

2019 28th International Conference on Computer Communication and Networks (ICCCN 2019)

**Valencia, Spain
29 July – 1 August 2019**

Pages 1-441



**IEEE Catalog Number: CFP19143-POD
ISBN: 978-1-7281-1857-4**

**Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP19143-POD
ISBN (Print-On-Demand):	978-1-7281-1857-4
ISBN (Online):	978-1-7281-1856-7
ISSN:	1095-2055

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

SPARC: TOWARDS A SCALABLE DISTRIBUTED CONTROL PLANE ARCHITECTURE FOR PROTOCOL-OBLIVIOUS SDN NETWORKS	1
<i>Mingzheng Li ; Xiaodong Wang ; Haojie Tong ; Tong Liu ; Ye Tian</i>	
TOWARDS REDUCING LAST-LEVEL-CACHE INTERFERENCE OF CO-LOCATED VIRTUAL NETWORK FUNCTIONS	10
<i>Raphael Durner ; Christian Sieber ; Wolfgang Kellerer</i>	
ON THE CONSTRUCTION OF OPTIMAL EMBEDDING PROBLEMS FOR DELAY-SENSITIVE SERVICE FUNCTION CHAINS	19
<i>Andreas Fischer ; Deval Bhamare ; Andreas Kassler</i>	
A DATA DISTRIBUTION SERVICE IN A HIERARCHICAL SDN ARCHITECTURE: IMPLEMENTATION AND EVALUATION	29
<i>Alejandro Llorens-Carrodegua ; Cristina Cervello-Pastor ; Irian Leyva-Pupo</i>	
FLOW-BASED NETWORK SLICING: MAPPING THE FUTURE MOBILE RADIO ACCESS NETWORKS	38
<i>Estefania Coronado ; Roberto Riggio</i>	
LOCATION-AWARE TARGETED INFLUENCE BLOCKING MAXIMIZATION IN SOCIAL NETWORKS	47
<i>Wenlong Zhu ; Wu Yang ; Shichang Xuan ; Dapeng Man ; Wei Wang ; Jiguang Lv</i>	
SIMILARITY ANALYSIS OF CRIMINALS ON SOCIAL NETWORKS: AN EXAMPLE ON TWITTER	56
<i>Andrea Tundis ; Archit Jain ; Gaurav Bhatia ; Max Muhlhauser</i>	
ASSESSING SOCIAL ASPECTS OF URBAN VEHICULAR SCENARIOS FOR IMPROVING MESSAGE DIFFUSION	65
<i>Enrique Hernandez-Orallo ; Leonardo Chancay-Garcia ; Pietro Manzoni ; Carlos Tavares Calafate ; Juan-Carlos Cano</i>	
COLLABDRONE: A COLLABORATIVE SPATIOTEMPORAL-AWARE DRONE SENSING SYSTEM DRIVEN BY SOCIAL SENSING SIGNALS	74
<i>Md Tahmid Rashid ; Daniel Zhang ; Zhiyu Liu ; Hai Lin ; Dong Wang</i>	
WHEN SOCIAL SENSING MEETS EDGE COMPUTING: VISION AND CHALLENGES	83
<i>Daniel Zhang ; Nathan Vance ; Dong Wang</i>	
SIMULATION EVALUATION OF FUEL-SAVING SYSTEMS IN THE CITY OF CHICAGO	92
<i>Yiran Zhao ; Shuochao Yao ; Dongxin Liu ; Huajie Shao ; Shengzhong Liu ; Tarek Abdelzaher</i>	
MOBIAMBULANCE: OPTIMAL SCHEDULING OF EMERGENCY VEHICLES IN CATASTROPHIC SITUATIONS	101
<i>Li Yan ; Shohaib Mahmud ; Haiying Shen ; Natasha Zhang Foutz ; Donald E. Brown ; Wie Yusuf ; Derek Loftis ; Lucas Lyons ; Jonathan L. Goodall ; Joshua Anton</i>	
