

**2017 IEEE 28th Annual  
International Symposium on  
Personal, Indoor, and Mobile  
Radio Communications  
(PIMRC 2017)**

**Montreal, Quebec, Canada  
8-13 October 2017**

**Pages 1-649**



**IEEE Catalog Number: CFP17PIM-POD  
ISBN: 978-1-5386-3532-2**

**Copyright © 2017 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:	CFP17PIM-POD
ISBN (Print-On-Demand):	978-1-5386-3532-2
ISBN (Online):	978-1-5386-3531-5
ISSN:	2166-9570

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

<b>EVALUATION OF LOCAL TRANSMISSION DELAY OF MIMO-ZFBF MULTIPLEXING RECEIVERS UNDER CORRELATED INTERFERENCE</b> .....	1
<i>Mohammad G. Khoshkholgh ; Victor C. M. Leung</i>	
<b>SECURITY ENHANCEMENT TO SUCCESSIVE INTERFERENCE CANCELLATION ALGORITHM FOR NON-ORTHOGONAL MULTIPLE ACCESS (NOMA)</b> .....	6
<i>Gandeva Bayu Satrya ; Soo Young Shin</i>	
<b>SPATIAL REUSE MODEL FOR MMWAVE FREQUENCIES IN ULTRA DENSE SMALL-CELLS NETWORKS</b> .....	11
<i>Mouna Hajir ; Francois Gagnon</i>	
<b>EMPIRICAL EVALUATION OF INDOOR MULTI-USER MIMO CHANNELS WITH LINEAR AND PLANAR LARGE ANTENNA ARRAYS</b> .....	18
<i>Bei Zhang ; Zhangdui Zhong ; Bo Ai ; Ruisi He ; Fredrik Tufvesson ; Jose Flordelis ; Qi Wang ; Jianzhi Li</i>	
<b>ON OPTIMAL RECEIVER FOR NONLINEARLY DISTORTED SINGLE CARRIER SIGNAL</b> .....	24
<i>Iliia Yoffe Iofedov ; Nir Regev ; Dov Wulich</i>	
<b>INCENTIVE BASED COOPERATIVE CONTENT CACHING IN SOCIAL WIRELESS NETWORKS</b> .....	30
<i>Rui Wang ; Faezeh Hajiaghajani ; Subir Biswas</i>	
<b>EVALUATION OF MULTICAST EFFICIENCY IN RANDOM CLUSTERED NETWORKS UNDER ANTENNA SELECTION COMBINING</b> .....	37
<i>Mohammad G. Khoshkholgh ; Ali A. Haghighi ; Victor C. M. Leung</i>	
<b>CD-ASM: A NEW QUEUING PARADIGM TO OVERCOME BUFFERBLOAT EFFECTS IN HETNETS</b> .....	42
<i>Benevid Felix ; Aldri Santos ; Burak Kantarci ; Michele Nogueira</i>	
<b>MU-MIMO-OFDM WITH SPREADING CODES FOR USER SEPARATION</b> .....	48
<i>Kei Nakahara ; Kosuke Terui ; Yukitoshi Sanada</i>	
<b>MOBILE-AWARE SCHEDULING FOR LOW LATENCY BACKHAUL OVER DOCSIS</b> .....	54
<i>Jennifer Andreoli-Fang ; John T. Chapman</i>	
<b>UPLINK HARQ COMP WITH ZF RECEIVERS IN LIMITED BACKHAUL</b> .....	60
<i>Ali A. Haghighi ; Tho Le-Ngoc</i>	
<b>LEAKAGE-BASED HYBRID BEAMFORMING DESIGN FOR DOWNLINK MULTIUSER MMWAVE MIMO SYSTEMS</b> .....	66
<i>Didi Zhang ; Yafeng Wang ; Wei Xiang</i>	
<b>COMBINING DYNAMIC CLUSTERING AND SCHEDULING FOR COORDINATED MULTI-POINT TRANSMISSION IN LTE</b> .....	71
<i>Sebastian Scholz</i>	
<b>QOS-AWARE RADIO RESOURCE ALLOCATION FOR ULTRA-DENSE HETEROGENEOUS NETWORKS</b> .....	78
<i>Mary Adedoyin ; Olabisi Falowo</i>	
<b>A NOVEL DIGITAL PREDISTORTER COMPENSATING FOR EVEN ORDER DISTORTIONS OF CONCURRENT MULTIBAND POWER AMPLIFIERS WITH A SINGLE COMMON FEEDBACK LOOP</b> .....	85
<i>Tomoya Ota ; Toshio Kawasaki ; Shigekazu Kimura ; Ken Tamanoi ; Toru Maniwa ; Makoto Yoshida</i>	
<b>ON THE ERGODIC STRONG INTERFERENCE CHANNEL UNDER LATTICE CODING AND DECODING</b> .....	90
<i>Ahmed Hindy ; Aria Nosratinia</i>	
<b>AN OPTIMAL LTE-V2I-BASED COOPERATIVE COMMUNICATION SCHEME FOR VEHICULAR NETWORKS</b> .....	95
<i>Jose Angel Leon Calvo ; Rudolf Mathar</i>	
<b>CROSS-LAYER DESIGN OF AN LQG CONTROLLER IN MULTIHOP TDMA-BASED WIRELESS NETWORKED CONTROL SYSTEMS</b> .....	101
<i>Keisuke Nakashima ; Takahiro Matsuda ; Masaaki Nagahara ; Tetsuya Takine</i>	
<b>COVERAGE RATIO OPTIMIZATION FOR HAP COMMUNICATIONS</b> .....	108
<i>Dingjie Xu ; Xinghui Yi ; Zhihang Chen ; Cheng Li ; Chaoxian Zhang ; Bin Xia</i>	
<b>WIRELESS TECHNOLOGY IDENTIFICATION USING DEEP CONVOLUTIONAL NEURAL NETWORKS</b> .....	113
<i>Naim Bitar ; Siraj Muhammad ; Hazem H. Refai</i>	

