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

ComSoc Vice President – Publications – Robert Schober
Director – Journals – Michele Zorzi
Director – Magazines – Ekram Hossain

Magazine Editors

EIC, IEEE Communications Magazine – Tarek El-Bawab
AEIC, IEEE Communications Magazine – Antonio Sanchez-Esquavillas
EIC, IEEE Network Magazine – Chonggang Wang
AEIC, IEEE Network Magazine – David Soldani
EIC, IEEE Wireless Communications Magazine – Yi Qian
AEIC, IEEE Wireless Communications Magazine – Nirwan Ansari
EIC, IEEE Communications Standards Magazine – Zander Lei
AEIC, IEEE Communications Standards Magazine – Carlos Cordeiro
EIC, IEEE Internet of Things Magazine — Maurice Khambaz
EIC, China Communications – Jianhua Lu

Journal Editors

EIC, IEEE Transactions on Communications – Tolga M. Duman
EIC, IEEE Journal on Selected Areas In Communications (J-SAC) – Raouf Boutaba
EIC, IEEE Communications Letters – Marco Di Renzo
EIC, IEEE Communications Surveys & Tutorials – Dusit Niyato
EIC, IEEE Transactions on Network & Service Management (TNSM) – Filip De Turck
EIC, IEEE Wireless Communications Letters – Kai Kit Wong
EIC, IEEE Transactions on Wireless Communications – Junshan Zhang
EIC, IEEE Transactions on Mobile Communications – Qian Zhang
EIC, IEEE/ACM Transactions on Networking – Ness Shroff
EIC, IEEE/OSA Journal of Lightwave Technology – Gabriella Bosco
Co-EICs, IEEE/KICS Journal of Communications & Networks (JCN) – Anthony Ephremides | Inkyu Lee
EIC, IEEE Transactions on Multimedia – Jeie Luo
EIC, IEEE Transactions on Cloud Computing – Yuanyuan Yang
EIC, IEEE Transactions on Cognitive Communications and Networking – Ying-Chang Liang
EIC, IEEE Transactions on Molecular, Biological, and Multi-Scale Communications – Chan-Byoung Chae
EIC, IEEE Transactions on Signal and Information Processing over Networks – Antonio Ortega
EIC, IEEE Internet of Things Journal – Honggang Wang
EIC, IEEE Transactions on Green Communications – Zhisheng Niu
EIC, IEEE Journal on Biomedical Health Informatics – Dimitrios I. Fotiadis
EIC, IEEE Transactions on Network Science and Engineering – Jianwei Huang
EIC, IEEE Transactions on Smart Grid – Claudio Cañizares
EIC, IEEE Networking Letters — George N. Rouskas
EIC, IEEE Open Journal of the Communications Society — Octavia A. Dobre

IEEE Communications Society
3 Park Avenue
New York, NY 10016 USA
212 705 8900
Personal Devices for Contact Tracing: Smartphones and Wearables to Fight Covid-19
Pai Chet Ng; Petros Spacos; Stefano Gregori; Konstantinos N. Plataniotis
Publication Year: 2021, Page(s): 24 - 29
HTML

Integration of Video and Radio Technologies for Social Distancing
Romeo Giuliano; Franco Mazzenga; Eros Innocenti; Alessandro Vizzari
Publication Year: 2021, Page(s): 30 - 35
HTML

5G and Beyond for Contact Tracing
Domenico Giustiniano; Giuseppe Bianchi; Andrea Conti; Stefania Bartoletti; Nicola Blefari Melazzi
Publication Year: 2021, Page(s): 36 - 41
HTML

Network-Based Contact Tracing for Detection of Covid-19 Contagions: A Privacy-Preserving Approach
Davide Andreoletti; Omran Ayoub; Silvia Giordano; Giacomo Verticale; Massimo Tornatore
Publication Year: 2021, Page(s): 42 - 48
HTML

Call for Papers
Publication Year: 2021, Page(s): 49 - 49

Mobile Communications and Networks
Series Editorial: Mobile Communications and Networks
Wanshi Chen; Ilker Demirkol; Miraj Mostafa; Alberto Perotti
Publication Year: 2021, Page(s): 50 - 50
HTML

Localization Threats in Next-Generation Wireless Networks
Caner Goztepe; Salihà Büyükkorak; Gunes Karabulut Kurt; Halim Yanikomeroglu
Publication Year: 2021, Page(s): 51 - 57
HTML

QoS Prediction for 5G Connected and Automated Driving
Apostolos Kousaridas; Ramya P. Manjunath; José Perdomo; Chan Zhou; Ernst Zielinski; Steffen Schmitz; Andreas Pfadler
Publication Year: 2021, Page(s): 58 - 64
HTML

3D Aerial Highway: The Key Enabler of the Retail Industry Transformation
Nesrine Cherif; Wael Jaafar; Halim Yanikomeroglu; Abbas Yongacoglu
Publication Year: 2021, Page(s): 65 - 71
HTML

Historical Notes to the Editor
Francesco Malandrino; Carla Fabiana Chiasserini
Publication Year: 2021, Page(s): 72 - 77
HTML
Design and Implementation of Devices, Circuits, and Systems
Series Editorial: Design and Implementation of Devices, Circuits, and Systems
Bernard Fong; Haesik Kim; Vyasa Sai
Publication Year: 2021, Page(s): 78 - 78
HTML

Comsoc Membership
Publication Year: 2021, Page(s): 79 - 79

Design and Implementation of 5G e-Health Systems: Technologies, Use Cases, and Future Challenges
Di Zhang; Joel J. P. C. Rodrigues; Yunkai Zhai; Takuro Sato
Publication Year: 2021, Page(s): 80 - 85
HTML

Design and Implementation of a System for Comparative Analysis of Learning Architectures for Churn Prediction
Muhammad Usman; Waseem Ahmad; Alvis Fong
Publication Year: 2021, Page(s): 86 - 90
HTML

Energy Harvesting and Power Management for IoT Devices in the 5G Era
Hadi Heidari; Oluwakayode Onireti; Rupam Das; Muhammad Imran
Publication Year: 2021, Page(s): 91 - 97
HTML

Accepted from Open Call
MIMO Operations in Molecular Communications: Theory, Prototypes, and Open Challenges
Bon-Hong Koo; Changmin Lee; Ali E. Pusane; Tuna Tugcu; Chan-Byoung Chae
Publication Year: 2021, Page(s): 98 - 104
HTML

Enabling and Scaling of URLLC Verticals on 5G vRAN Running on COTS Hardware
Jignesh S. Panchal; Sumesh Subramanian; Ranjit Cavatur
Publication Year: 2021, Page(s): 105 - 111
HTML

Comsoc Pubs
Publication Year: 2021, Page(s): 112 - 112

Cover 3
Publication Year: 2021, Page(s): C3 - C3

Cover 4
Publication Year: 2021, Page(s): C4 - C4
Front cover
Publication Year: 2021, Page(s): C1 - C1

Cover 2
Publication Year: 2021, Page(s): C2 - C2

Table of Contents
Publication Year: 2021, Page(s): 1 - 1

Message from the Editor-in-Chief
Editor’s Updates: September 2021
Zander Lei
Publication Year: 2021, Page(s): 2 - 2

Comsoc Publications
Publication Year: 2021, Page(s): 3 - 3

Commentary
The Market Driven Standards Paradigm
James E Matthews
Publication Year: 2021, Page(s): 4 - 4

Industry Commentary
Considerations on 6 GHz Spectrum for 5G-Advanced and 6G
Li Nan; Guo Chunxia; Wang Dapeng
Publication Year: 2021, Page(s): 5 - 7

Standards News
Publication Year: 2021, Page(s): 8 - 9

Security and Privacy
Guest Editorial: Security and Privacy
Maryam Mehrnezhad; Thyla van der Merwe; Chris Mitchell
Publication Year: 2021, Page(s): 10 - 11

Developing Maritime Digital Competencies
Rory Hopcraft
Publication Year: 2021, Page(s): 12 - 18

Comsoc Training
Publication Year: 2021, Page(s): 19 - 19

Reviewing the ISO/IEC Standard for Timestamping Services
Long Meng; Liquan Chen
Publication Year: 2021, Page(s): 20 - 25

Standardizing Confidentiality Protections for Domain Name System Exchanges: Multiple Approaches, New Functionality
Burton S. Kaliski
Publication Year: 2021, Page(s): 26 - 32

Comsoc Open Access
Publication Year: 2021, Page(s): 33 - 33

Secure Network Access Authentication for IoT Devices: EAP Framework vs. Individual Protocols
Mohit Sethi; Tuomas Aura
Publication Year: 2021, Page(s): 34 – 39

Prudent Practices in Security Standardization
Feng Hao
Publication Year: 2021, Page(s): 40 - 47

Malicious Traffic Description: Toward a Data Model for Mitigating Security Threats to Home IoT
Sávio V. Morais; Alan Oliveira de Sá; Luiz F. Rust; Claudio M. Farias
Publication Year: 2021, Page(s): 48 – 55

AKMA: Delegated Authentication System of 5G
Mohsin Khan; Philip Ginzboorg; Valtteri Niemi
Publication Year: 2021, Page(s): 56 – 61

Emerging Security Technologies for 6G
Guest Editorial: Emerging Security Technologies for 6G
Woon Hau Chin; Chau Yuen; H. Vincent Poor; Mark Beach
Publication Year: 2021, Page(s): 62 - 63

Toward 6G Security: Technology Trends, Threats, and Solutions
Dong Hyun Je; Jungsoo Jung; Sunghyun Choi
Publication Year: 2021, Page(s): 64 - 71

Moving Target Defense as a Proactive Defense Element for Beyond 5G
Wissem Soussi; Maria Christopoulou; George Xilouris; Gürkan Gür
Publication Year: 2021, Page(s): 72 – 7

Adaptive and Dynamic Security in AI-Empowered 6G: From an Energy Efficiency Perspective
Shuaqi Shen; Chong Yu; Kuan Zhang; Jianbing Ni; Song Ci
Publication Year: 2021, Page(s): 80 – 88

Security Function Virtualization for IoT Applications in 6G Networks
Muhammad Naveed Aman; Uzair Javaid; Biplab Sikdar
Publication Year: 2021, Page(s): 90 – 95
Secure Short-Packet Communications at the Physical Layer for 5G and Beyond
Chen Feng; Hui-Ming Wang
Publication Year: 2021, Page(s): 96 – 102
HTML

Comsoc App
Publication Year: 2021, Page(s): 103 - 103

Kaleidoscope Series Best Paper from the Twelfth ITU Kaleidoscope Academic Conference
Best Paper from the Twelfth ITU Kaleidoscope Academic Conference
Mostafa Hashem Sherif; Kai Jakobs; Christoph Dosch; Alessia Magliarditi; Yoshitoshi Murata
Publication Year: 2021, Page(s): 104 - 105
HTML

Network Control and Management Automation: Architecture Standardization Perspective
Ved P. Kafle; Takahiro Hirayama; Takaya Miyazawa; Masahiro Jibiki; Hiroaki Harai
Publication Year: 2021, Page(s): 106 – 114
HTML

Cover 3
Publication Year: 2021, Page(s): C3 - C3

Cover 4
Publication Year: 2021, Page(s): C4 - C4
Front cover
Publication Year: 2021, Page(s): c1 - c1

Table of contents
Publication Year: 2021, Page(s): i - ii

Feature Topic: Multiple Dimension Collaborative Operation
Techniques and Networking for Air-Space-Ground Integrated System: Technologies and Applications
Guest editorial: Multiple dimension collaborative operation techniques and networking for air-space-ground integrated system: Technologies and applications
Qinyu Zhang; Xuejun Sha; Fei Ji; Ning Ge
Publication Year: 2021, Page(s): iii - iv

On connectivity of flying ad hoc networks in the presence of ground terminal
Chao Liu; Zhongshan Zhang
Publication Year: 2021, Page(s): 1 - 10

Benefits analysis of beam hopping in satellite mobile system with unevenly distributed traffic
Yitao Li; Zhongqiang Luo; Wuyang Zhou; Jinkang Zhu
Publication Year: 2021, Page(s): 11 - 23

Multi-resources management in 6G-oriented terrestrial-satellite network
Shu Fu; Bibo Wu; Shaohua Wu; Fang Fang
Publication Year: 2021, Page(s): 24 - 36

Spectrum sensing via temporal convolutional network
Tao Ni; Xiaojin Ding; Yunfeng Wang; Jun Shen; Lifeng Jiang; Gengxin Zhang
Publication Year: 2021, Page(s): 37 - 47

Joint precoding schemes for flexible resource allocation in high throughput satellite systems based on beam hopping
Chen Zhang; Xudong Zhao; Gengxin Zhang
Publication Year: 2021, Page(s): 48 - 61

Radio-acoustic integrated network for ocean information transmission: Framework and enabling technologies
Fangjiong Chen; Zilong Jiang; Fei Ji; Hua Yu; Quansheng Guan; Feng Liu
Publication Year: 2021, Page(s): 62 - 70

Security enhancement of UAV swarm enabled relaying systems with joint beamforming and resource allocation
Runze Dong; Buhong Wang; Kunrui Cao
Publication Year: 2021, Page(s): 71 - 87

Cover Paper
Introduction to wireless endogenous security and safety: Problems, attributes, structures and functions
Liang Jin; Xiaoyan Hu; Yangming Lou; Zhou Zhong; Xiaoli Sun; Huiming Wang; Jiangxing Wu
Publication Year: 2021, Page(s): 88 - 99

Communications Theories & Systems
Single-channel speech enhancement based on improved frame-iterative spectral subtraction in the modulation domain
Chao Li; Ting Jiang; Sheng Wu
Publication Year: 2021, Page(s): 100 - 115

Hybrid protocol for wireless-powered untrusted relay networks with imperfect channel reciprocity
Rui Ma; Haowei Wu; Liubin Wang; Jinglan Ou; Lian Yan
Publication Year: 2021, Page(s): 116 - 129

Pseudo-channel matrix truncation based spatial correlation mitigation in massive MIMO
Yitian Chen; Shaoshuai Gao; Guofang Tu; Hao Qiu
Publication Year: 2021, Page(s): 130 - 147

Cost-minimized virtual elastic optical network provisioning with guaranteed QoS
Shifeng Ding; Zile Jiang; Sanjay K. Bose; Gangxiang Shen
Publication Year: 2021, Page(s): 148 - 166

Networks & Security
Security risk prevention and control deployment for 5G private industrial networks
Wenfa Yan; Qin Shu; Peng Gao
Publication Year: 2021, Page(s): 167 - 174

Beamforming optimization for RIS-aided SWIPT in cell-free MIMO networks
Ziyi Yang; Yu Zhang
Publication Year: 2021, Page(s): 175 - 191

Deepnoise: Learning sensor and process noise to detect data integrity attacks in CPS
Yuan Luo; Long Cheng; Yu Liang; Jianming Fu; Guojun Peng
Publication Year: 2021, Page(s): 192 - 209

M^2LC-Net: A multi-modal multi-disease long-tailed classification network for real clinical scenes
Zhonghong Ou; Wenjun Chai; Lifei Wang; Ruru Zhang; Jiawen He; Meina Song; Lifei Yuan; Shengjuan Zhang; Yanzui Wang; Huan Li; Xin Jia; Rujian Huang
Publication Year: 2021, Page(s): 210 - 220
Secure transmission in downlink non-orthogonal multiple access based on polar codes
Ce Sun;Zesong Fei;Bin Li;Xinyi Wang;Nan Li;Lijie Hu
Publication Year: 2021, Page(s): 221 - 235

Proactive connection recovery strategy with recovery time constraint for survivable elastic optical networks
Dinesh Kumar;Rajiv Kumar;Neeru Sharma
Publication Year: 2021, Page(s): 236 - 248

Correlation-aware replica prefetching strategy to decrease access latency in edge cloud
Yang Liang;Zhigang Hu;Xinyu Zhang;Hui Xiao
Publication Year: 2021, Page(s): 249 - 264

Call for papers
Publication Year: 2021, Page(s): 1 - 1

Back cover
Publication Year: 2021, Page(s): c4 - c4
Table of contents
Publication Year: 2021, Page(s): C1 - 6394

IEEE Communications Society
Publication Year: 2021, Page(s): C2 - C2

Primitive Rateless Codes
Mahyar Shirvanimoghaddam
Publication Year: 2021, Page(s): 6395 – 6408

Partially Information Coupled Bit-Interleaved Polar Coded Modulation
Xiaowei Wu; Min Oiu; Jinhong Yuan
Publication Year: 2021, Page(s): 6409 – 6423

Automorphism Ensemble Decoding of Reed–Muller Codes
Marvin Geiselhart; Ahmed Elkelesh; Moustafa Ebada; Sebastian Cammerer; Stephan ten Brink
Publication Year: 2021, Page(s): 6424 – 6438

Sign-Preserving Min-Sum Decoders
Franklin Cochachin; Emmanuel Boutillon; David Declercq
Publication Year: 2021, Page(s): 6439 – 6454

Decoding Polar Codes for a Generalized Gilbert-Elliott Channel With Unknown Parameter
Yong Fang; Jun Chen
Publication Year: 2021, Page(s): 6455 – 6468

Systematic Polar Coded Modulation for Informed Receivers
Shin-Lin Shieh; Yu-Chih Huang; Po-Ning Chen; Yu-Ming Li
Publication Year: 2021, Page(s): 6469 – 6484

Sample, Quantize, and Encode: Timely Estimation Over Noisy Channels
Ahmed Arafa; Karim Banawan; Karim G. Seddik; H. Vincent Poor
Publication Year: 2021, Page(s): 6485 – 6499

Outage Performance Analysis of Widely Linear Receivers in Uplink Multi-User MIMO Systems
Ronghua Gui; Naveen Mysore Balasubramanya; Lutz Lampe
Publication Year: 2021, Page(s): 6500 – 6515

Successive-Coded Spatial Shift Keying Modulation for MIMO Wireless Communications
Liang Wu; Zaichen Zhang; Bo An; Jian Dang; Huaping Liu; Jiangzhou Wang
Publication Year: 2021, Page(s): 6516 – 6528

Achieving Extremely Low-Latency in Industrial Internet of Things: Joint Finite Blocklength Coding, Resource Block Matching, and Performance Analysis
Xiaoyu Zhao; Wei Chen; H. Vincent Poor
Publication Year: 2021, Page(s): 6529 – 6544

Towards a Deep Analysis of Millimeter Wave D2D Underlaid Cellular Networks
Runqian Wang; Na Deng; Haichao Wei
Publication Year: 2021, Page(s): 6545 – 6560

On Fading Channel Dependency Structures With a Positive Zero-Outage Capacity
Karl-Ludwig Besser; Pin-Hsun Lin; Eduard A. Jorswieck
Publication Year: 2021, Page(s): 6561 – 6574

Joint Channel Estimation and Coding Over Channels With Memory Using Polar Codes
Nadim Ghaddar; Young-Han Kim; Laurence B. Milstein; Liangping Ma; Byung K. Yi
Publication Year: 2021, Page(s): 6575 – 6589

A Deterministic Scheduling Policy for Low-Latency Wireless Communication With Continuous Channel States
Junjie Wu; Wei Chen
Publication Year: 2021, Page(s): 6590 – 6603

State-Aware Resource Allocation for Wireless Closed-Loop Control Systems
Lucas Scheuven; Tom Höfler; Philipp Schulz; Norman Franchi; André Noll Barreto; Gerhard P. Fettweis
Publication Year: 2021, Page(s): 6604 – 6619

Cross-Layer Analysis of Multi-Static RFID Systems Exploiting Capture Diversity
Roberto Valentini; Piergiuseppe Di Marco; Roberto Alesi; Fortunato Santucci
Publication Year: 2021, Page(s): 6620 – 6632

Forward-Aware Information Bottleneck-Based Vector Quantization: Multiterminal Extensions for Parallel and Successive Retrieval
Shayan Hassanpour; Dirk Wübben; Armin Dekorsy
Publication Year: 2021, Page(s): 6633 – 6646

Distributed Storage Allocations for Optimal Service Rates
Pei Peng; Mostem Noon; Emina Soljanin
Publication Year: 2021, Page(s): 6647 – 6660
Beam Drift in Millimeter Wave Links: Beamwidth Tradeoffs and Learning Based Optimization
Jianjun Zhang;Christos Masouros
Publication Year: 2021, Page(s): 6661 – 6674
HTML

DeepBAN: A Temporal Convolution-Based Communication Framework for Dynamic WBANs
Kunqian Liu;Feng Ke;Xin Huang;Rong Yu;Fan Lin;Yueqian Wu;Derrick Wing Kwan Ng
Publication Year: 2021, Page(s): 6675 – 6690
HTML

Deep Learning Optimized Sparse Antenna Activation for Reconfigurable Intelligent Surface Assisted Communication
Shunbo Zhang;Shun Zhang;Feifei Gao;Jianpeng Ma;Octavia A. Dobre
Publication Year: 2021, Page(s): 6691 – 6705
HTML

