay Device-to-Device Communications
Ruhallah AliHemmati ; Min Dong ; Ben Liang ; Gary Boudreau ; S. Hossein Seyedmehdi
PDF (1531 KB)

Message-Passing Strategy for Joint User Association and Resource Blanking in HetNets
Sang Hyun Lee ; Ilsoo Sohn
PDF (1360 KB)

Millimeter Wave Beam-Selection Using Out-of-Band Spatial Information
Anum Ali ; Nuria González-Prelcic ; Robert W. Heath
PDF (2491 KB) Code

Rate Adaptation, Scheduling, and Mode Selection in D2D Systems With Partial Channel Knowledge
Saikiran Bulusu ; Neelesh B. Mehta ; Suresh Kalyanasundaram
PDF (1339 KB)

Full-Duplex Cognitive Radio With Asynchronous Energy-Efficient Sensing
Ali Bayat ; Sonia Aïssa
PDF (2167 KB)

Half-Duplex or Full-Duplex Communications: Degrees of Freedom Analysis Under Self-Interference
Nirmal V. Shende ; Özgür Gürbüz ; Elza Erkip
PDF (1306 KB)

Performance Analysis of FDD Massive MIMO Systems Under Channel Aging
Ribhu Chopra ; Chandra R. Murthy ; Himan A. Suraweera ; Erik G. Larsson
PDF (1339 KB)

A New Link Adaptation Method to Mitigate SINR Mismatch in Ultra-Dense Small Cell LTE Networks
Yosub Park ; Jihaeng Heo ; Wonsuk Chung ; Sungwoo Weon ; Sooyong Choi ; Daesik Hong
PDF (2903 KB)

Millimeter Wave Channel Estimation via Exploiting Joint Sparse and Low-Rank Structures
Xingjian Li ; Jun Fang ; Hongbin Li ; Pu Wang
PDF (1406 KB)

Arena Function: A Framework for Computing Capacity Bounds in Wireless Networks
Alireza Keshavarz-Haddad ; Rudolf H. Riedi
PDF (965 KB)

SINR and Throughput of Dense Cellular Networks With Stretched Exponential Path Loss
Ahmad AlAmmouri ; Jeffrey G. Andrews ; François Baccelli
PDF (1811 KB)

LTE Multimedia Broadcast Multicast Service Provisioning Based on Robust Header Compression
Chen Jiang ; Wenhao Wu ; Zhi Ding
PDF (1561 KB)

Traffic-Aware Energy-Saving Base Station Sleeping and Clustering in Cooperative Networks
Jihwan Kim ; Hyang-Won Lee ; Song Chong
PDF (1443 KB)

Spatial Reuse for Coexisting LTE and Wi-Fi Systems in Unlicensed Spectrum
Rui Yin ; Geoffrey Ye Li ; Amine Maaref
PDF (2037 KB)

Performance Study for SWIPT Cooperative Communication Systems in Shadowed Nakagami Fading Channels
Yizhi Feng ; Victor C. M. Leung ; Fei Ji
PDF (1278 KB)

Factor Graph-Based Equalization for Two-Way Relaying With General Multi-Carrier Transmissions
Matthias Woltering ; Dirk Wübben ; Armin Dekorsy
PDF (2683 KB)

A Novel Self-Interference Cancellation Scheme for Channel-Unaware Differential Space-Time Two-Way Relay Networks
Salime Bameri ; Siamak Talebi ; Ramy H. Gohary ; Halim Yanikomeroglu
PDF (1444 KB)

Unified Near-Field and Far-Field Localization for AOA and Hybrid AOA-TDOA Positionings
Yue Wang ; K. C. Ho
PDF (1318 KB)

On the Fast and Precise Evaluation of the Outage Probability of Diversity Receivers Over α - μ , κ - μ , and η - μ Fading Channels
Chaouki Ben Issaid ; Mohamed-Slim Alouini ; Raul Tempone
PDF (1663 KB)

Joint Sensing Duration Adaptation, User Matching, and Power Allocation for Cognitive OFDM-NOMA Systems
Wenjun Xu ; Xue Li ; Chia-Han Lee ; Miao Pan ; Zhiyong Feng
PDF (1405 KB)

Optimization and Analysis of Probabilistic Caching in N -Tier Heterogeneous Networks
Kuikui Li ; Chenchen Yang ; Zhiyong Chen ; Meixia Tao
PDF (2113 KB)

Leveraging High Order Cumulants for Spectrum Sensing and Power Recognition in Cognitive Radio Networks
Danyang Wang ; Ning Zhang ; Zan Li ; Feifei Gao ; Xuemin Shen
PDF (1410 KB)

Power-Aware Optimized RRH to BBU Allocation in C-RAN
Emad Aqeeli ; Abdallah Moubayed ; Abdallah Shami
PDF (3074 KB)

Gallager Bound for MIMO Channels: Large- N
Asymptotics
Apostolos Karadimitrakis ; Aris L. Moustakas ; Romain Couillet
PDF (450 KB)

Iterative Demodulation and Decoding Algorithm for 3GPP/LTE-A
MIMO-OFDM Using Distribution Approximation
Tao Cui ; Feifei Gao ; Arumugam Nallanathan ; Hai Lin ; Chintha
Tellambura
PDF (1148 KB)

Adaptive Coding and Modulation for Large-Scale Antenna Array-
Based Aeronautical Communications in the Presence of Co-
Channel Interference
Jiankang Zhang ; Sheng Chen ; Robert G. Maunder ; Rong Zhang ;
Lajos Hanzo
PDF (2049 KB)

Max–Min Fair Transmit Precoding for Multi-Group Multicasting in
Massive MIMO
Meysam Sadeghi ; Emil Björnson ; Erik G. Larsson ; Chau Yuen ;
Thomas L. Marzetta
PDF (1579 KB)

Robust Long-Term Predictive Adaptive Video Streaming Under
Wireless Network Uncertainties
Ramy Atawia ; Hossam S. Hassanein ; Aboelmagd Noureldin
PDF (1734 KB)

Joint Interference Mitigation and Data Recovery for Massive Carrier
Aggregation via Non-Linear Compressive Sensing
Feibai Zhu ; An Liu ; Vincent K. N. Lau
PDF (2573 KB)

IEEE Communications Society
PDF (73 KB)

[Blank page]
PDF (3 KB)

IEEE

WIRELESS COMMUNICATIONS LETTERS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY, THE IEEE SIGNAL PROCESSING SOCIETY, AND THE IEEE VEHICULAR TECHNOLOGY SOCIETY



FEBRUARY 2018

VOLUME 7

NUMBER 1

IWCLAF

ISSN (2162-2345)

Table of contents
PDF (271 KB)

IEEE Wireless Communications Letters
PDF (72 KB)

Exemplary Reviewers 2017
Wei Zhang
PDF (45 KB)

From Cellular Decision Making to Adaptive Handoff in
Heterogeneous Wireless Networks
Daxin Tian ; Jingyi Wei ; Jianshan Zhou ; Zhengguo Sheng ; Min
Chen ; Qiang Ni ; Victor C. M. Leung
PDF (376 KB)

Area Spectral Efficiency Analysis of Multi-Antenna Networks
Modeled by Ginibre Point Process
Guangji Chen ; Ling Qiu ; Zheng Chen
PDF (375 KB)

Approximate BER Analysis for MAC Systems
Dimas Irion Alves ; Cristian Müller ; Renato Machado ; Bartolomeu
F. Uchôa-Filho
PDF (357 KB)

Spectral Efficiency of Multipair Massive MIMO Two-Way Relaying
With Hardware Impairments
Jiayi Zhang ; Xipeng Xue ; Emil Björnson ; Bo Ai ; Shi Jin
PDF (311 KB)

Distributed Cooperative Localization for Mobile Wireless Sensor
Networks
Soheil Salari ; Il-Min Kim ; Francois Chan
PDF (291 KB)

Optimal Power Control for NOMA Wireless Networks With Relays
Rung-Hung Gau ; Hsiao-Ting Chiu ; Chien-Hsun Liao ; Chi-Lun Wu
PDF (401 KB)

On the SIR Meta Distribution for Poisson Networks With
Interference Cancellation
Yuanjie Wang ; Qimei Cui ; Martin Haenggi ; Zhenhui Tan
PDF (565 KB)

Resource Allocation in Reverse TDD Wireless Backhaul HetNets
With 3D Massive Antennas
Jinping Niu ; Geoffrey Y. Li ; Xiaojiang Chen ; Jie Zheng ; Dingyi
Fang ; Xun Li
PDF (423 KB)

Optimal Power Control in Cognitive Satellite Terrestrial Networks
With Imperfect Channel State Information
Shengchao Shi ; Kang An ; Guangxia Li ; Zhiqiang Li ; Hongpeng
Zhu ; Gan Zheng
PDF (387 KB)

3-D Placement of an Unmanned Aerial Vehicle Base Station for
Maximum Coverage of Users With Different QoS Requirements
Mohamed Alzenad ; Amr El-Keyi ; Halim Yanikomeroglu
PDF (341 KB)

Capacity Scaling for D2D Aided Cooperative Relaying Systems
Using NOMA
Jung-Bin Kim ; In-Ho Lee ; JunHwan Lee
PDF (483 KB)

Multi-User Detection Using ADMM-Based Compressive Sensing for
Uplink Grant-Free NOMA
Ali Cagatay Cirik ; Naveen Mysore Balasubramanya ; Lutz Lampe
PDF (264 KB)

TCM for OFDM-IM
Jinho Choi ; Youngwook Ko
PDF (544 KB)

Retrodirective Multi-User Wireless Power Transfer With Massive
MIMO
Seunghyun Lee ; Yong Zeng ; Rui Zhang
PDF (477 KB)

D2D Communication for Adaptive Streaming Exploiting White
Spaces in Transmissions of the Cellular Network
Anargyros J. Roumeliotis ; Stavros E. Sagkriotis ; Apostolos Z.
Papafraqkakis ; Athanasios D. Panagopoulos
PDF (400 KB)

A Space-Time Transmission Scheme for Large MIMO Systems
Arti M. K.
PDF (302 KB)

Improved Layered Message Passing Algorithms for Large-Scale Generalized Spatial Modulation Systems
Shiwen Fan ; Yue Xiao ; Lixia Xiao ; Ping Yang ; Rong Shi ; Ke Deng
PDF (314 KB)

Channel Access Method Classification for Cognitive Radio Applications
Mihir Laghate ; Paulo Urriza ; Danijela Cabric
PDF (495 KB)

Diversity Order Results for MIMO Optical Wireless Communications
Yerzhan Sapenov ; Anas Chaaban ; Zouheir Rezki ; Mohamed Abdallah ; Khalid Qaraqe ; Mohamed-Slim Alouini
PDF (410 KB)

Resource Allocations for Secure Cognitive Satellite-Terrestrial Networks
Bin Li ; Zesong Fei ; Xiaoming Xu ; Zheng Chu
PDF (369 KB)

Modeling Cellular-to-UAV Path-Loss for Suburban Environments
Akram Al-Hourani ; Karina Gomez
PDF (1376 KB)

Receiver Originated Physical-Layer Robust Secure Transmissions in Wireless Systems
Caihong Kai ; Xinyue Hu ; Shengli Zhang ; Jun Gao
PDF (262 KB)

Wireless Energy and Information Transmission in FSO and RF- FSO Links
Behrooz Makki ; Tommy Svensson ; Koen Buisman ; Joaquin Perez ; Mohamed-Slim Alouini
PDF (345 KB)

X-Duplex Radios: Flexible Switching Between Full-Duplex and Half-Duplex
Chao Yao ; Lingyang Song ; Yonghui Li
PDF (489 KB)

Golden Angle Modulation
Peter Larsson
PDF (567 KB)