<b>MONOLITHIC SILICON-ON-INSULATOR OPTICAL BEAM STEERING WITH PHASE LOCKING HETERODYNE FEEDBACK.....</b>	<b>119</b>
<i>Christopher Mekhiel ; Xavier Fernando</i>	
<b>ENERGY EFFICIENCY MAXIMIZATION FOR COMP JOINT TRANSMISSION WITH NON-IDEAL POWER AMPLIFIERS.....</b>	<b>124</b>
<i>Yuhao Zhang ; Qimei Cui ; Ning Wang</i>	
<b>A NOVEL V2V ASSISTED PLATOONING SYSTEM: CONTROL SCHEME AND MAC LAYER DESIGNS .....</b>	<b>130</b>
<i>Congchi Zhang ; Yunpeng Zang ; Jose Angel Leon Calvo ; Rudolf Mathar</i>	
<b>ADAPTIVE D2D RESOURCES ALLOCATION UNDERLAYING (2-TIER) HETEROGENEOUS CELLULAR NETWORKS.....</b>	<b>137</b>
<i>Amal Algedir ; Hazem H. Refai</i>	
<b>SECRECY CAPACITY ANALYSIS IN D2D UNDERLAY CELLULAR NETWORKS: COLLUDING EAVESDROPPERS .....</b>	<b>143</b>
<i>Satyanarayana Vuppala ; Georges Kaddoum</i>	
<b>DYNAMIC USER-AP ASSOCIATION FOR QOS-AWARE CSMA IN WIRELESS VIRTUALIZED NETWORKS.....</b>	<b>150</b>
<i>Behnam Jamali ; Atoosa Dalili Shoaee ; Tho Le-Ngoc</i>	
<b>IMPERFECT CSI IMPACT ON SUM-RATE PERFORMANCE OF IA: A COMPREHENSIVE ANALYSIS .....</b>	<b>155</b>
<i>Weihua Liu ; Xiaona Li ; Dan Wang ; Qian Cheng ; Yongming Wang</i>	
<b>THEORETICAL ANALYSIS OF HANDOVER AND DYNAMIC CELL RECONFIGURATION THROUGH MONITORED VEHICULAR SPEED .....</b>	<b>162</b>
<i>Hiroshi Saito</i>	
<b>RF PULSE WIDTH MODULATOR WITH REDUCED SPECTRAL REGROWTH .....</b>	<b>169</b>
<i>Alexander N. Lozhkin ; Kazuo Nagatani ; Toru Maniwa</i>	
<b>RELAYING WITH SIGNAL SPACE DIVERSITY IN THE PRESENCE OF CO-CHANNEL INTERFERENCE .....</b>	<b>174</b>
<i>Amir H. Forghani ; Salama Ikki ; Sonia Aïssa</i>	
<b>USE OF TWO-MODE CIRCUITRY AND OPTIMAL ENERGY EFFICIENT POWER CONTROL UNDER TARGET DELAY-OUTAGE CONSTRAINTS .....</b>	<b>179</b>
<i>Jinkun Xu ; Yu Chen ; Hao Chen ; Qimei Cui ; Xiaofeng Tao</i>	
<b>MARKET-BASED DYNAMIC SERVICE MODE SWITCHING IN VIRTUALIZED WIRELESS NETWORKS.....</b>	<b>186</b>
<i>Maria Dimakopoulou ; Nicholas Bambos ; Martin Valdez-Vivas ; John Apostolopoulos</i>	
<b>CONSUMER ORIENTED IOT DATA DISCOVERY AND RETRIEVAL IN INFORMATION CENTRIC NETWORKS .....</b>	<b>193</b>
<i>Lijun Dong ; Guoqiang Wang</i>	
<b>DETECTING LTE-U DUTY CYCLING MISBEHAVIOR FOR FAIR SHARING WITH WI-FI IN SHARED BANDS.....</b>	<b>200</b>
<i>Xuhang Ying ; Radha Poovendran ; Sumit Roy</i>	
<b>GIBBS SAMPLING MIMO DETECTION WITH MAXIMUM RATIO COMBINING .....</b>	<b>207</b>
<i>Yukitoshi Sanada</i>	
<b>ON THE ANALYSIS OF HUMAN MOBILITY MODEL FOR CONTENT BROADCASTING IN 5G NETWORKS.....</b>	<b>212</b>
<i>Chun Pong Lau ; Abdulrahman Alabbasi ; Basem Shihada</i>	
<b>ANALYSIS AND MODELING OF MOBILE TRAFFIC USING REAL TRACES .....</b>	<b>219</b>
<i>Hoang Duy Trinh ; Nicola Bui ; Joerg Widmer ; Lorenza Giupponi ; Paolo Dini</i>	
<b>TOKEN BUCKET BASED TRAFFIC SHAPING AND MONITORING FOR WLAN-BASED CONTROL SYSTEMS .....</b>	<b>225</b>
<i>Kiran Mathews ; Christopher Kramer ; Reinhard Gotzhein</i>	
<b>PERFORMANCE ANALYSIS OF PEER-TO-PEER V2V WIRELESS COMMUNICATIONS IN THE PRESENCE OF INTERFERENCE.....</b>	<b>232</b>
<i>Khaled Eshteivi ; Kais Ben Fredj ; Georges Kaddoum ; François Gagnon</i>	
<b>THE SAME, ONLY DIFFERENT: CONTRASTING MOBILE OPERATOR BEHAVIOR FROM CROWDSOURCED DATASET .....</b>	<b>238</b>
<i>Konstantinos Kousias ; Cise Midoglu ; Ozgu Alay ; Andra Lutu ; Antonios Argyriou ; Michael Riegler</i>	
<b>28–31 GHZ BI-DIRECTIONAL AMPLIFIER FOR 5G WIRELESS REPEATERS .....</b>	<b>244</b>
<i>Lin Wang ; Carlos E. Saavedra</i>	
<b>AN ANALYTIC SOLUTION FOR COMPUTING RSTD UNCERTAINTY IN GENERATING ASSISTANCE DATA FOR OTDOA POSITIONING .....</b>	<b>248</b>
<i>Yinyan Wang ; Rob Saxon ; George Lu</i>	

<b>A STOCHASTIC-MODELING APPROACH TO MAC COEXISTENCE OF LTE-U AND WIFI.....</b>	<b>256</b>
<i>Nazanin Rastegardoost ; Bijan Jabbari</i>	
<b>JOINT SUBCARRIER AND POWER ALLOCATION FOR OFDMA BASED MOBILE EDGE COMPUTING SYSTEM.....</b>	<b>261</b>
<i>Mengyuan Li ; Shuo Yang ; Zhenduo Zhang ; Jinke Ren ; Guanding Yu</i>	
<b>NOVEL TWO-STEP BEAM SEARCH METHOD FOR MULTI USER MILLIMETER-WAVE COMMUNICATION .....</b>	<b>267</b>
<i>Chikara Kojima ; Shunsuke Fujio ; Kenichi Nishikawa ; Kazuyuki Ozaki ; Zhengyi Li ; Atsushi Honda ; Shohei Ishikawa ; Takenori Ohshima ; Hiroshi Ashida ; Toshihiro Shimura ; Masahiko Shimizu ; Yoji Ohashi</i>	
<b>SIMON 32/64 AND 64/128 BLOCK CIPHER: STUDY OF CROSS CORRELATION AND LINEAR SPAN ATTACK IMMUNITY.....</b>	<b>273</b>
<i>Ahmad Sghaier Omar ; Otman Basir</i>	
<b>LOS COMMUNICATIONS USING LARGE CIRCULAR ARRAY FOR MMWAVE C-RAN NETWORK.....</b>	<b>279</b>
<i>Jiayi Chen ; Shengli Zhang</i>	
<b>CRAFT REDUCING THE EFFORT FOR INDOOR LOCALISATION .....</b>	<b>285</b>
<i>Paul Crane ; Zhiyi Huang ; Haibo Zhang</i>	
<b>SECRET KEY GENERATION IN MIMO WIRELESS SYSTEMS USING PRECODED CHANNEL MEASUREMENTS .....</b>	<b>290</b>
<i>Saygin Baksi ; Dimitrie C. Popescu</i>	
<b>SELF-INTERFERENCE CANCELLATION WITH OPTIMAL FEEDBACK PATH SELECTION ON FULL-DUPLEX RELAY SYSTEMS.....</b>	<b>295</b>
<i>Hayato Fukuzono ; Teruyoshi Shinagawa ; Masafumi Yoshioka ; Hiroyuki Nakamura</i>	
<b>THROUGHPUT-AWARE DYNAMIC SENSITIVITY CONTROL ALGORITHM FOR NEXT GENERATION WLAN SYSTEM .....</b>	<b>300</b>
<i>Yun Wen ; Hiroshi Fujita ; Dai Kimura</i>	
<b>RECEIVER CHARACTERISTIC AWARE OPTIMAL RESOURCE ALLOCATION IN MULTI-RAT WIRELESS NETWORKS.....</b>	<b>307</b>
<i>Amr Nabil ; Aditya V. Padaki ; Mohammad J. Abdel-Rahman ; Allen B. Mackenzie ; Jeffrey H. Reed</i>	
<b>ADAPTIVE CHANNEL BONDING IN WIRELESS LANS UNDER DEMAND UNCERTAINTY .....</b>	<b>314</b>
<i>Amr Nabil ; Mohammad J. Abdel-Rahman ; Allen B. Mackenzie</i>	
<b>OPTIMAL TRANSMISSION RANGE FOR V2I COMMUNICATIONS ON CONGESTED HIGHWAYS .....</b>	<b>321</b>
<i>Tatsuaki Kimura ; Hiroshi Saito ; Hirotada Honda</i>	
<b>CONTENT CACHING IN ENERGY HARVESTING POWERED SMALL CELL NETWORK .....</b>	<b>328</b>
<i>Fengxian Guo ; Heli Zhang ; Xi Li ; Hong Ji</i>	
<b>VACA: A HIGH-PERFORMANCE VARIABLE-LENGTH ADAPTIVE CRC ALGORITHM .....</b>	<b>333</b>
<i>Mucong Chi ; Jun Liu</i>	
<b>RANDOM PHASE MODULATION IN LOAD MODULATED ARRAYS .....</b>	<b>339</b>
<i>Sandeep Bhat ; A. Chockalingam</i>	
<b>RECEIVER FOR FTN SIGNALING IN NON-LINEAR CHANNEL: JOINT CHANNEL ESTIMATION AND SYNCHRONIZATION.....</b>	<b>346</b>
<i>Jean-Alain Lucciaridi ; Nathalie Thomas ; Marie-Laure Boucheret ; Charly Poulliat ; Gilles Mesnager</i>	
<b>CORE NETWORK FUNCTION PLACEMENT IN MOBILE NETWORKS .....</b>	<b>353</b>
<i>Jad Oueis ; Razvan Stanica ; Fabrice Valois ; Vania Conan ; Damien Lavaux</i>	
<b>FROZEN-SEQUENCE CONSTRAINED HIGH-ORDER POLAR-CODED MODULATION .....</b>	<b>358</b>
<i>Jincheng Dai ; Kai Niu ; Jiaru Lin</i>	
<b>EXPERIMENTAL COMPARISON OF 4 OFDM CHANNEL ESTIMATION METHODS FOR V2V COMMUNICATIONS .....</b>	<b>364</b>
<i>M. Milla ; H. Boeglen ; L. Bernard ; D. Schmoltz ; R. Vauzelle</i>	
<b>ON THE ACCURACY OF PASSIVE HYPERBOLIC LOCALIZATION IN THE PRESENCE OF CLOCK DRIFT .....</b>	<b>371</b>
<i>Saeed Shojaee ; Johannes Schmitz ; Rudolf Mathar ; Sivan Toledo</i>	
<b>PRECISE: POWER AWARE DYNAMIC TRAFFIC STEERING IN TIGHTLY COUPLED LTE WI-FI NETWORKS.....</b>	<b>377</b>
<i>S. Thomas Valerian Pasca ; Himank Gupta ; Bheemarjuna Reddy Tamma ; A. Antony Franklin</i>	
<b>ENHANCED MACHINE LEARNING SCHEME FOR ENERGY EFFICIENT RESOURCE ALLOCATION IN 5G HETEROGENEOUS CLOUD RADIO ACCESS NETWORKS .....</b>	<b>384</b>
<i>Ismail Alqerm ; Basem Shihada</i>	
<b>ENERGY-AWARE USER ASSOCIATION IN HETEROGENEOUS NETWORKS WITH RENEWABLE ENERGY SUPPLIES .....</b>	<b>391</b>
<i>Jiazhen Zhang ; Xiaofeng Tao ; Xuefei Zhang ; Huici Wu</i>	