Deep Learning Assisted Calibrated Beam Training for Millimeter-Wave Communication Systems
Ke Ma;Dongxuan He;Hancun Sun;Zhaoceng Wang;Sheng Chen
Publication Year: 2021, Page(s): 6706 – 6721
HTML

A Low Complexity Learning-Based Channel Estimation for OFDM Systems With Online Training
Kai Mei;Jun Liu;Xiaoying Zhang;Kuo Cao;Nandana Rajatheva;Jibo Wei
Publication Year: 2021, Page(s): 6722 – 6733
HTML

Joint Active and Passive Beamforming Design for IRS-Assisted Multi-User MIMO Systems: A VAMP-Based Approach
Haseeb Ur Rehman;Faouzi Bellili;Amine Mezghani;Ekram Hossain
Publication Year: 2021, Page(s): 6734 – 6749
HTML

Reconfigurable Intelligent Surface Assisted Cooperative Non-Orthogonal Multiple Access Systems
Jiakuo Zuo;Yuanwei Liu;Naofal Al-Dhahir
Publication Year: 2021, Page(s): 6750 – 6764
HTML

Rate-Splitting Multiple Access to Mitigate the Curse of Mobility in (Massive) MIMO Networks
Onur Dizdar;Yijie Mao;Bruno Clerckx
Publication Year: 2021, Page(s): 6765 - 6780
Cited by: Papers (1)
HTML

RIS-Assisted Multi-User MISO Communications Exploiting Statistical CSI
Xu Gan;Caijun Zhong;Chongwen Huang;Zhaoyang Zhang
Publication Year: 2021, Page(s): 6781 – 6792
HTML

Block Diagonalization Precoding and Power Allocation for Multiple-Antenna Systems With Coarsely Quantized Signals
Silvio F. B. Pinto;Rodrigo C. de Lamare
Publication Year: 2021, Page(s): 6793 – 6807
HTML

Computation Offloading and Shunting Scheme in Wireless Wireline Internetwork
Jiadong Zhang;Wenxiao Shi;Ruidong Zhang;Wei Liu
Publication Year: 2021, Page(s): 6808 – 6821
HTML

Buffer-Assisted Network Updates in Timed SDN
Xin He;Jiaqi Zheng;Haipeng Dai;Yuhu Sun;Wanchun Dou;Guihai Chen
Publication Year: 2021, Page(s): 6822 – 6837
HTML

UAV-Aided Ultra-Reliable Low-Latency Computation Offloading in Future IoT Networks
Elie El Haber;Hyame Assem Alameddine;Chadi Assi;Sanaa Sharafeddine
Publication Year: 2021, Page(s): 6838 – 6851
HTML

Achievable Information Rate in Hybrid VLC-RF Networks With Lighting Energy Harvesting
Yangbo Guo;Ke Xiong;Yang Lu;Duohua Wang;Pingyi Fan;Khaled Ben Letaief
Publication Year: 2021, Page(s): 6852 – 6864
HTML

On the Secrecy Capacity of MIMO Wiretap Channels: Convex Reformulation and Efficient Numerical Methods
Anshu Mukherjee;Bjørn Ottersten;Le-Nam Tran
Publication Year: 2021, Page(s): 6865 – 6878
HTML

Lightweight Secure Localization Approach in Wireless Sensor Networks
Ning Xie;Yicong Chen;Zhuoyuan Li;Dapeng Oliver Wu
Publication Year: 2021, Page(s): 6879 – 6893
HTML

Robust Decentralized and Distributed Estimation of a Correlated Parameter Vector in MIMO-OFDM Wireless Sensor Networks
Kunwar Priritraj Rajput;Mohammad Faisal Ahmed;Naveen K. D. Venkategowda;Aditya K. Jagannatham;Govind Sharma;Lajos Hanzo
Publication Year: 2021, Page(s): 6894 – 6908
HTML

Diffusion Bayesian Subband Adaptive Filters for Distributed Estimation Over Sensor Networks
Fuyi Huang;Jiaxu Zhang;Sheng Zhang;Hongyang Chen;H. Vincent Poor
Publication Year: 2021, Page(s): 6909 – 6925
HTML

Timestamp-Free Clock Parameters Tracking Using Extended Kalman Filtering in Wireless Sensor Networks
Heng Wang;Rui Lu;Zhengcen Peng;Min Li
Publication Year: 2021, Page(s): 6926 – 6938
HTML

Training Beam Sequence Design for Multiuser Millimeter Wave Tracking Systems
Deyou Zhang;Ang Li;Chandan Pradhan;Jun Li;Branka Vucetic;Yonghui Li
Publication Year: 2021, Page(s): 6939 – 6955
HTML

Meta Distribution of the SINR for mmWave Cellular Networks With Clusters
Minwei Shi;Xiaozheng Gao;Kai Yang;Dusit Niyato;Zhu Han
Publication Year: 2021, Page(s): 6956 – 6970
HTML
Reflection Resource Management for Intelligent Reflecting Surface Aided Wireless Networks
Yulan Gao;Chao Yong;Zehui Xiong;Jun Zhao;Yue Xiao;Dusit Niyato
Publication Year: 2021,Page(s):6971 – 6986
HTML

Joint Sparse Observation and Coding Design for Multiple Phenomena Monitoring
Chengcheng Han;Li Chen;Nan Zhao;Yunfei Chen;F. Richard Yu
Publication Year: 2021,Page(s):6987 – 7002
HTML

Reconfigurable Intelligent Surface Empowered Symbiotic Radio Over Broadcasting Signals
Xinyue Xu;Ying-Chang Liang;Gang Yang;Lian Zhao
Publication Year: 2021,Page(s):7003 – 7016
HTML

Spatial Modulation for RIS-Assisted Uplink Communication: Joint Power Allocation and Passive Beamforming Design
Sheng Luo;Ping Yang;Yueling Che;Kun Yang;Kaishun Wu;Kah Chan Teh;Shaoqian Li
Publication Year: 2021,Page(s):7017 – 7031
HTML

Robust and Secure Sum-Rate Maximization for Multiuser MISO Downlink Systems With Self-Sustainable IRS
Shaokang Hu;Zhiqiang Wei;Yuanxin Cai;Chang Liu;Derrick Wing Kwan Ng;Jinhong Yuan
Publication Year: 2021,Page(s):7032 - 7049
Cited by: Papers (2)
HTML

Utility Maximization for Large-Scale Cell-Free Massive MIMO Downlink
Muhammad Farooq;Hien Quoc Ngo;Een-Kee Hong;Le-Nam Tran
Publication Year: 2021,Page(s):7050 – 7062
HTML

Hybrid Spherical- and Planar-Wave Modeling and DCNN-Powered Estimation of Terahertz Ultra-Massive MIMO Channels
Yuhang Chen;Longfei Yan;Chong Han
Publication Year: 2021,Page(s):7063 – 7076
HTML

Predictive Control and Communication Co-Design via Two-Way Gaussian Process Regression and AoI-Aware Scheduling
Abanoub M. Girgis;Jihong Park;Mehdi Bennis;Mérouane Debbah
Publication Year: 2021,Page(s):7077 – 7093
HTML

Impacts of Imperfect CSI and Transceiver Hardware Noise on the Performance of Full-Duplex DF Relay System With Multi-Antenna Terminals Over Nakagami-$m$ Fading Channels
Ba Cao Nguyen;Le The Dung;Tran Manh Hoang;Xuan Nam Tran;Taejoon Kim
Publication Year: 2021,Page(s):7094 - 7107
Cited by: Papers (1)
HTML

An Efficient QAM Detector via Nonlinear Post-Distortion Based on FDE Bank Under PA Impairments
Murat Babek Salman;Gokhan Muzaffer Guvensen
Publication Year: 2021,Page(s):7108 – 7120
HTML

Intelligent Reflecting Surfaces: Sum-Rate Optimization Based on Statistical Position Information
Andrea Abrardo;Davide Dardari;Marco Di Renzo
Publication Year: 2021,Page(s):7121 – 7136
HTML

IEEE Communications Society
Publication Year: 2021,Page(s):C3 - C3

Blank page
Publication Year: 2021,Page(s):C4 - C4
UAV-Aided Backscatter Communications: Performance Analysis and Trajectory Optimization
Rui Han; Lin Bai; Yongqing Wen; Jianwei Liu; Jinho Choi; Wei Zhang
Publication Year: 2021, Page(s): 3129 - 3143
HTML

Privacy-Preserving Federated Learning for UAV-Enabled Networks: Learning-Based Joint Scheduling and Resource Management
Helin Yang; Jun Zhao; Zehui Xiong; Kwok-Yan Lam; Sumel Sun; Liang Xiao
Publication Year: 2021, Page(s): 3144 - 3159
HTML

Deep Reinforcement Learning Based Three-Dimensional Area Coverage With UAV Swarm
Zhiyu Mou; Yu Zhang; Feifei Gao; Huangang Wang; Tao Zhang; Zhu Han
Publication Year: 2021, Page(s): 3160 - 3176
HTML

Distributed Multi-Agent Meta Learning for Trajectory Design in Wireless Drone Networks
Ye Hu; Mingzhe Chen; Walid Saad; H. Vincent Poor; Shuguang Cui
Publication Year: 2021, Page(s): 3177 - 3192
HTML

Multi-UAV Trajectory Planning for Energy-Efficient Content Coverage: A Decentralized Learning-Based Approach
Chenxi Zhao; Junyu Liu; Min Sheng; Wei Teng; Yang Zheng; Jiandong Li
Publication Year: 2021, Page(s): 3193 - 3207
HTML

Multi-UAV Trajectory and Power Optimization for Cached UAV Wireless Networks With Energy and Content Recharging-Demand Driven Deep Learning Approach
Shuqi Chai; Vincent K. N. Lau
Publication Year: 2021, Page(s): 3208 - 3224
HTML

Proactive UAV Network Slicing for URLLC and Mobile Broadband Service Multiplexing
Peng Yang; Xing Xi; Kun Guo; Tony Q. S. Quek; Jingxuan Chen; Xianbin Cao
Publication Year: 2021, Page(s): 3225 - 3244
HTML

TechRxiv: Share Your Preprint Research with the World!
Publication Year: 2021, Page(s): 3245 - 3245
IEEE Open Access Publishing
Production Year: 2021, Page(s): 3246 - 3246
IEEE Communications Society Information
Publication Year: 2021, Page(s): C3 - C3
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Publication Year</th>
<th>Page(s)</th>
<th>Cited by:</th>
<th>HTML</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum-Combinations Set-Based Rate-1 Decoder for Fast List Decoding of Polar Codes</td>
<td>Yanlong Zhao; Zhendong Yin; Zhihu Wu; Mingdong Xu</td>
<td>2021</td>
<td>3185 - 3189</td>
<td>Papers (1)</td>
<td>HTML</td>
</tr>
<tr>
<td>On Blind Frame Synchronization of LDPC Codes</td>
<td>Rodrigue Imad; Sebastien Houcke</td>
<td>2021</td>
<td>3190 - 3194</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>Sequential Decoding of Short Length Binary Codes: Performance Versus Complexity</td>
<td>Bo Lian; Frank R. Kschischang</td>
<td>2021</td>
<td>3195 - 3198</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>A Location Privacy Protection Algorithm Based on Double K-Anonymity in the Social Internet of Vehicles</td>
<td>Ling Xing; Xiaofan Jia; Jianping Gao; Honghai Wu</td>
<td>2021</td>
<td>3199 - 3203</td>
<td>Papers (2)</td>
<td>HTML</td>
</tr>
<tr>
<td>A Novel Distributed Multi-Agent Reinforcement Learning Algorithm Against Jamming Attacks</td>
<td>Ibrahim Elleuch; Ali Pourranjbar; Georges Kaddoum</td>
<td>2021</td>
<td>3204 - 3208</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>Robust Energy-Efficient Optimization for Secure Wireless-Powered Backscatter Communications With a Non-Linear EH Model</td>
<td>Yongjun Xu; Bowen Gu; Dong Li</td>
<td>2021</td>
<td>3209 - 3213</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>Asymmetric Linear Physical-Layer Network Coding</td>
<td>Qizhuo Chen; Tao Yang; Rongke Liu</td>
<td>2021</td>
<td>3214 - 3218</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>Asymptotic Analysis for Cell-Free Massive MIMO With MMSE Combining and Low-Resolution ADCs</td>
<td>Youzhi Xiong; Sanshan Sun; Ning Wei; Li Liu; Zhongpei Zhang</td>
<td>2021</td>
<td>3219 - 3223</td>
<td></td>
<td>HTML</td>
</tr>
<tr>
<td>Ergodic Rate Analysis and IRS Configuration for Multi-IRS Dual-Hop DF Relaying Systems</td>
<td>Qiang Sun; Panpan Qian; Wei Duan; Jiayi Zhang; Jue Wang; Kai-Kit Wong</td>
<td>2021</td>
<td>3224 - 3228</td>
<td></td>
<td>HTML</td>
</tr>
</tbody>
</table>
Feedback-Based Network Coding for Broadcast: Queueing Analysis
Sovanjyoti Giri; Rajarshi Roy
Publication Year: 2021, Page(s): 3229 - 3233

Graph-Theoretical Dynamic User Pairing for Downlink NOMA Systems
Alper Köse; Mutlu Koca; Emin Anarim; Muriel Médard; Hakan Gökoæsu
Publication Year: 2021, Page(s): 3234 - 3238

Modeling Uplink Coverage Performance in Hybrid Satellite-Terrestrial Networks
Bassel Al Homssi; Akram Al-Hourani
Publication Year: 2021, Page(s): 3239 - 3243

On the Analysis of a Cellular Network With Macro-Diversity Using Stochastic Geometry
Abhishek K. Gupta; Reena Sahu; Kanchan K. Chaurasia; Shuchi Tripathi
Publication Year: 2021, Page(s): 3244 - 3248

The Golden Quantizer in Complex Dimension Two
Hongyi Li; Kejia Hu; Di Zhao
Publication Year: 2021, Page(s): 3249 - 3252

Uniqueness of Stationary Distributions in Random Access Poisson Networks
Plinio S. Dester; Pedro H. J. Nardelli; Paulo Cardieri
Publication Year: 2021, Page(s): 3253 - 3257

Bandwidth Partitioning for Time-Sensitive Networking Flows in Automotive Communications
Luca Leonardì; Lucia Lo Bello; Gaetano Patti
Publication Year: 2021, Page(s): 3258 - 3261

A Self-Attention-Based I/Q Imbalance Estimator for Beyond 5G Communication Systems
Sangmi Oh; Dong Jìn Ji; Dong-Ho Cho
Publication Year: 2021, Page(s): 3262 - 3266

PHD Filtering for Multi-Source DOA Tracking With Extended Co-Prime Array: An Improved MUSIC Pseudo-Likelihood
Jun Zhao; Renzhou Gui; Xu dong Dong
Publication Year: 2021, Page(s): 3267 - 3271

Range-Angle Decoupling and Estimation for FDA Radar With Non-Uniform Frequency Offset
Chuanzhi Wang; Xiaohua Zhu; Hong Hong
Publication Year: 2021, Page(s): 3272 - 3276

Semi-Blind Channel Estimation for MIMO Diffusive Molecular Communication
Abdollah Masoud Darya; Saeed Abdallah
Publication Year: 2021, Page(s): 3277 - 3281

Accelerating Federated Edge Learning
Tuan Dung Nguyen; Amir R. Balef; Canh T. Dinh; Nguyen H. Tran; Day T. Ngo; Tuan Anh Le; Phuong L. Vo
Publication Year: 2021, Page(s): 3282 - 3286

An Efficient Deep Learning Model for Automatic Modulation Recognition Based on Parameter Estimation and Transformation
Fuxin Zhang; Chunbo Luo; Jialang Xu; Yang Luo
Publication Year: 2021, Page(s): 3287 - 3290

Deep Reinforcement Learning Based Adaptive Modulation With Outdated CSI
Shima Mashhadi; Niyousha Ghiasi; Shahrokh Farahmand; S. Mohammad Razavizadeh
Publication Year: 2021, Page(s): 3291 - 3295

Fully Decentralized Federated Learning-Based On-Board Mission for UAV Swarm System
Yue Xiao; Yu Ye; Shaocheng Huang; Li Hao; Zheng Ma; Ming Xiao; Shahid Mumtaz; Octavia A. Dobre
Publication Year: 2021, Page(s): 3296 - 3300

Integrated Sensing and Communication-Enabled Predictive Beamforming With Deep Learning in Vehicular Networks
Junsheng Mu; Yi Gong; Fangpei Zhang; Yuanhao Cui; Feng Zheng; Xiaojun Jing
Publication Year: 2021, Page(s): 3301 - 3304

Intra-Pulse Modulation Recognition of Dual-Component Radar Signals Based on Deep Convolutional Neural Network
Weijian Si; Chenxia Wan; Zhiyan Deng
Publication Year: 2021, Page(s): 3305 - 3309

MRFNet: A Deep Learning-Based CSI Feedback Approach of Massive MIMO Systems
Zhengyang Hu; Jianhua Guo; Guanzhang Liu; Hanying Zheng; Jiang Xue
Publication Year: 2021, Page(s): 3310 - 3314

Realizing Neural Decoder at the Edge With Ensembled BNN
Devannagneri Vikas; Nancy Nayak; Sheetal Kalyani
Publication Year: 2021, Page(s): 3315 - 3319

Real-Time Passive Localization of TDOA via Neural Networks
Zewen Wang; Dexiu Hu; Yongjun Zhao; Zhaocheng Hu; Zhixin Liu
Publication Year: 2021, Page(s): 3320 - 3324

ST-TRAN: Spatial-Temporal Transformer for Cellular Traffic Prediction
Qingyao Liu; Jianwu Li; Zhaoming Lu
Publication Year: 2021, Page(s): 3325 - 3329

Unsupervised Learning in Next-Generation Networks: Real-Time Performance Self-Diagnosis
Faris B. Mismar; Jakob Hoydis
Publication Year: 2021, Page(s): 3330 - 3334
Impact of Dynamic LED Non-Linearity on DCO-OFDM Optical Wireless Communication
Jean-Paul M. G. Linnartz; Xiong Deng; Paul Van Voorhuisen
Publication Year: 2021, Page(s): 3335 - 3339
HTML

Wavefront Detection and Compensation Technology Based on Signal Light Nutation Under Atmospheric Turbulence
Xu Yan; Changqing Cao; Wenniu Zhang; Xiaodong Zeng; Zhejun Feng; Zengyan Wu; Ting Wang
Publication Year: 2021, Page(s): 3340 - 3344
HTML

MIMO Terahertz Quantum Key Distribution
Neel Kanth Kundu; Soumya P. Dash; Matthew R. McKay; Ranjan K. Malik
Publication Year: 2021, Page(s): 3345 - 3349
HTML

A Novel Iterative Cancellation Receiver Applied to the Simultaneous Transmission of Communication Signal and Ranging Signal
Rui Xue; Tong Wang
Publication Year: 2021, Page(s): 3355 - 3359
HTML

Optimal Task Assignment for Integrated Cloud and Edge Networks With Tree Topology
Xinjie Guan; Tingxiang Ji; Xili Wan; Yifeng Li; Feng Ye
Publication Year: 2021, Page(s): 3365 - 3369
HTML

Outage-Constrained Energy Efficiency Maximization for RIS-Assisted WPCNs
Zhengnian Gao; Yongjun Xu; Qianzhu Wang; Qingqing Wu; Dong Li
Publication Year: 2021, Page(s): 3370 - 3374
HTML

A Novel Hybrid Code-Domain Index Modulation Scheme for Multi-User BackCom Networks
Zhiguo Ding; H. Vincent Poor
Publication Year: 2021, Page(s): 3384 - 3388
HTML

Recovery of Corrupted Data in Wireless Sensor Networks Using Tensor Robust Principal Component Analysis
Xiaoyue Zhang; Jingfei He; Yunpei Li; Yue Chi; Yatong Zhou
Publication Year: 2021, Page(s): 3389 - 3393
HTML

Robust Adaptive Beamforming via Covariance Matrix Reconstruction and Interference Power Estimation
Huichao Yang; Pengyu Wang; Zhongfu Ye
Publication Year: 2021, Page(s): 3394 - 3397
HTML

Robust Methods for Wideband Compressive Spectrum Sensing Under Non-Gaussian Noise
Bandaru Bhavana; Swetha Namburu; Trilochan Panigrahi; Samrat L. Sabat
Publication Year: 2021, Page(s): 3402 - 3406
HTML

Channel Smoothing for 802.11ax Beamformed MIMO-OFDM
Feng Jiang; Qinghua Li; Xiaogang Chen
Publication Year: 2021, Page(s): 3413 - 3417
HTML