Impact of Relay's Eavesdropping on Untrusted Amplify-and-Forward Networks Over Nakagami- m Fading
Fan Ding ; Hui Wang ; Yongming Zhou ; Chunlong Zheng
PDF (486 KB)

Performance of SWIPT-Based Differential AF Relaying Over Nakagami- m Fading Channels With Direct Link
Yi Lou ; Yan Zheng ; Julian Cheng ; Honglin Zhao
PDF (361 KB)

Raptor Codes for Higher-Order Modulation Using a Multi-Edge Framework
Sachini Jayasooriya ; Mahyar Shirvanimoghaddam ; Lawrence Ong ; Sarah J. Johnson
PDF (487 KB)

Power of Deep Learning for Channel Estimation and Signal Detection in OFDM Systems
Hao Ye ; Geoffrey Ye Li ; Biing-Hwang Juang
PDF (702 KB)

A Hybrid Tomlinson-Harashima Transceiver Design for Multiuser mmWave MIMO Systems
Ting-Ying Chang ; Chiao-En Chen
PDF (602 KB)

Optimum QoS-Aware Beamformer Design for Full-Duplex Relay With Self-Energy Recycling
Özlem Tuğfe Demir ; Temel Engin Tuncer
PDF (516 KB)

How to Reduce Unexpected eMBMS Session Disconnection: Design and Performance Analysis

Resource Allocation for D2D Communications Underlying a NOMA-Based Cellular Network
Yijin Pan ; Cunhua Pan ; Zhaohui Yang ; Ming Chen
PDF (338 KB)

Sparsity-Aware Ordered Successive Interference Cancellation for Massive Machine-Type Communications
Jinyoung Ahn ; Byonghyo Shim ; Kwang Bok Lee
PDF (413 KB)

Graph-Based Path Selection and Power Allocation for DF Relay-Aided Transmission
Lu Lu ; Dawei He ; Qiqin Xie ; Geoffrey Ye Li ; Xingxing Yu
PDF (366 KB)

IEEE Communications Society Information
PDF (68 KB)

IEEE TRANSACTIONS ON MOBILE COMPUTING

A joint publication of the



IEEE Computer Society



IEEE Circuits and Systems Society



IEEE Signal Processing Society



IEEE Communications Society

Indexed in ISI

February 2018

Authenticating Users Through Fine-Grained Channel Information
Hongbo Liu ; Yan Wang ; Jian Liu ; Jie Yang ; Yingying Chen ; H. Vincent Poor
PDF (1549 KB)

Automatic Identification of Driver's Smartphone Exploiting Common Vehicle-Riding Actions
Homin Park ; DaeHan Ahn ; Taejoon Park ; Kang G. Shin
PDF (1810 KB)

Characterizing Privacy Risks of Mobile Apps with Sensitivity Analysis
Li Lyna Zhang ; Chieh-Jan Mike Liang ; Zhao Lucis Li ; Yunxin Liu ; Feng Zhao ; Enhong Chen
PDF (1117 KB)

Compressive Representation for Device-Free Activity Recognition with Passive RFID Signal Strength
Lina Yao ; Quan Z. Sheng ; Xue Li ; Tao Gu ; Mingkui Tan ; Xianzhi Wang ; Sen Wang ; Wenjie Ruan
PDF (1883 KB)

Data Quality Guided Incentive Mechanism Design for Crowdsensing
Dan Peng ; Fan Wu ; Guihai Chen
PDF (1119 KB)

DCAP: Improving the Capacity of WiFi Networks with Distributed Cooperative Access Points
Taotao Wang ; Qing Yang ; Kun Tan ; Jiansong Zhang ; Soung Chang Liew ; Shengli Zhang
PDF (1346 KB)

Distributed Clustering-Task Scheduling for Wireless Sensor Networks Using Dynamic Hyper Round Policy
Peyman Neamatollahi ; Mahmoud Naghibzadeh ; Saeid Abrishami ; Mohammad-Hossein Yaghmaee
PDF (796 KB) Media

Distributed Event Localization via Alternating Direction Method of Multipliers
Chunlei Zhang ; Yongqiang Wang
PDF (664 KB)

Enabling a Nationwide Radio Frequency Inventory Using the Spectrum Observatory
Mariya Zhivkova Zheleva ; Ranveer Chandra ; Aakanksha Chowdhery ; Paul Garnett ; Anoop Gupta ; Ashish Kapoor ; Matt Valerio

PDF (1389 KB)

Energy-Efficient and Distributed Network Management Cost Minimization in Opportunistic Wireless Body Area Networks
Amit Samanta ; Sudip Misra
PDF (1129 KB)

Optimization of Fingerprints Reporting Strategy for WLAN Indoor Localization
Xiaohua Tian ; Wenxin Li ; Yucheng Yang ; Zhehui Zhang ; Xinbing Wang
PDF (1049 KB)

Path Finding for Maximum Value of Information in Multi-Modal Underwater Wireless Sensor Networks
Petrika Gjanci ; Chiara Petrioli ; Stefano Basagni ; Cynthia A. Phillips ; Ladislau Bölöni ; Damla Turgut
PDF (1019 KB)

Post-CCA and Reinforcement Learning Based Bandwidth Adaptation in 802.11ac Networks
Sewoo Jang ; Kang G. Shin ; Saewoong Bahk
PDF (1417 KB)

Reliable and Energy-Efficient Hybrid Screen Mirroring Multicast System
Yunmin Go ; Hwangjun Song
PDF (1663 KB)

Spatio-Temporal Linkage over Location-Enhanced Services
Fuat Basık ; Buğra Gedik ; Çağrı Etemoğlu ; Hakan Ferhatosmanoğlu
PDF (1231 KB)

Stochastic Analysis of Delayed Mobile Offloading in Heterogeneous Networks
Huaming Wu ; Katinka Wolter
PDF (1472 KB)

Temporal Correlation of Interference and Outage in Mobile Networks over One-Dimensional Finite Regions
Konstantinos Koufos ; Carl P. Dettmann
PDF (1029 KB) Media

Unambiguous Association of Crowd-Sourced Radio Maps to Floor Plans for Indoor Localization
Xuning Zhang ; Albert Kai-Sun Wong ; Chin-Tau Lea ; Roger Shu-Kwan Cheng
PDF (1145 KB)

Networking

Table of contents
PDF (522 KB)

IEEE/ACM Transactions on Networking publication information
PDF (79 KB)

Toward Cloud-Based Distributed Interactive Applications:
Measurement, Modeling, and Analysis
Haiyang Wang ; Tong Li ; Ryan Shea ; Xiaoqiang Ma ; Feng Wang ;
Jiangchuan Liu ; Ke Xu
PDF (3285 KB) Media

Not All VANET Broadcasts Are the Same: Context-Aware Class
Based Broadcast
Falko Dressler ; Florian Klingler ; Christoph Sommer ; Reuven
Cohen
PDF (1993 KB)

A Probabilistic Framework for Structural Analysis and Community
Detection in Directed Networks
Cheng-Shang Chang ; Duan-Shin Lee ; Li-Heng Liou ; Sheng-Min
Lu ; Mu-Huan Wu
PDF (2834 KB) Media

On the Rate Regions of Single-Channel and Multi-Channel Full-
Duplex Links
Jelena Diakonikolas ; Gil Zussman
PDF (2223 KB) Media

Asynchronously Coordinated Multi-Timescale Beamforming
Architecture for Multi-Cell Networks
Antonios Michaloliakos ; Weng Chon Ao ; Konstantinos Psounis ;
Yonglong Zhang
PDF (4602 KB)

Optimizing Internet Transit Routing for Content Delivery Networks
Faraz Ahmed ; M. Zubair Shafiq ; Amir R. Khakpour ; Alex X. Liu
PDF (3378 KB)

Every Timestamp Counts: Accurate Tracking of Network Latencies
Using Reconcilable Difference Aggregator
Yongquan Fu ; Pere Barlet-Ros ; Dongsheng Li
PDF (2086 KB)

SSED: Servers Under Software-Defined Network Architectures to
Eliminate Discovery Messages
Emad Alasadi ; Hamed S. Al-Raweshidy
PDF (3685 KB)

Boolean Gossip Networks
Bo Li ; Junfeng Wu ; Hongsheng Qi ; Alexandre Proutiere ;
Guodong Shi
PDF (2491 KB)

Anomaly Detection and Attribution in Networks With Temporally
Correlated Traffic
Ido Nevat ; Dinil Mon Divakaran ; Sai Ganesh Nagarajan ; Pengfei
Zhang ; Le Su ; Li Ling Ko ; Vrizzlynn L. L. Thing
PDF (3086 KB) Media

Diamond: Nesting the Data Center Network With Wireless Rings in
3-D Space
Yong Cui ; Shihan Xiao ; Xin Wang ; Zhenjie Yang ; Shenghui Yan ;
Chao Zhu ; Xiang-Yang Li ; Ning Ge
PDF (5094 KB) Media

One More Tag Enables Fine-Grained RFID Localization and
Tracking
Fu Xiao ; Zhongqin Wang ; Ning Ye ; Ruchuan Wang ; Xiang-Yang
Li
PDF (3090 KB)

Spatial Mappings for Planning and Optimization of Cellular
Networks
David González G. ; Harri Hakula ; Antti Rasila ; Jyri Hämäläinen
PDF (2359 KB)

Easy Path Programming: Elevate Abstraction Level for Network
Functions
Fei Chen ; Chunming Wu ; Xiaoyan Hong ; Bin Wang
PDF (2327 KB)

Using Adaptive Heartbeat Rate on Long-Lived TCP Connections
M. Saifur Rahman ; Md. Yusuf Sarwar Uddin ; Tahmid Hasan ; M.
Sohel Rahman ; M. Kaykobad
PDF (2494 KB) Media

Partial Order Theory for Fast TCAM Updates
Peng He ; Wenyuan Zhang ; Hongtao Guan ; Kavé Salamatian ;
Gaogang Xie
PDF (2181 KB) Media

Multi-Touch in the Air: Concurrent Micromovement Recognition
Using RF Signals
Lei Xie ; Chuyu Wang ; Alex X. Liu ; Jianqiang Sun ; Sanglu Lu
PDF (2643 KB)

Utility-Centric Networking: Balancing Transit Costs With Quality of
Experience
Truong Khoa Phan ; David Griffin ; Elisa Maini ; Miguel Rio
PDF (3031 KB)

Trading Utility for Privacy in Shared Spectrum Access Systems
Matthew A. Clark ; Konstantinos Psounis
PDF (1790 KB)

Joint Resource Allocation for Software-Defined Networking,
Caching, and Computing
Qingxia Chen ; F. Richard Yu ; Tao Huang ; Renchao Xie ; Jiang
Liu ; Yunjie Liu
PDF (4129 KB)

Adaptive Sector Coloring Game for Geometric Network Information-
Based Inter-Cell Interference Coordination in Wireless Cellular
Networks
Woong-Hee Lee ; Jeong-Sik Choi ; Yong-Hwa Kim ; Jong-Ho Lee ;
Seong-Cheol Kim
PDF (3249 KB)

Cache Policies for Linear Utility Maximization
Giovanni Neglia ; Damiano Carra ; Pietro Michiardi
PDF (1234 KB) [Media](#)

Radiation Constrained Scheduling of Wireless Charging Tasks
Haipeng Dai ; Huizhen Ma ; Alex X. Liu ; Guihai Chen
PDF (2663 KB)

Loop-Free Route Updates for Software-Defined Networks
Klaus-Tycho Foerster ; Arne Ludwig ; Jan Marcinkowski ; Stefan Schmid
PDF (2250 KB)

Priority Queueing for Packets With Two Characteristics
Pavel Chuprikov ; Sergey I. Nikolenko ; Alex Davydov ; Kirill Kogan
PDF (1937 KB)

WMGR: A Generic and Compact Routing Scheme for Data Center Networks
Daniela Aguirre-Guerrero ; Miguel Camelo ; Lluís Fàbrega ; Pere Vilà
PDF (3256 KB)