<b>A DISTANCE-BASED INTEREST FORWARDING PROTOCOL FOR VEHICULAR INFORMATION-CENTRIC NETWORKS</b> .....	398
<i>Xiangshen Yu ; Rodolfo W. L. Coutinho ; Azzedine Boukerche ; Antonio A. F. Loureiro</i>	
<b>OPPORTUNISTIC ALERT DIFFUSION IN DISASTER SCENARIO — STAY ALIVE LONGER !</b> .....	403
<i>Farouk Mezghani ; Nathalie Mitton</i>	
<b>A FAIR MECHANISM OF VIRTUAL RADIO RESOURCE MANAGEMENT IN MULTI-RAT WIRELESS HET-NETS</b> .....	408
<i>Luísa Caeiro ; Behnam Rouzbehani ; Luis M. Correia</i>	
<b>DEALING WITH LINK BLOCKAGE IN MMWAVE NETWORKS: D2D RELAYING OR MULTI-BEAM REFLECTION?</b> .....	413
<i>Mingjie Feng ; Shiwen Mao ; Tao Jiang</i>	
<b>A HIGH RESOLUTION METHOD FOR EQUIPMENT GROUP MAPPING USING UWB SIGNALS</b> .....	418
<i>Thomas Varela Santana ; Siham Arreffag ; Sofía Martínez López</i>	
<b>UFMC-BASED WIDEBAND SPECTRUM SENSING FOR COGNITIVE RADIO SYSTEMS IN NON-GAUSSIAN NOISE</b> .....	423
<i>Djamel E. Kebiche ; Ali Baghaki ; Xiaomei Zhu ; Benoit Champagne</i>	
<b>PREDICTOR ANTENNAS IN ACTION</b> .....	430
<i>Joachim Bjorsell ; Mikael Sternad ; Michael Grieger</i>	
<b>RESLOC: DEEP RESIDUAL SHARING LEARNING FOR INDOOR LOCALIZATION WITH CSI TENSORS</b> .....	437
<i>Xuyu Wang ; Xiangyu Wang ; Shiwen Mao</i>	
<b>NSIM: A ROBUST METHOD TO DISCOVER SIMILAR TRAJECTORIES ON CELLULAR NETWORK LOCATION DATA</b> .....	443
<i>Yupeng Tuo ; Xiaochun Yun ; Yongzheng Zhang</i>	
<b>DIVERSITY AND NETWORK CODED 5G FRONTHAUL WIRELESS NETWORKS FOR ULTRA RELIABLE AND LOW LATENCY COMMUNICATIONS</b> .....	450
<i>Nabeel I. Sulieman ; Eren Balevi ; Kemal Davaslioglu ; Richard D. Gitlin</i>	
<b>MILLIMETER WAVE NETWORK COVERAGE WITH STOCHASTIC USER ORIENTATION</b> .....	456
<i>Mehdi Naderi Soorki ; Allen B. Mackenzie ; Walid Saad</i>	
<b>A NEW MODULATION TECHNIQUE FOR DOPPLER COMPENSATION IN FREQUENCY-DISPERSIVE CHANNELS</b> .....	462
<i>Thomas Dean ; Mainak Chowdhury ; Andrea Goldsmith</i>	
<b>DELAY ANALYSIS FOR DRONE-BASED VEHICULAR AD-HOC NETWORKS</b> .....	469
<i>Hafez Seliem ; Mohamed H. Ahmed ; Reza Shahidi ; Mohamed S. Shehata</i>	
<b>KALMAN FILTER-BASED LOCALIZATION FOR INTERNET OF THINGS LORAWAN™ END POINTS</b> .....	476
<i>Wafae Bakkali ; Michel Kieffer ; Massinissa Lalam ; Thierry Lestable</i>	
<b>A NOVEL BLIND INTERFERENCE CANCELLATION RECEIVER FOR LTE UPLINK SC-FDMA SYSTEMS</b> .....	482
<i>Min Sagong ; Sungnam Hong ; Taeyoung Kim ; Ji-Yun Seol</i>	
<b>ENERGY EFFICIENCY OPTIMIZATION IN LARGE-SCALE DISTRIBUTED MIMO SYSTEMS OVER K FADING CHANNELS</b> .....	489
<i>Guangyan Lu ; Lihua Li ; Liutong Du ; Hui Tian</i>	
<b>A FOG COMPUTING APPROACH FOR LOCALIZATION IN WSN</b> .....	495
<i>Kriti Bhargava ; Stepan Ivanov</i>	
<b>HYBRID BEAMFORMING FOR INDOOR MMWAVE MULTI-CARRIER SYSTEMS UNDER SUB-SYSTEM SVD</b> .....	502
<i>Tzung-Hua Tsai ; Chi-Chao Chao</i>	
<b>COMPUTATION COLLABORATION IN ULTRA DENSE NETWORK INTEGRATED WITH MOBILE EDGE COMPUTING</b> .....	508
<i>Teng Yang ; Heli Zhang ; Hong Ji ; Xi Li</i>	
<b>WHAT USER-CELL ASSOCIATION ALGORITHMS WILL PERFORM BEST IN MMWAVE MASSIVE MIMO ULTRA-DENSE HETNETS?</b> .....	513
<i>Sinasi Cetinkaya ; Umair Sajid Hashmi ; Ali Imran</i>	
<b>A STUDY ON CHANNEL ESTIMATION ALGORITHM WITH SOUNDING REFERENCE SIGNAL FOR TDD DOWNLINK SCHEDULING</b> .....	520
<i>Een-Kee Hong ; Jung-Yeon Baek ; Georges Kaddoum</i>	
<b>MATCHING GAME BASED RESOURCE ALLOCATION FOR 5G H-CRAN NETWORKS WITH DEVICE-TO-DEVICE COMMUNICATION</b> .....	526
<i>Xingwang Mao ; Biling Zhang ; Yuyang Chen ; Jung-Lang Yu ; Zhu Han</i>	