Spectrum Sensing Under Violate Interference Constraint Behavior With Finite Energy Storage Sensing Nodes
Hao Fang; Tao Zhang; Hao Wu; Linyuan Zhang; Yueming Cai
Publication Year: 2021, Page(s): 3418 - 3422
HTML

Wideband Precoding for MIMO-OFDM Systems With Per-Antenna Power Constraints
Xianzhi Hu; Xuchu Dai
Publication Year: 2021, Page(s): 3423 - 3426
HTML

Wireless Network Coding With Intelligent Reflecting Surfaces
Amanat Kafizov; Ahmed Elzanaty; Lav R. Varshney; Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 3427 - 3431
HTML

How IEEE 802.11ba Wake-Up Radio Coexists With Legacy WiFi?
Ghazy Mahendra; Tae-Jin Lee
Publication Year: 2021, Page(s): 3432 - 3436
HTML

Wireless for Control: Over-the-Air Controller
Pangun Park; Piergiuseppe Di Marco; Carlo Fischione
Publication Year: 2021, Page(s): 3437 - 3441
HTML

IEEE Communications Society
Publication Year: 2021, Page(s): C3 - C3
ALMS Loop Analyses With Higher-Order Statistics and Strategies for Joint Analog and Digital Self-Interference Cancellation
Xiaojing Huang;Anh Tuyen Le;Y. Jay Guo
Publication Year: 2021,Page(s):6467 - 6480
HTML

User Scheduling and Beam Alignment in mmWave Networks With a Large Number of Mobile Users
Jihyun Lee;Eylem Ekici
Publication Year: 2021,Page(s):6481 - 6492
HTML

Bi-Directional Training Methods With Frequency-Division Duplexing
Hao Zhou;Michael L. Honig;Jialing Lu;Weimin Xiao
Publication Year: 2021,Page(s):6493 - 6505
HTML

Robust Computation Offloading in Fog Radio Access Network With Fronthaul Compression
Jinghong Tan;Tsung-Hui Chang;Kun Guo;Tony Q. S. Quek
Publication Year: 2021,Page(s):6506 - 6521
HTML

Phase Noise in Modular Millimeter Wave Massive MIMO
Maryam Eslami Rasekh;Mohammed Abdelghany;Upamanyu Madhow;Mark Rodwell
Publication Year: 2021,Page(s):6522 - 6535
HTML

Eavesdropping in Massive MIMO: New Vulnerabilities and Countermeasures
Chia-Yi Yeh;Edward W. Knightly
Publication Year: 2021,Page(s):6536 - 6550
HTML

Dynamic Computation Offloading in Ultra-Dense Networks Based on Mean Field Games
Renjun Zheng;Haibo Wang;Matthieu De Mari;Miao Cui;Xiaoli Chu;Tony Q. S. Quek
Publication Year: 2021,Page(s):6551 - 6565
HTML

Line-of-Sight Probability for mmWave-Based UAV Communications in 3D Urban Grid Deployments
Margarita Gapeyenko;Dmitri Moltchanov;Sergey Andreev;Robert W. Heath
Publication Year: 2021,Page(s):6566 - 6579
HTML

Caching Efficiency Maximization for Device-to-Device Communication Networks: A Recommend to Cache Approach
Yaru Fu;Lou Salajin;Xiaolong Yang;Wanli Wen;Tony Q. S. Quek
Publication Year: 2021,Page(s):6580 - 6594
Cited by: Papers (1)
HTML

Hybrid Interference Mitigation Using Analog Prewhitening
Wei Zhang;Yi Jiang;Bin Zhou;Die Hu
Publication Year: 2021,Page(s):6595 - 6605
HTML

Machine Learning-Based Resource Allocation in Satellite Networks Supporting Internet of Remote Things
Di Zhou;Min Sheng;Yixin Wang; Jiandong Li;Zhu Han
Publication Year: 2021,Page(s):6606 - 6621
HTML

Random Multiple Access With Hierarchical Users
Faeze Heydaryan;Jie Luo
Publication Year: 2021,Page(s):6622 - 6633
HTML

Trajectory Optimization and Resource Allocation for OFDMA UAV Relay Networks
Shuhao Zeng;Hongliang Zhang;Boya Di;Lingyang Song
Publication Year: 2021,Page(s):6634 - 6647
HTML

Joint Deployment and Multiple Access Design for Intelligent Reflecting Surface Assisted Networks
Xidong Mu;Yuanwei Liu;Li Guo;Jiaru Lin;Robert Schober
Publication Year: 2021,Page(s):6648 - 6664
HTML

On-Request Wireless Charging and Partial Computation Offloading In Multi-Access Edge Computing Systems
Rafia Malik;Mai Vu
Publication Year: 2021,Page(s):6665 - 6679
Cited by: Papers (1)
HTML

Adaptive Spatial Scattering Modulation
Jiliang Zhang;Qingqiong Li;Ling Yang;Kyeong Jin Kim;Ping Yang;Shengzhen Ruan
Publication Year: 2021,Page(s):6680 - 6690
HTML

Fractional Frequency Reuse in Random Hybrid FD/HD Small Cell Networks With Fractional Power Control
Abbas Dehghani Firouzabadi;Amir Masoud Rabiei; Mikko Vehkaperä
Publication Year: 2021,Page(s):6691 - 6705
HTML

A Joint Filter and Spectrum Shifting Architecture for Low Complexity Flexible UFMC in 5G
Vikas Kumar;Mithun Mukherjee;Jaime Lloret;Zhenwen Ren;Mamta Kumari
Publication Year: 2021,Page(s):6706 - 6714
HTML

SLIPT for Underwater Visible Light Communications: Performance Analysis and Optimization
Murat Uysal;Sara Ghasvarianjahromi; Mehdi Karbalayghareh;Panagiotis D. Diamantoulakis;George K. Karagiannidis; Sadiq M. Saif
Publication Year: 2021,Page(s):6715 - 6728
HTML

Spectrum-Agile Cognitive Radios Using Multi-Task Transfer Deep Reinforcement Learning
Mohamed A. Aref; Sudharmak K. Jayaweera
Publication Year: 2021,Page(s):6729 - 6742
HTML

Online Distributed Offloading and Computing Resource Management With Energy Harvesting for Heterogeneous MEC-Enabled IoT
Shichao Xia; Zhixiu Yao; Yun Li; Shiwenn Mao
Publication Year: 2021,Page(s):6743 - 6757
HTML

Towards Cost Minimization for Wireless Caching Networks With Recommendation and Uncharted Users: Feature Information
Yaru Fu; Zhong Yang; Tony Q. S. Quek; Howard H. Yang
Publication Year: 2021,Page(s):6758 - 6771
HTML
Table of contents
Publication Year: 2021, Page(s): C1 - 2095

IEEE Wireless Communications Letters
Publication Year: 2021, Page(s): C2 - C2

Aerial RIS-Assisted High Altitude Platform Communications
Ning Gao; Shi Jin; Xiao Li; Michail Matthaiou
Publication Year: 2021, Page(s): 2096 - 2100

Deep Learning Based CSI Compression and Quantization With High Compression Ratios in FDD Massive MIMO Systems
Yangyang Zhang; Xichang Zhang; Yi Liu
Publication Year: 2021, Page(s): 2101 - 2105

Four Knife-Edge Diffraction With Antenna Gain Model for Generic Blockage Modelling
Sandra Kizhakkekundil; João Morais; Sjors Braam; Remco Litjens
Publication Year: 2021, Page(s): 2106 - 2109

Deep Learning-Based Phase Noise Compensation in Multicarrier Systems
Amirhossein Mohammadian; Chintha Tellambura; Geoffrey Ye Li
Publication Year: 2021, Page(s): 2110 - 2114
Cited by: Papers (1)

Deep Learning Based Low-Rank Matrix Completion for IoT Network Localization
Sunwoo Kim; Luong T. Nguyen; Junhan Kim; Byonghyo Shim
Publication Year: 2021, Page(s): 2115 - 2119

Secure Communication for Spatially Correlated Massive MIMO With Low-Resolution DACs
Dan Yang; Jindan Xu; Wei Xu; Ning Wang; Bin Sheng; A. Lee Swindlehurst
Publication Year: 2021, Page(s): 2120 - 2124

On Telecommunication Service Imbalance and Infrastructure Resource Deployment
Chuanting Zhang; Shuping Dang; Basem Shihada; Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 2125 - 2129

Novel Tone Reservation Method for DFT-s-OFDM
Selahattin Gököcü; Ismael Peruga; Esa Tirola; Kari Pakkoski; Taneli Riihonen; Mikko Valkama
Publication Year: 2021, Page(s): 2130 - 2134

Mixed Numerology Interference Recognition Approach for 5G NR
Fan Wu; Rui Tan; Cong Zhang; Wenhao Fan; Xi Chen; Dusit Niyato; Yuan'an Liu
Publication Year: 2021, Page(s): 2135 - 2139

LMMSE-Based SIMO Receiver for Ultraviolet Scattering Communication With Nonlinear Conversion
Zanqiu Shen; Jianshe Ma; Ping Su
Publication Year: 2021, Page(s): 2140 - 2144

Improving Approximate Expectation Propagation Massive MIMO Detector With Deep Learning
Yingmeng Ge; Xiaosi Tan; Zhenhao Ji; Zaichen Zhang; Xiaohu You; Chuan Zhang
Publication Year: 2021, Page(s): 2145 - 2149

Over-the-Air Computation via Broadband Channels
Tianrui Qin; Wanchun Liu; Branka Vucetic; Yonghui Li
Publication Year: 2021, Page(s): 2150 - 2154

Design and Implementation of MIMO Transmission Based on Dual-Polarized Reconfigurable Intelligent Surface
Xiangyu Chen; Jun Chen Ke; Wankai Tang; Ming Zheng Chen; Jun Yan Dai; Ertugrul Basar; Shi Jin; Qiang Cheng; Tie Jun Cui
Publication Year: 2021, Page(s): 2155 - 2159

Coded-Caching Using Adaptive Transmission
Behrooz Makki; Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 2160 - 2164
Sparse Kronecker-Product Coding for Unsourced Multiple Access
Zeyu Han; Xiaojun Yuan; Chongbin Xu; Shuchao Jiang; Xin Wang
Publication Year: 2021, Page(s): 2274 - 2278
HTML

Symbol Error Analysis of Amplify-and-Forward Based Multiuser
Hybrid Satellite-Terrestrial Relay Network
Zhongyuan Zhao; Guanjun Xu; Ning Zhang; Qinyu Zhang
Publication Year: 2021, Page(s): 2279 - 2283
HTML

Dual-Polarized IRSs in Uplink MIMO-NOMA Networks: An
Interference Mitigation Approach
Arthur S. de Sena; Pedro H. J. Nardelli; Daniel B. da Costa; Ugo S. Dias; Petar Popovski; Constantinos B. Papadias
Publication Year: 2021, Page(s): 2284 - 2288
HTML

A Channel Classification Scheme Accounting for Nakagami-
m Shadowing and FTR Model
Chaoran Yin; Gaetano Giunta; Danilo Orlando; Chengpeng Hao; Chaohuan Hou
Publication Year: 2021, Page(s): 2289 - 2293
HTML

Joint Hybrid and Passive Beamforming for Millimeter Wave
Symbiotic Radio Systems
Gang Yang; Tao Wei; Ying-Chang Liang
Publication Year: 2021, Page(s): 2294 - 2298
HTML

A New Two-User Binary Polar Coded Multiple Access Scheme With
Power and Rate Allocation
Benjamin K. Ng; Chan-Tong Lam
Publication Year: 2021, Page(s): 2299 - 2303
HTML

Energy Efficiency Maximization for IRS-Aided WPCNs
Yan Mi; Qingheng Song
Publication Year: 2021, Page(s): 2304 - 2308
HTML

Joint 3D Deployment and Power Allocation for UAV-BS: A Deep
Reinforcement Learning Approach
Meng Zhang; Shu Fu; Qilian Fan
Publication Year: 2021, Page(s): 2309 - 2312
HTML

Reconfigurable Intelligent Surface-Assisted Multi-Cell MISO
Communication Systems Exploiting Statistical CSI
Caihong Luo; Xiao Li; Shi Jin; Yijian Chen
Publication Year: 2021, Page(s): 2313 - 2317
HTML

CLNet: Complex Input Lightweight Neural Network Designed for
Massive MIMO CSI Feedback
Sijie Ji; Mo Li
Publication Year: 2021, Page(s): 2318 - 2322
HTML

A High-Efficiency Beam Sweeping Algorithm for DOA Estimation in
the Hybrid Analog-Digital Structure
Yan Zhou; Guanhao Liu; Jin Li; Yanyan Li; Shujun Ye; Liujing Li
Publication Year: 2021, Page(s): 2323 - 2327
HTML

Delay and Peak-Age-of-Information of ALOHA Networks With
Limited Retransmissions
Plinio S. Dester; Pedro H. J. Nardelli; Francisco Helder C. dos Santos Filho; Paulo Cardieri; Petar Popovski
Publication Year: 2021, Page(s): 2328 - 2332
HTML

IEEE Communications Society Information
Publication Year: 2021, Page(s): C3 - C3
A Simple Model of MTC Flows Applied to Smart Factories
Paolo Castagno; Vincenzo Mancuso; Matteo Sereno; Marco Ajmone Marsan
Publication Year: 2021, Page(s): 2906 - 2923
Cited by: Papers (1)

BOOST: A User Association and Scheduling Framework for Beamforming mmWave Networks
Prosanta Paul; Hongyi Wu; Chun Sheng Xin
Publication Year: 2021, Page(s): 2924 - 2935
Cited by: Papers (1)

Distributed and Adaptive Reservation MAC Protocol for Beaconing in Vehicular Networks
Hamed Mosavat-Jahromi; Yue Li; Yuanzhi Ni; Lin Cai
Publication Year: 2021, Page(s): 2936 - 2948
Cited by: Papers (4)

Distributed Device-to-Device Offloading System: Design and Performance Optimization
Haneul Ko; Sangheon Park
Publication Year: 2021, Page(s): 2949 - 2960
Cited by: Papers (1)

Privacy Preservation in Location-Based Services: A Novel Metric and Attack Model
Sina Shaham; Ming Ding; Bo Liu; Shuping Dang; Zhiuai Lin; Jun Li
Publication Year: 2021, Page(s): 3006 - 3019
Cited by: Papers (1)

Stochastic Channel Access in Underwater Networks With Statistical Interference Modeling
Zhangyu Guan; Hovannes Kulhandjian; Tommaso Melodia
Publication Year: 2021, Page(s): 3020 - 3033
Cited by: Papers (1)

Toward an Automated Auction Framework for Wireless Federated Learning Services Market
Yutao Jiao; Ping Wang; Dusit Niyato; Bin Lin; Dong In Kim
Publication Year: 2021, Page(s): 3034 - 3048
Cited by: Papers (11)

Towards a Compressive-Sensing-Based Lightweight Encryption Scheme for the Internet of Things
Wanli Xue; Chengwen Luo; Yiran Shen; Rajib Rana; Guohao Lan; Sanjay Jha; Aruna Seneviratne; Wen Hu
Publication Year: 2021, Page(s): 3049 - 3065
Cited by: Papers (2)

Towards Automatic Detection of Nonfunctional Sensitive Transmissions in Mobile Applications
Hao Fu; Pengfei Hu; Zizhan Zheng; Aveek K. Das; Parth H. Pathak; Tianbo Gu; Sencun Zhu; Prasant Mohapatra
Publication Year: 2021, Page(s): 3066 - 3080
Cited by: Papers (1)

Uplink Scheduling in Multi-Cell OFDMA Networks: A Comprehensive Study
Yiğit Özcan; Catherine Rosenberg
Publication Year: 2021, Page(s): 3081 - 3098
Cited by: Papers (7)

Fine-Grained User Profiling for Personalized Task Matching in Mobile Crowdsensing
Fan Wu; Shuo Yang; Zhenzhe Zheng; Shaojie Tang; Guihai Chen
Publication Year: 2021, Page(s): 2961 - 2976
Cited by: Papers (1)

Interference Characterization in Underlay Cognitive Networks With Intra-Network and Inter-Network Dependence
Samuel D. Okegbile; Bodhaswar T. Maharaj; Altahiru S. Alfa
Publication Year: 2021, Page(s): 2977 - 2991
Cited by: Papers (1)

Multi-Objective Computation Sharing in Energy and Delay Constrained Mobile Edge Computing Environments
Arash Bozorgchenani; Farshad Mashhadi; Daniele Tarchi; Sergio A. Salinas Monroy
Publication Year: 2021, Page(s): 2992 - 3005
Cited by: Papers (7)
Dynamic Online User Recruitment With (Non-) Submodular Utility in Mobile CrowdSensing
Wenbin Liu; Yongjian Yang; En Wang; Hengzhi Wang; Zihe Wang; Jie Wu
Publication Year: 2021, Page(s): 2156 - 2169
HTML

Localizing Acoustic Objects on a Single Phone
Hongzi Zhu; Yuxiao Zhang; Zifan Liu; Xiao Wang; Shan Chang; Yingying Chen
Publication Year: 2021, Page(s): 2170 - 2183
HTML

Delay-Based Network Utility Maximization Modelling for Congestion Control in Named Data Networking
Yuhang Ye; Brian Lee; Ronan Flynn; Jin Xu; Guiming Fang; Yuansong Qiao
Publication Year: 2021, Page(s): 2184 - 2197
HTML

Ranking Online Social Users by Their Influence
Anastasios Giovanidis; Bruno Baynat; Clémence Magnien; Antoine Vendeville
Publication Year: 2021, Page(s): 2198 - 2214
HTML

Building a Sybil-Resilient Digital Community Utilizing Trust-Graph Connectivity
Ouri Poupko; Gal Shahaf; Ehud Shapiro; Nimrod Talmon
Publication Year: 2021, Page(s): 2215 - 2227
HTML

A Utility-Aware General Framework With Quantifiable Privacy Preservation for Destination Prediction in LBSs
Hongbo Jiang; Mengyuan Wang; Ping Zhao; Zhu Xiao; Schahram Dustdar
Publication Year: 2021, Page(s): 2228 - 2241
HTML

Communication-Efficient and Fine-Grained Forward-Secure Asynchronous Messaging
Jianghong Wei; Xiaofeng Chen; Jianfeng Ma; Xuexian Hu; Kui Ren
Publication Year: 2021, Page(s): 2242 - 2253
HTML

A Fast Hierarchical Physical Topology Update Scheme for Edge-Cloud Collaborative IoT Systems
Tianqi Yu; Xianbin Wang; Jianling Hu
Publication Year: 2021, Page(s): 2254 - 2266
HTML

SPIN: BSP Job Scheduling With Placement-Sensitive Execution
Zhenhua Han; Haisheng Tan; Shaofeng H. C. Jiang; Wanli Cao; Xiaoming Fu; Lan Zhang; Francis C. M. Lau
Publication Year: 2021, Page(s): 2267 - 2280
HTML

The HOP Protocol: Reliable Latency-Bounded End-to-End Multipath Communication
Federico Chiariotti; Andrea Zanella; Stepan Kucera; Kariem Fahmi; Holger Claussen
Publication Year: 2021, Page(s): 2281 - 2295
HTML

Seeking the Truth in a Decentralized Manner
Luoyi Fu; Jiasheng Xu; Shan Qu; Zhiying Xu; Xinbing Wang; Guihai Chen
Publication Year: 2021, Page(s): 2296 - 2312
HTML

Verifiable Query Processing Over Outsourced Social Graph
Xin Yao; Rui Zhang; Dingquan Huang; Yanzhao Zhang
Publication Year: 2021, Page(s): 2313 - 2326
HTML

Towards Optimal Low-Latency Live Video Streaming
Liyang Sun; Tongyu Zong; Siquan Wang; Yong Liu; Yao Wang
Publication Year: 2021, Page(s): 2327 - 2338
HTML

Faulds: A Non-Parametric Iterative Classifier for Internet-Wide OS Fingerprinting
Zain Shamsi; Daren B. H. Cline; Dmitri Loguinov
Publication Year: 2021, Page(s): 2339 - 2352
HTML

Exploiting an Optimal Delay-Collision Tradeoff in CSMA-Based High-Dense Wireless Systems
Nicola Cordeschi; Floriano De Rango; Mauro Tropea
Publication Year: 2021, Page(s): 2353 - 2366
Cited by: Papers (1)
HTML

Adjusting Switching Granularity of Load Balancing for Heterogeneous Datacenter Traffic
Jinhui Hu; Jiawei Huang; Wenjun Lyu; Weihe Li; Zhaoyi Li; Wenchao Jiang; Jianxin Wang; Tian He
Publication Year: 2021, Page(s): 2367 - 2384
HTML

IEEE/ACM Transactions on Networking Information for Authors
Publication Year: 2021, Page(s): C3 - C3