Device-to-Device Networking Meets Cellular via Network Coding
Yasaman Keshtkarjahromi ; Hulya Seferoglu ; Rashid Ansari ; Ashfaq Khokhar
PDF (2204 KB) [Media](#)

Fast Rerouting Against Multi-Link Failures Without Topology Constraint
Yuan Yang ; Mingwei Xu ; Qi Li
PDF (1656 KB)

Scalability and Satisfiability of Quality-of-Information in Wireless Networks
Scott T. Rager ; Ertugrul N. Ciftcioglu ; Ram Ramanathan ; Thomas F. La Porta ; Ramesh Govindan
PDF (3249 KB)

On Practical Construction of Quality Fault-Tolerant Virtual Backbone in Homogeneous Wireless Networks
Bei Liu ; Wei Wang ; Donghyun Kim ; Yingshu Li ; Sung-Sik Kwon ; Yaolin Jiang
PDF (2421 KB)

Kraken: Online and Elastic Resource Reservations for Cloud Datacenters
Carlo Fuerst ; Stefan Schmid ; Lalith Suresh ; Paolo Costa
PDF (3202 KB)

Scheduling Frameworks for Cloud Container Services
Ruiting Zhou ; Zongpeng Li ; Chuan Wu
PDF (1856 KB) [Media](#)

The Throughput and Access Delay of Slotted-Aloha With Exponential Backoff
Luca Barletta ; Flaminio Borgonovo ; Ilario Filippini
PDF (1663 KB)

FDof: Enhancing Channel Utilization for 802.11ac
Chi-Han Lin ; Yi-Ting Chen ; Kate Ching-Ju Lin ; Wen-Tsuen Chen
PDF (2155 KB)

Information Spreading Forensics via Sequential Dependent Snapshots
Kechao Cai ; Hong Xie ; John C. S. Lui
PDF (2094 KB) [Media](#)

Scheduling of Collaborative Sequential Compressed Sensing Over Wide Spectrum Band
Jie Zhao ; Qiang Liu ; Xin Wang ; Shiwen Mao
PDF (1746 KB)

Optimal Control for Generalized Network-Flow Problems
Abhishek Sinha ; Eytan Modiano
PDF (1373 KB)

SCAPE: Safe Charging With Adjustable Power
Haipeng Dai ; Yunhuai Liu ; Guihai Chen ; Xiaobing Wu ; Tian He ; Alex X. Liu ; Yang Zhao
PDF (2388 KB)

Dynamic, Fine-Grained Data Plane Monitoring With Monocle
Peter Perešini ; Maciej Kuźniar ; Dejan Kostić
PDF (1741 KB)

Caching Encrypted Content Via Stochastic Cache Partitioning
Andrea Araldo ; György Dán ; Dario Rossi
PDF (2424 KB)

Minimizing Controller Response Time Through Flow Redirecting in SDNs
Pengzhan Wang ; Hongli Xu ; Liusheng Huang ; Chen Qian ; Shaowei Wang ; Yanjing Sun
PDF (2227 KB)

Analysis of Millimeter-Wave Multi-Hop Networks With Full-Duplex Buffered Relays
Guang Yang ; Ming Xiao ; Hussein Al-Zubaidy ; Yongming Huang ; James Gross
PDF (2996 KB)

Online Aggregation of the Forwarding Information Base: Accounting for Locality and Churn
Marcin Bienkowski ; Nadi Sarrar ; Stefan Schmid ; Steve Uhlig
PDF (1689 KB)

An LDPC Approach for Chunked Network Codes
Bin Tang ; Shenghao Yang
PDF (1242 KB) [Media](#)

Achieving High Scalability Through Hybrid Switching in Software-Defined Networking
Hongli Xu ; He Huang ; Shigang Chen ; Gongming Zhao ; Liusheng Huang
PDF (2540 KB)

Joint Optimization of Multicast Energy in Delay-Constrained Mobile Wireless Networks
Luoyi Fu ; Xinzhe Fu ; Zesen Zhang ; Zhiying Xu ; Xudong Wu ; Xinbing Wang ; Songwu Lu
PDF (3759 KB)

List of Reviewers
PDF (101 KB)

IEEE/ACM Transactions on Networking society information
PDF (169 KB)

IEEE/ACM Transactions on Networking information for authors
PDF (52 KB)

JOURNAL OF Optical Communications and Networking

Front cover
PDF (1861 KB)

Inside front cover
PDF (33 KB)

Contents
PDF (48 KB)

Introduction to the OFC 2017 special issue
Ori Gerstel ; Pat Iannone
PDF (34 KB)

Mobile fronthaul architecture and technologies: A RAN equipment assessment [invited]
P. Chanclou ; L. Anet Neto ; K. Grzybowski ; Z. Tayq ; F. Saliou ; N. Genay
PDF (390 KB)

Fast parallel lightpath re-optimization for space-division multiplexing optical networks based on time synchronization
Ruijie Luo ; Nan Hua ; Xiaoping Zheng ; Bingkun Zhou
PDF (1715 KB)

Low-latency high-efficiency mobile fronthaul with TDM-PON (mobile-PON)
Siyu Zhou ; Xiang Liu ; Frank Effenberger ; Jonathan Chao
PDF (785 KB)

Soft failure localization during commissioning testing and lightpath operation
A. P. Vela ; B. Shariati ; M. Ruiz ; F. Cugini ; A. Castro ; H. Lu ; R. Proietti ; J. Comellas ; P. Castoldi ; S. J. B. Yoo ; L. Velasco
PDF (423 KB)

Technologies for convergence of fixed and mobile access: An operator's perspective [invited]
Carsten Behrens ; Sandro Krauß ; Erik Weis ; Dirk Breuer
PDF (818 KB)

QoS-aware protection in flexgrid optical networks
Patricia Layec ; Arnaud Dupas ; Arnaud Bisson ; Sébastien Bigo
PDF (587 KB)

Experimental validation of time-synchronized operations for software-defined elastic optical networks
Anderson Bravalheri ; Miquel Garrich Alabarce ; Abubakar Siddique Muqaddas ; Paolo Giaccone ; Andrea Bianco
PDF (460 KB)

On the impact of deploying optical transport networks using disaggregated line systems
João Santos ; Nelson Costa ; João Pedro
PDF (1038 KB)

Power excursion mitigation for flexgrid defragmentation with machine learning
Yishen Huang ; Patricia B. Cho ; Payman Samadi ; Keren Bergman
PDF (685 KB)

Dynamic slicing approach for multi-tenant 5G transport networks [invited]
Muhammad Rehan Raza ; Matteo Fiorani ; Ahmad Rostami ; Peter Ohlen ; Lena Wosinska ; Paolo Monti
PDF (862 KB)

Enhancing protection performance by effectively using spectral slots of impairment-aware elastic optical networks [invited]
Hitoshi Takeshita ; Takefumi Oguma ; Shinsuke Fujisawa ; Yuta Suzuki ; Baku Yatabe ; Akio Tajima ; Hiroshi Hasegawa ; Ken-ichi Sato
PDF (1212 KB)

Accurate prediction of quality of transmission based on a dynamically configurable optical impairment model
Martin Bouda ; Shoichiro Oda ; Olga Vassilieva ; Masatake Miyabe ; Setsuo Yoshida ; Toru Katagiri ; Yasuhiko Aoki ; Takeshi Hoshida ; Tadashi Ikeuchi
PDF (684 KB)

Optical physical layer SDN [invited]
Yao Li ; Daniel C. Kilper
PDF (1073 KB)

On the cross-layer orchestration to address IP router outages with cost-efficient multilayer restoration in IP-over-EONs
Siqi Liu ; Wei Lu ; Zuqing Zhu
PDF (620 KB)

On the efficiency of flexible ethernet client architectures in optical transport networks [invited]
Antonio Eira ; André Pereira ; João Pires ; João Pedro
PDF (944 KB)

Multi-period planning with actual physical and traffic conditions
P. Soumplis ; K. Christodoulopoulos ; M. Quagliotti ; A. Pagano ; E. Varvarigos
PDF (1353 KB)

Migration plan with minimum overall migration time or cost
Brigitte Jaumard ; Hamed Pouya
PDF (790 KB)

Low-latency routing scheme for a fronthaul bridged network
Yu Nakayama ; Daisuke Hisano ; Takahiro Kubo ; Youichi Fukada ; Jun Terada ; Akihiro Otaka
PDF (522 KB)

SDN enabled restoration with triggered precomputation in elastic optical inter-datacenter networks

Yu Xiong ; Yuanyuan Li ; Bin Zhou ; Ruyan Wang ; George N. Rouskas

PDF (863 KB)

Reducing inter-core crosstalk impact via code-interleaving and bipolar 2-PpM for core-multiplexed SAC OCDMA PON

Ahmed E. A. Farghal ; Hossam M. H. Shalaby

PDF (523 KB)

Time-frequency domain encryption with SLM scheme for physical-layer security in an OFDM-PON system

Yaoqiang Xiao ; Zhiyi Wang ; Jun Cao ; Rui Deng ; Yi Liu ; Jing He ; Lin Chen

PDF (987 KB)

Networks and
Switching

Systems and
Subsystems

Fibers and Cables

Active Components

Passive Components

Journal of

Lightwave Technology

This Print Collection Contains the Following Issues:

January 1, 2018	Volume 36	Number 1	JLTEDG
January 15, 2018	Volume 36	Number 2	
February 1, 2018	Volume 36	Number 3	
February 15, 2018	Volume 36	Number 4	

Jan 1

[Front cover]
PDF (793 KB)

Journal of Lightwave Technology
PDF (70 KB)

Table of contents
PDF (53 KB)

Guest Editorial OFC 2017 Special Issue
G. Bosco ; J. -P. Elbers ; A. Lord ; S. Namiki ; L. Schares ; P. Winzer
PDF (254 KB)

Waveguide Filters and Related Technologies: Issues and Solutions for Practical Use in Transmission Systems
Yasuo Kokubun
PDF (2264 KB)

OTN Interface Standards for Rates Beyond 100 Gb/s
Steven S. Gorshe
PDF (1040 KB)

Digital Linearization of Direct-Detection Transceivers for Spectrally Efficient 100 Gb/s/λ WDM Metro Networking
Zhe Li ; M. Sezer Erkılınç ; Kai Shi ; Eric Sillekens ; Lidia Galdino ; Tianhua Xu ; Benn C. Thomsen ; Polina Bayvel ; Robert I. Killey
PDF (1674 KB)

Ultrawideband Wavelength-Tunable Hybrid External-Cavity Lasers
Agnes Verdier ; Guilhem de Valicourt ; Romain Brenot ; Helene Debregeas ; Po Dong ; Mark Earnshaw ; Helene Carrère ; Young-Kai Chen
PDF (825 KB)

The First 0.14-dB/km Loss Optical Fiber and its Impact on Submarine Transmission
Yoshiaki Tamura ; Hirotaka Sakuma ; Keisei Morita ; Masato Suzuki ; Yoshinori Yamamoto ; Kensaku Shimada ; Yuya Honma ; Kazuyuki Sohma ; Takashi Fujii ; Takemi Hasegawa
PDF (736 KB)

Delivery of 54-Gb/s 8QAM W-Band Signal and 32-Gb/s 16QAM K-Band Signal Over 20-km SMF-28 and 2500-m Wireless Distance
Xinying Li ; Jianjun Yu ; Kaihui Wang ; Yuming Xu ; Long Chen ; Li Zhao ; Wen Zhou
PDF (2725 KB)

Ultrahigh Throughput Indoor Infrared Wireless Communication System Enabled by a Cascaded Aperture Optical Receiver Fabricated on InP Membrane
Zizheng Cao ; Yuqing Jiao ; Longfei Shen ; Xinran Zhao ; Ripalta Stabile ; Jos van der Tol ; Ton Koonen
PDF (1010 KB)