ESTIMATING SOCIOECONOMIC STATUS VIA TEMPORAL-SPATIAL MOBILITY ANALYSIS - A CASE STUDY OF SMART CARD DATA	110
<i>Shichang Ding ; Hong Huang ; Tao Zhao ; Xiaoming Fu</i>	
A NOVEL IOT PROTOCOL ARCHITECTURE: EFFICIENCY THROUGH DATA AND FUNCTIONALITY SHARING ACROSS LAYERS	119
<i>Vinicius Galvao Guimaraes ; Renato Mariz De Moraes ; Katia Obraczka ; Adolfo Bauchspiess</i>	
COST-MINIMUM CHARGER PLACEMENT FOR WIRELESS POWER TRANSFER	128
<i>Xingjian Ding ; Guodong Sun ; Yongcai Wang ; Chuanwen Luo ; Deying Li ; Wenping Chen ; Qian Hu</i>	
CHARACTERIZING INTERFERENCE MITIGATION TECHNIQUES IN DENSE 60 GHZ MMWAVE WLANS	137
<i>Ding Zhang ; Panneer Selvam Santhalingam ; Parth Pathak ; Zizhan Zheng</i>	
WIWRITE: WI-FI BASED HANDWRITING RECOGNITION LIKE PLAYING LEGO	146
<i>Jiang Xiao ; Huichuwu Li ; Yuxiang Liu</i>	
CHARACTERIZING THE PERFORMANCE OF WIFI IN DENSE IOT DEPLOYMENTS	155
<i>Anirudh Ganji ; Griffin Page ; Muhammad Shahzad</i>	
PROBABILISTIC PARTITIONING FOR EDGE SERVER ASSIGNMENT WITH TIME-VARYING WORKLOAD	164
<i>Quynh Vo ; Duc A. Tran</i>	
JOINT OPTIMIZATION OF COMPUTING RESOURCES AND DATA ALLOCATION FOR MOBILE EDGE COMPUTING (MEC): AN ONLINE APPROACH	172
<i>Xun Shao ; Go Hasegawa ; Noriaki Kamiyama ; Zhi Liu ; Hiroshi Masui ; Yusheng Ji</i>	

AN IMPROVED MAXIMUM FLOW ROUTING ALGORITHM FOR MULTI-HOMING IN INFORMATION-CENTRIC NETWORKING	181
<i>Pufang Ma ; Jinlin Wang ; Jiali You</i>	
UPDATE METHOD FOR CONTROLLER PLACEMENT PROBLEM IN SOFTWARE-DEFINED SATELLITE NETWORKING	189
<i>Shuai Wu ; Xianfeng Liu ; Quan Chen ; Jianming Guo ; Lei Yang ; Yong Zhao ; Chengguang Fan</i>	
ADVANCES IN RELIABLE FILE-STREAM MULTICASTING OVER MULTI-DOMAIN SOFTWARE DEFINED NETWORKS (SDN)	196
<i>Yuanlong Tan ; Shuoshuo Chen ; Steve Emmerson ; Yizhe Zhang ; Malathi Veeraraghavan</i>	
A DISTRIBUTED SDN APPLICATION FOR CROSS-INSTITUTION DATA ACCESS	207
<i>Shafaq Chaudhry ; Eyuphan Bulut ; Murat Yuksel</i>	
ENABLING SHARED CONTROL AND TRUST IN HYBRID SDN/LEGACY NETWORKS	216
<i>Pinyi Shi ; Sergio Rivera ; Lowell Pike ; Zongming Fei ; James Griffioen ; Kenneth Calvert</i>	
SOFTWARE-DEFINED WIDE AREA NETWORK (SD-WAN): ARCHITECTURE, ADVANCES AND OPPORTUNITIES	225
<i>Zhenjie Yang ; Yong Cui ; Baochun Li ; Yadong Liu ; Yi Xu</i>	
DESIGNING HIGHLY-AVAILABLE SERVICE PROVIDER NETWORKS WITH NFV COMPONENTS	234
<i>Sidharth Sharma ; Aniruddha Kushwaha ; Arun Somani ; Ashwin Gumaste</i>	
APPROXIMATE RANGE EMPTINESS IN CONSTANT TIME FOR IOT DATA STREAMS OVER SLIDING WINDOWS	243