IEEE/ACM Transactions on Networking Society Information
Publication Year: 2021, Page(s): C3 - C3
In Memoriam: Jane M. Simmons, 1963–2021
Adel A. M. Saleh; Patrick P. Iannone; Vincent W. S. Chan
Publication Year: 2021, Page(s): ED1 - ED2

Introduction to the JOCN Special Issue on Advanced Monitoring and Telemetry in Optical Networks
Luis Velasco; Patricia Layec; Francesco Paolucci; Noboru Yoshikane
Publication Year: 2021, Page(s): AMTON1 - AMTON2

QoT assessment of the optical spectrum as a service in disaggregated network scenarios
Kaida Kaeval; Tobias Fehenberger; Jim Zou; Sander Lars Jansen; Klaus Grobe; Helmut Griesser; Jorg-Peter Elbers; Marko Tikas; Gert Jervan
Publication Year: 2021, Page(s): E1 - E12

Monitoring and diagnostic technologies using deep neural networks for predictive optical network maintenance [Invited]
Takafumi Tanaka; Tetsuro Inui; Shingo Kawai; Seiki Kuwabara; Hideki Nishizawa
Publication Year: 2021, Page(s): E13 - E22

Cognitive and autonomous QoT-driven optical line controller
Giacomo Borracini; Andrea D'Amico; Stefano Straullu; Antonino Nespoli; Stefano Picciaccia; Alberto Tanzi; Gabriele Galimberti; Stefano Bottacchi; Scott Swail; Vittorio Curri
Publication Year: 2021, Page(s): E23 - E31

Reflective fiber fault detection and characterization using long short-term memory
Khouloud Abdelli; Helmut Griesser; Peter Ehrle; Carsten Tropschug; Stephan Pachnicke
Publication Year: 2021, Page(s): E32 - E41

Reliable and scalable Kafka-based framework for optical network telemetry
Andrea Sgambarluri; Alessandro Pacini; Francesco Paolucci; Piero Castoldi; Luca Valcarreghi
Publication Year: 2021, Page(s): E42 - E52
Cited by: Papers (1)

Autonomous Raman amplifiers in multi-band software-defined optical transport networks
Giacomo Borracini; Stefano Straullu; Andrea D'Amico; Antonino Nespoli; Stefano Picciaccia; Alberto Tanzi; Gabriele Galimberti; Vittorio Curri
Publication Year: 2021, Page(s): E53 - E62

Experimental validation of CNNs versus FFNNs for time- and energy-efficient EVM estimation in coherent optical systems
Yuchuan Fan; Aleksejs Udalcovs; Carlos Natalino; Xiaodan Pang; Richard Schatz; Marija Furdek; Sergei Popov; Oskars Ozolins
Publication Year: 2021, Page(s): E63 - E71

FPGA-based network microburst analysis system with efficient packet capturing
Shuhei Yoshida; Yuta Ukon; Shoko Ohteru; Hiroyuki Uzawa; Namiko Ikeda; Koyo Nitta
Publication Year: 2021, Page(s): E72 - E80

Opening up ROADMs: streaming telemetry [Invited]
Jan Kundrat; Michal Vasko; Radek Krejci; Vaclav Kubernat; Tomas Pecka; Ondrej Havlis; Martin Slapak; Jaroslav Jedinsky; Josef Vojtech
Publication Year: 2021, Page(s): E81 - E93

Machine-learning-based telemetry for monitoring long-haul optical transmission impairments: methodologies and challenges [Invited]
Huazhi Lun; Xiaomin Liu; Meng Cai; Yihao Zhang; Ruoxuan Gao; Weisheng Hu; Lilin Yi; Qunbi Zhuge
Publication Year: 2021, Page(s): E94 - E108

Forecasting loss of signal in optical networks with machine learning
Wenjie Du; David Cote; Chris Barber; Yan Liu
Publication Year: 2021, Page(s): E109 - E121

Machine-learning-based soft-failure localization with partial software-defined networking telemetry
Kayol S. Mayer; Jonathan A. Soares; Rossano P. Pinto; Christian E. Rothenberg; Dalton S. Arantes; Darli A. A. Mello
Publication Year: 2021, Page(s): E122 - E131

Concept and implementation study of advanced DSP-based fiber-longitudinal optical power profile monitoring toward optical network tomography [Invited]
Takahito Tanimura; Setsuo Yoshida; Kazuyuki Tajima; Shoichiro Oda; Takeshi Hoshida
Publication Year: 2021, Page(s): E132 - E141
Energy-Efficient DU-CU Deployment and Lightpath Provisioning for Service-Oriented 5G Metro Access/Aggregation Networks
Yuming Xiao; Jiawei Zhang; Yuefeng Ji
Publication Year: 2021, Page(s): 5345 - 5361
HTML

Equalizer State Caching for Fast Data Recovery in Optically-Switched Data Center Networks
Zhouyi Hu; Zichuan Zhou; Calvin Chun-Kit Chan; Zhixin Liu
Publication Year: 2021, Page(s): 5362 - 5370
Cited by: Papers (1)
HTML

Scheduling Virtual Network Reconfigurations in Parallel in Hybrid Optical/Electrical Datacenter Networks
Xiaoyin Pan; Sicheng Zhao; Hao Yang; Shaofei Tang; Zuqing Zhu
Publication Year: 2021, Page(s): 5371 - 5382
HTML

Light-Trial Design for 5G Backhaul: Architecture, SDN Impact and Coordinated Multipoint
Sidharth Sharma; Abhiram Singh; Ashwin Gumaste; Biswanath Mukherjee
Publication Year: 2021, Page(s): 5383 - 5396
HTML

Transceiver Imbalances Compensation and Monitoring by Receiver DSP
Junpeng Liang; Yangyang Fan; Zhenning Tao; Xiaofei Su; Hisao Nakashima
Publication Year: 2021, Page(s): 5397 - 5404
Cited by: Papers (1)
HTML

Analysis of the Colorless Operation of a Calibrated 120° Coherent Receiver
David Izquierdo; Jesús Clemente; Pedro J. Reyes-Iglesias; Alejandro Ortega-Moñux; José A. Altabás; Íñigo Molina-Fernández; J. Gonzalo Wangüemert-Pérez; José de Oliva-Rubio; Ignacio García
Publication Year: 2021, Page(s): 5405 - 5411
HTML

Compressed Shaping: Concept and FPGA Demonstration
Tsuyoshi Yoshida; Koji Igarashi; Magnus Karlsson; Erik Agrell
Publication Year: 2021, Page(s): 5412 - 5422
HTML

The Partially-Coherent AWGN Channel: Transceiver Strategies for Low-Complexity Fibre Links
Hubert Dzieciol; Eric Sillekens; Gabriele Liga; Polina Bayvel; Robert Killey; Domanic Lavery
Publication Year: 2021, Page(s): 5423 - 5431
HTML

Datasets
All-Optical Aggregation and De-Aggregation Between 8QAM and BPSK Signal Based on Nonlinear Effects in HNLF
Qiankun Li; Xiongwei Yang; Jiali Yang
Publication Year: 2021, Page(s): 5432 - 5438
HTML
Modulation Precoding for MISO Visible Light Communications
Andrea Petroni;Gaetano Scarano;Roberto Cusani;Mauro Biagi
Publication Year: 2021, Page(s): 5439 - 5448
HTML

An Interpretable Mapping From a Communication System to a Neural Network for Optimal Transceiver-Joint Equalization
Zhiqun Zhai;Hexun Jiang;Mengfan Fu;Lei Liu;Lilin Yi;Weisheng Hu;Qunbi Zhuge
Publication Year: 2021, Page(s): 5449 - 5458
HTML

Multi-Symbol Digital Signal Processing Techniques for Discrete Eigenvalue Transmissions Based on Nonlinear Fourier Transform
Gai Zhou;Lin Sun;Chao Lu;Alan Pak Tao Lau
Publication Year: 2021, Page(s): 5459 - 5467
HTML

Active Demultiplexer-enabled Directly Modulated DMT Transmission Using Optical Frequency Combs for Data Center Interconnects
Syed Tajammul Ahmad;Prajwal D. Lakshmijayasimha;Aleksandra Kaszubowska-Anandarajah;Colm Browning;Prince M. Anandarajah
Publication Year: 2021, Page(s): 5468 - 5473
HTML

Second-Order Perturbation Theory-Based Digital Predistortion for Fiber Nonlinearity Compensation
Sunish Kumar Orappanpara Soman;Abdelkerim Amari;Octavia A. Dobre;Ramachandran Venkatesan
Publication Year: 2021, Page(s): 5474 - 5485
HTML

Boosting the Performance of Reference-Frame-Independent Measurement-Device-Independent Quantum Key Distribution
Jing-Yang Liu;Xing-Yu Zhou;Chun-Hui Zhang;Hua-Jian Ding;Yi-Peng Chen;Jian Li;Qin Wang
Publication Year: 2021, Page(s): 5486 - 5493
HTML

High Spectral Efficiency WDM Transmission Based on Hybrid Probabilistically and Geometrically Shaped 256QAM
Junjie Ding;Bohan Sang;Yanyi Wang;Miao Kong;Feng Wang;Bowen Zhu;Li Zhao;Wen Zhou;Jianjun Yu
Publication Year: 2021, Page(s): 5494 - 5501
HTML

Terahertz Transmissive Metasurface for Realizing Beam Steering by Frequency Scanning
Shen Zheng;Chao Li;Shiyou Wu;Hongwei Li;Guanyang Lv;Guangyou Fang
Publication Year: 2021, Page(s): 5502 - 5507
HTML

Optimization of Terahertz Spooof Surface Plasmon Polariton Waveguides for Maximum -dB Performance
Muhammed Abdullah Unutmaz;Gulay Ozsahin;Mehmet Unlu
Publication Year: 2021, Page(s): 5508 - 5515
HTML

All-Optical Graphene Oxide Modulator Based on Phase-Shifted FBG
Zuliang Ruan;Li Pei;Ji Wang;Jingjing Zheng;Jianshuai Wang;Jing Li;Tigang Ning;Qi Zhao;Yuheng Xie
Publication Year: 2021, Page(s): 5516 - 5522
HTML

Influence of Losses on the Laser Voltage Drop of the Active Section
Magnus Happac;David de Felipe;Victor Nicolai Friedhoff;Martin Kresse;Gelani Irmscher;Moritz Kleinert;Crispin Zawadzki;Walter Brinker;Martin Möhrle;Norbert Keil;Werner Hofmann;Martin Schell
Publication Year: 2021, Page(s): 5523 - 5530
HTML

A Fully Numerical Method for Designing Efficient Adiabatic Mode Evolution Structures (Adiabatic Taper, Coupler, Splitter, Mode Converter) Applicable to Complex Geometries
Tu-Lu Liang;Yongming Tu;Xi Chen;Yingyan Huang;Qiang Bai;Yaying Zhao;Junchi Zhang;Yutong Yuan;Junyu Li;Fei Yi;Wei Shao;Seng-Tiong Ho
Publication Year: 2021, Page(s): 5531 - 5547
HTML

Integrated High-Repetition-Rate Optical Sampling Chip Exploiting Wavelength and Mode Multiplexing
Xinyi Wang;Gangqiang Zhou;Yuyao Guo;Liangjun Lu;Muhammad Shemyl Nisar;Jianping Chen;Linjie Zhou
Publication Year: 2021, Page(s): 5548 - 5557
HTML

On-Chip Metasurface for Optical Directional Rectification
Rui Yang;Yangyang Sh;Shuai Wan;Zeijing Wang;Zhongyang Li
Publication Year: 2021, Page(s): 5558 - 5562
HTML

Compact and Flexible Mode-Order Converter Based on Mode Transitions Composed of Asymmetric Tapers and Subwavelength Gratings
Zhenzhu Guo;Shengbao Wu;Jinbiao Xiao
Publication Year: 2021, Page(s): 5563 - 5572
HTML

Higher-Order Core-Like Modes in Double-Clad Fiber Contribute to Multipath Artifacts in Optical Coherence Tomography
Adrian Tanskanen;Geoffrey Hohert;Anthony Lee;Pierre M. Lane
Publication Year: 2021, Page(s): 5573 - 5581
HTML

Nd-Doped Polarization Maintaining All-Fiber Laser With Dissipative Soliton Resonance Mode-Locking at 905 nm
Aram A. Mkrtchyan;Yuriy G. Gladush;Mikhail A. Melkumov;Aleksandr M. Khegal;Kirill A. Sitnik;Pavlos G. Lagoudakis;Albert G. Nasibulin
Publication Year: 2021, Page(s): 5582 - 5588
HTML

Pure Temporal Dispersion for Aberration Free Ultrafast Time-Stretch Applications
Liao Chen;Xin Dong;Ningning Yang;Lei Zhang;Zhihui Lei;Chi Zhang;Xinliang Zhang
Publication Year: 2021, Page(s): 5589 - 5597
HTML

Inverse Design of Equivalent-Graded-Index Photonic-Crystal Fiber Based on Empirical Dispersion Formula
Yazhou Wang;Fei Yu;Lili Hu
Publication Year: 2021, Page(s): 5598 - 5603
HTML

All-Fiber Magnetooptical Effect Using Nanoparticles Doped Sol-Gel Thin Film Deposited Within Microstructured Fibers
Alexis Dufour;Laure Bawamia;Damien Jamon;Emmanuel Marin;Sophie Neveu;Stephanie Reynaud;Sylvain Girard;Francois Royer
Publication Year: 2021, Page(s): 5604 - 5610
HTML
High-Order Adiabatic Elliptical-Microring Filter with an Ultra-Large Free-Spectral-Range
Dajian Liu;Long Zhang;Ying Tan;Daoxin Dai
Publication Year: 2021, Page(s): 5910 - 5916
HTML

Experimental Demonstration of Nonlinear Scattering Processes in a Microbottle Resonator Based on a Robust Packaged Platform
Mengyu Wang;Yu Yang;Zhizhou Lu;Weiqiang Wang;Wenfu Zhang;Chenhong Xie;Hukai Zhong;Lingfeng Wu;Tao Wu;Qinggui Tan;Yanjun Fu;Keyi Wang
Publication Year: 2021, Page(s): 5917 - 5924
Cited by: (Papers 1)

Ultra-Compact Mode-Division Multiplexed Photonic Integrated Circuit for Dual Polarizations
Yingjie Liu;Zi Wang;Yilin Liu;Xi Wang;Xiaoyuan Guo;Dongliang Li;Yong Yao;Qinghai Song;Jiangbing Du;Zuyuan He;Ke Xu
Publication Year: 2021, Page(s): 5925 - 5932
HTML

Er3+/Ce3+: Co-doped Phosphosilicate Fiber for Extend the L-band Amplification
Yang Lou;Yang Chen;Zhiyu Gu;Qiang Qiu;Chanjuan Shi;Le He;Yingbin Xing;Jinggang Peng;Haiqing Li;Yingbo Chu;Nengli Dai;Jinyan Li
Publication Year: 2021, Page(s): 5933 - 5938
HTML

Birefringent Axes Aligning System for Electro-optic Probe Fabrication Using Polarization Maintaining Fiber
Seung Kwan Kim;Dong-Joon Lee;Sun Do Lim;Young-Pyo Hong;No-Weon Kang
Publication Year: 2021, Page(s): 5939 - 5946
HTML

Long-Period Grating Based Coupler for Multi-Core Fiber Systems
Liliana M. Sousa;Joana Vieira;Margarida Facão;Gil M. Fernandes;Rogério Nogueira;Ana M. Rocha
Publication Year: 2021, Page(s): 5947 - 5953
HTML

Design of an Exceptional-Surface-Enhanced Silicon-On-Insulator Optical Accelerometer
Martino De Carlo;Francesco De Leonardi;Richard A. Soref;Vittorio M. N. Passaro
Publication Year: 2021, Page(s): 5954 - 5961
HTML

Highly Stable and Precise Demodulation of an FBG-Based Optical Current Sensor Using a Dual-Loop Optoelectronic Oscillator
Dongrui Xiao;Gueqing Wang;Feihong Yu;Shuaiqi Liu;Liyang Shao;Chao Wang;Hongyang Fu;Perry Ping Shum;Tao Ye;Weizhi Wang
Publication Year: 2021, Page(s): 5962 - 5972
HTML

Accurate Measurement for the Subsequent Perturbation in the Coherent Φ-OTDR System with Small Laser-Frequency-Drift
Zhen Zhong;Ningmu Zou;Xuping Zhang
Publication Year: 2021, Page(s): 5973 - 5979
HTML

Distributed Temperature Monitoring Inside Ytterbium DFB and Holmium Fiber Lasers
Vladimir A. Kamynin;Alexey A. Wolf;Mikhail I. Skvortsov;Serafima A. Filatova;Mariya S. Kopyeva;Alexandr A. Vlasov;Vladimir B. Tsvetkov;Sergey A. Babin
Publication Year: 2021, Page(s): 5980 - 5987
HTML

Sensitivity Enhancement of Fiber-Optic Accelerometers Using Thin-Cladding Fiber Bragg Gratings
Fengyi Chen;Xingyong Li;Ruohui Wang;Xueguang Qiao
Publication Year: 2021, Page(s): 5988 - 5994
HTML

The Echo-Induced Influence on the Frequency-Modulating Calibration of the 3×3 Coupler-Based Michelson Interferometer and Its Suppression
Yichi Zhang;Jianfei Wang;Zhou Meng;Xiaoyang Hu;Yang Lu;Yan Liang;Mo Chen
Publication Year: 2021, Page(s): 5995 - 6007
HTML

Sensing Characteristics of Collapsed Long Period Fiber Gratings in Tri-Hole Fiber
Tao Xi;Donghui Wang;Chao Ma;Libo Yuan
Publication Year: 2021, Page(s): 6008 - 6012
HTML

B-OTDR Solution for Independent Temperature and Strain Measurement in a Single Acquisition
Pierre Clément;Renard Gabet;Vincent Lanticiq;Yves Jauèn
Publication Year: 2021, Page(s): 6013 - 6020
HTML

Expand Your Network, Get Rewarded
Publication Year: 2021, Page(s): 6021 - 6021

TechRxiv: Share Your Preprint Research with the World!
Publication Year: 2021, Page(s): 6022 - 6022

Information for Authors
Publication Year: 2021, Page(s): C3 - C3

Blank page
Publication Year: 2021, Page(s): C4 - C4

Oct. 1

Frontcover
Publication Year: 2021, Page(s): C1 - C1

Journal of Lightwave Technology
Publication Year: 2021, Page(s): C2 - C2

Table of Contents
Publication Year: 2021, Page(s): 6023 - 6022
HTML

Multi-Band Photonic Integrated Wavelength Selective Switch
Rafael Kraemer;Fumi Nakamura;Menno van den Hout;Sjoerd van der Heide;Chigo Okonkwo;Hiroyuki Tsuda;Antonio Napolì;Nicola Calabretta
Publication Year: 2021, Page(s): 6023 - 6032
HTML

Optoelectronic Oscillator for Arbitrary Microwave Waveform Generation
Yang Chen;Pengcheng Zuo;Taixia Shi
Publication Year: 2021, Page(s): 6033 - 6044
HTML
Looped Polarization-Insensitive Fiber Optical Parametric Amplifiers for Broadband High Gain Applications
Vladimir Gordinenko;Filipe M. Ferreira;Chandra B. Gaur;Nick J. Doran
Publication Year: 2021, Page(s): 6045 - 6053
HTML

A Study on Sampling Penalties Reduction of Kramers-Kronig Receivers
Kentarou Toba;Takahisa Fujita;Enzo Tsukui;Kariyawasam Indapilage Amila Sampath;Joji Maeda
Publication Year: 2021, Page(s): 6054 - 6062
HTML

OFDM-Based Generalized Optical MIMO
Chen Chen;Xin Zhong;Shu Fu;Chen Jian;Min Liu;Helin Yang;Arokiaswami Alphones;H. Y. Fu
Publication Year: 2021, Page(s): 6063 - 6075
HTML

QAM-GFDM of Dual-Mode VCSEL Mixed 28-GHz MMW Carrier for Fiber-Wireless Link
Hual-Yung Wang;Chih-Hsien Cheng;Borchen Su;Gong-Ru Lin
Publication Year: 2021, Page(s): 6076 - 6084
HTML

Performance Versus Complexity Study of Neural Network Equalizers in Coherent Optical Systems
Pedro J. Freire;Yevheni Osadchuk;Bernhard Spinnler;Antonio Napoli;Wolfgang Schauer;Nelson Costa;Jaroslaw E. Prilepsky;Sergei K. Turitsyn
Publication Year: 2021, Page(s): 6085 - 6096
HTML

Effects of Receiver-Side Optical Filtering On Optical Superchannel System Performance
Chawaphon Prayoonyong;Bill Corcoran
Publication Year: 2021, Page(s): 6097 - 6106
HTML