Approaching the Capacity of Colored-SNR Optical Channels by Multicarrier Entropy Loading
Di Che ; William Shieh
PDF (1694 KB)

Kramers–Kronig Receivers for 100-km Datacenter Interconnects
Xi Chen ; Cristian Antonelli ; Sethumadhavan Chandrasekhar ; Gregory Raybon ; Antonio Mecozzi ; Mark Shtaif ; Peter Winzer
PDF (1318 KB)

Real-Time 100 Gb/s NRZ and EDB Transmission With a GeSi Electroabsorption Modulator for Short-Reach Optical Interconnects
J. Verbist ; M. Verplaetse ; S. A. Srinivasan ; J. Van Kerrebrouck ; P. De Heyn ; P. Absil ; T. De Keulenaer ; R. Pierco ; A. Vyncke ; G. Torfs ; X. Yin ; G. Roelkens ; J. Van Campenhout ; J. Bauwelinck
PDF (1061 KB)

100 Gb/s Intensity Modulation and Direct Detection With an InP-Based Monolithic DFB Laser Mach-Zehnder Modulator
Sophie Lange ; Stefan Wolf ; Joachim Lutz ; Lars Altenhain ; Rolf Schmid ; Ronald Kaiser ; Martin Schell ; Christian Koos ; Sebastian Randel
PDF (865 KB)

Trans-Atlantic Field Trial Using High Spectral Efficiency Probabilistically Shaped 64-QAM and Single-Carrier Real-Time 250-Gb/s 16-QAM
Junho Cho ; Xi Chen ; Sethumadhavan Chandrasekhar ; Gregory Raybon ; Ronen Dar ; Laurent Schmalen ; Eells Burrows ; Andrew Adamiecki ; Steve Corteselli ; Yan Pan ; Diego Correa ; Brad McKay ; Szilard Zsigmond ; Peter J. Winzer ; Steve Grubb
PDF (2417 KB)

70.46 Tb/s Over 7,600 km and 71.65 Tb/s Over 6,970 km Transmission in C+L Band Using Coded Modulation With Hybrid Constellation Shaping and Nonlinearity Compensation
Jin-Xing Cai ; Hussam G. Batshon ; Matthew Vincent Mazurczyk ; Oleg V. Sinkin ; Ding Wang ; Milen Paskov ; William W. Patterson ; Carl R. Davidson ; Patrick C. Corbett ; Gregory M. Wolter ; Timothy E. Hammon ; Maxim A. Bolshtyansky ; Dmitri G. Foursa ; Alexei N. Pilipetskii
PDF (1216 KB)

Bi-Directional 25G/50G TDM-PON With Extended Power Budget Using 25G APD and Coherent Detection
Vincent Houtsma ; Doutje van Veen
PDF (572 KB)

TWDM-PON Burst Mode Lasers With Reduced Thermal Frequency Shift
Hélène Debrégeas ; Robert Borkowski ; Rene Bonk ; Romain Brenot ; Jean-Guy Provost ; Sophie Barbet ; Thomas Pfeiffer
PDF (1331 KB)

An Architecture to Support Autonomic Slice Networking
Luis Velasco ; Lluis Gifre ; Jose-Luis Izquierdo-Zaragoza ; Francesco Paolucci ; Alba P. Vela ; Andrea Sgambelluri ; Marc Ruiz ; Filippo Cugini
PDF (1544 KB)

tSDX: Enabling Impairment-Aware All-Optical Inter-Domain Exchange
Yao Li ; Weiyang Mo ; Shengxiang Zhu ; Yiwen Shen ; Jiakai Yu ; Payman Samadi ; Keren Bergman ; Daniel C. Kilper
PDF (3193 KB)

Become a published author in 4 to 6 weeks
PDF (890 KB)

Information For Authors
PDF (54 KB)

[Blank page]
PDF (2 KB)

Jan15

[Front cover]
PDF (793 KB)

Journal of Lightwave Technology
PDF (71 KB)

Table of contents
PDF (67 KB)

Editorial Selected Papers From OFC 2017
P. J. Winzer
PDF (47 KB)

>1.3-Tb/s VCSEL-Based On-Board Parallel-Optical Transceiver Module for High-Density Optical Interconnects
Hideyuki Nasu ; Kazuya Nagashima ; Toshinori Uemura ; Atsushi Izawa ; Yoza Ishikawa
PDF (1521 KB)

High-Speed DMT and VCSEL-Based MMF Transmission Using Pre-Distortion
Christoph Kottke ; Christoph Caspar ; Volker Jungnickel ; Ronald Freund ; Mikel Agustin ; J. R. Kropp ; Nikolai N. Ledentsov
PDF (2366 KB)

Universal Photonic Interconnect for Data Centers
Michael R. T. Tan ; Paul Rosenberg ; Wayne V. Sorin ; Binhao Wang ; Sagi Mathai ; George Panotopoulos ; Glenn Rankin
PDF (678 KB)

4 × 56 Gb/s High Output Power Electroabsorption Modulated Laser Array With up to 7 km Fiber Transmission in L-Band
Michael Theurer ; Martin Moehrle ; Ute Troppenz ; Heinz-Gunter Bach ; Ariane Sigmund ; Georges Przyrembel ; Marko Gruner ; Martin Schell
PDF (998 KB)

Decoding of Multilevel Stokes-Vector Modulated Signal by Polarization-Analyzing Circuit on InP
Samir Ghosh ; Takuo Tanemura ; Yuto Kawabata ; Kazuhiro Katoh ; Kazuro Kikuchi ; Yoshiaki Nakano
PDF (763 KB)

Design and Experimental Verification of a Transimpedance Amplifier for 64-Gb/s PAM-4 Optical Links
Bart Moeneclaey ; Jochen Verbrugge ; Joris Lambrecht ; Elad Mentovich ; Paraskevas Bakopoulos ; Johan Bauwelinck ; Xin Yin
PDF (1849 KB)

Integrated Hybrid Wavelength-Tunable III-V/Silicon Transmitter Based on a Ring-Assisted Mach-Zehnder Interferometer Modulator
Guilhem de Valicourt ; Chia-Ming Chang ; Jeffrey Lee ; Michael S. Eggleston ; Chen Zhu ; Jeffrey H. Sinsky ; Kwangwoong Kim ; Po Dong ; Anaëlle Maho ; Romain Brenot ; Young-Kai Chen
PDF (679 KB)

Automatic Configuration and Wavelength Locking of Coupled Silicon Ring Resonators
Hasitha Jayatilaka ; Hossam Shoman ; Robert Boeck ; Nicolas A. F. Jaeger ; Lukas Chrostowski ; Sudip Shekhar
PDF (2352 KB)

Tunable Dual-Wavelength Heterogeneous Quantum Dot Laser Diode With a Silicon External Cavity
Tomohiro Kita ; Atsushi Matsumoto ; Naokatsu Yamamoto ; Hirohito Yamada
PDF (1290 KB)

16 × 16 Silicon Optical Switch Based on Dual-Ring-Assisted Mach-Zehnder Interferometers
Zhanzhi Guo ; Liangjun Lu ; Linjie Zhou ; Lin Shen ; Jianping Chen
PDF (4751 KB)

Silicon Photonic Switch Subsystem With 900 Monolithically Integrated Calibration Photodiodes and 64-Fiber Package
Patrick Dumais ; Dominic J. Goodwill ; Dritan Celo ; Jia Jiang ; Chunshu Zhang ; Fei Zhao ; Xin Tu ; Chunhui Zhang ; Shengyong Yan ; Jifang He ; Ming Li ; Wanyuan Liu ; Yuming Wei ; Dongyu Geng ; Hamid Mehrvar ; Eric Bernier
PDF (987 KB)

Efficient Suspended Coupler With Loss Less Than -1.4 dB Between Si-Photonic Waveguide and Cleaved Single Mode Fiber
Lianxi Jia ; Chao Li ; Tsung-Yang Liow ; Guo-Qiang Lo
PDF (5254 KB)

RF and Thermal Considerations of a Flip-Chip Integrated 40+ Gb/s Silicon Photonic Electro-Optic Transmitter
Zheng Yong ; Stefan Shopov ; Jared C. Mikkelsen ; Robert Mallard ; Jason C. C. Mak ; Junho Jeong ; Sorin P. Voinescu ; Joyce K. S. Poon
PDF (2913 KB)

III-V-on-Silicon C-Band High-Speed Electro-Absorption-Modulated DFB Laser
Amin Abbasi ; Leili Abdollahi Shiramin ; Bart Moeneclae ; Jochem Verbist ; Xin Yin ; Johan Bauwelinck ; Dries Van Thourhout ; Gunther Roelkens ; Geert Morthier
PDF (784 KB)

Evolution of Chip-Scale Heterodyne Optical Phase-Locked Loops Toward Watt Level Power Consumption
Arda Simsek ; Shamsul Arafin ; Seong-Kyun Kim ; Gordon B. Morrison ; Leif A. Johansson ; Milan L. Mashanovitch ; Larry A. Coldren ; Mark J. W. Rodwell
PDF (1218 KB)

Photonic Integrated Circuit Based on Hybrid III-V/Silicon Integration
Guilhem de Valicourt ; Chia-Ming Chang ; Michael S. Eggleston ; Argishti Melikyan ; Chen Zhu ; Jeffrey Lee ; Jesse E. Simsarian ; S. Chandrasekhar ; Jeffrey H. Sinsky ; Kwangwoong W. Kim ; Po Dong ; Anaëlle Maho ; A. Verdier ; Romain Brenot ; Y. K. Chen
PDF (1066 KB)

Semiconductor-Based Terahertz Photonics for Industrial Applications
Eui Su Lee ; Kiwon Moon ; Il-Min Lee ; Hyun-Soo Kim ; Dong Woo Park ; Jeong-Woo Park ; Dong Hun Lee ; Sang-Pil Han ; Namje Kim ; Kyung Hyun Park
PDF (1866 KB)

Oxyfluoride Core Silica-Based Optical Fiber With Intrinsically Low Nonlinearities for High Energy Laser Applications
Maxime Cavillon ; Courtney J. Kucera ; T. Wade Hawkins ; Antoine F. J. Runge ; Anna C. Peacock ; Peter D. Dragic ; John Ballato
PDF (644 KB)

Creation and Detection of Vector Vortex Modes for Classical and Quantum Communication
Bienvenu Ndagano ; Isaac Nape ; Mitchell A. Cox ; Carmelo Rosales-Guzman ; Andrew Forbes
PDF (918 KB)

Low-Loss and Low-Mode-Dependent-Loss Fan-In/Fan-Out Device for 6-Mode 19-Core Fiber
Kota Shikama ; Yoshiteru Abe ; Hirotaka Ono ; Atsushi Aratake
PDF (1619 KB)

Multilane Photonic Spectral Processor Integrated in a Spatial and Planar Optical Circuit for a Space-Division Multiplexing Network
Mitsumasa Nakajima ; Kenya Suzuki ; Keita Yamaguchi ; Hirotaka Ono ; Takashi Goh ; Mitsunori Fukutoku ; Yutaka Miyamoto ; Toshikazu Hashimoto
PDF (1166 KB)

3 x 104 Gb/s Single- λ Interconnect of Mode-Division Multiplexed Network With a Multicore Fiber
Xinru Wu ; Chaoran Huang ; Ke Xu ; Wen Zhou ; Chester Shu ; Hon Ki Tsang
PDF (603 KB)

Twisting-Rate-Controlled 125 μ m Cladding Randomly Coupled Single-Mode 12-Core Fiber
Taiji Sakamoto ; Shinichi Aozasa ; Takayoshi Mori ; Masaki Wada ; Takashi Yamamoto ; Saki Nozoe ; Yuto Sagae ; Kyozo Tsujikawa ; Kazuhide Nakajima
PDF (1824 KB)