<b>RELAY SELECTION STRATEGY FOR PARALLEL RELAYED FSO SYSTEMS</b> .....	532
<i>Parul Puri ; Parul Garg</i>	
<b>ENABLING EFFICIENT CONTENT DISSEMINATION FOR COOPERATIVE VEHICULAR NETWORKS</b> .....	537
<i>Tao Guo ; Changle Li ; Weiwei Dong ; Zhifang Miao ; Xiaonan Su</i>	
<b>HYBRID SUM RATE MAXIMIZATION BEAMFORMING FOR MULTI-USER MASSIVE MIMO MILLIMETER WAVE SYSTEM</b> .....	542
<i>Qianrui Li ; Hadi Noureddine</i>	
<b>JOINT MODE SELECTION AND PROPORTIONAL FAIR SCHEDULING FOR D2D COMMUNICATION</b> .....	548
<i>Xiaoshuai Li ; Lin Ma ; Rajan Shankaran ; Mehmet Orgun ; Gengfa Fang</i>	
<b>WIRELESS BIDIRECTIONAL RELAYING USING PHYSICAL LAYER NETWORK CODING WITH HETEROGENEOUS PSK MODULATION</b> .....	554
<i>Saket D. Buch ; A. Chinmayananda ; B. Sundar Rajan</i>	
<b>INTEGRATED ACQUISITION AND TRACKING SCHEME FOR CHANNEL ESTIMATION IN MILLIMETER WAVE WIRELESS NETWORKS</b> .....	561
<i>Laxminarayana S. Pillutla ; Ramesh Annavajjala</i>	
<b>COGNITIVE MANAGEMENT OF SELF — ORGANIZED RADIO NETWORKS BASED ON MULTI ARMED BANDIT</b> .....	566
<i>Tony Daher ; Sana Ben Jemaa ; Laurent Decreusefond</i>	
<b>MULTIPLE SERVICE FUNCTION CHAINING UNDER LOAD BALANCE IN SDN/NFV NETWORKS</b> .....	571
<i>Faqqiang Liu ; Xin Chen ; Wei An ; Yong Peng ; Jiuyue Cao ; Yan Zhang</i>	
<b>IMPLEMENTATION OF LTE/WIFI LINK AGGREGATION WITH VERY TIGHT COUPLING</b> .....	577
<i>Younes Khadraoui ; Xavier Lagrange ; Annie Gravey</i>	
<b>LTE IOT LINK BUDGET AND COVERAGE PERFORMANCE IN PRACTICAL DEPLOYMENTS</b> .....	582
<i>István Z. Kovács ; Preben Mogensen ; Mads Lauridsen ; Thomas Jacobsen ; Krzysztof Bakowski ; Poul Larsen ; Nitin Mangalvedhe ; Rapeepat Ratasuk</i>	
<b>OPTIMIZATION OF ACCESS POINTS SELECTION AND RESOURCE ALLOCATION IN HETEROGENEOUS WIRELESS NETWORK</b> .....	588
<i>Iaad Ben Dhia ; Mustapha Bouhtou ; Taoufik En-Najjary ; Samer Lahoud ; Xavier Lagrange</i>	
<b>TIME-DOMAIN COOPERATIVE COEXISTENCE OF BLE AND IEEE 802.15.4 NETWORKS</b> .....	595
<i>Onur Carhacioglu ; Pouria Zand ; Majid Nabi</i>	
<b>A PROGRESSIVE TRANSMISSION SCHEME FOR 3D MODELS IN VR/AR BASED ON UEP-LT CODE</b> .....	602
<i>Yishi Liu ; Yitong Liu ; Hongwen Yang</i>	
<b>SAFEGUARDING MULTUSER COMMUNICATION USING FULL-DUPLEX JAMMING RECEIVERS</b> .....	608
<i>Xiaoying Qiu ; Ting Jiang</i>	
<b>AN EFFICIENT DATABASE MANAGEMENT FOR CLOUD-BASED INDOOR POSITIONING USING WI-FI FINGERPRINTING</b> .....	613
<i>Seyyed Mahmood Jafari Sadegh ; Shervin Shahidi ; Shahrokh Valaee</i>	
<b>ROBUST OSEMM-LQ INTERFERENCE MANAGEMENT TECHNIQUE FOR ULTRA-DENSE HETEROGENEOUS NETWORKS</b> .....	619
<i>Carrson C. Fung ; Shao-Heng Tai</i>	
<b>IMPACT OF THE SIMULATION PARAMETERS ON THE QUANTITATIVE RESULTS OF PROTOCOLS FOR WSNS</b> .....	624
<i>Affoua Therese Aby ; Marie-Françoise Servajean ; Michel Misson</i>	
<b>R-HINT: A MESSAGE-EFFICIENT RANDOM ACCESS RESPONSE FOR MMTC IN 5G NETWORKS</b> .....	631
<i>Teng-Wei Huang ; Yi Ren ; Kate Ching-Ju Lin ; Yu-Chee Tseng</i>	
<b>CROSS-LAYER DESIGN FOR MULTIHOP MANETS UTILITY OPTIMIZATION WITH AQM</b> .....	637
<i>Ammar Alhosainy ; Thomas Kunz</i>	
<b>A CLOUD NATIVE SOLUTION FOR DYNAMIC AUTO SCALING OF MME IN LTE</b> .....	643
<i>P. C. Amogh ; Goutham Veeramachaneni ; Anil Kumar Rangiseti ; Bheemarjuna Reddy Tamma ; A. Antony Franklin</i>	
<b>DYNAMIC SPECTRUM MANAGEMENT IN GREEN COGNITIVE RADIO CELLULAR NETWORKS</b> .....	650
<i>Lokman Shouï ; Hakim Ghazzai ; Zouheir Rezki ; Mohamed-Slim Alouini</i>	
<b>WEARABLE DEVICE USER AUTHENTICATION USING PHYSIOLOGICAL AND BEHAVIORAL METRICS</b> .....	656
<i>Sudip Vhaduri ; Christian Poellabauer</i>	