Likelihood-Based Selection Radius Directed Equalizer With Time-Multiplexed Pilot Symbols for Probabilistically Shaped QAM
Gabriele Di Rosa;André Richter
Publication Year: 2021, Page(s): 6107 - 6119
HTML

Probability-Aware Stokes Space Blind Polarization Demultiplexing for Probabilistically Shaped Signals
Peishan Zhang;Qifeng Yan;Xuezhi Hong
Publication Year: 2021, Page(s): 6120 - 6129
HTML

40Gbits−1 Data Transmission in an Installed Optical Link Encrypted Using Physical Layer Security Seeded by Quantum Key Distribution
Kevin Wang;Xinke Tang;Adrian Wonfor;Robert John Collins;Gerald S. Buller;Richard V. Penty;Ian H. White;Xu Wang
Publication Year: 2021, Page(s): 6130 - 6141
HTML

Nonlinear Quantization for Power-Domain Non-Orthogonal Multiple Access Passive Optical Network
Kosuke Suzukii;Daisuke Hisano;Sho Shibita;Kazuki Maruta;Akihiro Maruta
Publication Year: 2021, Page(s): 6142 - 6149
HTML

Impact of Laser Phase Noise on Self-Coherent Transceivers Employing High-Order QAM Formats
Shota Ishimura;Yoshiaki Nakano;Takuo Tanemura
Publication Year: 2021, Page(s): 6150 - 6158
HTML

Metasurface Based Optical Orbital Angular Momentum Multiplexing for 100 GHz Radio Over Fiber Communication
Qilin Mai;Chao Feng Wang;Xinrou Wang;Sihang Cheng;Menglong Cheng;Yanliang He;Jiangnan Xiao;Huapeng Ye;Dianyuan Fan;Ying Li;Shuqing Chen
Publication Year: 2021, Page(s): 6159 - 6166
HTML

Hollow-Core NANF for High-Speed Short-Reach Transmission in the S+C+L-Bands
Yang Hong;Thomas D. Bradley;Natsupa Taengnoi;Kyle R. H. Bottrill;John R. Hayes;Gregory T. Jasion;Francesco Pololetti;Periklis Petropoulos;David J. Richardson
Publication Year: 2021, Page(s): 6167 - 6174
HTML

Semi-Supervised and Supervised Nonlinear Equalizers in Fiber-FSO Converged System
Rui Zhang;Xizi Tang;Chin-Wei Hsu;You-Wei Chen;Gee-Kung Chang
Publication Year: 2021, Page(s): 6175 - 6181
HTML

Effect of Sunlight on Photovoltaics as Optical Wireless Communication Receivers
Sovan Das;Adrian Sparks;Enrique Poves;Stefan Viede;John Fakidis;Harald Haas
Publication Year: 2021, Page(s): 6182 - 6190
HTML

A Soft-Aided Staircase Decoder Using Three-Level Channel Reliabilities
Yi Lei;Bin Chen;Gabriele Liga;Alexios Balatsoukas-Stimming;Kaixuan Sun;Alex Alvarado
Publication Year: 2021, Page(s): 6191 - 6203
HTML

Analog Domain Carrier Phase Synchronization in Coherent Homodyne Data Center Interconnects
RakeshAshok;SanaNaaz;RashmiKamran;ShalabhGupta
Publication Year: 2021, Page(s): 6204 - 6214
HTML

Stable and Reduced-Linewidth Laser Through Active Cancellation of Reflections Without a Magneto-Optic Isolator
HossamShoman;Nicolas A. F. Jaeger;ConnorMosquera;HasithaJayatilleka;MingleiMa;HaishengRong;SudipShekhar;LukasChrostowski
Publication Year: 2021, Page(s): 6215 - 6230
HTML

A Terahertz Vortex Beam Emitter With Tunable Topological Charge and Harmonic Excitation
Zi-Wen Zhang;Chao-Hai Du;Juan-Feng Zhu;Feng-Yuan Han;Fan-Hong Li;Zi-Chao Gao;Liang Zhang;Adrian W. Cross;Pu-Kun Liu
Publication Year: 2021, Page(s): 6231 - 6238
HTML

Experimental Realization of Broadband Mode-Splitting Using Bridged Subwavelength Grating
Weifeng Jiang;Shuangye Xu
Publication Year: 2021, Page(s): 6239 - 6245
HTML
Positioning Unit Cell Model Duplication With Residual Concatenation Neural Network (RCNN) and Transfer Learning for Visible Light Positioning (VL-P) 
Dong-Chang Lin;Chi-Wai Chow;Ching-Wei Peng;Tun-Yao Hung;Yun-Han Chang;Shao-Hua Song;Yun-Shen Lin;Yang Liu;Kun-Hsien Lin 
Publication Year: 2021,Page(s):6366 - 6372 

13 134-Km Fiber-Optic Time Synchronization 
Faxing Zuo;Kunfeng Xie;Liang Hu;Jianping Chen;Guiling Wu 
Publication Year: 2021,Page(s):6373 - 6380 

Gradient-Free Training of Autoencoders for Non-Differentiable Communication Channels 
Ognjen Jovanovic;Metodi P. Yankov;Francesco Da Ros;Darko Zibar 
Publication Year: 2021,Page(s):6381 - 6391 

System-Level Simulation for Integrated Phase-Change Photonics 
Santiago Garcia-Cuevas Carrillo;Alessio Lugnan;Emanuele Gemo;Peter Bienstman;Wolfram H. P. Pernice;Harish Bhaskaran;C. David Wright 
Publication Year: 2021,Page(s):6392 - 6402 

Joint Carrier-Phase Estimation for Digital Subcarrier Multiplexing Systems With Symbol-Rate Optimization 
Manuel S. Neves;Andrea Carena;Antonino Nespola;Paulo P. Monteiro;Fernando P. Guilomar 
Publication Year: 2021,Page(s):6403 - 6412 

Evolution of Relative Intensity Noise in High-Power Narrow-Linewidth Fiber Laser Systems 
Wei Liu;Pengfei Ma;Wenchang Lai;Jiaxin Song;Song Zhang;Can Li;Hu Xiao;Pu Zhou 
Publication Year: 2021,Page(s):6413 - 6419 

Subcarrier Index Modulation Super-Nyquist Carrierless Amplitude Phase Modulation for Visible Light Communication Systems 
Zhe Wang;Junwen Zhang;Zhixue He;Peng Zou;Nan Chi 
Publication Year: 2021,Page(s):6420 - 6433 

Demonstration of IEEE PON Abstraction for SDN Enabled Broadband Access (SEBA) 
Takahiro Suzuki;Yushi Koyasako;Keita Nishimoto;Kota Asaka;Takashi Yamada;Jun-Ichi Kani;Tatsuya Shimada;Tomoaki Yoshida 
Publication Year: 2021,Page(s):6434 - 6442 

A High Spectral Efficiency Radio Over Fiber Link Based on Coherent Detection and Digital Phase Noise Cancellation 
Peng Li;Ruoshi Xu;Zheng Dai;Zhenguo Lu;Lianshan Yan;Jianping Yao 
Publication Year: 2021,Page(s):6443 - 6449 

Artificial Noise Design in Time Domain for Indoor SISO DCO-OFDM VLC Wiretap Systems 
Fan Yang;Kai Zhang;Yongzhi Zhai;Jinguo Quan;Yuhan Dong 
Publication Year: 2021,Page(s):6450 - 6458 

Parallel Biarcine-based Distribution Matching for Nonlinearity-tolerant Probabilistic Shaping in Coherent Optical Communication Systems 
Mengfan Fu;Qiaoya Liu;Huazhi Lun;Hexun Jiang;Yiwen Wu;Xiaomin Liu;Zhiyuan Yang;Lilin Yi;Weisheng Hu;Qunbi Zhuge 
Publication Year: 2021,Page(s):6459 - 6469 

Multi-Functional Microwave Photonic Radar System for Simultaneous Distance and Velocity Measurement and High-Resolution Microwave Imaging 
Dingding Liang;Lizhong Jiang;Yang Chen 
Publication Year: 2021,Page(s):6470 - 6478 

Accurate Mode-Coupling Characterization of Low-Crosstalk Ring-Core Fibers Using Integral Calculation Based Swept-Wavelength Interferometry Measurement 
Junwei Zhang;Jiangbo Zhu;Junyi Liu;Shuai Mo;Jingxing Zhang;Zhenrui Lin;Lei Shen;Lei Zhang;Jie Luo;Jie Liu;Slyuan Yu 
Publication Year: 2021,Page(s):6479 - 6486 

Accurate Indoor Visible Light Positioning Using a Modified Pathloss Model With Sparse Fingerprints 
Ibrahim M. Abou-Shehada;Abdullah F. AlMualim;AlWaaleed K. AlFaqeih;Ali H. Muqaei;Ki-Hong Park;Mohamed-Slim Alouini 
Publication Year: 2021,Page(s):6487 - 6497 

Physical Information-Embedded Deep Learning for Forward Prediction and Inverse Design of Nanophotonic Devices 
Yuchen Song;Danshi Wang;Jun Qin;Jin Li;Han Ye;Zhiguo Zhang;Xue Chen;Min Zhang;Anthony C. Bouchouvalas 
Publication Year: 2021,Page(s):6498 - 6508 

2D Optical Phased Arrays for Laser Beam Steering Based On 3D Polymer Photonic Integrated Circuits 
Adam Raptakis;Lefteris Gounaris;Madeleine Weigel;Moritz Kleinert;Michalis Georgiopoulos;Elias Mylonas;Panos Groumas;Christos Tsokos;Norbert Kell;Hercules Avramopoulos;Christos Kouloumentas 
Publication Year: 2021,Page(s):6509 - 6523 

4-Bit All-Optical Serial-to-Parallel Converter With Sub-db/cm Delay Lines Based on Rib Waveguides 
Ranepura Hewage Naranjith;Yuya Shoji;Tetsuya Mizumoto 
Publication Year: 2021,Page(s):6524 - 6530 

Eckhaus Instability in Laser Cavities With Harmonically Swept Filters 
Feng Li;Dongmei Huang;K. Nakkeeran;J. Nathan Kutz;Jinhui Yuan;P. K. A. Wai 
Publication Year: 2021,Page(s):6531 - 6538 

Measurement of Laser Phase Noise for Ultra-Long Period of 0.8 Seconds With 800-ps Temporal Resolution Using Optical Coherent Detection With FPGA-Implemented Data Acquisition 
Koji Igarashi;Hayato Kiwata;Masahiro Kikuta;Masahiro Shigihara 
Publication Year: 2021,Page(s):6539 - 6546
Bandwidth Tunable Filter Based on Ideal Quasi-Critical Coupling State in WGM Cavity
Jiwei Li;Yue Hu;Xufan Gan;Feng Gao;Wending Zhang;Ligang Huang;Fang Bo;Guoquan Zhang;Jingjun Xu
Publication Year: 2021, Page(s): 6547 - 6552

Design and Optimization of Four-Wave Mixing in Microring Resonators Integrated With 2D Graphene Oxide Films
Yuning Zhang;Jiayang Wu;Yang Qu;Linnan Jia;Baohua Jia;David J. Moss
Publication Year: 2021, Page(s): 6553 - 6562

On-Chip Non-Blocking Optical Mode Exchanger for Mode-Division Multiplexing Interconnection Networks
Xu Han;Huixu Xiao;Guanghui Ren;Yongheng Jiang;Arnan Mitchell;Jianhong Yang;Yonghui Tian
Publication Year: 2021, Page(s): 6563 - 6571

High Peak Power Q-switched Er:ZBLAN Fiber Laser
Lukasz Sólka;Lukasz Pajewski;Samir Lamrini;Mark Farries;Trevor M. Benson;Angela B. Seddon;Slawomir Sujecki
Publication Year: 2021, Page(s): 6572 - 6578

Spectral Correlations in Laser Instabilities Beyond Stable Mode Locking
Junsong Peng;Mariia Sorokina;Heping Zeng
Publication Year: 2021, Page(s): 6579 - 6584

Wideband Low Loss Hollow Core Fiber With Nested Hybrid Cladding Elements
Kumary Sumi Rani Shaha;Abdul Khaleque;Md. Sarwar Hosen
Publication Year: 2021, Page(s): 6585 - 6591

Multimode Nested Antiresonant Hollow Core Fiber
Charu Goel;Seongwoo Yoo
Publication Year: 2021, Page(s): 6592 - 6598

Vector Magnetometer Based On Localized Scattering Between Optical Fiber Spectral Combs and Magnetic Nanoparticles
Zhaochuan Zhang;Fu Liu;Qian Ma;Lijun Li;Tuan Guo
Publication Year: 2021, Page(s): 6599 - 6605

Simultaneous Extraction of Multi-Scale Structural Features and the Sequential Information With an End-To-End mCNN-HMM Combined Model for Fiber Distributed Acoustic Sensor
Huijuan Wu;Siqi Yang;Xinyu Liu;Chenru Xu;Hao Lu;Chaoqun Wang;Ke Qin;Zhengning Wang;Yunjian Rao;Abdulavezeez Olawale Olaribo
Publication Year: 2021, Page(s): 6606 - 6616

Tunable Dual-Wavelength Bismuth Fiber Laser With 37.8-GHz Frequency Spacing
Harith Ahmad;Sti N. Aidit;Muhammad Z. Samion;Siyi Wang;Yu Wang;Jayanta K. Sahu
Publication Year: 2021, Page(s): 6617 - 6623

Shape Sensing Using Two Outer Cores of Multicore Fiber and Optical Frequency Domain Reflectometer
Yanjie Meng;Cailing Fu;Chao Du;Lin Chen;Huajian Zhong;Pengfei Li;Baijie Xu;Bin Du;Jun He;Yiping Wang
Publication Year: 2021, Page(s): 6624 - 6630

Spider Silk-Based Fiber Magnetic Field Sensor
Yaxun Zhang;Yangang Ning;Min Zhang;Huigai Guo;Yu Zhang;Zhihai Liu;Xu Hao Ji;Jian Zhong Zhang;Xinghua Yang;Libo Yuan
Publication Year: 2021, Page(s): 6631 - 6636

Opto-Mechanical Fiber Sensing of Gamma Radiation
Yosel London;Kavita Sharma;Hilel Hagai Diamandi;Mirit Hen;Gil Bashan;Elad Zehavi;Sholomi Ziberman;Garry Berkovic;Amnon Zentner;Moshe Mayoni;Andrei Aleksandrovich Stolov;Mikhail Kalina;Olga Kleinemann;Ehud Shafir;Avi Zadok
Publication Year: 2021, Page(s): 6637 - 6645

Exotic Coupling Between Plasmonic Nanoparticles Through Geometric Configurations
Weidong Zhang;Hung Chiang;Te Wen;Lulu Ye;Hai Lin;Haitan Xu;Qihuang Gong;Guowei Lu
Publication Year: 2021, Page(s): 6646 - 6652

Hydrogel Optical Fiber Based Ratiometric Fluorescence Sensor for Highly Sensitive Ph Detection
Lishuai Zhao;Guoqiang Li;Juilin Gan;Zhongmin Yang
Publication Year: 2021, Page(s): 6653 - 6659

In-Situ High Temperature and Large Strain Monitoring During a Copper Casting Process Based on Regenerated Fiber Bragg Grating Sensors
Qiang Bian;Constantin Bauer;Andrea Stadler;Markus Lindner;Martin Jakobi;Wolfram Volk;Alexander W. Koch;Johannes Roth
Publication Year: 2021, Page(s): 6660 - 6669

Electrically Controlled Nanophotonic Slot Structure Based on Photocatalytic Nanocomposite for Optical Detection of Foodborne Pathogens
Sulabh Srivastava;Lalit Singh;Vishal Rajput;Sourabh Jain;Manoj Kumar Pati;Mukesh Kumar
Publication Year: 2021, Page(s): 6670 - 6677

Helical Intermediate-Period Fiber Grating for Refractive Index Measurements With Low-Sensitive Temperature and Torsion Response
Tao Zou;Junlan Zhong;Shen Liu;Guoxuan Zhu;Yuanyuan Zhao;Junxian Luo;Shengzhen Lu;Qiang Zhang;Jun He;Zhiyong Bai;Yiping Wang
Publication Year: 2021, Page(s): 6678 - 6685

Highly Localized Point-by-Point Fiber Bragg Grating for Multi-Parameter Measurement
Kaiming Yang;Bonan Liu;Changrui Liao;Yongxue Wang;Zhihao Cai;Jian Tang;Yaping Yang;Yiping Wang
Publication Year: 2021, Page(s): 6686 - 6690
July 2021 –

A Multi-FoV Viewport-Based Visual Saliency Model Using Adaptive Weighting Losses for 360° Images
Fang-Yi Chao;Lu Zhang;Wassim Hamidouche;Olivier Déforges
Publication Year: 2021,Page(s):1811 - 1826
HTML

Disentangling, Embedding and Ranking Label Cues for Multi-Label Image Recognition
Zhao-Min Chen;Quan Cui;Xiu-Shen Wei;Xin Jin;Yanwen Guo
Publication Year: 2021,Page(s):1827 - 1840
Cited by: Papers (1)
HTML

3D Skeletal Gesture Recognition via Discriminative Coding on Time-Warping Invariant Riemannian Trajectories
Xin Liu;Guoying Zhao
Publication Year: 2021,Page(s):1841 - 1854
Cited by: Papers (2)
HTML

Online Hashing With Bit Selection for Image Retrieval
Zhenyu Weng;Yuesheng Zhu
Publication Year: 2021,Page(s):1868 - 1881
HTML

Learning Feature Representation and Partial Correlation for Multimodal Multi-Label Data
Guoli Song;Shuhui Wang;Qingming Huang;Qi Tian
Publication Year: 2021,Page(s):1882 - 1894
HTML

AutoFoley: Artificial Synthesis of Synchronized Sound Tracks for Silent Videos With Deep Learning
Sanchita Ghose;John Jeffrey Prevost
Publication Year: 2021,Page(s):1895 - 1907
Cited by: Papers (1)
HTML

Motion Compensated Virtual View Synthesis Using Novel Particle Cell
Chi Ho Cheung;Lu Sheng;King Ngai Ngan
Publication Year: 2021,Page(s):1908 - 1923
HTML

Accurate and Efficient Image Super-Resolution via Global-Local Adjusting Dense Network
Xinyan Zhang;Peng Gao;Sunxiangyu Liu;Kongya Zhao;Guitao Li;Liuguo Yin;Chang Wen Chen
Publication Year: 2021,Page(s):1924 - 1937
Cited by: Papers (1)
HTML

Supervised Pixel-Wise GAN for Face Super-Resolution
Menglei Zhang;Qiang Ling
Publication Year: 2021,Page(s):1938 - 1950
HTML

An Automated and Robust Image Watermarking Scheme Based on Deep Neural Networks
Xin Zhong;Pei-Chi Huang;Spyridon Mastorakis;Frank Y. Shih
Publication Year: 2021,Page(s):1951 - 1961
Cited by: Papers (1)
HTML

M-GCN: Multi-Branch Graph Convolution Network for 2D Image-based on 3D Model Retrieval
Wei-Zhi Nie;Min-Jie Ren;An-An Liu;Zhendong Mao;Jie Nie
Publication Year: 2021,Page(s):1962 - 1976
Cited by: Papers (4)
HTML

Character Detection in Animated Movies Using Multi-Style Adaptation and Visual Attention
Hayeon Kim;Eun-Cheol Lee;Yongseok Seo;Dong-Hyuck Im;In-Kwon Lee
Publication Year: 2021,Page(s):1990 - 2004
HTML

Unsupervised Moving Object Detection in Complex Scenes Using Adversarial Regularizations
Maryam Sultana;Arl Mahmoud;Soon Kii Jung
Publication Year: 2021,Page(s):2005 - 2018
Cited by: Papers (1)
HTML
Context-Dependent Propagating-Based Video Recommendation in Multimodal Heterogeneous Information Networks
Lei Sang;Min Xu;Shengsheng Qian;Matt Martin;Peter Li;Xindong Wu
Publication Year: 2021, Page(s): 2019 - 2032
Cited by: Papers (2)

Weakly Supervised Emotion Intensity Prediction for Recognition of Emotions in Images
Haimin Zhang;Min Xu
Publication Year: 2021, Page(s): 2033 - 2044

Semantic Context Encoding for Accurate 3D Point Cloud Segmentation
Hao Liu;Yulan Guo;Yanni Ma;Yinjie Lei;Gongjian Wen
Publication Year: 2021, Page(s): 2045 - 2055
Cited by: Papers (2)

Manifold Transfer Learning via Discriminant Regression Analysis
Yuwu Lu;Wenjing Wang;Chun Yuan;Xuelong Li;Zhihui Lai
Publication Year: 2021, Page(s): 2056 - 2070