Two-LP-Mode Six-Core Cladding Pumped EDFA With High Pump Power Density
Masaki Wada ; Taiji Sakamoto ; Shinichi Aozasa ; Takayoshi Mori ; Takashi Yamamoto ; Kazuhide Nakajima
PDF (740 KB)

Advanced MIMO Signal Processing Techniques Enabling Long-Haul Dense SDM Transmissions
Kohki Shibahara ; Takayuki Mizuno ; Doohwan Lee ; Yutaka Miyamoto
PDF (1060 KB)

15 x 200 Gbit/s 16-QAM SDM Transmission Over an Integrated 7-Core Cladding-Pumped Repeatered Multicore Link in a Recirculating Loop
Carlos Castro ; Saurabh Jain ; Erik De Man ; Yongmin Jung ; John Hayes ; Stefano Calabrò ; Klaus Pulverer ; Marc Bohn ; Shaif-ul Alam ; David John Richardson ; Katsuhiro Takenaga ; Takayuki Mizuno ; Yutaka Miyamoto ; Toshio Morioka ; Werner Rosenkranz
PDF (1109 KB)

Multiterabit Transmission Over OM2 Multimode Fiber With Wavelength and Mode Group Multiplexing and Direct Detection
Kaoutar Benyahya ; Christian Simonneau ; Amirhossein Ghazisaeidi ; Nicolas Barré ; Pu Jian ; Jean-François Morizur ; Guillaume Labroille ; Marianne Bigot ; Pierre Sillard ; Jean Guy Provost ; Hélène Debrégeas ; Jérémie Renaudier ; Gabriel Charlet
PDF (1132 KB)

SDM for Power-Efficient Undersea Transmission
Oleg V. Sinkin ; Alexey V. Turukhin ; Yu Sun ; Hussam G. Batshon ; Matt V. Mazurczyk ; Carl R. Davidson ; Jin-Xing Cai ; Will W. Patterson ; Maxim A. Bolshtyansky ; Dmitri G. Foursa ; Alexei N. Pilipetskii
PDF (2704 KB)

Analog Coherent Optics for Long Haul Datacenter Regional Networks
Hacene Chaouch ; Mark Filer
PDF (1765 KB)

Digital Signal Processing for Short-Reach Optical Communications: A Review of Current Technologies and Future Trends
Kangping Zhong ; Xian Zhou ; Jiahao Huo ; Changyuan Yu ; Chao Lu ; Alan Pak Tao Lau
PDF (3236 KB)

Extreme Speed Power-DAC: Leveraging InP DHBT for Ultimate Capacity Single-Carrier Optical Transmissions
Agnieszka Konczykowska ; Jean-Yves Dupuy ; Filipe Jorge ; Muriel Riet ; Virginie Nodjiadjim ; Haik Mardoyan
PDF (1048 KB)

High Symbol Rate Signal Generation and Detection With Linear and Nonlinear Signal Processing
Junwen Zhang ; Jianjun Yu ; Hung-Chang Chien
PDF (1229 KB)

Design and Comparison of Advanced Modulation Formats Based on Generalized Mutual Information
Shaoliang Zhang ; Fatih Yaman
PDF (967 KB)

Achievable Information Rates for Fiber Optics: Applications and Computations
Alex Alvarado ; Tobias Fehenberger ; Bin Chen ; Frans M. J. Willems
PDF (1378 KB)

Reconfigurable Channel Slicing and Stitching for an Optical Signal to Enable Fragmented Bandwidth Allocation Using Nonlinear Wave Mixing and an Optical Frequency Comb
Yinwen Cao ; Ahmed Almainan ; Morteza Ziyadi ; Amirhossein Mohajerin-Ariaei ; Changjing Bao ; Peicheng Liao ; Fatemeh Alishahi ; Ahmad Fallahpour ; Youichi Akasaka ; Carsten Langrock ; Martin M. Fejer ; Joseph D. Touch ; Moshe Tur ; Alan E. Willner
PDF (1556 KB)

Half-Terabit Single-Carrier Direct-Detect Transceiver, Formats, and DSP: Analysis and Demonstration
Mathieu Chagnon ; Mohamed Morsy-Osman ; David V. Plant
PDF (2278 KB)

Enabling High-Capacity Long-Reach Direct Detection Transmission With QAM-PAM Stokes Vector Modulation
Thang Hoang ; Mohammed Sowailam ; Qunbi Zhuge ; Mohamed Osman ; Alireza Samani ; Carl Paquet ; Stéphane Paquet ; Ian Woods ; David Plant
PDF (1221 KB)

Kramers–Kronig PAM Transceiver and Two-Sided Polarization-Multiplexed Kramers–Kronig Transceiver
Cristian Antonelli ; Antonio Mecozzi ; Mark Shtaif
PDF (930 KB)

Low-Complexity Iterative Soft-Demapper for Multidimensional Modulation Based on Bitwise Log Likelihood Ratio and its Demonstration in High Baud-Rate Transmission
Masanori Nakamura ; Fukutaro Hamaoka ; Asuka Matsushita ; Hiroshi Yamazaki ; Munehiko Nagatani ; Akira Hirano ; Yutaka Miyamoto
PDF (1218 KB)

Impact of Perturbations on Nonlinear Frequency-Division Multiplexing
Xianhe Yangzhang ; Domaniç Lavery ; Polina Bayvel ; Mansoor I. Yousefi
PDF (2491 KB)

Linear and Nonlinear Compensation for 8-QAM SC-400G Long-Haul Transmission Systems
Junwen Zhang ; Jianjun Yu ; Hung-Chang Chien
PDF (732 KB)

Comparison of Probabilistically Shaped 64QAM With Lower Cardinality Uniform Constellations in Long-Haul Optical Systems
Dario Pileri ; Luca Bertignono ; Antonino Nespola ; Fabrizio Forghieri ; Gabriella Bosco
PDF (1009 KB)

Enabling Technologies for High-Speed Visible Light Communication Employing CAP Modulation
Nan Chi ; Yingjun Zhou ; Shangyu Liang ; Fumin Wang ; Jiehui Li ; Yiguang Wang
PDF (8191 KB)

Toward Programmable Microwave Photonics Processors
Daniel Pérez ; Ivana Gasulla ; José Capmany
PDF (3061 KB)

Millimeter-Wave Radio-Over-Fiber Network for Linear Cell Systems
Atsushi Kanno ; Pham Tien Dat ; Naokatsu Yamamoto ; Tetsuya Kawanishi
PDF (1139 KB)

RAN Revolution With NGFI (xhaul) for 5G
Chih-Lin I ; Han Li ; Jouni Korhonen ; Jinri Huang ; Liuyan Han
PDF (585 KB)

Multi-band CAP for Next-Generation Optical Access Networks Using 10-G Optics
Jinlong Wei ; Elias Giacoumidis
PDF (1104 KB)

IM/DD Transmission Techniques for Emerging 5G Fronthaul, DCI, and Metro Applications
Gordon Ning Liu ; Liang Zhang ; Tianjian Zuo ; Qiang Zhang
PDF (1937 KB)

Delta-Sigma Digitization and Optical Coherent Transmission of DOCSIS 3.1 Signals in Hybrid Fiber Coax Networks
Jing Wang ; Zhensheng Jia ; Luis Alberto Campos ; Lin Cheng ; Curtis Knittle ; Gee-Kung Chang
PDF (10162 KB)

Symmetric 100-Gb/s TWDM-PON in O-Band Based on 10G-Class Optical Devices Enabled by Dispersion-Supported Equalization
Lei Xue ; Lilin Yi ; Honglin Ji ; Peixuan Li ; Weisheng Hu
PDF (857 KB)

Single-Carrier Dual-Polarization 328-Gb/s Wireless Transmission in a D-Band Millimeter Wave 2 × 2 MU-MIMO Radio-Over-Fiber System
Rafael Puerta ; Jianjun Yu ; Xinying Li ; Yuming Xu ; Juan José Vegas Olmos ; Idelfonso Tafur Monroy
PDF (1620 KB)

Performance Analysis of Carrier-Aggregated Multiantenna 4 × 4 MIMO LTE-A Fronthaul by Spatial Multiplexing on Multicore Fiber
Maria Morant ; Roberto Llorente
PDF (1579 KB)

Demonstration of IFoF-Based Mobile Fronthaul in 5G Prototype With 28-GHz Millimeter wave
Minkyu Sung ; Seung-Hyun Cho ; Joonyoung Kim ; Joon Ki Lee ; Jong Hyun Lee ; Hwan Seok Chung
PDF (1021 KB)

0.4 THz Photonic-Wireless Link With 106 Gb/s Single Channel Bitrate
Shi Jia ; Xiaodan Pang ; Oskars Ozolins ; Xianbin Yu ; Hao Hu ; Jinlong Yu ; Pengyu Guan ; Francesco Da Ros ; Sergei Popov ; Gunnar Jacobsen ; Michael Galili ; Toshio Morioka ; Darko Zibar ; Leif K. Oxenløwe
PDF (2563 KB)

100-GHz Radio and Power Over Fiber Transmission Through Multicore Fiber Using Optical-to-Radio Converter
Toshimasa Umezawa ; Pham Tien Dat ; Kenichi Kashima ; Atsushi Kanno ; Naokatsu Yamamoto ; Tetsuya Kawanishi
PDF (2728 KB)

Become a published author in 4 to 6 weeks
PDF (890 KB)

Information For Authors
PDF (54 KB)

[Blank page]
PDF (2 KB)

Feb 1

[Front cover]
PDF (793 KB)

Journal of Lightwave Technology
PDF (71 KB)

Table of contents
PDF (50 KB)

Interference-Free LED Allocation for Visible Light Communications With Fisheye Lens
Rui Jiang ; Zhaocheng Wang ; Xudong Zhu ; Qi Wang
PDF (965 KB)

Joint Optimization for Multicast Provisioning in Mixed-Line-Rate Optical Networks With a Column Generation Approach
Fen Zhou ; Min Ju ; Amine Ait-Ouahmed
PDF (1955 KB)

Nonlinear Distortion Mitigation by Machine Learning of SVM Classification for PAM-4 and PAM-8 Modulated Optical Interconnection
Guoyao Chen ; Jiangbing Du ; Lin Sun ; Wenjia Zhang ; Ke Xu ; Xia Chen ; Graham T. Reed ; Zuyuan He
PDF (1230 KB)

Constrained Intensity Superposition: A Hardware-Friendly Modulation Method
Gilbert J. M. Forkel ; Peter A. Hoehner
PDF (830 KB)

Analytical Study of Optical SSB-DMT With IMDD
Amin Yekani ; Siamak Amiralizadeh ; Leslie Ann Rusch
PDF (1521 KB)

Single Channel Microwave Photonics Digital Beamforming Radar Imaging System
Zerihun Gedeb Tegegne ; Cyril Decroze ; Philippe Di Bin ; Thomas Fromenteze ; Christelle Aupetit-Berthelemot
PDF (899 KB)

Two Microwave Vector Signal Transmission on a Single Optical Carrier Based on PM-IM Conversion Using an On-Chip Optical Hilbert Transformer
Yishi Han ; Weifeng Zhang ; Jiejun Zhang ; Jianping Yao
PDF (655 KB)

Information Capacity of Direct Detection Optical Transmission Systems
Antonio Mecozzi ; Mark Shtaif
PDF (300 KB)

The Impact of Transceiver Noise on Digital Nonlinearity Compensation
Daniel Semrau ; Domaniç Lavery ; Lidia Galdino ; Robert I. Killey ; Polina Bayvel
PDF (622 KB)