<b>FULL-DUPLEX RELAYS UNDER MULTILEVEL CODING: CORRELATION DESIGN VIA MODULATION LABELING .....</b>	<b>662</b>
<i>Ahmed Attia Abotabl ; Aria Nosratinia</i>	
<b>ANALYSIS OF THE CELL ASSOCIATION FOR DECOUPLED WIRELESS ACCESS IN A TWO TIER NETWORK .....</b>	<b>667</b>
<i>Zeeshan Sattar ; Joao V. C. Evangelista ; Georges Kaddoum ; Naïm Batani</i>	
<b>WIRELESS POWER TRANSFER IN COOPERATIVE DUAL-HOP RELAYING SYSTEMS WITH BEAMFORMING OVER GENERALIZED FADING CHANNELS .....</b>	<b>673</b>
<i>Osamah S. Badarneh ; Imran Shafique Ansari ; Michel Kadoch ; Xiaodong Yang</i>	
<b>HYBRID BEAMFORMING AND DFT-BASED CHANNEL ESTIMATION FOR MILLIMETER WAVE MIMO SYSTEMS .....</b>	<b>680</b>
<i>Maliheh Soleimani ; Robert C. Elliott ; Witold A. Krzymien ; Jordan Melzer ; Pedram Mousavi</i>	
<b>ID BASED BANDWIDTH-LENGTH INTERLEAVER DESIGN FOR NON-ORTHOGONAL MULTIPLE ACCESS OFDM SYSTEMS .....</b>	<b>687</b>
<i>Chanho Yoon ; Seungkwon Baek ; Taejoong Kim</i>	
<b>A PROBABILISTIC RETRANSMISSION PROTOCOL ON A RELAYING NETWORK .....</b>	<b>692</b>
<i>Faton Maliqi ; Francesca Bass ; Pierre Duhamel ; Ilir Limani</i>	
<b>ROBUSTNESS OF RADIOMETRIC FINGERPRINTING IN THE PRESENCE OF AN IMPERSONATOR .....</b>	<b>697</b>
<i>Saeed Ur Rehman ; Kevin W. Sowerby ; Peter Han Joo Chong ; Shafiq Alam</i>	
<b>DEEP CONVOLUTIONAL NEURAL NETWORKS FOR MASSIVE MIMO FINGERPRINT-BASED POSITIONING .....</b>	<b>702</b>
<i>Joao Vieira ; Erik Leitingner ; Muris Sarajlic ; Xuhong Li ; Fredrik Tufvesson</i>	
<b>CODE-AIDED ANTENNA SELECTION FOR SPECTRALLY SHAPED DFT-PRECODED OFDM SPATIAL MODULATION .....</b>	<b>708</b>
<i>Bilel Raddadi ; Nathalie Thomas ; Charly Poulliat ; Marie-Laure Boucheret</i>	
<b>QUANTUM-INSPIRED EVOLUTIONARY ALGORITHM FOR LARGE-SCALE MIMO DETECTION .....</b>	<b>714</b>
<i>M. A. Teeti ; Rui Wang ; Hua Chen ; Yingzhuang Liu ; Qiang Ni</i>	
<b>ACCURATE QUANTILE ESTIMATION FOR SKEWED DATA STREAMS .....</b>	<b>720</b>
<i>Zheng Lin ; Jun Liu ; Nan Lin</i>	
<b>EXPERIMENTAL EVALUATION OF UNIVERSAL TIME-DOMAIN WINDOWED OFDM-BASED LTE DOWNLINK SYSTEM BY REAL-TIME WAVE-SHAPING .....</b>	<b>727</b>
<i>Keiichi Mizutani ; Akihito Yoshito ; Hiroto Kuriki ; Takeshi Matsumura ; Hiroshi Harada</i>	
<b>IMPROVEMENT OF RECEIVER SENSITIVITY FOR ENHANCING IR-UWB PERFORMANCE FOR INDOOR POSITIONING .....</b>	<b>732</b>
<i>Huan-Bang Li ; Ryu Miura ; Toshinori Kagawa ; Fumihide Kojima ; Hisashi Nishikawa</i>	
<b>A LINK TRANSMISSION-QUALITY BASED GEOGRAPHIC ROUTING IN URBAN VANETS .....</b>	<b>737</b>
<i>Lei Liu ; Chen Chen ; Zhiyuan Ren ; Chenhua Shi</i>	
<b>DECENTRALIZED TRAFFIC REROUTING USING MINIMALIST COMMUNICATIONS .....</b>	<b>743</b>
<i>Andreas Kasprzok ; Beshah Ayalew ; Chad Lau</i>	
<b>HETCAST: COOPERATIVE DATA DELIVERY ON CELLULAR AND ROAD SIDE NETWORK .....</b>	<b>750</b>
<i>Tzu-Yang Yu ; Xiru Zhu ; Hongji Chen ; Muthucumar Maheswaran</i>	
<b>CHARGING-AWARE MOBILITY MODELING FOR WIRELESSLY CHARGEABLE INTERMITTENTLY CONNECTED MANETS .....</b>	<b>756</b>
<i>Wanxin Gao ; Janelle Harms</i>	
<b>2-STEP PHASE ROTATION ESTIMATION FOR LOW-PAPR SIGNAL TRANSMISSION USING BLIND SELECTED MAPPING .....</b>	<b>763</b>
<i>Amnart Boonkajay ; Fumiyuki Adachi</i>	
<b>LONGEST-QUEUE-FIRST SCHEDULING WITH INTERMITTENT SAMPLING .....</b>	<b>768</b>
<i>Saied Mehdian ; Zhengyuan Zhou ; Nicholas Bambos</i>	
<b>A LAYERED DETECT-COMPRESS-AND-FORWARD CODING SCHEME FOR THE RELAY CHANNEL .....</b>	<b>773</b>
<i>Fawad Ud Din ; Jawwad Nasar Chattha ; Irfan Ullah ; Momin Uppal</i>	
<b>DOWNLINK POWER CONTROL IN USER-CENTRIC AND CELL-FREE MASSIVE MIMO WIRELESS NETWORKS .....</b>	<b>778</b>
<i>Stefano Buzzi ; Alessio Zappone</i>	
<b>SKEW LOG-NORMAL CHANNEL MODEL FOR INDOOR COOPERATIVE LOCALIZATION .....</b>	<b>784</b>
<i>Chang Kyung Sung ; Shenghong Li ; Mark Hedley ; Nasiha Nikolic ; Wei Ni</i>	
<b>THE IMPROVED-ITERATIVE SUPPORT DETECTION ALGORITHM FOR PULSE-POSITION-MODULATION ADC ARCHITECTURE .....</b>	<b>789</b>
<i>Mengyue Liu ; Yu Liu ; Yumei Wang</i>	



<b>ADAPTIVE LEARNING BASED DIRECTIONAL MAC PROTOCOL FOR MILLIMETER WAVE (MMWAVE) WIRELESS NETWORKS</b> .....	795
<i>Pooja Tiwari ; Dilip Kumar Meena ; Laxminarayana S. Pillutla</i>	
<b>INTERFERENCE MONITORING SCHEME USING FEATURE DETECTION BETWEEN SATELLITE AND CELLULAR SYSTEMS IN 28 GHZ BAND</b> .....	800
<i>Kanshiro Kashiki ; Tomoki Sada ; Akihide Nagamine ; Fumio Watanabe</i>	
<b>UPLINK/DOWNLINK ACHIEVABLE RATE ANALYSIS OF HETEROGENEOUS NETWORKS WITH MASSIVE MIMO FULL-DUPLEX BACKHAUL LINK</b> .....	805
<i>Prince Anokye ; Roger Kwao Ahiadormey ; Kyoung-Jae Lee</i>	
<b>SOJOURN TIME ESTIMATION-BASED SMALL CELL SELECTION IN ULTRA-DENSE NETWORKS</b> .....	810
<i>Bangxu Li ; Hongtao Zhang ; Peng Hao ; Jian Li</i>	
<b>SERVICE LOAD BALANCING IN FOG-BASED 5G RADIO ACCESS NETWORKS</b> .....	815
<i>Jofina Jijin ; Boon-Chong Seet ; Peter Han Joo Chong ; Hazim Jarrah</i>	
<b>ON PEAK TO AVERAGE POWER RATIO OF UNIVERSAL FILTERED OFDM SIGNALS</b> .....	820
<i>Xiaojie Wang ; Simon Burkert ; Stephan Ten Brink</i>	
<b>CELL-FREE AND USER-CENTRIC MASSIVE MIMO AT MILLIMETER WAVE FREQUENCIES</b> .....	827
<i>Mario Alonzo ; Stefano Buzzi</i>	
<b>CONSTRUCTING SCALE-FREE TOPOLOGIES FOR LOW DELAY OF 5G</b> .....	832
<i>Wei Chang ; Guochu Shou ; Yaqiong Liu ; Zhigang Guo ; Yihong Hu ; Xueguang Jin</i>	
<b>IMPROVING EFFICIENCY OF HETEROGENEOUS WI-FI NETWORKS WITH JOINT USAGE OF TIM SEGMENTATION AND RESTRICTED ACCESS WINDOW</b> .....	838
<i>Aleksey Kurnev ; Dmitry Bankov ; Evgeny Khorov ; Andrey Lyakhov</i>	
<b>POWER FACTORIZATION BASED HYBRID PRECODING DESIGN FOR MILLIMETER WAVE MIMO TRANSMITTERS USING SUB-ARRAY STRUCTURE</b> .....	843
<i>Ameni Mejri ; Moufida Hajjaj ; Salem Hasnaoui ; Ridha Bouallegue</i>	
<b>CONSTANT ENVELOPE PRECODING FOR SECURE MILLIMETER-WAVE WIRELESS COMMUNICATION</b> .....	848
<i>Jianjun Zhang ; Fusheng Zhu ; Yongming Huang ; Luxi Yang</i>	
<b>ON-ROAD FEATURE DETECTION AND FOUNTAIN-CODED DATA DISSEMINATION IN VEHICULAR AD-HOC NETWORKS</b> .....	853
<i>Yuhao Wang ; Ivan Wang-Hei Ho</i>	
<b>PERFORMANCE ANALYSIS OF RANDOM LINEAR NETWORK CODING WITH RELAY SELECTION</b> .....	859
<i>Jinsol Park ; Daehee Park ; Dong-Ho Cho</i>	
<b>ULTRA-HIGH-THROUGHPUT MASSIVE MIMO FIELD-TRIAL OVER RADIO COMPUTING ARCHITECTURE WITH PEAK SPECTRUM EFFICIENCY OF 79.82 BPS/HZ</b> .....	866
<i>Wenliang Liang ; Yuanquan Wang ; Bojie Li ; Wenhui Wang ; Jie Sheng ; Yuchao Han ; Haihua Shen ; Liang Gu ; Yuya Saito ; Anass Benjebbour ; Yoshihisa Kishiyama ; Xin Wang ; Xiaolin Hou ; Huiling Jiang</i>	
<b>MULTICELL INTERFERENCE COORDINATION STRATEGY BASED ON HYBRID CHANNEL INFORMATION</b> .....	873
<i>Jinyi Huang ; Liang Sun ; Chenyang Yang ; Shengqian Han</i>	
<b>A CQI FEEDBACK CLUSTERING TECHNIQUE FOR SIGNALING TRAFFIC REDUCTION DURING CROWD EVENTS IN 3GPP LTE SYSTEMS</b> .....	878
<i>Mario Cordina ; Carl J. Debono</i>	
<b>CHANNEL ESTIMATION WITH SCATTERED PILOTS IN GFDM WITH MULTIPLE SUBCARRIER BANDWIDTHS</b> .....	884
<i>Yuta Akai ; Yuka Enjoji ; Yukitoshi Sanada ; Ryota Kimura ; Hiroki Matsuda ; Naoki Kusashima ; Ryo Sawai</i>	
<b>METHOD FOR DETECTION OF AIRBORNE UES BASED ON LTE RADIO MEASUREMENTS</b> .....	889
<i>Jeroen Wigard ; Rafael Amorim ; Huan C. Nguyen ; István Z. Kovács ; Preben Mogensen</i>	
<b>PERFORMANCE OF FREQUENCY DOMAIN MULTIUSER-MIMO TURBO EQUALIZATION WITHOUT CYCLIC PREFIX</b> .....	895
<i>Yasuhiro Takano ; Hsuan-Jung Su</i>	
<b>ON THE IMPACT OF DOWNLINK FEEDBACK ON LORA PERFORMANCE</b> .....	901
<i>Marco Centenaro ; Lorenzo Vangelista ; Ryuji Kohno</i>	
<b>DEEP LEARNING FOR MALICIOUS FLOW DETECTION</b> .....	907
<i>Yun-Chun Chen ; Yu-Jhe Li ; Aragorn Tseng ; Tsungnan Lin</i>	
<b>AN ACCESS STRATEGY FOR DOWNLINK AND UPLINK DECOUPLING IN MULTI-CHANNEL WIRELESS NETWORKS</b> .....	914
<i>Takumi Uekumasu ; Makoto Kobayashi ; Shunsuke Saruwatari ; Takashi Watanabe</i>	