<i>Xiujun Wang ; Zhi Liu ; Yangzhao Yang ; Xun Shao ; Yu Gu ; Susumu Ishihara</i>	
TS-TCP: TWO-STAGE CONGESTION CONTROL ALGORITHM FOR HIGH CONCURRENCY TCPS IN DATA CENTER NETWORKS	253
<i>Yifei Lu ; Yan Li</i>	
ENHANCING THE NS-3 SIMULATOR BY INTRODUCING ELECTRIC VEHICLES FEATURES	262
<i>Julio A. Sanguesa ; Samuel Salvatella ; Francisco J. Martinez ; Johann M. Marquez-Barja ; Manuel P. Ricardo</i>	
MAYOR: MACHINE LEARNING AND ANALYTICS FOR AUTOMATED OPERATIONS AND RECOVERY	269
<i>Rashid Mijumbi ; Abhaya Asthana ; Carlos Bernal ; Manuel Castejon</i>	
RDMA LOAD BALANCING VIA DATA PARTITION	278
<i>Yi Wang ; Ya-Nan Jiang ; Qiufang Ma ; Chen Tian ; Bo Bai ; Gong Zhang</i>	
ACCELERATING BIG DATA ANALYTICS USING SCALE-UP/OUT HETEROGENEOUS CLUSTERS	286
<i>Zhuozhao Li ; Haiying Shen ; Lee Ward</i>	
A GAME-BASED COMBINATORIAL DOUBLE AUCTION MODEL FOR CLOUD RESOURCE ALLOCATION	295
<i>Qihui Li ; Chuanhe Huang ; Haizhou Bao ; Bin Fu ; Xiaohua Jia</i>	
RESOURCE ALLOCATION FOR MINIMIZED POWER CONSUMPTION IN HARDWARE ACCELERATED CLOUDS	303
<i>Nazim Umut Ekici ; Klaus Werner Schmidt ; Alper Yazar ; Ece Guran Schmidt</i>	
ON THE IMPORTANCE OF CONTAINER IMAGE PLACEMENT FOR SERVICE PROVISIONING IN THE EDGE	311
<i>Jad Darrous ; Thomas Lambert ; Shadi Ibrahim</i>	
PREDICTING FRIENDSHIP PAIRS FROM BLE BEACONS USING DINING HALL VISITS	320
<i>Rachael Purta ; Aaron Striegel</i>	
HIERARCHICAL DUTY-CYCLING OF WIRELESS SENSORS	329
<i>Jinhwan Jung ; Kien Pham ; Joohyun Kang ; Juneha Song ; Sung-Ju Lee ; Yung Yi</i>	
AN ACTOR-CRITIC REINFORCEMENT LEARNING APPROACH FOR ENERGY HARVESTING COMMUNICATIONS SYSTEMS	338
<i>Ala'Eddin Masadeh ; Zhengdao Wang ; Ahmed E. Kamal</i>	
TOWARDS BUILDING LOW POWER MAGNETIC COMMUNICATION PROTOCOLS FOR CHALLENGING ENVIRONMENTS	344
<i>Amitangshu Pal ; Rajpreet Kaur Gulati ; Krishna Kant</i>	
PUBLISH-SUBSCRIBE COMMUNICATION IN BUILDING MANAGEMENT SYSTEMS OVER NAMED DATA NETWORKING	353
<i>Wentao Shang ; Ashlesh Gawande ; Minsheng Zhang ; Alexander Afanasyev ; Jeffrey Burke ; Lan Wang ; Lixia Zhang</i>	
PROTECTING AGAINST INFERENCE ATTACKS ON CO-LOCATION DATA	363
<i>Ritesh Ahuja ; Gabriel Ghinita ; Nithin Krishna ; Cyrus Shahabi</i>	
A HYBRID ONLINE OFFLINE SYSTEM FOR NETWORK ANOMALY DETECTION	374
<i>Murugaraj Odiathevar ; Winston K. G. Seah ; Marcus Freen</i>	

DESIGNING SECURITY-AWARE SERVICE REQUESTS FOR NFV-ENABLED NETWORKS	383
<i>Houda Jmila ; Gregory Blanc</i>	