CWDM DFBLD Transmitter Module for 10-km Interdata Center With Single-Channel 50-Gbit/s PAM-4 and 62-Gbit/s QAM-OFDM
Hsuan-Yun Kao ; Zhe-Xian Su ; Hsiang-Shun Shih ; Yu-Chieh Chi ; Cheng-Ting Tsai ; Hao-Chung Kuo ; Chao-Hsin Wu ; Jau-Ji Jou ; Tien-Tsorng Shih ; Gong-Ru Lin
PDF (2710 KB)

Evaluating the Impact of QAM Constellation Subset Selection on the Achievable Information Rates of Multidimensional Formats in Fully Loaded Systems
Ahmed I. Abd El-Rahman ; John C. Cartledge
PDF (952 KB)

Blind Nonlinearity Equalization by Machine-Learning-Based Clustering for Single- and Multichannel Coherent Optical OFDM
Elias Giacomidis ; Amir Matin ; Jinlong Wei ; Nick J. Doran ; Liam P. Barry ; Xu Wang
PDF (967 KB)

Demonstration of 15-M 7.33-Gb/s 450-nm Underwater Wireless Optical Discrete Multitone Transmission Using Post Nonlinear Equalization
Chao Fei ; Junwei Zhang ; Guowu Zhang ; Yujian Wu ; Xuezhi Hong ; Sailing He
PDF (894 KB)

Tunable Fano-Like Lineshape in an Adiabatic Tapered Fiber Coupled to a Hollow Bottle Microresonator
Zeinab Chenari ; Hamid Latifi ; Omid Reza Ranjbar-Naeini ; Mohammad Ismaeel Zibai ; Ebrahim Behroodi ; Amir Asadollahi
PDF (746 KB)

In-Line Mach-Zehnder Interferometer With D-Shaped Fiber Grating for Temperature-Discriminated Directional Curvature Measurement
Biqiang Jiang ; Zhiyong Bai ; Changle Wang ; Yunhe Zhao ; Jianlin Zhao ; Lin Zhang ; Kaiming Zhou
PDF (2005 KB)

Remote Optical Powering Using Fiber Optics in Hazardous Environments
J. D. López-Cardona ; Carmen Vázquez ; David Sánchez Montero ; Pedro Contreras Lallana
PDF (1260 KB)

Design of Compact but Fabrication-Tolerant Vertical Coupler for Active-Passive Integration
Can Liu ; Gongyuan Zhao ; Fan Yang ; Qiaoyin Lu ; Weihua Guo
PDF (2702 KB)

Impact of Topology on the Scalability of Mach-Zehnder-Based Multistage Silicon Photonic Switch Networks
Nicolas Dupuis ; Benjamin G. Lee
PDF (1527 KB)

Thermal Rectification of Integrated Microheaters for Microring Resonators in Silicon Photonics Platform
Meisam Bahadori ; Alexander Gazman ; Natalie Janosik ; Sébastien Rumley ; Ziyi Zhu ; Robert Polster ; Qixiang Cheng ; Keren Bergman
PDF (3402 KB)

Monolithically Integrated Virtual Balanced ACP-OPLL for PM RF Photonic Links
Longtao Xu ; Shilei Jin ; Ding Ding ; Yifei Li
PDF (1362 KB)

Performance Enhancement of Nanoscale VO₂ Modulators Using Hybrid Plasmonics
Herman M. K. Wong ; Amr S. Helmy
PDF (1743 KB)

Evolution of Plasmonic Modes in a Metal Nano-Wire Studied by a Modified Finite Element Method
Souvik Ghosh ; B. M. A. Rahman
PDF (1009 KB)

Stretchable PEG-DA Hydrogel-Based Whispering-Gallery-Mode Microlaser with Humidity Responsiveness
Qiu-Lan Huang ; Huai-Liang Xu ; Mu-Tian Li ; Zhi-Shan Hou ; Chao Lv ; Xue-Peng Zhan ; He-Long Li ; Hong Xia ; Hai-Yu Wang ; Hong-Bo Sun
PDF (450 KB)

Single-Ended Long Period Fiber Grating Coated With Polystyrene Thin Film for Butane Gas Sensing
Flavio Esposito ; Aldobenedetto Zotti ; Rajeev Ranjan ; Simona Zuppolini ; Anna Borriello ; Stefania Campopiano ; Mauro Zarrelli ; Agostino Iadicicco
PDF (1435 KB)

Crosstalk Between Single-Photon Avalanche Diodes in a 0.18- μm High-Voltage CMOS Process
Dai-Rong Wu ; Chia-Ming Tsai ; Yi-Hsiang Huang ; Sheng-Di Lin
PDF (459 KB)

Become a published author in 4 to 6 weeks
PDF (890 KB)

Information For Authors
PDF (54 KB)

[Blank page]
PDF (2 KB)

Feb 15

[Front cover]
PDF (793 KB)

Journal of Lightwave Technology
PDF (71 KB)

Table of contents
PDF (61 KB)

Guest Editorial JLT Special Issue on OFS-25
Y. Chung ; W. Jin ; B. Lee ; J. Canning ; K. Nakamura ; L. Yuan
PDF (242 KB)

1.5 μm Low Threshold, High Efficiency Random Fiber Laser with Hybrid Erbium–Raman Gain
Han Wu ; Zinan Wang ; Wei Sun ; Qiheng He ; Zedong Wei ; Yun-Jiang Rao
PDF (572 KB)

Palladium-Based Hydrogen Sensors Using Fiber Bragg Gratings
Maximilian Fisser ; Rodney A. Badcock ; Paul D. Teal ; Stefaan Janssens ; Arvid Hunze
PDF (695 KB)

Fluorescence Ratiometric Optical Broad Range pH Sensor Based on CdSe/ZnS Quantum Dots and O170 Embedded in Ethyl Cellulose Matrix
Cheng-Shane Chu ; Chih-Jen Su
PDF (1282 KB)

Functionalized Long Period Grating—Plasmonic Fiber Sensor Applied to the Detection of Glyphosate in Water
Bárbara Rutyna Heidemann ; Ismael Chiamenti ; Marcela Mohallem Oliveira ; Marcia Muller ; José Luís Fabris
PDF (751 KB)

Enhanced Coherent BOTDA System Without Trace Averaging
Nan Guo ; Liang Wang ; Huan Wu ; Chao Jin ; Hwa-Yaw Tam ; Chao Lu
PDF (937 KB)

Fibre-Optic Sagnac Interferometer in a FOG Minimum Configuration as Instrumental Challenge for Rotational Seismology
Anna Kurzych ; Leszek R. Jaroszewicz ; Zbigniew Krajewski ; Bartosz Sakowicz ; Jerzy K. Kowalski ; Paweł Marć
PDF (557 KB)

Fast Acquirable Long-Range Measurement With Frequency-Swept Probe BOTDA
Chihiro Kito ; Hiroshi Takahashi ; Kunihiro Toge ; Tetsuya Manabe
PDF (709 KB)

In-Line Tunable Nematic Liquid Crystal Fiber Optic Device
Joanna E. Moś ; Mariusz Florek ; Katarzyna Garbat ; Karol A. Stasiewicz ; Nouredine Bennis ; Leszek R. Jaroszewicz
PDF (959 KB)

Photonic Crystal Fiber Transducers for an Optical Fiber Multilevel Temperature Threshold Sensor
Paweł Marć ; Natalia Przybysz ; Angelika Molska ; Leszek R. Jaroszewicz
PDF (757 KB)

Relative Humidity Sensor Based on a Few-Mode Microfiber Knot Resonator by Mitigating the Group Index Difference of a Few-Mode Microfiber
Anh Duy Duong Le ; Young-Geun Han
PDF (1125 KB)

Simultaneous Strain and Temperature Multipoint Sensor Based on Microstructured Optical Fiber
Aitor Lopez-Aldaba ; Jean-Louis Auguste ; Raphael Jamier ; Philippe Roy ; Manuel López-Amo
PDF (632 KB)

Dynamic Fiber-Optic Shape Sensing Using Fiber Segment Interferometry
Thomas Kissinger ; Edmond Chehura ; Stephen E. Staines ; Stephen W. James ; Ralph P. Tatam
PDF (2475 KB)

Plane-by-Plane Inscription of Grating Structures in Optical Fibers
Ping Lu ; Stephen J. Mihailov ; Huimin Ding ; Dan Grobnic ; Robert B. Walker ; David Coulas ; Cyril Hnatovsky ; Andrei Yu Naumov
PDF (741 KB)

Experimental Study on Directionality of Ultrasonic Wave Coupling Using Surface-Bonded Fiber Bragg Grating Sensors
Junghyun Wee ; Drew Hackney ; Philip Bradford ; Kara Peters
PDF (1119 KB)

Fiber Optic Measurement System for Fresnel Reflection Sensing: Calibration, Uncertainty, and Exemplary Application in Temperature-Modulated Isothermal Polymer Curing
Jonathan Oelhafen ; Tobias Mayr ; Felix Dörner ; Konstantinos Moutzouris ; Johannes Roths ; Klaus Drechsler
PDF (698 KB)

Current Status and Future Trends of Photonic-Integrated FBG Interrogators
Yisbel Eloisa Marin ; Tiziano Nannipieri ; Claudio J. Oton ; Fabrizio Di Pasquale
PDF (1052 KB)

Optical Monitoring of Electrochemical Processes With ITO-Based Lossy-Mode Resonance Optical Fiber Sensor Applied as an Electrode
Mateusz Śmietana ; Michał Sobaszek ; Bartosz Michalak ; Paweł Niedziałkowski ; Wioleta Białobrzeska ; Marcin Koba ; Petr Sezemsky ; Vitezslav Stranak ; Jakub Karczewski ; Tadeusz Ossowski ; Robert Bogdanowicz
PDF (773 KB)

Impact of the Fiber Coating on the Temperature Response of Distributed Optical Fiber Sensors at Cryogenic Ranges
Xin Lu ; Marcelo A. Soto ; Luc Thévenaz
PDF (648 KB)

Sensitivity Improvement in Fiber Bragg Grating Sensors Using All-Fiber Weak Value Amplification Based on Optical Attenuation
Kwang Wook Yoo ; Young-Geun Han
PDF (1243 KB)

Compact Biocompatible Fiber Optic Temperature Microprobe Using DNA-Based Biopolymer
Seongjng Hong ; Woohyun Jung ; Taeh Kim ; Kyunghwan Oh
PDF (605 KB)

Laser Phase-Noise Cancellation in Chirped-Pulse Distributed Acoustic Sensors
María R. Fernández-Ruiz ; Juan Pastor-Graells ; Hugo F. Martins ; Andres Garcia-Ruiz ; Sonia Martín-López ; Miguel Gonzalez-Herraez
PDF (709 KB)

Carbon Cantilever Beam Health Inspection Using a Polymer Fiber Bragg Grating Array
Antreas Theodosiou ; Michael Komodromos ; Kyriacos Kalli
PDF (685 KB)

An Integrated Fiber Michelson Interferometer Based on Twin-Core and Side-Hole Fibers for Multiparameter Sensing
Yujia Zhao ; Ai Zhou ; Huiyong Guo ; Zhou Zheng ; Yimin Xu ; Ciming Zhou ; Libo Yuan
PDF (507 KB)

Radiation Effects on Type I Fiber Bragg Gratings: Influence of Recoating and Irradiation Conditions
Thomas Blanchet ; Adriana Morana ; Guillaume Laffont ; Romain Cotillard ; Emmanuel Marin ; Aziz Boukenter ; Youcef Ouerdane ; Sylvain Girard
PDF (1052 KB)

Nonlocal Effect Compensation in Frequency-Fixed Probe Based BOTDA Sensor
Sheng Wang ; Zhisheng Yang ; Xiaobin Hong ; Wenqiao Lin ; Jian Wu
PDF (1446 KB)

Fast and High-Resolution Simultaneous Measurement of Temperature and Strain Using a Fabry–Perot Interferometer in Polarization-Maintaining Fiber With Laser Diodes
Atsushi Wada ; Satoshi Tanaka ; Nobuaki Takahashi
PDF (960 KB)