<b>PERFORMANCE OPTIMIZATION OF CO-EXISTING UNDERLAY SECONDARY NETWORKS</b> .....	920
<i>Pratik Chakraborty ; Shankar Prakriya</i>	
<b>ANALYTICAL FRAMEWORK FOR ACCESS CLASS BARRING IN MACHINE TYPE COMMUNICATION</b> .....	925
<i>Jason Lee ; Jing Guo ; Salman Durrani</i>	
<b>FIELD TRIAL ON TDD MASSIVE MIMO SYSTEM WITH POLAR CODE</b> .....	931
<i>Wenhui Wang ; Wenliang Liang ; Bojie Li ; Liang Gu ; Jie Sheng ; Pengcheng Qiu ; Jian Wang ; Yuanquan Wang</i>	
<b>IMPLICATIONS OF DECENTRALIZED Q-LEARNING RESOURCE ALLOCATION IN WIRELESS NETWORKS</b> .....	937
<i>Francesc Wilhelmi ; Boris Bellalta ; Cristina Cano ; Anders Jonsson</i>	
<b>ITERATIVE INTERFERENCE ALIGNMENT IN DEVICE-TO-DEVICE LAN WITH CELLULAR NETWORKS</b> .....	942
<i>Dan Wang ; Qian Cheng ; Weihua Liu ; Shunliang Zhang ; Yongming Wang</i>	
<b>METHODS FOR MUTING CONFIGURATION OPTIMIZATION</b> .....	948
<i>Ole Grondalen ; Kashif Mahmood ; Olav N. Østerbo</i>	
<b>SYNCHRONIZATION METHOD FOR ORTHOGONAL CODE-BASED BLOCK TRANSMISSION (OCBT) SYSTEMS</b> .....	955
<i>Insik Jung ; Hyejin Kim ; Hyunsoo Kim ; Sooyong Choi ; Daesik Hong</i>	
<b>TRAJECTORY PREDICTION TO AVOID CHANNEL CONGESTION IN V2I COMMUNICATIONS</b> .....	960
<i>Guillem Boquet ; Jose Lopez Vicario ; Alejandro Correa ; Antoni Morell ; Ibrahim Rashdan ; Estefanía Munoz Díaz ; Fabian De Ponte Müller</i>	
<b>DENSITY EVOLUTION THRESHOLDS FOR NOISE-AGAINST-NOISE MIN-SUM DECODERS</b> .....	966
<i>F. Cochachin ; D. Declercq ; E. Boutillon ; L. Kessal</i>	
<b>AN AUTONOMOUS SYSTEM FOR HIGH-RESOLUTION MAPPING OF INDOOR WIRELESS COVERAGE</b> .....	973
<i>Rachel Wakim ; Jay A. Weitzen</i>	
<b>PERFORMANCE EVALUATION OF PROACTIVE MULTIPATH ROUTING PROTOCOL FOR UBIQUITOUS NETWORKS</b> .....	978
<i>Alexandras Ladas ; Nuwan Weerasinghe ; Christos Politis</i>	
<b>JOINT TRANSMISSION SCHEME FOR TWO MULTICAST GROUPS BASED ON NOMA</b> .....	985
<i>Yufang Zhang ; Xiaoxiang Wang ; Dongyu Wang ; Qiang Zhao ; Yibo Zhang</i>	
<b>ON THE FEASIBILITY TO OVERLAY A NARROWBAND IOT SIGNAL IN IEEE 802.11</b> .....	991
<i>Naveed Butt ; Rocco Di Taranto ; Dennis Sundman ; Leif Wilhelmsson</i>	
<b>ROBUST SECRECY COMPETITION IN WIRELESS NETWORKS</b> .....	998
<i>Xiao Tang ; Pinyi Ren ; Datong Xu ; Dongyang Xu</i>	
<b>AN IMPROVED KOCH SNOWFLAKE FRACTAL MULTIBAND ANTENNA</b> .....	1003
<i>Zhen Yu ; Jianguo Yu ; Xiaoying Ran</i>	
<b>INTERFERENCE OF WIRELESS TECHNOLOGIES ON BLE BASED WBANS IN HOSPITAL SCENARIOS</b> .....	1008
<i>Heikki Karvonen ; Konstantin Mikhaylov ; Matti Hämäläinen ; Jari Ilmatti ; Carlos Pomalaza-Ráez</i>	
<b>GRADIENT BASED DECENTRALIZED JOINT BEAMFORMING</b> .....	1014
<i>Jarkko Kaleva ; Antti Tölli ; Markku Juntti ; Randall Berry ; Michael Honig</i>	
<b>ENHANCING PHYSICAL LAYER SECURITY OF OFDM SYSTEMS USING CHANNEL SHORTENING</b> .....	1019
<i>Haji M. Furqan ; Jehad M. Hamamreh ; Huseyin Arslan</i>	
<b>ENHANCED UNIVERSAL FILTERED-DFTS-OFDM FOR LONG-DELAY MULTI-PATH ENVIRONMENT</b> .....	1024
<i>Yuji Mizutani ; Hiroto Kuriki ; Yosuke Kodama ; Keiichi Mizutani ; Takeshi Matsumura ; Hiroshi Harada</i>	
<b>OUTAGE PROBABILITY-BASED BEAMFORMING DESIGN FOR MULTI-CELL MULTICAST NETWORKS</b> .....	1030
<i>Juwendo Denis ; Sinda Smirani ; Bakarime Diomande ; Takoua Ghariani ; Badii Jouaber</i>	
<b>CONSTELLATION SHAPING FOR IEEE 802.11</b> .....	1035
<i>Yunus Can Gültekin ; W. J. Van Houtum ; Semih Serbetli ; Frans M. J Willems</i>	
<b>PRIMARY USER DETECTION IN COGNITIVE RADIO USING SPECTRAL-CORRELATION FEATURES AND STACKED DENOISING AUTOENCODER</b> .....	1042
<i>Hang Liu ; Xu Zhu ; Takeo Fujii</i>	
<b>THROUGHPUT ENHANCEMENT USING D2D BASED RELAY-ASSISTED COMMUNICATION IN CELLULAR NETWORKS</b> .....	1047
<i>Pradip Kumar Barik ; Chetna Singhal ; Raja Datta</i>	