A MASSIVELY MULTI-TENANT VIRTUALIZED NETWORK INTRUSION PREVENTION SERVICE ON NFV PLATFORM	392
<i>Haiyang Jiang ; Ye Yang ; Hongtao Guan ; Gaogang Xie ; Kave Salamatian</i>	
SDN_BASED SECURE HEALTHCARE MONITORING SYSTEM(SDN-SHMS)	401
<i>Mohamad Khayat ; Ezedin Barka ; Farag Sallabi</i>	
VEHICLE ROUTING TRIFECTA: DATA-DRIVEN ROUTE RECOMMENDATION SYSTEM	408
<i>Ankur Sarker ; Haiying Shen ; Bryant Murphy ; Roman Wang ; Mac Devine ; A. J. Rindos</i>	
AN UAV SWARM COORDINATION PROTOCOL SUPPORTING PLANNED MISSIONS	417
<i>Francisco Fabra ; Willian Zamora ; Pablo Reyes ; Carlos T. Calafate ; Juan-Carlos Cano ; Pietro Manzoni ; Enrique Hernandez-Orallo</i>	
PRICE-DRIVEN ECONOMIC CACHE CONTENT NASH BARGAINING GAME IN WIRELESS MULTIMEDIA RESOURCE ALLOCATION	426
<i>Shuan He ; Wei Wang</i>	
A USER-CENTRIC MOBILITY MANAGEMENT SCHEME FOR HIGH-DENSITY FOG COMPUTING DEPLOYMENTS	434
<i>Zeineb Rejiba ; Xavier Masip-Bruin ; Eva Marin-Tordera</i>	
MPTCP PERFORMANCE OVER HETEROGENOUS SUBPATHS	442
<i>Vivek Adarsh ; Paul Schmitt ; Elizabeth Belding</i>	
ODVR: A UNIFYING APPROACH TO ON-DEMAND AND PROACTIVE LOOP-FREE ROUTING IN AD-HOC NETWORKS	451
<i>J. J. Garcia-Luna-Aceves ; Ehsan Hemmati</i>	
BINARY MDS ARRAY CODES WITH ASYMPTOTICALLY OPTIMAL REPAIR FOR ALL COLUMNS	462
<i>Hanxu Hou ; Yunghsiang S. Han ; Patrick P. C. Lee</i>	
OPTIMIZING 5G PERFORMANCE BY REALLOCATING UNUSED RESOURCES	471
<i>Fidan Mehmeti ; Thomas F. La Porta</i>	
ACCELERATION OF PACKET CLASSIFICATION USING ADJACENCY LIST OF RULES	480
<i>Takashi Fuchino ; Takashi Harada ; Ken Tanaka ; Kenji Mikawa</i>	
COFILTER: A HIGH-PERFORMANCE SWITCH-ACCELERATED STATEFUL PACKET FILTER FOR BARE-METAL SERVERS	489
<i>Jiamin Cao ; Ying Liu ; Yu Zhou ; Chen Sun ; Yangyang Wang ; Jun Bi</i>	
OPTIMIZING ORDER DISPATCH FOR RIDE-SHARING SYSTEMS	498
<i>Yubin Duan ; Ning Wang ; Jie Wu</i>	
EMPTCP: AN ECN BASED APPROACH TO DETECT SHARED BOTTLENECK IN MPTCP	507
<i>Jin Ye ; Renzhang Liu ; Ziqi Xie ; Luting Feng ; Sen Liu</i>	
TOWARDS ONLINE DEEP LEARNING-BASED ENERGY FORECASTING	517
<i>Fan Liang ; William Grant Hatcher ; Guobin Xu ; James Nguyen ; Weixian Liao ; Wei Yu</i>	
ERROR RECOVERY OF RDMA PACKETS IN DATA CENTER NETWORKS	526
<i>Yi Wang ; Kexin Liu ; Chen Tian ; Bo Bai ; Gong Zhang</i>	
NO MORE FREE RIDERS: SHARING WIFI SECRETS WITH ACOUSTIC SIGNALS	534
<i>Li Zhang ; Xiaojun Zhu ; Xiaobing Wu</i>	
THE PRICE IS (NOT) RIGHT: REFLECTIONS ON PRICING FOR TRANSIENT CLOUD SERVERS	542