RealVAD: A Real-World Dataset and A Method for Voice Activity Detection by Body Motion Analysis
Cigdem Beyan;Muhammad Shahid;Vittorio Murino
Publication Year: 2021, Page(s): 2071 - 2085
Cited by: Papers (1)

Understanding More About Human and Machine Attention in Deep Neural Networks
Qiuxia Lai;Salman Khan;Yongwei Nie;Hanqiu Sun;Jianbing Shen;Ling Shao
Publication Year: 2021, Page(s): 2086 - 2099
Cited by: Papers (1)

Subjective and Objective Quality Assessment for Stereoscopic Image Retargeting
Zhenqi Fu;Feng Shao;Qiuping Jiang;Xiangchao Meng;Yo-Sung Ho
Publication Year: 2021, Page(s): 2100 - 2113
Cited by: Papers (2)

Learning Deep Multi-Level Similarity for Thermal Infrared Object Tracking
Qiao Liu;Xin Li;Zhenyu He;Nana Fan;Di Yuan;Hongpeng Wang
Publication Year: 2021, Page(s): 2114 - 2126
Cited by: Papers (3)

Joint Intermediate Domain Generation and Distribution Alignment for 2D Image-Based 3D Objects Retrieval
Yuting Su;Yuqian Li;Dan Song;Anan Liu;Jie Nie
Publication Year: 2021, Page(s): 2127 - 2138

Blind Image Denoising via Dynamic Dual Learning
Yong Du;Guoqiang Han;Yinjie Tan;Chufeng Xiao;Shengfeng He
Publication Year: 2021, Page(s): 2139 - 2152
Cited by: Papers (1)

Improving Generative Modelling in VAEs Using Multimodal Prior
Vinayak Abrol;Pulkit Sharma;Anjii Patra
Publication Year: 2021, Page(s): 2153 - 2161
Cited by: Papers (1)

STGL: Spatial-Temporal Graph Representation and Learning for Visual Tracking
Bo Jiang;Yuan Zhang;Bin Lu;Xiaochun Cao;Jin Tang
Publication Year: 2021, Page(s): 2162 - 2171

Large Factor Image Super-Resolution With Cascaded Convolutional Neural Networks
Dongyang Zhang;Jie Shao;Zhenwen Liang;Lianli Gao;Heng Tao Shui
Publication Year: 2021, Page(s): 2172 - 2184

Guest Editorial Special Section on Hybrid Human-Artificial Intelligence for Multimedia Computing
Raouf Hamzaoui;Huansheng Ning;Chonggang Wang;Reza Malekian;Wei Ding
Publication Year: 2021, Page(s): 2185 - 2187

Human Memory Update Strategy: A Multi-Layer Template Update Mechanism for Remote Visual Monitoring
Shuai Li;Shuai Wang;Xinyu Liu;Amir H. Gandomi;Mahmoud Daneshmand;Khan Muhammad;Victor Hugo C. De Albuquerque
Publication Year: 2021, Page(s): 2188 - 2198
Cited by: Papers (1)

Unsupervised Adversarial Instance-Level Image Retrieval
Cong Bai;Hongkai Li;Jinglin Zhang;Ling Huang;Lu Zhang
Publication Year: 2021, Page(s): 2199 - 2207

Edge-Cloud Collaboration Enabled Video Service Enhancement: A Hybrid Human-Artificial Intelligence Scheme
Dapeng Wu;Ruili Bao;Zhidu Li;Honggang Wang;Hong Zhang;Ruyan Wang
Publication Year: 2021, Page(s): 2208 - 2221

Virtual Try-on Network With Attribute Transformation and Local Rendering
Jun Xu;Yuanxuan Pu;Rencan Nie;Dan Xu;Zhengpeng Zhao;Wenhua Qian
Publication Year: 2021, Page(s): 2222 - 2234

A Deep Image Coding Scheme With Generative Network to Learn From Correlated Images
Yihao Chen;Bin Tan;Jun Wu;Zhifeng Zhang;Haoqi Ren
Publication Year: 2021, Page(s): 2235 - 2244

Neural Style Palette: A Multimodal and Interactive Style Transfer From a Single Style Image
John Jethro Virtusio;Jose Jaena Mari Ople;Daniel Stanley Tan;M. Tanveer;Neeraj Kumar;Kai-Lung Hua
Publication Year: 2021, Page(s): 2245 - 2258
Learning Low-Rank Sparse Representations With Robust Relationship Inference for Image Memorability Prediction Peiguang Jing; Yuechen Shang; Liqiang Nie; Yuling Su; Jing Liu; Meng Wang
Publication Year: 2021, Page(s): 2259 - 2272
Cited by: Papers (1)

Enabling Artistic Control Over Pattern Density and Stroke Strength John Jethro Virtusio; Daniel Stanley Tan; Wen-Huang Cheng; M. Tanveer; Kai-Lung Hua
Publication Year: 2021, Page(s): 2273 - 2285
Cited by: Papers (1)

Separable Reversible Data Hiding for Encrypted Three-Dimensional Models Based on Spatial Subdivision and Space Encoding Yuan-Yu Tsai
Publication Year: 2021, Page(s): 2286 - 2296
HTML

Image Denoising Using Superpixel-Based PCA Sree Ramya S. P. Malladi; Sundaresh Ram; Jeffrey J. Rodriguez
Publication Year: 2021, Page(s): 2297 - 2309
HTML

Solving Jigsaw Puzzles via Nonconvex Quadratic Programming With the Projected Power Method Fang Yan; Yuanjie Zheng; Jinyu Cong; Liu Liu; Dacheng Tao; Sujuan Hou
Publication Year: 2021, Page(s): 2310 - 2320
HTML

Heterogeneous Community Question Answering via Social-Aware Multi-Modal Co-Attention Convolutional Matching Jun Hu; Shengsheng Qian; Quan Fang; Changsheng Xu
Publication Year: 2021, Page(s): 2321 - 2334
HTML

HAPGN: Hierarchical Attentive Pooling Graph Network for Point Cloud Segmentation Chaofan Chen; Shengsheng Qian; Quan Fang; Changsheng Xu
Publication Year: 2021, Page(s): 2335 - 2346
Cited by: Papers (2)

Instance-Level Heterogeneous Domain Adaptation for Limited-Labeled Sketch-to-Photo Retrieval Fan Yang; Yang Wu; Zheng Wang; Xiang Li; Sakriani Sakti; Satoshi Nakamura
Publication Year: 2021, Page(s): 2347 - 2360
Cited by: Papers (5)

Toward Multi-Modal Conditioned Fashion Image Translation Xiaoling Gu; Jun Yu; Yongkang Wong; Mohan S. Kankanahalli
Publication Year: 2021, Page(s): 2361 - 2371
HTML

Universal Chosen-Ciphertext Attack for a Family of Image Encryption Schemes Junxin Chen; Lei Chen; Yicong Zhou
Publication Year: 2021, Page(s): 2372 - 2385
Cited by: Papers (1)

Learning Coarse-to-Fine Graph Neural Networks for Video-Text Retrieval Wei Wang; Junyu Gao; Xiaoshan Yang; Changsheng Xu
Publication Year: 2021, Page(s): 2386 - 2397
Cited by: Papers (2)

QoE-Driven UAV-Enabled Pseudo-Analog Wireless Video Broadcast: A Joint Optimization of Power and Trajectory Xiaowei Zhang; Xin-Lin Huang; Fei Hu
Publication Year: 2021, Page(s): 2398 - 2412
HTML

Fine-Grained Image Captioning With Global-Local Discriminative Objective Jie Wu; Tianzhuo Chen; Hefeng Wu; Zhi Yang; Guangchun Luo; Liang Lin
Publication Year: 2021, Page(s): 2413 - 2427
Cited by: Papers (2)

Joint Cross-Modal and Unimodal Features for RGB-D Salient Object Detection Nianchang Huang; Yi Liu; Qiang Zhang; Jungong Han
Publication Year: 2021, Page(s): 2428 - 2441
Cited by: Papers (2)

Efficient Design and Control for Network-Assisted Device-to-Device Content Delivery Network Jihoon Sung; Dujung Lee
Publication Year: 2021, Page(s): 2442 - 2456
HTML

GAC-GAN: A General Method for Appearance-Controllable Human Video Motion Transfer Dongxu Wei; Xiaowei Xu; Haibin Shen; Kejie Huang
Publication Year: 2021, Page(s): 2457 - 2470
HTML

SRD: A Tree Structure Based Decoder for Online Handwritten Mathematical Expression Recognition Jianshu Zhang; Jun Du; Yongxin Yang; Yi-Zhe Song; Lirong Dai
Publication Year: 2021, Page(s): 2471 - 2480
HTML

Deep Single Image Deraining via Modeling Haze-Like Effect Yinglong Wang; Dong Gong; Jie Yang; Qinfeng Shi; Anton van den Hengel; Dehua Xie; Bing Zeng
Publication Year: 2021, Page(s): 2481 - 2492
HTML

Adaptive Graph Completion Based Incomplete Multi-View Clustering Jie Wen; Ke Yan; Zheng Zhang; Yong Xu; Junqian Wang; Lunke Fei; Bob Zhang
Publication Year: 2021, Page(s): 2493 - 2504
Cited by: Papers (2)

Estimation of Quality Scores From Subjective Tests-Beyond Subjects' MOS Sergio Pezzulli; Maria G. Martini; Nabajeet Barman
Publication Year: 2021, Page(s): 2505 - 2519
HTML
Object-Aware Multimodal Named Entity Recognition in Social Media Posts With Adversarial Learning
Changmeng Zheng;Zhiwei Wu;Tao Wang;Yi Cai;Qing Li
Publication Year: 2021, Page(s): 2520 - 2532
Cited by: Papers (1)

YuvConv: Multi-Scale Non-Uniform Convolution Structure Based on YUV Color Model
Yourqin Xiao;Zhanchuan Cai;Xixi Yuan
Publication Year: 2021, Page(s): 2533 - 2544

Emotion Attention-Aware Collaborative Deep Reinforcement Learning for Image Cropping
Xiaoyan Zhang;Zhuopeng Li;Jianmin Jiang
Publication Year: 2021, Page(s): 2545 - 2560

Learning to Generate Multi-Exposure Stacks With Cycle Consistency for High Dynamic Range Imaging
Syeong Lee;So Yeon Jo;Gwon Hwan An;Suk-Ju Kang
Publication Year: 2021, Page(s): 2561 - 2574

Robust CAPTCHAs Towards Malicious OCR
Jiaming Zhang;Jitao Sang;Kaiyuan Xu;Shangxi Wu;Xian Zhao;Yanfeng Sun;Yongli Hu;Jian Yu
Publication Year: 2021, Page(s): 2575 - 2587

Data-Driven Bandwidth Prediction Models and Automated Model Selection for Low Latency
Abdelhak Bentaleb;Ali C. Begen;Saad Harous;Roger Zimmermann
Publication Year: 2021, Page(s): 2588 - 2601
Cited by: Papers (1)

Blind Image Clustering for Camera Source Identification via Row-Sparsity Optimization
Xiang Jiang;Shikui Wei;Ting Liu;Ruizhen Zhao;Yao Zhao;Heng Huang
Publication Year: 2021, Page(s): 2602 - 2613

Group Re-Identification With Group Context Graph Neural Networks
Ji Zhu;Hua Yang;Weiyou Lin;Nian Liu;Jia Wang;Wenjun Zhang
Publication Year: 2021, Page(s): 2614 - 2626

Multi-Channel Deep Networks for Block-Based Image Compressive Sensing
Siwang Zhou;Yan He;Yonghe Liu;Chengqing Li;Jianming Zhang
Publication Year: 2021, Page(s): 2627 - 2640

Vector-Based Feature Representations for Speech Signals: From Supervector to Latent Vector
Yuechi Jiang;Frank H. F. Leung
Publication Year: 2021, Page(s): 2641 - 2655

Robust Coding of Encrypted Images via 2D Compressed Sensing
Bo Zhang;Di Xiao;Yong Xiang
Publication Year: 2021, Page(s): 2656 - 2671

AFNet: Temporal Locality-Aware Network With Dual Structure for Accurate and Fast Action Detection
Guang Chen;Gan Zhang;Yuexian Zou
Publication Year: 2021, Page(s): 2672 - 2682
Cited by: Papers (1)

VehicleNet: Learning Robust Visual Representation for Vehicle Re-Identification
Zhedong Zheng;Tao Ruan;Yunchao Wei;Yi Yang;Tao Mei
Publication Year: 2021, Page(s): 2683 - 2693
Cited by: Papers (4)

Staged Sketch-to-Image Synthesis via Semi-supervised Generative Adversarial Networks
Zeyu Li;Cheng Deng;Erkun Yang;Dacheng Tao
Publication Year: 2021, Page(s): 2694 - 2705

Arbitrarily-Oriented Text Detection in Low Light Natural Scene Images
Minglong Xue;Palaiahnakote Shivakumara;Chao Zhang;Yao Xiao;Tong Lu;Unmapada Pal;Daniel Lopresti;Zhibo Yang
Publication Year: 2021, Page(s): 2706 - 2720
Cited by: Papers (2)

Universal Cross-Domain 3D Model Retrieval
Dan Song;Tian-Bao Li;Wen-Hui Li;Wei-Zhi Nie;Wu Liu;An-An Liu
Publication Year: 2021, Page(s): 2721 - 2731

Adversarial Network With Multiple Classifiers for Open Set Domain Adaptation
Tasfia Shermin;Guojun Lu;Shyh Wei Teng;Manzur Murshed;Ferdous Soheil
Publication Year: 2021, Page(s): 2732 - 2744
Cited by: Papers (1)

Learning Specific and General Realm Feature Representations for Image Fusion
Fan Zhao;Wenda Zhao
Publication Year: 2021, Page(s): 2745 - 2756
Cited by: Papers (4)

Quality Evaluation for Image Retargeting With Instance Semantics
Leida Li;Yixuan Li;Jiayin Wu;Lin Ma;Yuming Fang
Publication Year: 2021, Page(s): 2757 - 2769

Deep Unsupervised Binary Descriptor Learning Through Locality Consistency and Self Distinctiveness
Bin Fan;Hongmin Liu;Hui Zeng;Jiyong Zhang;Xin Liu;Junwei Han
Publication Year: 2021, Page(s): 2770 - 2781
Cited by: Papers (4)

A Matrix Factorization Based Framework for Fusion of Physical and Social Sensors
Yuhui Wang;Francesco Gelli;Christian von der Weth;Mohan Kankanhalli
Publication Year: 2021, Page(s): 2782 - 2793
Exploring the Representativity of Art Paintings
Yingying Deng;Fan Tang;Weiming Dong;Chongyang Ma;Feiyue Huang;Oliver Deussen;Changsheng Xu
Publication Year: 2021, Page(s): 2794 - 2805

Efficient Projected Frame Padding for Video-Based Point Cloud Compression
Li Li;Zhu Li;Shan Liu;Houqiang Li
Publication Year: 2021, Page(s): 2806 - 2819

An Accurate, Robust Visual Odometry and Detail-Preserving Reconstruction System
Xiaoli Gong;Yuanpeng Liu;Qiaoyun Wu;Jiayi Huang;Hua Zong;Jun Wang
Publication Year: 2021, Page(s): 2820 - 2832

StyleGuide: Zero-Shot Sketch-Based Image Retrieval Using Style-Guided Image Generation
Titir Dutta;Anurag Singh;Soma Biswas
Publication Year: 2021, Page(s): 2833 - 2842

Fine Granularity Access in Interactive Compression of 360-Degree Images Based on Rate-adaptive Channel Codes
Navid Mahmoudian Bidgoli;Thomas Maugé;Aline Roumy
Publication Year: 2021, Page(s): 2868 - 2882

An Adaptive Arbitrary Multiresolution Decomposition for Multiscale Geometric Analysis
Zhengzi Lu;Guoan Yang;Junjie Yang;Yuhao Wang
Publication Year: 2021, Page(s): 2883 - 2893

Learning Diverse Fashion Collocation by Neural Graph Filtering
Xin Liu;Yongbin Sun;Ziwei Liu;Dahua Lin
Publication Year: 2021, Page(s): 2894 - 2901

Saliency Detection Using Deep Features and Affinity-Based Robust Background Subtraction
Mehmood Nawaz;Hong Yan
Publication Year: 2021, Page(s): 2902 - 2916

Hybrid-Attention Enhanced Two-Stream Fusion Network for Video Venue Prediction
Yanchao Zhang;Weiqing Min;Liqiang Nie;Shuqiang Jiang
Publication Year: 2021, Page(s): 2917 - 2929

Learning Compact Multifeature Codes for Palmprint Recognition From a Single Training Image per Palm
Lunke Fei;Bo Zhang;Lin Zhang;Wei Jia;Jie Wen;Jiagang Wu
Publication Year: 2021, Page(s): 2930 - 2942

Unsupervised Multi-View Clustering by Squeezing Hybrid Knowledge From Cross View and Each View
Junpeng Tan;Yukai Shi;Zhijing Yang;Caizheng Wen;Liang Lin
Publication Year: 2021, Page(s): 2943 - 2956

Towards Coding for Human and Machine Vision: Scalable Face Image Coding
Shuai Yang;Yueyu Hu;Wenhan Yang;Ling-Yu Duan;Jiaying Liu
Publication Year: 2021, Page(s): 2972 - 2985

Light Field Image Coding Using VVC Standard and View Synthesis Based on Dual Discriminator GAN
Nader Bakir;Wassim Hamidouche;Sid Ahmed Fezza;Khouloud Samouth;Olivier Déforges
Publication Year: 2021, Page(s): 2986 - 2997

Expression-Aware Face Reconstruction via a Dual-Stream Network
Xiaoyu Chai;Jun Chen;Chao Liang;Dongshu Xu;Chia-Wen Lin
Publication Year: 2021, Page(s): 2998 - 3012

Learned Multi-Resolution Variable-Rate Image Compression With Octave-Based Residual Blocks
Mohammad Askari;Jie Liang;Jingning Han;Chengjie Tu
Publication Year: 2021, Page(s): 3013 - 3021

Dynamic Point Cloud Inpainting via Spatial-Temporal Graph Learning
Zeqing Fu;Wei Hu
Publication Year: 2021, Page(s): 3022 - 3034

Intelligence Enhancement Via Normal-to-Lombard Speech Conversion With Long Short-Term Memory Network and Bayesian Gaussian Mixture Model
Gang Li;Xiaochen Wang;Ruimin Hu;Huyin Zhang;Shanfa Ke
Publication Year: 2021, Page(s): 3035 - 3047

Spatial Pyramid Attention for Deep Convolutional Neural Networks
Xu Ma;Jingda Guo;Andrew Sansom;Mara McGuire;Andrew Kalaani;Qi Chen;Shuai Tang;Qing Yang;Song Fu
Publication Year: 2021, Page(s): 3048 - 3058

Attention Composite Residual Network for Robust Rain Removal from Single Images
Yue Que;Suli Li;Hyong Jong Lee
Publication Year: 2021, Page(s): 3059 - 3072
Interclass-Relativity-Adaptive Metric Learning for Cross-Modal Matching and Beyond
Feiyou Chen;Jie Shao;Yonghui Zhang;Xing Xu;Heng Tao Shen
Publication Year: 2021, Page(s): 3073 - 3084
Cited by: Papers (1)

Attribute-Aware Pedestrian Detection in a Crowd
Jialiang Zhang;Lixiang Lin;Jianke Zhu;Yang Li;Yun-chen Chen;Yao Hu;Steven C. H. Hoi
Publication Year: 2021, Page(s): 3085 - 3097
Cited by: Papers (1)

Mesh Convolution: A Novel Feature Extraction Method for 3D Nonrigid Object Classification
Yu Chen;Jieyu Zhao;Congwei Shi;Dongdong Yuan
Publication Year: 2021, Page(s): 3098 - 3111

Learning to Segment Video Object With Accurate Boundaries
Jingchun Cheng;Yuhui Yuan;Yali Li;Jingdong Wang;Shengjin Wang
Publication Year: 2021, Page(s): 3112 - 3123

Graph Regularized Encoder-Decoder Networks for Image Representation Learning
Shijie Yang;Liang Li;Shuhui Wang;Weigang Zhang;Qingming Huang;Qi Tian
Publication Year: 2021, Page(s): 3124 - 3136

Latent Representation Learning Model for Multi-Band Images Fusion via Low-Rank and Sparse Embedding
Bin Wang;Huifang Niu;Jianchao Zeng;Guifeng Bai;Suzhen Lin;Yanbo Wang
Publication Year: 2021, Page(s): 3137 - 3152

Lumiance-Aware Pyramid Network for Low-Light Image Enhancement
Jiaqian Li;Juncheng Li;Faming Fang;Fang Li;Guixu Zhang
Publication Year: 2021, Page(s): 3153 - 3165
Cited by: Papers (1)