<b>WYNER-ZIV NESTED LATTICE CODING FOR SINGLE-CELL MULTICAST SERVICE DELIVERY</b> .....	1053
<i>Sinda Smirani ; Juwendo Denis ; Takoua Ghariani ; Bakarime Diomonde ; Badii Jouaber</i>	
<b>ENERGY OPTIMIZATION OF D2D COMMUNICATIONS USING RELAY DEVICES AND DATA ENTROPY</b> .....	1058
<i>Romain Chevillon ; Guillaume Andrieux ; Jean-François Diouris</i>	
<b>A NOVEL PROBABILISTIC PATH LOSS MODEL FOR SIMULATING COEXISTENCE BETWEEN 802.11 AND 802.15.4 NETWORKS IN SMART HOME ENVIRONMENTS</b> .....	1063
<i>Amr El-Keyi ; Hamza Umit Sokun ; Tu Ngoc Nguyen ; Qiubo Ye ; Haiying Julie Zhu ; Halim Yanikomeroglu</i>	
<b>A NEW APPROACH TO COOPERATIVE NOMA USING DISTRIBUTED SPACE TIME BLOCK CODING</b> .....	1068
<i>Muhammad Nasar Jamal ; Syed Ali Hassan ; Dushantha Nalin K. Jayakody</i>	
<b>RADIO PROPAGATION IN OPEN-PIT MINES: A FIRST LOOK AT MEASUREMENTS IN THE 2.6 GHZ BAND</b> .....	1073
<i>Erika P. L. Almeida ; George Caldwell ; Ignacio Rodriguez ; Sergio Abreu ; Robson D. Vieira ; Viviane S. B. Barbosa ; Troels B. Sprensen ; Preben Mogensen ; Luis G. Uzeda Garcia</i>	
<b>WIRELESS SENSOR NETWORKS LOCALIZATION WITH OUTLIERS AND STRUCTURED MISSING DATA</b> .....	1079
<i>Marco Patanè ; Beatrice Rossi ; Pasqualina Fragneto ; Andrea Fusiello</i>	
<b>A DISTRIBUTED AUCTION POLICY FOR USER ASSOCIATION IN DEVICE-TO-DEVICE CACHING NETWORKS</b> .....	1086
<i>Derya Malak ; Mazin Al-Shalash ; Jeffrey G. Andrews</i>	
<b>PERFORMANCE ANALYSIS OF OFDM WITH QUADRATURE INDEX MODULATION IN THE PRESENCE OF HARDWARE IMPAIRMENT</b> .....	1092
<i>Asma Bouhlel ; Islam Abu Mahady ; Anis Sakly ; Salama Said Ikki</i>	
<b>IMPLEMENTATION OF MULTIPATH NETWORK VIRTUALIZATION SCHEME WITH SDN AND NFV</b> .....	1097
<i>Qingtian Wang ; Junli Xue ; Guochu Shou ; Yaqiong Liu ; Yihong Hu ; Zhigang Guo</i>	
<b>DESIGN OF POLAR CODING FOR GFDM SYSTEM</b> .....	1103
<i>Yan Li ; Jincheng Dai ; Kai Niu ; Chao Dong</i>	
<b>ETP ALGORITHM: INCREASING SPATIAL REUSE IN WIRELESS LANS DENSE ENVIRONMENT USING ETX</b> .....	1109
<i>Tanguy Ropitault ; Nada Golmie</i>	
<b>AUTHENTICATION FOR THE WEB OF THINGS: SECURE END-TO-END AUTHENTICATION BETWEEN COAP AND HTTP</b> .....	1116
<i>Marian Buschsieweke ; Mesut Günes</i>	
<b>PROPAGATION CHARACTERISTICS OF MASSIVE MIMO MEASUREMENTS IN A UMA SCENARIO AT 3.5 &amp; 6 GHZ WITH 100 &amp; 200 MHZ BANDWIDTH</b> .....	1121
<i>Zhe Zheng ; Jianhua Zhang ; Yawei Yu ; Lei Tian ; Ye Wu</i>	
<b>FAST BEAM TRAINING IN MMWAVE MULTIUSER MIMO SYSTEMS WITH FINITE-BIT PHASE SHIFTERS</b> .....	1126
<i>Chengpeng Chang ; Fu-Chun Zheng ; Shi Jin</i>	
<b>ROUTING AWARE SPACE-TIME COMPRESSIVE SENSING FOR WIRELESS SENSOR NETWORKS</b> .....	1131
<i>Manel Kortas ; Vahid Meghdadi ; Ammar Bouallegue ; Tahar Ezzeddine ; Oussama Habachi ; Jean-Pierre Cances</i>	
<b>ACHIEVABLE DATA RATE OF COORDINATED MULTI-POINT TRANSMISSION FOR VISIBLE LIGHT COMMUNICATIONS</b> .....	1137
<i>Alexis A. Dowhuszko ; Ana I. Pérez-Neira</i>	
<b>DEPENDENT INTERFERER ARRANGEMENT FOR PHYSICAL LAYER SECURITY: SECRECY OUTAGE PROBABILITY IN CLUSTERED WIRELESS NETWORKS</b> .....	1144
<i>Motoki Iwata ; Koji Yamamoto ; Takayuki Nishio ; Masahiro Morikura</i>	
<b>ON THE GENERATION OF <math>\alpha</math> - <math>\eta</math> - <math>\kappa</math> - <math>\mu</math> SAMPLES WITH APPLICATIONS</b> .....	1150
<i>Vanessa Mendes Rennó ; Rausley A. A. De Souza ; Michel Daoud Yacoub</i>	
<b>MATÉRN-LIKE MODEL BASED ANALYSIS FOR POWER CONTROL IN USER-CENTRIC 5G NETWORKS</b> .....	1155
<i>Ying Chen ; Hongtao Zhang</i>	
<b>ODMAC++: AN IOT COMMUNICATION MANAGER BASED ON ENERGY HARVESTING PREDICTION</b> .....	1160
<i>Samuel Perez ; Juan Antonio Cordero Fuertes ; Marceau Coupechoux</i>	