<i>David Irwin ; Prashant Shenoy ; Pradeep Ambati ; Prateek Sharma ; Supreeth Shastri ; Ahmed Ali-Eldin</i>	
THE PROGRESSIVE MAPPING SYSTEM ARCHITECTURE FOR GLOBAL RESOURCES MANAGEMENT	551
<i>Jordi Garcia ; Xavi Masip-Bruin ; Yunsong Lu</i>	
DATA-CENTRIC VIDEO FOR MIXED REALITY	559
<i>Peter Gusev ; Jeff Thompson ; Jeff Burke</i>	
A REACTION-BASED APPROACH TO INFORMATION CASCADE ANALYSIS	570
<i>James Flamino ; Boleslaw K. Szymanski</i>	
WHEN BLOCKCHAIN TAKES CARE OF THE OLSR NETWORK	579
<i>May Thura Lwin ; Young-Bae Ko ; Dohyung Kim</i>	
DISTRIBUTED TDMA SCHEDULING USING TOPOLOGICAL ORDERING IN WIRELESS SENSOR NETWORKS	581
<i>Thanh-Tung Nguyen ; Linh-An Phan ; Taejoon Kim ; Taehong Kim ; Jaeseang Lee ; Jaehyun Ham</i>	
DESIGN AND IMPLEMENTATION OF SENSING SYSTEM FOR QUALITY ANALYSIS OF 802.11 WIRELESS LINKS	583
<i>Morihiko Tamai ; Akio Hasegawa ; Hiroyuki Yokoyama</i>	

NEW ENERGY-EFFICIENT HIERARCHICAL CLUSTERING APPROACH BASED ON NEIGHBOR ROTATION FOR EDGE COMPUTING OF IOT	585
<i>De-Gan Zhang ; Jian-Ning Qiu ; Ting Zhang ; Hao Wu</i>	
SUPPRESSION OF THE EMI FROM CO-SITE VHF RADIO TO SATELLITE COMMUNICATION NETWORK	587
<i>Wanning Zhou ; Feng Wang ; Zhiguo Zhao ; Xie Ma</i>	
ADAPTIVE GRADIENT TIME SYNCHRONIZATION PROTOCOL IN WIRELESS AD-HOC NETWORKS.....	589
<i>Yong Jeong Kim ; Linh-An Phan ; Taejoon Kim ; Taehong Kim ; Jaeseang Lee ; Jae-Hyun Ham</i>	
A SECURE MULTI-FACTOR REMOTE USER AUTHENTICATION SCHEME FOR CLOUD-IOT APPLICATIONS.....	591
<i>Joonyoung Lee ; Myeonghyun Kim ; Sungjin Yu ; Kisung Park ; Youngho Park</i>	
A SECURE AUTHENTICATION AND KEY ESTABLISHMENT SCHEME FOR WEARABLE DEVICES	593
<i>Myeonghyun Kim ; Joonyoung Lee ; Sungjin Yu ; Kisung Park ; Yohan Park ; Youngho Park</i>	
DEEP LEARNING TECHNIQUE FOR IMPROVING DATA RECEPTION IN OPTICAL CAMERA COMMUNICATION-BASED V2I.....	595
<i>Dong Nyeok Choi ; Sung Yooun Jin ; Juhee Lee ; Byung Wook Kim</i>	
BEAM: BEHAVIOR-BASED ACCESS CONTROL MECHANISM FOR SDN APPLICATIONS.....	597
<i>Bhavesh Toshniwal ; Kalpana D. Joshi ; Pragati Shrivastava ; Kotaro Kataoka</i>	
ACCURATE MEASUREMENT TECHNIQUE OF PACKET LOSS RATE IN PARALLEL FLOW MONITORING.....	599
<i>Kohei Watabe ; Norinosuke Murai ; Shintaro Hirakawa ; Kenji Nakagawa</i>	
DISTRIBUTED VEHICLE TRAJECTORY TRACKING FOR EFFICIENT ROUTING IN VDTNS	601
<i>Bo Wu ; Haiying Shen</i>	
SMART HOME SECURITY: A DISTRIBUTED IDENTITY-BASED SECURITY PROTOCOL FOR AUTHENTICATION AND KEY EXCHANGE	610
<i>M. Mazhar Rathore ; Elmahdi Bentafat ; Spiridon Bakiras</i>	