Optimizing Video QoE for Mobile eMBMS Users in Cellular Networks
Ahmed Khalid;Ahmed H. Zahran;Cormac J. Sreenan
Publication Year: 2021, Page(s): 3166 - 3178

Frame-Wise Detection of Double HEVC Compression by Learning Deep Spatio-Temporal Representations in Compression Domain
Peisong He;Haoliang Li;Hongxia Wang;Shiqi Wang;Xinghao Jiang;Ruimei Zhang
Publication Year: 2021, Page(s): 3179 - 3192

Co-Saliency Detection via a General Optimization Model and Adaptive Graph Learning
Bo Jiang;Xingyue Jiang;Jin Tang;Bin Luo
Publication Year: 2021, Page(s): 3193 - 3202

Unsupervised Video Summarization via Relation-Aware Assignment Learning
Junyu Gao;Xiaoshan Yang;Yingying Zhang;Changsheng Xu
Publication Year: 2021, Page(s): 3203 - 3214

Handling Outliers by Robust M-Estimation in Blind Image Deblurring
Xinxin Zhang;Ronggang Wang;Da Chen;Yang Zhao;Wen Gao
Publication Year: 2021, Page(s): 3215 - 3226

Attention-Based Deep Reinforcement Learning for Virtual Cinematography of 360°/4K/3D Videos
Jianyi Wang;Mai Xu;Lai Jiang;Yuhang Song
Publication Year: 2021, Page(s): 3227 - 3238
Cited by: Papers (1)

Global Manifold Learning for Interactive Image Segmentation
Tao Wang;Zexuan Ji;Jian Yang;Quansen Sun;Peng Fu
Publication Year: 2021, Page(s): 3239 - 3249

NDN-MMRA: Multi-Stage Multicast Rate Adaptation in Named Data Networking WLAN
Fan Wu;Wang Yang;Ju Ren;Feng Lyu;Peng Yang;Yaoxue Zhang;Xuemin Shen
Publication Year: 2021, Page(s): 3250 - 3263
Cited by: Papers (4)

Adaptive and Robust Partition Learning for Person Retrieval With Policy Gradient
Yuxuan Shi;Zhen Wei;Hefei Ling;Ziyang Wang;Pengfei Zhu;Jialie Shen;Ping Li
Publication Year: 2021, Page(s): 3264 - 3277

Model-Based Joint Bit Allocation Between Geometry and Color for Video-Based 3D Point Cloud Compression
Qi Liu;Hui Yuan;Junhui Hou;Raouf Hamzaoui;Honglei Su
Publication Year: 2021, Page(s): 3278 - 3291
Cited by: Papers (2)

Adversarial 3D Convolutional Auto-Encoder for Abnormal Event Detection in Videos
Che Sun;Yunde Jia;Hao Song;Yuwei Wu
Publication Year: 2021, Page(s): 3292 - 3305

Temporal Textual Localization in Video via Adversarial Bi-Directional Interaction Networks
Zijian Zhang;Zhou Zhao;Zhu Zhang;Zhijie Lin;Qi Wang;Richang Hong
Publication Year: 2021, Page(s): 3306 - 3317
Cited by: Papers (1)

KTransGAN: Variational Inference-Based Knowledge Transfer for Unsupervised Conditional Generative Learning
Mohamed Azzam;Wenhao Wu;Wenming Cao;Si Wu;Hau-San Wong
Publication Year: 2021, Page(s): 3318 - 3331

DCR: A Unified Framework for Holistic/Partial Person ReID
Zan Gao;Lishuai Gao;Hua Zhang;Zhiyong Cheng;Richang Hong;Shengyong Chen
Publication Year: 2021, Page(s): 3332 - 3345
Cited by: Papers (1)
Temporal Constraint Background-Aware Correlation Filter With Saliency Map
Jiawen Liao; Chun Qi; Jianzhong Cao
Publication Year: 2021, Page(s): 3346 - 3361
HTML

PFAN++: Bi-Directional Image-Text Retrieval With Position Focused Attention Network
Yaxiong Wang; Hao Yang; Xiuxiu Bai; Xueming Qian; Lin Ma; Jing Lu; Biao Li; Xin Fan
Publication Year: 2021, Page(s): 3362 - 3376
HTML

Speaker Clustering by Co-Optimizing Deep Representation Learning and Cluster Estimation
Yanxiong Li; Wucheng Wang; Mingle Liu; Zhongjie Jiang; Qianhua He
Publication Year: 2021, Page(s): 3377 - 3387
HTML

Salient Object Detection in Stereoscopic 3D Images Using a Deep Convolutional Residual Autoencoder
Wujie Zhou; Junwei Wu; Jingsheng Lei; Jenq-Neng Hwang; Lu Yu
Publication Year: 2021, Page(s): 3388 - 3399
Cited by: Papers (10)
HTML

Deep Unsupervised Self-Evolutionary Hashing for Image Retrieval
Haofeng Zhang; Yifan Gu; Yazhou Yao; Zheng Zhang; Li Liu; Jian Zhang; Jing Shao
Publication Year: 2021, Page(s): 3400 - 3413
Cited by: Papers (1)
HTML

Speech Personality Recognition Based on Annotation Classification Using Log-Likelihood Distance and Extraction of Essential Audio Features
Zhen-Tao Liu; Abdul Rehman; Min Wu; Wei-Hua Cao; Man Hao
Publication Year: 2021, Page(s): 3414 - 3426
Cited by: Papers (2)
HTML

LCSegNet: An Efficient Semantic Segmentation Network for Large-Scale Complex Chinese Character Recognition
Xiangping Wu; Qingcai Chen; Yulun Xiao; Wei Li; Xin Liu; Baotian Hu
Publication Year: 2021, Page(s): 3427 - 3440
HTML
2021: July -

Column Partition Based Distributed Algorithms for Coupled Convex Sparse Optimization: Dual and Exact Regularization Approaches
Jinglai Shen; Jianghai Hu; Eswar Kumar Hathibelagai Kammara
Publication Year: 2021, Page(s): 375 - 391
HTML

A General Framework for Distributed Inference With Uncertain Models
James Z. Hare; César A. Uribe; Lance Kaplan; Ali Jadbabaie
Publication Year: 2021, Page(s): 392 - 405
HTML

Full Euclidean Distance Based Selection Combining for SSK DF Cooperative Diversity Systems
A. Ananth; M. D. Selvaraj
Publication Year: 2021, Page(s): 406 - 422
HTML

Adaptive Kernel Learning in Heterogeneous Networks
Hrusikesha Pradhan; Amrit Singh Bedi; Alec Koppel; Ketan Rajawat
Publication Year: 2021, Page(s): 423 - 437
HTML

Collision Resolution With FM0 Signal Separation for Short-Range Random Multi-Access Wireless Network
Haifeng Wu; Xiaogang Wu; Yi Li; Yu Zeng
Publication Year: 2021, Page(s): 438 - 450
HTML

Change Detection in Dynamic Networks Using Network Characteristics
Jonathan Flossdorf; Carsten Jentsch
Publication Year: 2021, Page(s): 451 - 464
HTML

Probability-Guaranteed Distributed Secure Estimation for Nonlinear Systems Over Sensor Networks Under Deception Attacks on Innovations
Lifeng Ma; Zidong Wang; Yun Chen; Xiaojian Yi
Publication Year: 2021, Page(s): 465 - 477
HTML

Distributed Adaptive Signal Estimation in Wireless Sensor Networks With Partial Prior Knowledge of the Desired Sources Steering Matrix
Robbe Van Rompaey; Marc Moonen
Publication Year: 2021, Page(s): 478 - 492
HTML

Improving J-Divergence of Brain Connectivity States by Graph Laplacian Denoising
Tiziana Cattai; Gaetano Scarano; Marie-Constance Corsi; Danielle S. Bassett; Fabrizio De Vico Fallani; Stefania Colonnese
Publication Year: 2021, Page(s): 493 - 508
HTML

On Fully-Distributed Composite Tests With General Parametric Data Distributions in Sensor Networks
Juan Augusto Maya; Leonardo Rey Vega
Publication Year: 2021, Page(s): 509 - 521
HTML

Distributed Adaptive Multi-Task Learning Based on Partially Observed Graph Signals
Wei Xia; Junbin Chen; Lisha Yu
Publication Year: 2021, Page(s): 522 - 538
HTML

Data Reconstruction in Heterogeneous Environmental Wireless Sensor Networks Using Robust Tensor Principal Component Analysis
G. Rajesh; Ashvini Chaturvedi
Publication Year: 2021, Page(s): 539 - 550
HTML

Multi-Slope Path Loss and Position Estimation With Grid Search and Experimental Results
Giulio Maria Bianco; Romeo Giuliano; Franco Mazzenga; Gaetano Marrocco
Publication Year: 2021, Page(s): 551 - 561
HTML

Tensor Recursive Least Squares Filters for Multichannel Interrelational Signals
Shih Yu Chang; Hsiao-Chun Wu
Publication Year: 2021, Page(s): 562 - 577
HTML

Identification of Edge Disconnections in Networks Based on Graph Filter Outputs
Shlomit Shaked; Tirza Routtenberg
Publication Year: 2021, Page(s): 578 - 594
HTML

Multi-Scale Graph Convolutional Network With Spectral Graph Wavelet Frame
Yangmei Shen; Wenrui Dai; Chenglin Li; Junni Zou; Hongkai Xiong
Publication Year: 2021, Page(s): 595 - 610
HTML
Exploiting User Mobility for WiFi RTT Positioning: A Geometric Approach
Kyuwon Han; Seung Min Yu; Seong-Lyun Kim; Seung-Woo Ko
Publication Year: 2021, Page(s): 14589 - 14606
HTML

An Approach for Mitigation of Beam Blockage in mmWave-Based Indoor Networks
Arijit Bhattacharjee; Ratnajit Bhattacharjee; Sanjay Kumar Bose
Publication Year: 2021, Page(s): 14607 - 14622
HTML

Extreme Learning Machine for Accurate Indoor Localization Using RSSI Fingerprints in Multifloor Environments
Jun Yan; Guowen Qi; Bin Kang; Xiaohuan Wu; Huaping Liu
Publication Year: 2021, Page(s): 14623 - 14637
HTML

Over-the-Air Aggregation With Multiple Shared Channels and Graph-Based State Estimation for Industrial IoT Systems
Minjie Tang; Songfu Cai; Vincent K. N. Lau
Publication Year: 2021, Page(s): 14638 - 14657
HTML

CTrack: Acoustic Device-Free and Collaborative Hands Motion Tracking on Smartphones
Hongbo Jiang; Minglin Wang; Daibo Liu; Siwang Zhou
Publication Year: 2021, Page(s): 14658 - 14671
HTML

On the Secure Spectral Efficiency of URLLC With Randomly Located Colluding Eavesdroppers
Jamil Farhat; Glauber Brante; Richard Demo Souza; João P. Vilela
Publication Year: 2021, Page(s): 14672 - 14682
HTML

History-Aware Online Cache Placement in Fog-Assisted IoT Systems: An Integration of Learning and Control
Xin Gao; Xi Huang; Yinru Tang; Ziyu Shao; Yang Yang
Publication Year: 2021, Page(s): 14683 - 14704
HTML

A Scalable and Energy-Efficient IoT System Supported by Cell-Free Massive MIMO
Hangsong Yan; Alexei Ashikhmin; Hong Yang
Publication Year: 2021, Page(s): 14705 - 14718
HTML

Holography-Based Target Localization and Health Monitoring Technique Using UHF Tags Array
Aline Eid; Jiang Zhu; Lanzhou Xu; Jimmy G. D. Hester; Manos M. Tentzeris
Publication Year: 2021, Page(s): 14719 - 14730
Cited by: Papers (1)
HTML

Privacy-Preserving Flexible Access Control for Encrypted Data in Internet of Things
Leoy Hu; Jun Wang; Yi Mu
Publication Year: 2021, Page(s): 14731 - 14745
HTML

Blockchain-Enabled Adaptive-Learning-Based Resource-Sharing Framework for IIoT Environment
Sarah Iqbal; Rafidah Md Noor; Asad Waqar Malik; Anis U. Rahman
Publication Year: 2021, Page(s): 14746 - 14755
HTML

An Empirical Modeling for the Baseline Energy Consumption of an NB-IoT Radio Transceiver
Sikandar M. Zulqarnain Khan; Muhammad Mahtab Alam; Yannick Le Moulec; Alar Kuusik; Sven Päränd; Christos Verikoukis
Publication Year: 2021, Page(s): 14756 - 14772
HTML

Intelligent Hybrid Nonorthogonal Multiple Access Relaying for Vehicular Networks in 6G
Jian Jian; Yizhi He; Shaohua Wu; Qinyu Zhang
Publication Year: 2021, Page(s): 14773 - 14786
HTML

Edge Computing and Deep Learning Enabled Secure Multitier Network for Internet of Vehicles
Harsh Grover; Tejasvi Aliad; Vinay Chamola; Dheerendra Singh; Kim-Kwang Raymond Choo
Publication Year: 2021, Page(s): 14787 - 14796
HTML

Blockchain-Envisioned Trusted Random Oracles for IoT-Enabled Probabilistic Smart Contracts
Nikunjkumar Sureshbhai Patel; Pronaya Bhattacharya; Shivani Bharatbai Patel; Sudeep Tanwar; Neeraj Kumar; Houbing Song
Publication Year: 2021, Page(s): 14797 - 14809
HTML

Passive Indoor Visible Light Positioning System Using Deep Learning
Khaqan Majeed; Steve Hranilovic
Publication Year: 2021, Page(s): 14810 - 14821
HTML

Spatiotemporal Medium Access Control for Wireless Powered IoT Networks
Arshad Iqbal; Tae-Jin Lee
Publication Year: 2021, Page(s): 14822 - 14834
HTML

A Secured and Reliable Continuous Transmission Scheme in Cognitive HARQ-Aided Internet of Things
Fazlullah Khan; Ateeq ur Rehman; Yanliang Zhang; Spyridon Mastorakis; Houbing Song; Mian Ahmad Jan; Kapal Dev
Publication Year: 2021, Page(s): 14835 - 14844
Cited by: Papers (2)
HTML

Autonomous Vehicles Sideslip Angle Estimation: Single Antenna GNSS/IMU Fusion With Observability Analysis
Xin Xia; Ehsan Hashemi; Lu Xiong; Amir Khajepour; Nan Xu
Publication Year: 2021, Page(s): 14845 - 14859
HTML

RSS-Based Channel Estimation for IRS-Aided Wireless Energy Transfer System
Sangwon Jung; Jang-Won Lee; Chungyong Lee
Publication Year: 2021, Page(s): 14860 - 14873
HTML

Throughput-Efficient Lagrange Coded Private Blockchain for Secure IoT Systems
Alia Asheralieva; Dusit Niya
to
Publication Year: 2021, Page(s): 14874 - 14895
HTML
IEEE Internet of Things Journal

Publication Year: 2021, Page(s): C1 - C1

Table of Contents
Publication Year: 2021, Page(s): i - iii

Guest Editorial Special Issue on 6G-Enabled Internet of Things
Qilian Liang; Tariq S. Durrani; Jing Liang; Jinhwan Koh; Xin Wang
Publication Year: 2021, Page(s): 15037 - 15040
HTML

UAV-Supported Clustered NOMA for 6G-Enabled Internet of Things: Trajectory Planning and Resource Allocation
Zhenyu Na; Yue Liu; Jingcheng Shi; Chongang Liu; Zihe Gao
Publication Year: 2021, Page(s): 15041 - 15048
Cited by: Papers (14)
HTML

Uplink Resource Allocation for NOMA-Based Hybrid Spectrum Access in 6G-Enabled Cognitive Internet of Things
Xin Liu; Hua Ding; Su Hu
Publication Year: 2021, Page(s): 15049 - 15058
Cited by: Papers (6)
HTML

Exciting-Inhibition Network for Person Reidentification in Internet of Things
Meixia Fu; Songlin Sun; Qilian Liang; Xiaoyun Tong; Qiang Liu
Publication Year: 2021, Page(s): 15059 - 15069
HTML

SWIPT Cooperative Spectrum Sharing for 6G-Enabled Cognitive IoT Network
Weidang Lu; Peiyuan Si; Guoxing Huang; Huimei Han; Liping Qian; Nan Zhao; Yi Gong
Publication Year: 2021, Page(s): 15070 - 15080
Cited by: Papers (4)
HTML

Full-Duplex Nonorthogonal Multiple Access With Layers-Based Optimized Mobile Relays Subsets Algorithm in B5G/6G Ubiquitous Networks
He Huang; Su Hu; Tian Yang; Chaowei Yuan
Publication Year: 2021, Page(s): 15081 - 15095
HTML

Collaborative Design of Multi-UAV Trajectory and Resource Scheduling for 6G-Enabled Internet of Things
Jun Wang; Zhenyu Na; Xin Liu
Publication Year: 2021, Page(s): 15096 - 15106
HTML

Energy-Efficient Resource Allocation and Data Transmission of Cell-Free Internet of Things
Xiu Zhang; Hao Qi; Xin Zhang; Liang Han
Publication Year: 2021, Page(s): 15107 - 15116
HTML

6G Multisource-Information-Fusion-Based Indoor Positioning via Gaussian Kernel Density Estimation
Mu Zhou; Xinyue Li; Ya Wang; Shanshan Li; Yingyi Ding; Wei Nie
Publication Year: 2021, Page(s): 15117 - 15125
Cited by: Papers (1)
HTML

Massive MIMO Two-Way Relaying Systems With SWIPT in IoT Networks
Jinlong Wang; Gang Wang; Bo Li; Hongjuan Yang; Yulin Hu; Anke Schmeink
Publication Year: 2021, Page(s): 15126 - 15139
Cited by: Papers (2)
HTML

Directional Modulation Design Under a Given Symbol-Independent Magnitude Constraint for Secure IoT Networks
Bo Zhang; Wei Liu; Qiang Li; Yang Li; Xiaonian Zhao; Cuiping Zhang; Cheng Wang
Publication Year: 2021, Page(s): 15140 - 15147
HTML

Multilocation Human Activity Recognition via MIMO-OFDM-Based Wireless Networks: An IoT-Inspired Device-Free Sensing Approach
Yi Zhong; Ju Wang; Siliang Wu; Ting Jiang; Yan Huang; Qiang Wu
Publication Year: 2021, Page(s): 15148 - 15159
Cited by: Papers (5)
HTML
Synergic Adversarial Label Learning for Grading Retinal Diseases via Knowledge Distillation and Multi-Task Learning
Lie Ju; Xin Wang; Xin Zhao; Huimin Lu; Dwarikanath Mahapatra; Paul Bonnington; Zongyuan Ge
Publication Year: 2021, Page(s): 3688 - 3690
HTML

ML-Net: Multi-Channel Lightweight Network for Detecting Myocardial Infarction
Yangjie Cao; Tingting Wei; Bo Zhang; Nan Lin; Joel J. P. C. Rodrigues; Jie Li; Di Zhang
Publication Year: 2021, Page(s): 3691 - 3699
Cited by: Papers (1)
HTML

A Deep Learning Approach for Colonoscopy Pathology WSI Analysis: Accurate Segmentation and Classification
Ruiwei Feng; Xuechen Liu; Jintai Chen; Danny Z. Chen; Honghao Gao; Jian Wu
Publication Year: 2021, Page(s): 3700 - 3708
HTML
Two-Way MR-Forest Based Growing Path Classification for Malignancy Estimation of Pulmonary Nodules
Hongbo Zhu;Guangjie Han;Chuan Lin;Min Wang;Mohsen Guizani;Jianxia Hou;Wei Xing
Publication Year: 2021, Page(s): 3752 - 3762

TrMaps: Trust Management in Specification-Based Misbehavior Detection System for IME-Enabled Artificial Pancreas System
Philip Virgil Astillio;Gaurav Choudhary;Daniel Gerbi Duguma;Jiyoon Kim;Iljun You
Publication Year: 2021, Page(s): 3773

Sparse Twin Support Vector Clustering Using Pinball Loss
M. Tanveer;Tarun Gupta;Miten Shah;Bharat Richhariya
Cited by: Papers (1)
Publication Year: 2021, Page(s): 3776 - 3783

Distant Domain Transfer Learning for Medical Imaging
Shuteng Niu;Meryl Liu;Yongxin Liu;Jian Wang;Houbing Song
Publication Year: 2021, Page(s): 3794 - 3803

An Accurate Deep Learning Model for Clinical Entity Recognition From Clinical Notes
Syed Atif Moqrurab;Umar Ayyub;Adeel Anjum;Sohail Asghar;Gautam Srivastava
Publication Year: 2021, Page(s): 3804 - 3811

CacheTrack-YOLO: Real-Time Detection and Tracking for Thyroid Nodules and Surrounding Tissues in Ultrasound Videos
Xiangqiong Wu;Guanghua Tan;Ningbo Zhu;Zhilun Chen;Yan Yang;Huaxuan Wen;Kenli Li
Publication Year: 2021, Page(s): 3812 - 3823