Laser Cladding-Based Metallic Embedding Technique for Fiber Optic Sensors
Tania Grandal ; Ander Zornoza ; Sergio Fraga ; Gemma Castro ; Tong Sun ; Kenneth T. V. Grattan
PDF (1065 KB)

Coherent Pound–Drever–Hall Technique for High Resolution Fiber-Optic Sensors at Low Probe Power
Qingwen Liu ; Mengxin Wu ; Jiageng Chen ; Zuyuan He
PDF (477 KB)

Multipoint Fiber Bragg Grating Sensing Using Two-Photon Absorption Process in Silicon Avalanche Photodiode
Yosuke Tanaka ; Hiromasa Miyazawa
PDF (1020 KB)

Microwave Photonics Filtering Interrogation Technique Under Coherent Regime For Hot Spot Detection on a Weak FBGs Array
Javier Hervás ; David Barrera ; Javier Madrigal ; Salvador Sales
PDF (724 KB)

Comprehensive Monitoring of Electrical Machine Parameters Using an Integrated Fiber Bragg Grating-Based Sensor System
Matthias Fabian ; David Martin Hind ; Chris Gerada ; Tong Sun ; Kenneth T. V. Grattan
PDF (783 KB)

Real Field Deployment of a Smart Fiber-Optic Surveillance System for Pipeline Integrity Threat Detection: Architectural Issues and Blind Field Test Results
Javier Tejedor ; Javier Macias-Guarasa ; Hugo F. Martins ; Juan Pastor-Graells ; Sonia Martín-López ; Pedro Corredera Guillén ; Guy De Pauw ; Filip De Smet ; Willy Postvoll ; Carl H. Ahlen ; Miguel González-Herráez
PDF (1106 KB)

Long Period Gratings in Multicore Optical Fibers for Directional Curvature Sensor Implementation
David Barrera ; Javier Madrigal ; Salvador Sales
PDF (696 KB)

Impact of I/Q Amplitude Imbalance on Coherent Φ -OTDR
Yun Fu ; Naitian Xue ; Zinan Wang ; Bin Zhang ; Ji Xiong ; Yunjiang Rao
PDF (914 KB)

A Three-Dimensional-FEM Model With Experimentally Determined Material Parameters of an FBG Sensor Element in a Panda-Type Fiber

Barbara Hopf ; Bennet Fischer ; Markus Lindner ; Alexander Wilhelm Koch ; Johannes Roths
PDF (1142 KB)

Performance Improvement of Brillouin Ring Laser Based BOTDR System Employing a Wavelength Diversity Technique

Nageswara Lalam ; Wai Pang Ng ; Xuewu Dai ; Qiang Wu ; Yong Qing Fu
PDF (1481 KB)

Optimized Process for Fabricating Ultrashort Tapered Long-Period Gratings

Kevin Mullaney ; Stephen E. Staines ; Stephen W. James ; Ralph P. Tatam
PDF (638 KB)

Tunable Ferrofluid Magnetic Fiber Sensor based on Nonadibatic Tapered Hi-Bi Fiber in Fiber Loop Mirror

Azam Layeghi ; Hamid Latifi
PDF (769 KB)

All-PM Fiber Loop Mirror Interferometer Analysis and Simultaneous Measurement of Temperature and Mechanical Vibration

Daniel Leandro ; Manuel Lopez-Amo
PDF (908 KB)

Dynamic Compensation Technique for POF Curvature Sensors

Arnaldo Gomes Leal-Junior ; Anselmo Frizera ; Maria José Pontes
PDF (661 KB)

Gold Enhanced Hemoglobin Interaction in a Fabry-Pérot Based Optical Fiber Sensor for Measurement of Blood Refractive Index

Charusluk Viphavakit ; Sinead O' Keeffe ; Minghong Yang ; Stefan Andersson-Engels ; Elfed Lewis
PDF (1085 KB)

High Sensitivity Optical Fiber Curvature Sensor Based on Cascaded Fiber Interferometer

Shandong Dong ; Bo Dong ; Changyuan Yu ; Yongxin Guo
PDF (650 KB)

BOTDA Sensing Employing a Modified Brillouin Fiber Laser Probe Source

Diego Marini ; Marco Iuliano ; Filippo Bastianini ; Gabriele Bolognini
PDF (651 KB)

Exploring the Use of Native Spider Silk as an Optical Fiber for Chemical Sensing

Kenny Hey Tow ; Desmond M. Chow ; Fritz Vollrath ; Isabelle Dicaire ; Tom Gheysens ; Luc Thévenaz
PDF (827 KB)

Graphene-Oxide-Coated Long-Period Grating-Based Fiber Optic Sensor for Relative Humidity and External Refractive Index

Kasun Prabuddha Wasantha Dissanayake ; Weiping Wu ; Hien Nguyen ; Tong Sun ; Kenneth T. V. Grattan
PDF (663 KB)

Real-Time Early Warning Strategies for Corrosion Mitigation in Harsh Environments

Luís Carlos Costa Coelho ; Paulo Sérgio Soares dos Santos ; Pedro Alberto da Silva Jorge ; José Luis Santos ; José Manuel Marques Martins de Almeida
PDF (5252 KB)

A Single-Point, Multiparameter, Fiber Optic Sensor Based on a Combination of Interferometry and LSPR

Harald Ian Muri ; Andon Bano ; Dag Roar Hjelme
PDF (2528 KB)

Optimizing Image Denoising for Long-Range Brillouin Distributed Fiber Sensing

Marcelo A. Soto ; Jaime A. Ramírez ; Luc Thévenaz
PDF (1036 KB)

Long Period Fiber Grating for Biosensing: An Improved Design Methodology to Enhance Add-Layer Sensitivity

Sankhyabrata Bandyopadhyay ; Ignacio Del Villar ; Nandini Basumallick ; Palas Biswas ; Tanoy Kumar Dey ; Somnath Bandyopadhyay
PDF (880 KB)

Interferometric Optical Gyroscope Based on an Integrated Si₃N₄ Low-Loss Waveguide Coil

Sarat Gundavarapu ; Michael Belt ; Taran A. Huffman ; Minh A. Tran ; Tin Komljenovic ; John E. Bowers ; Daniel J. Blumenthal
PDF (967 KB)

Displacement Measurement Using Two-Photon Absorption Process in Si-Avalanche Photodiode and Fiber Bragg Gratings

Yosuke Tanaka ; Masaya Nemoto ; Yoshiki Yamada
PDF (490 KB)

Frequency Response Enhancement of Direct-Detection Phase-Sensitive OTDR by Using Frequency Division Multiplexing

Guangyao Yang ; Xinyu Fan ; Qingwen Liu ; Zuyuan He
PDF (743 KB)

Become a published author in 4 to 6 weeks

PDF (890 KB)

Information For Authors

PDF (54 KB)

[Blank page]

PDF (2 KB)



JOURNAL OF COMMUNICATIONS AND NETWORKS

Volume 19, Number 6, December 2017
ISSN 1229-2370 Print / eISSN 1976-5541 Online

Software defined multihop wireless networks: Promises and challenges

Afsane Zahmatkesh ; Thomas Kunz

PDF (140 KB)

A CoAP based control plane for software defined wireless sensor networks

Márcio L. F. Miguel ; Manoel C. Penna ; Edgard Jamhour ; Marcelo E. Pellenz

PDF (386 KB)

IP session continuity in heterogeneous mobile networks using software defined networking

Petar D. Bojović ; Živko Bojović ; Dragana Bajić ; Vojin Šenk

PDF (430 KB)

SDN/NFV-based scalable mobile service integration for gradual network evolution

Yeunwoong Kyung ; Sungho Park ; Jinwoo Park

PDF (675 KB)

Network Resource Management in SDN

QoS aware radio access technology selection framework in heterogeneous networks using SDN

Alessandro Raschellà ; Faycal Bouhafs ; G. C. Deepak ; Michael Mackay

PDF (716 KB)

Improving video transmission in software defined wired and wireless networks using multi-path transmission

Chih-Heng Ke ; Yeong-Sheng Chen ; Yun-Shuai Yu

PDF (582 KB)

Handover based on AP load in software defined Wi-Fi systems

Kiran Nahida ; Changchuan Yin ; Ying Hu ; Zulfiqar Ali Arain ; Chunyu Pan ; Israr Khan ; Yanbin Zhang ; G. M. Shafiqur Rahman

PDF (1312 KB)

Flow-table updating strategy for efficient use of renewable energy in software defined wireless relay networks

Li Li ; Yifei Wei ; Mei Song ; Xiaojun Wang

PDF (764 KB)

Energy efficient topology control for multi-hop relay cellular networks based on flow management

Yifei Wei ; Yongfu Hou ; Li Li ; Mei Song

PDF (721 KB)

Communication Theory and Systems

Joint channel estimation and equalization for MIMO-SCFDE systems over doubly selective channels

Zedong Xie ; Xihong Chen ; Xiaopeng Liu

PDF (545 KB)

Wireless Communications Networks and Services

Efficient complex matrix inversion for MIMO OFDM systems

Zhi Quan ; Jie Liu

PDF (735 KB)

Rapid recovery from link failures in software-defined networks

Pankaj Thorat ; S. M. Raza ; Dongsoo S. Kim ; Hyunseung Choo

PDF (2404 KB)

Online compressive diagnosis of massive MIMO calibration state

Xiliang Luo

PDF (384 KB)

Weighted sum-throughput maximization for MIMO broadcast channel: Energy harvesting with hybrid energy storage

Zhi Chen ; Pingyi Fan ; Dapeng Oliver Wu ; Khaled Ben Letaief

PDF (404 KB)

I'll be a bit late — packet reordering in mobile networks

Lennart Schulte ; Alexander Zimmermann ; Puneeth

Nanjundaswamy ; Lars Eggert ; Jukka Manner

PDF (590 KB)

Advertisement

PDF (125 KB)

Call for papers

PDF (183 KB)

Call for papers

PDF (181 KB)

Copyright transfer form

PDF (67 KB)

Front cover

PDF (137 KB)

Back cover

PDF (127 KB)

SDN Architecture and Protocols
Special issue on wireless SDN
Derya Cansever ; Sastry Kompella ; Leandros Tassiulas
PDF (354 KB)

Wireless Communications Networks and Services
2017 Index Journal of Communications and Networks, volume 19
PDF (144 KB)

Inside front cover
PDF (123 KB)
Inside back cover
PDF (126 KB)

Wireless Communications Networks and Services
Reviewer list for 2017
PDF (142 KB)

IEEE TRANSACTIONS ON **MULTIMEDIA**

A PUBLICATION OF
THE IEEE CIRCUITS AND SYSTEMS SOCIETY
THE IEEE SIGNAL PROCESSING SOCIETY
THE IEEE COMMUNICATIONS SOCIETY
THE IEEE COMPUTER SOCIETY



<http://www.signalprocessingsociety.org/tmm/>

FEBRUARY 2018

VOLUME 20

NUMBER 2

ITMUF8

(ISSN 1520-9210)

Table of Contents
PDF (199 KB)

IEEE Transactions on Multimedia
PDF (98 KB)

Lossless Compression of Color Filter Array Mosaic Images With
Visualization via JPEG 2000
Miguel Hernández-Cabronero ; Michael W. Marcellin ; Ian Blanes ;
Joan Serra-Sagristà
PDF (1180 KB) Media

Expanding-Window BATS Code for Scalable Video Multicasting
Over Erasure Networks
Xiaoli Xu ; Yong Zeng ; Yong Liang Guan ; Lei Yuan
PDF (641 KB)

Holographic Data Coding: Benchmarking and Extending HEVC
With Adapted Transforms
José Pedro Peixeiro ; Catarina Brites ; João Ascenso ; Fernando
Pereira
PDF (2444 KB)