MULTI-TASK SENSING FOR MULTIPLE CROWDSOURCERS: A DYNAMIC GAME BASED PRICING MODEL.....	619
<i>Hafiz Muhammad Azeem Akram</i>	
DISC: A NOVEL DISTRIBUTED ON-DEMAND CLUSTERING PROTOCOL FOR INTERNET OF MULTIMEDIA THINGS.....	628
<i>Amrita Ghosal ; Subir Halder ; Mauro Conti</i>	
TOWARDS DEEP LEARNING-BASED DETECTION SCHEME WITH RAW ECG SIGNAL FOR WEARABLE TELEHEALTH SYSTEMS.....	637
<i>Peng Zhao ; Dekui Quan ; Wei Yu ; Xinyu Yang ; Xinwen Fu</i>	
GENERATING CLIENT SIDE POLICIES FOR CYBER-PHYSICAL SAFETY	646
<i>Dinesh Verma ; Seraphin Calo ; Elisa Bertino ; Geeth De Mel ; Mudhakar Srivatsa</i>	
DATA MANAGEMENT IN SUPPLY CHAIN USING BLOCKCHAIN: CHALLENGES AND A CASE STUDY.....	654
<i>Hanqing Wu ; Jiannong Cao ; Yanni Yang ; Cheung Leong Tung ; Shan Jiang ; Bin Tang ; Yang Liu ; Xiaoqing Wang ; Yuming Deng</i>	
A CLIENT-BIASED COOPERATIVE SEARCH SCHEME IN BLOCKCHAIN-BASED DATA MARKETS.....	662
<i>Suhan Jiang ; Yubin Duan ; Jie Wu</i>	
CLOUDDLP: TRANSPARENT AND AUTOMATIC DATA SANITIZATION FOR BROWSER-BASED CLOUD STORAGE	671
<i>Chuanyi Liu ; Peiyi Han ; Yingfei Dong ; Hezhong Pan ; Shaoming Duan ; Binxing Fang</i>	
A REFERENCE ARCHITECTURE BASED ON EDGE AND CLOUD COMPUTING FOR SMART MANUFACTURING.....	679
<i>Johannes Vater ; Lars Harscheidt ; Alois Knoll</i>	
DISAGGREGATED CLOUD MANAGEMENT FOR EDGE COMPUTING	686
<i>Rafael Moreno-Vozmediano ; Eduardo Huedo ; Ruben S. Montero ; Ignacio M. Llorente</i>	
OPENSTACK GENERALIZATION FOR HARDWARE ACCELERATED CLOUDS.....	692
<i>Ahmet Erol ; Alper Yazar ; Ece Guran Schmidt</i>	
AD-HOC EDGE CLOUD: A FRAMEWORK FOR DYNAMIC CREATION OF EDGE COMPUTING INFRASTRUCTURES.....	700
<i>Ana Juan Ferrer ; Joan Manuel Marques ; Josep Jorba</i>	

IMPROVING TCP PERFORMANCE AND REDUCING SELF-INDUCED CONGESTION WITH RECEIVE WINDOW MODULATION.....	707
<i>Francesco Ciaccia ; Oriol Arcas-Abella ; Diego Montero ; Ivan Romero ; Rodolfo Milito ; Rene Serral-Gracia ; Mario Nemirovsky</i>	
DUE DISTRIBUTION AND PAIRING IN D2D COMMUNICATION	713
<i>Weifeng Lu ; Xiaoqiang Ren ; Jia Xu ; Siguang Chen ; Lijun Yang ; Jian Xu</i>	
NEW METHOD OF THE BEST PATH SELECTION WITH LENGTH PRIORITY BASED ON REINFORCEMENT LEARNING STRATEGY	721
<i>Xiao-Huan Liu ; De-Gan Zhang ; Ting Zhang ; Yu-Ya Cui</i>	
THE EFFECT OF MOBILITY ON DELAYED DATA OFFLOADING	727
<i>Xiaoyi Zhou ; Tong Ye ; Tony T. Lee</i>	
CORR: CENTRALIZED OPPORTUNISTIC REACTIVE ROUTING FOR MOBILE MULTI-HOP WIRELESS NETWORKS.....	733