EEG Fingerprints of Task-Independent Mental Workload Discrimination
Ioannis Kakkos;Georgios N. Dimitrakopoulos;Yi Sun;Jingjia Yuan;George K. Matsopoulos;Anastasios Bezerianos;Yu Sun
Publication Year: 2021, Page(s): 3824 - 3833

The Convolutional Neural Networks Training With Channel-Selectivity for Human Activity Recognition Based on Sensors
Wenbo Huang;Lei Zhang;Qi Teng;Chaoda Song;Jun He
Publication Year: 2021, Page(s): 3834 - 3843

Attention-Based LSTM for Non-Contact Sleep Stage Classification Using IR-UWB Radar
Hyun Bin Kwon;Sang Ho Choi;Dongseok Lee;Dongyeon Son;Heenam Yoon;Mi Hyun Lee;Yu Jin Lee;Kwang Suk Park
Publication Year: 2021, Page(s): 3844 - 3853

Learn Fine-Grained Adaptive Loss for Multiple Anatomical Landmark Detection in Medical Images
Guang-Quan Zhou;Juzheng Xiao;Xin Yang;Rui Li;En-Ze Huo;Wenlong Shi;Yuhao Huang;Jikuan Qian;Chaoyu Chen;Dong Ni
Publication Year: 2021, Page(s): 3854 - 3864

A Deep Learning Localization Method for Measuring Abdominal Muscle Dimensions in Ultrasound Images
Alzayat Saleh;Ismail H. Laradi;Corey Lammie;David Vazquez;Carol A Flavell;Mostafa Rahimi Azghadi
Publication Year: 2021, Page(s): 3865 - 3873

Multi-Source Transfer Learning Via Multi-Kernel Support Vector Machine Plus for B-Mode Ultrasound-Based Computer-Aided Diagnosis of Liver Cancers
Huii Zhang;Lehang Guo;Dan Wang;Jun Wang;Lili Bao;Shihui Ying;Huixiong Xu;Jun Shi
Publication Year: 2021, Page(s): 3874 - 3885

Multi-Domain Polyp Segmentation Based Computer-Aided Intraoperative Toric Intraocular Lens Positioning and Alignment During Cataract Surgery
Xuexiang Shang;Longsheng Zheng;Heping Hu;Xiluming Jin;Danny Z. Chen;Ke Yao;Jian Wu
Publication Year: 2021, Page(s): 3898 - 3910

A Spatio-Temporal Attention-Based Model for Infant Movement Assessment From Videos
Binh Nguyen-Thai;Vuong Le;Catherine Morgan;Nadia Badawi;Truyen Tran;Svetla Venkatesh
Publication Year: 2021, Page(s): 3911 - 3920

Computer-Aided Intraoperative Toric Intraocular Lens Positioning and Alignment During Cataract Surgery
Yuxuan Zhai;Guanghua Zhang;Longsheng Zheng;Guangqian Yang;Ke Zhao;Yubin Gong;Zhe Zhang;Ximei Zhang;Bin Sun;Zhao Wang
Publication Year: 2021, Page(s): 3921 - 3932

Multi-Focus Network to Decode Imaging Phenotype for Overall Survival Prediction of Gastric Cancer Patients
Liwen Zhang;Di Dong;Lanxen Zhong;Cong Li;Chaoen Hu;Xin Yang;Zaiyi Liu;Rongpin Wang;Junlin Zhou;Jie Tian
Publication Year: 2021, Page(s): 3933 - 3942

Combating Ambiguity for Hash-Code Learning in Medical Instance Retrieval
Jiansheng Fang;Huazhu Fu;Dan Zeng;Xiao Yan;Yuguang Yan;Jiang Liu
Publication Year: 2021, Page(s): 3943 - 3954

Unsupervised Self-Adaptive Auditory Attention Decoding
Simon Geirnaert;Tom Francart;Alexander Bertrand
Publication Year: 2021, Page(s): 3955 - 3966
Prediction of Life-Threatening Intracranial Hypertension During the Acute Phase of Traumatic Brain Injury Using Machine Learning Hack-Jin Lee; Hakseung Kim; Young-Tak Kim; Kanghee Won; Marek Czosnyka; Dong-Joo Kim
Publication Year: 2021, Page(s): 3967 - 3976

Possible Contexts of Use for In Silico Trials Methodologies: A Consensus-Based Review Marco Viceconti; Luca Emil; Payman Afshari; Eulalie Courcelles; Cristina Curreli; Nele Famaey; Liesbet Geris; Marc Horner; Maria Cristina Jori; Alexander Kulesza; Axel Loewe; Michael Neidlin; Markus Reiterer; Cecile F. Rousseau; Giulia Russo; Simon J. Sonntag; Emmanuelle M. Voisin; Francesco Pappalardo
Publication Year: 2021, Page(s): 3977 - 3982

A Semi-Supervised Multi-Task Learning Approach for Predicting Short-Term Kidney Disease Evolution Michele Bernardini; Luca Romeo; Emanuele Frontoni; Massih-Reza Amini
Publication Year: 2021, Page(s): 3983 - 3994

Medication Combination Prediction Using Temporal Attention Mechanism and Simple Graph Convolution Haiqiang Wang; Yinying Wu; Chao Gao; Yue Deng; Fan Zhang; Jiajin Huang; Jiming Liu
Publication Year: 2021, Page(s): 3995 - 4004

Nonlaboratory-Based Risk Assessment Model For Type 2 Diabetes Mellitus Screening in Chinese Rural Population: A Joint Bagging-Boosting Model Liying Zhang; Yikang Wang; Miaomiao Niu; Chongjian Wang; Zhenfei Wang
Publication Year: 2021, Page(s): 4005 - 4016
MESSAGE FROM THE EDITOR-IN-CHIEF
Updates on IoT Magazine and the Editorial Board
Rath Vannithamby
Publication Year: 2021, Page(s): 2 - 2
HTML

INTERNET OF THINGS FOR E-HEALTH APPLICATIONS
GUEST EDITORIAL: Internet of Things for e-Health Applications
Deepak Gupta; Victor Hugo C. de Albuquerque; Sheng-Lung Peng; Ashish Khanna; Nguyen Gia Nhu; Oscar Castillo
Publication Year: 2021, Page(s): 4 - 5
HTML

How to Exploit 5G Networks for IoT e-Health Security and Privacy Challenges
B. D. Deeb; Fadi AL-Turjman
Publication Year: 2021, Page(s): 6 - 11
HTML

When Internet of Things Meets e-Health: An Indoor Temperature Monitoring and Control Approach
Shengbo Chen; Jingtian Wang; Lanxue Zhang; Keping Yu; Ali Kashif Bashir; Rupak Kharel; Celimuge Wu
Publication Year: 2021, Page(s): 12 - 16
HTML

Comsoc Training
Publication Year: 2021, Page(s): 17 - 17
HTML

Blockchain-Based Attack Detection on Machine Learning Algorithms for IoT-based e-Health Applications
Thippa Reddy Gadekallu; Manoj M K; Sivarama Krishnan S; Neeraj Kumar; Saqib Hakak; Sweta Bhattacharya
Publication Year: 2021, Page(s): 30 - 33
HTML

Software-Defined Content Dissemination Scheme for Internet of Healthcare Vehicles in COVID-Like Scenarios
Amuleen Gulati; Gaganget Singh Aujla; Neeraj Kumar; Sahil Garg; Georges Kaddoum
Publication Year: 2021, Page(s): 34 - 40
HTML

IEEE CASS
Publication Year: 2021, Page(s): 41 - 41

Challenges and Limitations of Internet of Things Enabled Healthcare in COVID-19
Mohsin Raza; Nishant Singh; Muhammad Khalid; Suleman Khan; Muhammad Awaish; Muhammad Usman Hadi; Muhammad Imran; Saif ul Islam; Joel J. P. C. Rodrigues
Publication Year: 2021, Page(s): 60 - 65
HTML

Learning-Based Task Migration with Bargaining Strategy in the Internet of Things for e-Health Applications
Feng Sun; Zhenjiang Zhang; Bo Shen; Yingyi Zhao; Wenyu Zhang
Publication Year: 2021, Page(s): 66 - 71
HTML

Privacy-Preserving and Incentivized Contact Tracing for COVID-19 Using Blockchain
Naren; Aman Tahiliani; Vikas Hassija; Vinay Chamola; Salli S. Kanhere; Mohsen Guizani
Publication Year: 2021, Page(s): 72 - 79
HTML
2021: July-

Cell-Free and User-Centric Massive MIMO Architectures for Reliable Communications in Indoor Factory Environments
Mario Alonzo;Paolo Baracca;Saeed R. Khosravirad;Stefano Buzzi
Publication Year: 2021, Page(s): 1403 - 1404
HTML

Continuous-Phase Modulation for DFT-Spread Localized OFDM
Jeonghoon Choi;Joon Ho Cho;James S. Lehnert
Publication Year: 2021, Page(s): 1405 - 1418
HTML

A Three Dimensional MIMO Channel Model for Unmanned Aerial Vehicle in Urban Environments
Horacio A. Mendoza;Giacomrandi Corral-Briones
Publication Year: 2021, Page(s): 1419 - 1430
HTML

Energy Efficiency Maximization for Symbiotic Radio Networks With Multiple Backscatter Devices
Haohang Yang;Yinghui Ye;Kai Liang;Xiaoli Chu
Publication Year: 2021, Page(s): 1431 - 1444
HTML

An Adaptive Full-Duplex/Half-Duplex Multiuser Cooperative D2D Communications System With Best User Selection
Rahul Baipai;Naveen Gupta;Vivek Ashok Bohara
Publication Year: 2021, Page(s): 1445 - 1457
HTML

Coded Caching for Time-Varying Files Popularities and Asynchronous Delivery
Mohamed Amir;EbrahIm Bedeer;Mohamed Hossam Ahmed;Tamer Hammad
Publication Year: 2021, Page(s): 1458 - 1472
HTML

Hardware and Interference Limited Cooperative CR-NOMA Networks Under Imperfect SIC and CSI
Sultanali Arzykuluova;Galymzhana Nauryzbayev;Abdulkadir Celik;Ahmed M. Eltawil
Publication Year: 2021, Page(s): 1473 - 1485
HTML

Learning to Fly: A Distributed Deep Reinforcement Learning Framework for Software-Defined UAV Network Control
Hai Cheng;Lorenzo Bertizzolo;Salvatore D’oro;John Buczek;Tommaso Melodia;Elizabeth Serena Bentley
Publication Year: 2021, Page(s): 1486 - 1504
HTML

Point-to-Point Communication in Integrated Satellite-Aerial 6G Networks: State-of-the-Art and Future Challenges
Nasir Saeed;Heba Almorad;Hayssam Dahrouj;Tareq Y. Al-Naffour;Jeff S. Shamma;Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 1505 - 1525
HTML

Demand-Based Adaptive Multi-Beam Pattern and Footprint Planning for High Throughput GEO Satellite Systems
Puneeth Joppa Honniah;Nicola Maturu;Symeon Chatzinotas;Steven Kisseleff;Jens Krause
Publication Year: 2021, Page(s): 1526 - 1540
HTML

Rate Splitting With Finite Constellations: The Benefits of Interference Exploitation vs Suppression
Abdelhamid Salem;Christos Masouros;Bruno Clercx
Publication Year: 2021, Page(s): 1541 - 1557
HTML

Performance Analysis of Energy Harvesting-Assisted Overlay Cognitive NOMA Systems With Incremental Relaying
Alok Kumar Shukla;Vibhun Singh;Prabhat K. Upadhyay;Abhinav Kumar;Jules M. Moualeu
Publication Year: 2021, Page(s): 1558 - 1576
HTML

Electromagnetic Model of Reflective Intelligent Surfaces
Filippo Costa;Michele Borgese
Publication Year: 2021, Page(s): 1577 - 1589
HTML

Securing Public Safety Communications on Commercial and Tactical 5G Networks: A Survey and Future Research Directions
Jani Suomalainen;Jukka Julku;Mikko Vehkapera;Harri Posti
Publication Year: 2021, Page(s): 1590 - 1615
HTML

RISe of Flight: RIS-Empowered UAV Communications for Robust and Reliable Air-to-Ground Networks
Placido Mursia;Francesco Devoti;Vincenzo Sciancalepore;Xavier Costa-Pérez
Publication Year: 2021, Page(s): 1616 - 1629
HTML

Spread Spectrum Symbol Detection With Blind Interference Suppression in FBMC-SS
David B. Haab;Hussein Moradi;Behrouz Farhang-Boroujeny
Publication Year: 2021, Page(s): 1630 - 1646
HTML

Joint Analog Beam Selection and Digital Beamforming in Millimeter Wave Cell-Free Massive MIMO Systems
Cenk M. Yetis;Emil Björnson;Pontus Giselsson
Publication Year: 2021, Page(s): 1647 - 1662
HTML

Analysis of LDPC Codes in FSO Communication System Under Fast Fading Channel Conditions
Sonali Antia;Abhishek Dixit;Virander Kumar Jain
Publication Year: 2021, Page(s): 1663 - 1673
HTML

On Energy Allocation and Data Scheduling in Backscatter Networks With Multi-Antenna Readers
Mohammad Movahednasab;Mohammad Reza Pakravan;Behrooz Makki;Tommy Svensson
Publication Year: 2021, Page(s): 1674 - 1689
HTML

Power Scalable Angle of Arrival Estimation Using Pilot Design With Orthogonal Subsequences
Mahbuba S. Ullah;Ahmed Tewfik;Robert W. Heath
Publication Year: 2021, Page(s): 1690 - 1709
HTML
Deep Learning Enabled Beam Tracking for Non-Line of Sight Millimeter Wave Communications
Ruiyu Wang;Paulo Valente Klaine;Oluwakayode Onireti;Yao Sun;Muhammad Ali Imran;Lei Zhang
Publication Year: 2021, Page(s): 1710 - 1720
HTML

Comparing Delay-Constrained ALOHA and CSMA: A Learning-Based Low-Complexity Approximate Approach
Lei Deng; Youzhi Yu; Yijin Zhang; Yungkin S. Han
Publication Year: 2021, Page(s): 1721 - 1735
HTML

Millimeter-Wave Based Localization Using a Two-Stage Channel Estimation Relying on Few-Bit ADCs
Kunlun Li; Mohammed El-Hajjar; Lie-liang Yang
Publication Year: 2021, Page(s): 1736 - 1752
HTML

A Survey and Quantitative Evaluation of Integrated Circuit-Based Antenna Interfaces and Self-Interference Cancellers for Full-Duplex Tingjun Chen; Sasank Garikapati; Aravind Nagulu; Aditya Gaonkar; Manav Kohli; Igor Kadota; Harish Krishnaswamy; Gil Zussman
Publication Year: 2021, Page(s): 1753 - 1776
HTML

Dimming-Based Modulation Schemes for Visible Light Communication: Spectral Analysis and ISI Mitigation
Rishu Raj; Sonu Jaiswal; Abhishek Dixit
Publication Year: 2021, Page(s): 1777 - 1798
HTML

Secure Communication With Energy-Harvesting Buffer-Aided Jammer
Kirit Kant Sharma; Ranjan Bose
Publication Year: 2021, Page(s): 1799 - 1808
HTML

Characterization and Exploitation of Quasi Determinism in Multi-Conductor Power Line Communication Noise
Davide Righini; Andrea M. Tonello
Publication Year: 2021, Page(s): 1809 - 1825
HTML

Datasets
Access Point Placement for Hybrid UAV-Terrestrial Small-Cell Networks
Govind R. Gopal; Bhaskar D. Rao; Gabriel Porto Villardi
Publication Year: 2021, Page(s): 1826 - 1841
HTML

Energy-Efficient MU-Massive-MIMO Hybrid Precoder Design: Low-Resolution Phase Shifters and Digital-to-Analog Converters for 2D Antenna Array Structures
Moeen Mahmood; Asil Koc; Tho Le-Ngoc
Publication Year: 2021, Page(s): 1842 - 1861
HTML

Performance Analysis of Hybrid Buffer-Aided Cooperative Protocol Based on Half-Duplex and Virtual Full-Duplex Relay Selections
Gan Srirut Chataboon; Jun Kochi; Shinya Sugita
Publication Year: 2021, Page(s): 1862 - 1873
HTML

Network Function Decomposition and Offloading on Heterogeneous Networks With Programmable Data Planes
Daniele Moro; Giacomo Verticale; Antonio Capone
Publication Year: 2021, Page(s): 1874 - 1885
HTML

Signal Conditioning for Selective OFDM SWIPT Systems
Raquel F. Buckley; Robert W. Heath
Publication Year: 2021, Page(s): 1886 - 1900
HTML

Physical-Layer Security in 6G Networks
Lorenzo Mucchi; Sara Jayou; Stefano Caputo; Erdal Panayirci; Shahrriar Shahabuddin; Jonathan Bechtold; Iyvan Morales; Razvan-Andrei Stoica; Giuseppe Abreu; Harald Haas
Publication Year: 2021, Page(s): 1901 - 1914
HTML

Peter Neuhaus; Meik Dröppinghaus; Gerhard Fettweis
Publication Year: 2021, Page(s): 1915 - 1934
HTML

Privacy for 5G-Supported Vehicular Networks
Meng Li; Lie-huang Zhu; Zijian Zhang; Chhagan Lal; Mauro Conti; Fabio Martinelli
Publication Year: 2021, Page(s): 1935 - 1956
HTML

Defeating Jamming Using Outage Performance Aware Joint Power Allocation and Access Point Placement in Uplink Pairwise NOMA Van-Lan Dao; Le-Nam Hoang; Svetlana Girs; Elisabeth Uhlemann
Publication Year: 2021, Page(s): 1957 - 1979
HTML

Link Budget Analysis for Reconfigurable Smart Surfaces in Aerial Platforms
Satwan Alfattani; Wael Jaafar; Yassine Hmamouche; Halim Yanikomeroglu; Abbas Yongaogolu
Publication Year: 2021, Page(s): 1980 - 1995
HTML

Coexistence of Cellular and IEEE 802.11 Technologies in Unlicensed Spectrum Bands - A Survey
Rony Kumer Saha
Publication Year: 2021, Page(s): 1996 - 2028
HTML

Massive Measurements of 5G Exposure in a Town: Methodology and Results
Luca Chiariaviglio; Chiara Lodovisi; Daniele Franci; Settimio Pavoncello; Tommaso Aureli; Nicola Blefari-Melazzi; Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 2029 - 2048
HTML

Quantum Key Distribution Secured Optical Networks: A Survey
Purva Sharma; Anuj Agrawal; Vimal Bhatia; Shashi Prakash; Amit Kumar Mishra
Publication Year: 2021, Page(s): 2049 - 2083
HTML

Tracking Model Predictive Control Paradigm for Underwater Optical Communication
Asem Alalwan; Fahad Albalawi; Taous Meriem Laleg-Kirati
Publication Year: 2021, Page(s): 2084 - 2094
HTML

FPV Video Adaptation for UAV Collision Avoidance
Simran Singh; Hee Won Lee; Tuyen X. Tran; Yu Zhou; Mihail L. Sichitiu; Ismail Güvenç; Anupjyoti Bhuyan
Publication Year: 2021, Page(s): 2095 - 2110
HTML
Fundamental Limits on Detection of UAVs by Existing Terrestrial RF Networks
Priyanka Sinha, İsmail Güvenç, M. Cenk Gürsoy
Publication Year: 2021, Page(s): 2111 - 2130

Health Risks Associated With 5G Exposure: A View From the Communications Engineering Perspective
Luca Chiaraviglio, Ahmed Elzanaty, Mohamed-Slim Alouini
Publication Year: 2021, Page(s): 2131 - 2179

Artificially Time-Varying Differential MIMO for Achieving Practical Physical Layer Security
Naoki Ishikawa, Jehad M. Hamamreh, Eiji Okamoto, Chao Xu, Lixia Xiao
Publication Year: 2021, Page(s): 2180 - 2194

Experimental Exploration of Unlicensed Sub-GHz Massive MIMO for Massive Internet-of-Things
Gilles Callebaut, Sara Gunnarsson, Andrea P. Guevara, Anders J. Johansson, Liesbet Van Der Perre, Fredrik Tufvesson
Publication Year: 2021, Page(s): 2195 - 2204

Wireless-Powered Full-Duplex UAV Relay Networks Over FTR Channels
Daniel De Paiva Mucin, Diana Pamela Moya Osorio, Edgar Eduardo Benitez Olivo
Publication Year: 2021, Page(s): 2205 - 2218

Attacking Massive MIMO Cognitive Radio Networks by Optimized Jamming
S. Fatemeh Zamanian, Mohammad Hossein Kahaei, S. Mohammad Razavizadeh, Tommy Svensson
Publication Year: 2021, Page(s): 2219 - 2231