Super Resolution by Comprehensively Exploiting Dependencies of
Wavelet Coefficients
Neeraj Kumar ; Amit Sethi
PDF (1156 KB) Media

Seeds-Based Part Segmentation by Seeds Propagation and
Region Convexity Decomposition
Fanman Meng ; Hongliang Li ; Qingbo Wu ; King Ngj Ngan ; Jianfei
Cai
PDF (1698 KB)

F-DES: Fast and Deep Event Summarization
Krishan Kumar ; Deepti D. Shrimankar
PDF (1266 KB)

Naturalness Preserved Nonuniform Illumination Estimation for
Image Enhancement Based on Retinex
Yuanyuan Gao ; Hai-Miao Hu ; Bo Li ; Qiang Guo
PDF (1411 KB)

Disseminating Multilayer Multimedia Content Over Challenged
Networks
Hua-Jun Hong ; Tarek El-Ganainy ; Cheng-Hsin Hsu ; Khaled A.
Harras ; Mohamed Hefeeda
PDF (1461 KB)

Joint Dynamic Rate Control and Transmission Scheduling for
Scalable Video Multirate Multicast Over Wireless Networks
Chenglin Li ; Hongkai Xiong ; Junni Zou ; Dapeng Oliver Wu
PDF (1049 KB)

Reduced-Reference Image Quality Assessment in Free-Energy
Principle and Sparse Representation
Yutao Liu ; Guangtao Zhai ; Ke Gu ; Xianming Liu ; Debin Zhao ;
Wen Gao
PDF (801 KB)

Full-Reference Objective Quality Assessment of Tone-Mapped
Images
Hadi Hadizadeh ; Ivan V. Bajić
PDF (869 KB)

CCL: Cross-modal Correlation Learning With Multigrained Fusion
by Hierarchical Network
Yuxin Peng ; Jinwei Qi ; Xin Huang ; Yuxin Yuan
PDF (2432 KB)

CNN-Based Joint Clustering and Representation Learning with
Feature Drift Compensation for Large-Scale Image Data
Chih-Chung Hsu ; Chia-Wen Lin
PDF (693 KB)

Social-Aware Movie Recommendation via Multimodal Network
Learning
Zhou Zhao ; Qifan Yang ; Hanqing Lu ; Tim Wenginger ; Deng Cai ;
Xiaofei He ; Yueting Zhuang
PDF (919 KB)

Prediction of the Leadership Style of an Emergent Leader Using Audio and Visual Nonverbal Features
Cigdem Beyan ; Francesca Capozzi ; Cristina Becchio ; Vittorio Murino
PDF (392 KB) [Media](#)

Improving Multipath Video Transmission With Raptor Codes in Heterogeneous Wireless Networks
Jiyan Wu ; Bo Cheng ; Ming Wang
PDF (2308 KB)

High-Quality Soft Video Delivery With GMRF-Based Overhead Reduction
Takuya Fujihashi ; Toshiaki Koike-Akino ; Takashi Watanabe ; Philip V. Orlik
PDF (1786 KB)

Intelligent Detail Enhancement for Exposure Fusion
Fei Kou ; Zhe Wei ; Weihai Chen ; Xingming Wu ; Changyun Wen ; Zhengguo Li
PDF (1861 KB)

Discovering Triangles in Portraits for Supporting Photographic Creation
Siqiong He ; Zihan Zhou ; Farshid Farhat ; James Z. Wang
PDF (1691 KB)

Introducing IEEE Collabratec
PDF (1915 KB)

Expand Your Network
PDF (1045 KB)

IEEE Transactions on Multimedia information for authors
PDF (60 KB)

IEEE Transactions on Multimedia
PDF (49 KB)

IEEE

INTERNET OF THINGS JOURNAL

A JOINT PUBLICATION OF THE IEEE SENSORS COUNCIL



THE IEEE COMMUNICATIONS SOCIETY



THE IEEE COMPUTER SOCIETY



THE IEEE SIGNAL PROCESSING SOCIETY



FEBRUARY 2018

VOLUME 5

NUMBER 1

IITJAU

(ISSN 2327-4662)

[Front cover]
PDF (147 KB)

IEEE Internet of Things Journal
PDF (72 KB)

Table of contents
PDF (2029 KB)

Context-Aware Computing, Learning, and Big Data in Internet of Things: A Survey
Omer Berat Sezer ; Erdogan Dogdu ; Ahmet Murat Ozbayoglu
PDF (2552 KB)

Joint Application Admission Control and Network Slicing in Virtual Sensor Networks
Carmen Delgado ; María Canales ; Jorge Ortín ; José Ramón Gállego ; Alessandro Redondi ; Sonda Bousnina ; Matteo Cesana
PDF (1801 KB)

Distributed Real-Time HVAC Control for Cost-Efficient Commercial Buildings Under Smart Grid Environment
Liang Yu ; Di Xie ; Tao Jiang ; Yulong Zou ; Kun Wang
PDF (1197 KB)

How DHCP Leases Meet Smart Terminals: Emulation and Modeling
Fuliang Li ; Xingwei Wang ; Jiannong Cao ; Renzheng Wang ; Yuanguo Bi
PDF (1527 KB)

Smart Meter Privacy: Exploiting the Potential of Household Energy Storage Units
Yanan Sun ; Lutz Lampe ; Vincent W. S. Wong
PDF (912 KB)

Energy-Efficient Mobile Charging for Wireless Power Transfer in Internet of Things Networks
Woongsoo Na ; Junho Park ; Cheol Lee ; Kyoungjun Park ; Joongheon Kim ; Sungrae Cho
PDF (1563 KB)

Task Replication for Deadline-Constrained Vehicular Cloud Computing: Optimal Policy, Performance Analysis, and Implications on Road Traffic
Zhiyuan Jiang ; Sheng Zhou ; Xueying Guo ; Zhisheng Niu
PDF (1616 KB)

Novel Node-Ranking Approach and Multiple Topology Attributes-Based Embedding Algorithm for Single-Domain Virtual Network Embedding
Haotong Cao ; Longxiang Yang ; Hongbo Zhu
PDF (1455 KB)

Virtual Fog: A Virtualization Enabled Fog Computing Framework for Internet of Things
Jianhua Li ; Jiong Jin ; Dong Yuan ; Hongke Zhang
PDF (1776 KB)

Collaborative Link-Aware Protocols for Energy-Efficient and QoS Wireless Body Area Networks Using Integrated Sensors
Da-Ren Chen ; Wei-Min Chiu
PDF (4808 KB)

Multiband Spectrum Sensing and Resource Allocation for IoT in Cognitive 5G Networks
Waleed Ejaz ; Mohamed Ibnkahla
PDF (2916 KB)

MAGA: A Mobility-Aware Computation Offloading Decision for Distributed Mobile Cloud Computing
Yan Shi ; Shanzhi Chen ; Xiang Xu
PDF (2682 KB)

Foglight: Visible Light-Enabled Indoor Localization System for Low-Power IoT Devices
Shang Ma ; Qiong Liu ; Phillip C. -Y. Sheu
PDF (1458 KB)

Real-Time Profiling of Fine-Grained Air Quality Index Distribution Using UAV Sensing
Yuzhe Yang ; Zijie Zheng ; Kaigui Bian ; Lingyang Song ; Zhu Han
PDF (2248 KB)

Joint Synchronization and Localization in Wireless Sensor Networks Using Semidefinite Programming
Yanbin Zou ; Huaping Liu ; Qun Wan
PDF (999 KB)

OpenAMI: Software-Defined AMI Load Balancing
Ahmadreza Montazerolghaem ; Mohammad Hossein Yaghmaee Moghaddam ; Alberto Leon-Garcia
PDF (2861 KB)

Cooperative Jamming for Physical Layer Security Enhancement in Internet of Things
Lin Hu ; Hong Wen ; Bin Wu ; Fei Pan ; Run-Fa Liao ; Huanhuan Song ; Jie Tang ; Xiumin Wang
PDF (1095 KB)

Energy Efficient Resource Allocation in Machine-to-Machine Communications With Multiple Access and Energy Harvesting for IoT
Zhaohui Yang ; Wei Xu ; Yijin Pan ; Cunhua Pan ; Ming Chen
PDF (1332 KB)

Incentive Mechanism Design in Mobile Opportunistic Data Collection With Time Sensitivity
Yufeng Zhan ; Yuanqing Xia ; Jinhui Zhang ; Yu Wang
PDF (1181 KB)

SDN-Based Data Transfer Security for Internet of Things
Yanbing Liu ; Yao Kuang ; Yunpeng Xiao ; Guangxia Xu
PDF (2381 KB)

Design of Secure User Authenticated Key Management Protocol for Generic IoT Networks
Mohammad Wazid ; Ashok Kumar Das ; Vanga Odelu ; Neeraj Kumar ; Mauro Conti ; Minh Jo
PDF (2193 KB)

Multiobjective Optimization for Computation Offloading in Fog Computing
Liqing Liu ; Zheng Chang ; Xijuan Guo ; Shiwen Mao ; Tapani Ristaniemi
PDF (1360 KB)

A Physical Layer Security Scheme for Mobile Health Cyber-Physical Systems
Rachad Atat ; Lingjia Liu ; Jonathan Ashdown ; Michael J. Medley ; John D. Matyjas ; Yang Yi
PDF (1528 KB)

Wireless Powered Sensor Networks for Internet of Things: Maximum Throughput and Optimal Power Allocation
Zheng Chu ; Fuhui Zhou ; Zhengyu Zhu ; Rose Qingyang Hu ; Pei Xiao
PDF (1314 KB)

Location Verification Assisted by a Moving Obstacle for Wireless Sensor Networks
Di Wu ; Dali Zhu ; Yinlong Liu ; Dongmei Zhao
PDF (1495 KB)

A Precise Dead Reckoning Algorithm Based on Bluetooth and Multiple Sensors
Ning Yu ; Xiaohong Zhan ; Shengnan Zhao ; Yinfeng Wu ; Renjian Feng
PDF (3085 KB)

IoT Traffic Management and Integration in the QoS Supported Network
Basim K. J. Al-Shammari ; Nadia Al-Aboody ; Hamed S. Al-Raweshidy
PDF (3696 KB)

A 6LoWPAN Accelerator for Internet of Things Endpoint Devices
Tiago Gomes ; Filipe Salgado ; Sandro Pinto ; Jorge Cabral ; Adriano Tavares
PDF (1014 KB)

Dynamic Connectivity Game for Adversarial Internet of Battlefield Things Systems
Nof Abuzainab ; Walid Saad
PDF (825 KB)

Optimization of Random Access Channel in NB-IoT
Ruki Harwahyu ; Ray-Guang Cheng ; Chia-Hung Wei ; Riri Fitri Sari
PDF (2682 KB)

Ubiquitous Transmission of Multimedia Sensor Data in Internet of Things
Gang Xu ; Edith C. -H. Ngai ; Jiangchuan Liu
PDF (1094 KB)

MPC-Based Delay-Aware Fountain Codes for Real-Time Video Communication
Kairan Sun ; Huazi Zhang ; Dapeng Wu ; Hongcheng Zhuang
PDF (1019 KB)

Edge-Centric Distributed Discovery and Access in the Internet of Things
Giacomo Tanganelli ; Carlo Vallati ; Enzo Mingozzi
PDF (1902 KB)

Future Edge Cloud and Edge Computing for Internet of Things Applications
Jianli Pan ; James McElhannon
PDF (2408 KB)

Mobile Edge Computing: A Survey
Nasir Abbas ; Yan Zhang ; Amir Taherkordi ; Tor Skeie
PDF (915 KB)

Data-Driven Diagnosis of Nonlinearly Mixed Mechanical Faults in Wind Turbine Gearbox
Qiang Yang ; Chunzhi Hu ; Nenggan Zheng
PDF (904 KB)

IEEE Internet of Things Journal
PDF (51 KB)

Information for authors
PDF (48 KB)