<i>Ayush Dusia ; Ram Ramanathan ; Adarshpal S. Sethi</i>	
MULTI-HOP D2D ASSISTED REAL-TIME VIDEO STREAMING TRANSMISSION SYSTEM IN INFRASTRUCTURE-LESS NETWORKS.....	739
<i>Jie Li ; Tengfei Li ; Fuliang Li ; Tao Hong ; Xingwei Wang</i>	
IMPROVED CLOCK SYNCHRONIZATION ALGORITHMS FOR THE CONTROLLER AREA NETWORK (CAN).....	745
<i>Murat Akpinar ; Klaus Werner Schmidt ; Ece Guran Schmidt</i>	
RANDOM ACCESS CONGESTION CONTROL FOR PERIODIC SAFETY MESSAGES IN DENSE TRAFFIC NETWORKS.....	753
<i>Tae Hoon Kwon ; Wonwoo Jo ; Jong-Yul Lee ; Hyo-Seung Seo ; Minjin Baek ; Sang-Sun Lee</i>	
JOINT OPTIMIZATION OF GAIN AND BEACONING FOR FIRST ORDER CONSENSUS UNDER RAYLEIGH FADING.....	757
<i>Daniel Schneider ; Hannes Frey</i>	
AN ANALYTICAL MODEL FOR VIRTUAL CUT-THROUGH ROUTING	765
<i>Lev B. Levitin ; Yelena Rykalova</i>	
BIO INSPIRED STRATEGY FOR IMPROVING PLATOON MANAGEMENT IN THE FUTURE AUTONOMOUS ELECTRICAL VANET ENVIRONMENT	772
<i>F. De Rango ; M. Tropea ; P. Raimondo ; A. F. Santamaria ; P. Fazio</i>	
EFFICIENT 3D PLACEMENT OF UAVS WITH QOS ASSURANCE IN AD HOC WIRELESS NETWORKS.....	779
<i>Bhanukiran Perabathini ; Kiranteja Tummuri ; Achal Agrawal ; Vineeth S. Varma</i>	
A NOVEL CONGESTION-AWARE INTEREST FLOODING ATTACKS DETECTION MECHANISM IN NAMED DATA NETWORKING	785
<i>Ahmed Benmoussa ; Abdou El Karim Tahari ; Nasreddine Lagaa ; Abderrahmane Lakas ; Farhan Ahmad ; Rasheed Hussain ; Chaker Abdelaziz Kerrache ; Fatih Kurugollu</i>	
A GENERAL APPROACH TO FUZZY COMMUNITY DETECTION IN SOCIAL NETWORKS.....	791
<i>Alfonso Nino ; Sebastian Reyes ; Jose Angel Martin-Baos ; Camelia Munoz-Caro</i>	
WHAT DO PATIENTS TELL DOCTORS ON THE INTERNET? ASK AI HOW TO VALORIZE ONLINE MEDICAL CONVERSATIONS.....	799
<i>Luca Casini ; Giovanni Delnevo ; Silvia Mirri ; Lorenzo Monti ; Catia Prandi ; Marco Rocchetti ; Paola Salomoni</i>	
DIABETES: WHAT ARE ITALIAN TWITTER USERS TALKING ABOUT?.....	805
<i>Stefano Ferretti ; Marco Furini ; Manuela Montangero</i>	
ON PREDICTING THE SUCCESS OF POLITICAL TWEETS USING PSYCHO-LINGUISTIC CATEGORIES.....	811
<i>Marco Furini ; Manuela Montangero</i>	
COMBINING SENTIMENT ANALYSIS AND SOCIAL NETWORK ANALYSIS TO EXPLORE TWITTER OPINION SPREADING	817
<i>Domenico De Stefano ; Francesco Santelli</i>	
DETECTION OF SATIRIC NEWS ON SOCIAL MEDIA: ANALYSIS OF THE PHENOMENON WITH A FRENCH DATASET.....	823
<i>Zhan Liu ; Shaban Shabani ; Nicole Glassey Balet ; Maria Sokhn</i>	
EXPLOITING SOCIAL MEDIA FOR RECOMMENDING NEW LOCATIONS	829
<i>Carmela Comito</i>	
EMPLOYEE ATTITUDES AND (DIGITAL) COLLABORATION DATA: A PRELIMINARY ANALYSIS IN THE HRM FIELD.....	835
<i>Tommaso Fabbri ; Federica Mandreoli ; Riccardo Martoglia ; Anna Chiara Scapolan</i>	
TRACKING CRIMINAL EVENTS THROUGH IOT DEVICES AND AN EDGE COMPUTING APPROACH	841
<i>Andrea Tundis ; Humayun Kaleem ; Max Muhlhauser</i>	

ARCHITECTURE AND USE CASE FOR AN IOT DEPLOYMENT WITH SDN AT THE EDGE AND DUAL PHYSICAL AND VIRTUAL GATEWAY	847
<i>Jara Suarez De Puga ; Carlos E. Palau Salvador ; Andreu Belsa Pellicer</i>	
AN IOT SYSTEM FOR MONITORING AND DATA COLLECTION OF RESIDENTIAL WATER END-USE CONSUMPTION	853
<i>Anna Di Mauro ; Armando Di Nardo ; Giovanni Francesco Santonastaso ; Salvatore Venticinque</i>	
BLOCKCHAIN-BASED MOBILITY-AS-A-SERVICE	859
<i>Tri Hong Nguyen ; Juha Partala ; Susanna Pirttikangas</i>	
TUSOW: TUPLE SPACES FOR EDGE COMPUTING	865
<i>Giovanni Ciatto ; Lorenzo Rizzato ; Andrea Omicini ; Stefano Mariani</i>	
DATA MINING AT THE IOT EDGE	871
<i>Claudio Savaglio ; Pietro Gerace ; Giuseppe Di Fatta ; Giancarlo Fortino</i>	
TOWARDS EDISON: AN EDGE-NATIVE APPROACH TO DISTRIBUTED INTERPOLATION OF ENVIRONMENTAL DATA	877
<i>Lauri Loven ; Ella Peltonen ; Abhinay Pandya ; Teemu Leppanen ; Ekaterina Gilman ; Susanna Pirttikangas ; Jukka Riekkii</i>	
IOT-HC: A NOVEL IOT ARCHITECTURE FOR THE HYBRID CLOUD	883
<i>Carmine De Napoli ; Agostino Forestiero ; Giancarlo Fortino ; Andrea Giordano ; Antonio Guerrieri ; Demetrio Lagana ; Giovanni Lupi ; Carlo Mastroianni ; Leonardo Spataro</i>	
DISTRIBUTED ARTIFICIAL INTELLIGENCE WITH MULTI-AGENT SYSTEMS FOR MEC	889
<i>Teemu Leppanen</i>	
MALICIOUS WORD DOCUMENT DETECTION BASED ON MULTI-VIEW FEATURES LEARNING	897
<i>Xiaofeng Lu ; Fei Wang ; Zifeng Shu</i>	
IDENTIFICATION OF RESOURCE UTILISATION PATTERNS IN DATA CENTERS USING TENSOR DECOMPOSITION	903
<i>Waltenegus Dargie</i>	
LOCATION AWARE CLUSTERING AND EPIDEMIC TRUST MANAGEMENT IN MOBILE AD HOC NETWORK	909
<i>Michail Chatzidakis ; Stathes Hadjiefthymiades</i>	
USER AUTHENTICATION FOR SMART HOME NETWORKS BASED ON MOBILE APPS USAGE	916
<i>Yosef Ashibani ; Qusay H. Mahmoud</i>	
A HYBRID MODEL FOR OPTIMAL DEFENSE STRATEGY GENERATION	922
<i>Su Yang ; Weiqiang Xie ; Chensi Wu ; Wenjie Wang ; Yuqing Zhang</i>	
SUPERVISED MACHINE LEARNING TECHNIQUES FOR EFFICIENT NETWORK INTRUSION DETECTION	928
<i>Nada Aboueata ; Sara Alrasbi ; Aiman Erbad ; Andreas Kassler ; Deval Bhamare</i>	
Author Index	