<b>INTEGRATING BLOCKCHAIN FOR DATA SHARING AND COLLABORATION IN MOBILE HEALTHCARE APPLICATIONS</b> .....	1167
<i>Xueping Liang ; Juan Zhao ; Sachin Shetty ; Jihong Liu ; Danyi Li</i>	
<b>ROBUST PHASE-BASED POSITIONING USING MASSIVE MIMO WITH LIMITED BANDWIDTH</b> .....	1172
<i>Xuhong Li ; Kenneth Batstone ; Kalle Åstrom ; Magnus Oskarsson ; Carl Gustafson ; Fredrik Tufvesson</i>	
<b>ROBUST NEAR-FIELD 3D LOCALIZATION OF AN UNALIGNED SINGLE-COIL AGENT USING UNOBTRUSIVE ANCHORS</b> .....	1179
<i>Gregor Dumphart ; Eric Slotke ; Armin Wittneben</i>	
<b>TRANSMIT SIGNAL DESIGN FOR MIMO WIRETAP CHANNELS WITH STATISTICAL CSI AND ARBITRARY INPUTS</b> .....	1186
<i>Sina Rezaei Aghdam ; Tolga M. Duman</i>	
<b>PERFORMANCE OF OTDOA POSITIONING IN NARROWBAND IOT SYSTEMS</b> .....	1191
<i>Kamiar Radnosrati ; Gustaf Hendeby ; Carsten Fritsche ; Fredrik Gunnarsson ; Fredrik Gustafsson</i>	
<b>A VEHICLE-ASSISTED OFFLOADING SCHEME FOR HOTSPOT BASE STATIONS ON METROPOLITAN STREETS</b> .....	1198
<i>Jianyuan Feng ; Zhiyong Feng</i>	
<b>RENEWAL-THEORETIC PACKET COLLISION MODELING UNDER LONG-TAILED HETEROGENEOUS TRAFFIC</b> .....	1204
<i>Aamir Mahmood ; Mikael Gidlund</i>	
<b>LOW COMPLEXITY RESOURCE ALLOCATION FOR QF VMIMO RECEIVERS WITH A SHARED BACKHAUL</b> .....	1211
<i>Tim Rüegg ; Yahia Hassan ; Armin Wittneben</i>	
<b>ENERGY EFFICIENCY OF HYBRID UNICAST-BROADCAST NETWORKS FOR MOBILE TV SERVICES</b> .....	1218
<i>Pape-Abdoulaye Fam ; Matthieu Crussière ; Stéphane Paquelet ; Jean-François Hélaré ; Pierre Brétilton</i>	
<b>OPTIMISED ELECTRIC VEHICLES CHARGING SCHEME WITH UNCERTAIN USER-BEHAVIOURS IN SMART GRIDS</b> .....	1225
<i>Chao Liu ; Kok Keong Chai ; Eng Tseng Lau ; Yanru Wang ; Yue Chen</i>	
<b>DYNAMIC RESOURCE ALLOCATION FOR MC-NOMA VVNS WITH IMPERFECT SIC</b> .....	1230
<i>Daniel Tweed ; Saeedeh Parsaeefard ; Mahsa Derakhshani ; Tho Le-Ngoc</i>	
<b>ASSISTED LINK PREDICTION (ALP) PROTOCOL IN ROBOTIC COMMUNICATIONS</b> .....	1235
<i>Sipra Behera ; Hemant Kumar Rath ; Jyotirmoy Karjee ; Anantha Simha</i>	
<b>LEARNING OPTIMAL ROUTING FOR THE UPLINK IN LPWANS USING SIMILARITY-ENHANCED E-GREEDY</b> .....	1241
<i>Sergio Barrachina-Muñoz ; Boris Bellalta</i>	
<b>RELAY SELECTION STRATEGIES FOR SWIPT-ENABLED COOPERATIVE WIRELESS SYSTEMS</b> .....	1246
<i>Sumit Gautam ; Eva Lagunas ; Shree K. Sharma ; Symeon Chatzinotas ; Björn Ottersten</i>	
<b>FREQUENCY-DEPENDENCE OF CHANNEL DELAY SPREAD IN AN OUTDOOR ENVIRONMENT</b> .....	1253
<i>Cheikh A. L. Diakhate ; Jean-Marc Conrat ; Jean-Christophe Cousin ; Alain Sibille</i>	
<b>FRAME ERROR RATE PREDICTION FOR WLAN SYSTEMS WITH MULTIBAND SIMULTANEOUS TRANSMISSION</b> .....	1258
<i>Norisato Suga ; Naoto Egashira ; Kazuto Yano ; Tomoaki Kumagai</i>	
<b>TOA ESTIMATION IMPROVEMENTS IN MULTIPATH ENVIRONMENTS BY MEASUREMENT ERROR MODELS</b> .....	1264
<i>Andreas Bergström ; Gustaf Hendeby ; Fredrik Gunnarsson ; Fredrik Gustafsson</i>	
<b>A CLOUD-BASED SPECTRUM ENVIRONMENT AWARENESS SYSTEM</b> .....	1271
<i>L. Li ; D. Boudreau ; R. Paiement ; I. Labbe ; F. Patenaude ; P. Chahine ; M. Wang ; P. Brouillette</i>	
<b>MULTI-OBJECTIVE RESOURCE ALLOCATION FOR MOBILE EDGE COMPUTING SYSTEMS</b> .....	1277
<i>Xinyi Zhang ; Yuyi Mao ; Jun Zhang ; Khaled B. Letaief</i>	
<b>ON THE PERFORMANCE OF A WIDELY LINEAR SC-FDE SYSTEM UNDER MULTIPLE INDEPENDENT INTERFERENCES</b> .....	1282
<i>Bruno S. Chang ; Carlos A. F. Da Rocha ; Hayfa Fhima ; Rafik Zayani ; Hmaied Shaiek ; Daniel Roviras</i>	
<b>ON THE OPTIMUM PREAMBLE DESIGN FOR CHANNEL ESTIMATION IN FBMC-OQAM SYSTEMS</b> .....	1287
<i>Waqas Anjum ; M. Danish Nisar</i>	
<b>IEEE 802.11AX UPLINK SCHEDULER TO MINIMIZE, DELAY: A CLASSIC PROBLEM WITH NEW CONSTRAINTS</b> .....	1292
<i>Dmitry Bankov ; Andre Didenko ; Evgeny Khorov ; Vyacheslav Loginov ; Andrey Lyakhov</i>	

<b>HIERARCHICAL NETWORK ABSTRACTION FOR HETNET COORDINATION</b> .....	1297
<i>Sergio Lembo ; Junqian Deng ; Ragnar Freij-Hollanti ; Olav Tirkkonen ; Tao Chen</i>	
<b>RATIO OF <math>\kappa</math>-<math>\mu</math> VARIATES AND ITS APPLICATION IN SPECTRUM SHARING</b> .....	1304
<i>Elvio J. Leonardo ; Ugo S. Dias ; Daniel B. Da Costa ; Michel D. Yacoub</i>	
<b>OPTIMAL UPLINK AND DOWNLINK RESOURCE ALLOCATION FOR WIRELESS POWERED CELLULAR NETWORKS</b> .....	1309
<i>Belal Essam Eldiwany ; Amr A. El-Sherif ; Tamer Elbatt</i>	
<b>A METHOD TO ENHANCE RANGING RESOLUTION FOR LOCALIZATION OF LORA SENSORS</b> .....	1315
<i>Haris Kremo ; Tom Farrele ; Justin Tallon ; David McDonald ; Linda Doyle</i>	
<b>SPECTRAL EFFICIENCY MAXIMIZATION OF SINGLE CELL MASSIVE MULTIUSER MIMO SYSTEMS VIA OPTIMAL POWER CONTROL WITH ZF RECEIVER</b> .....	1321
<i>O. Saatlou ; M. Omair Ahmad ; M. N. S. Swamy</i>	
<b>PLEASE STAND BY: TV-BASED INDOOR LOCALIZATION</b> .....	1326
<i>Andrei Popleteev</i>	
<b>ADAPTIVE WINDOWING OF INSUFFICIENT CP FOR JOINT MINIMIZATION OF ISI AND ACI BEYOND 5G</b> .....	1332
<i>Berker Peköz ; Selçuk Köse ; Hüseyin Arslan</i>	
<b>PARTIALLY CONNECTED HYBRID BEAMFORMING FOR LARGE ANTENNA ARRAYS IN MULTI-USER MISO SYSTEMS</b> .....	1337
<i>Mohammad Majidzadeh ; Aleks Moilanen ; Nuutti Tervo ; Harri Pennanen ; Antti Tolli ; Matti Latva-Aho</i>	
<b>DYNAMIC IP TUNNELING FOR NEXT GENERATION MOBILE NETWORKS</b> .....	1343
<i>Bongho Kim ; Doru Calin ; Jonathan Ling ; Harish Viswanathan</i>	
<b>COVERAGE-CONSTRAINED BASE STATION DEPLOYMENT AND POWER ALLOCATION FOR OPERATIONAL COST MINIMIZATION</b> .....	1350
<i>Ganesh Prasad ; Deepak Mishra ; Ashraf Hossain</i>	
<b>REINFORCEMENT LEARNING SYSTEM TO MITIGATE SMALL-CELL INTERFERENCE THROUGH DIRECTIONALITY</b> .....	1355
<i>Anton Paatelma ; Danh H. Nguyen ; Harri Saarnisaari ; Nagarajan Kandasamy ; Kapil R. Dandekar</i>	
<b>IMPACT OF RF CABLES ON THE ELECTROMAGNETIC ENVIRONMENT IN VEHICLES</b> .....	1362
<i>Irfan Mehmood Yousaf ; Buon Kiong Lau</i>	
<b>KEY SOLUTIONS FOR A MASSIVE MIMO FDD SYSTEM</b> .....	1368
<i>Wolfgang Zirwas ; Mikael Sternad ; Rikke Apelfröjd</i>	
<b>A MULTI-MODULATION RETRODIRECTIVE FEED NETWORK FOR BACKSCATTER COMMUNICATIONS</b> .....	1375
<i>Mohammad Alhassoun ; Francesco Amato ; Gregory D. Durgin</i>	
<b>ASYMPTOTICALLY OPTIMAL SCHEDULING FOR ENERGY HARVESTING WIRELESS SENSOR NETWORKS</b> .....	1380
<i>Omer Melih Gul</i>	
<b>GAUSSIAN RANDOM FIELD APPROXIMATION FOR EXCLUSION ZONES IN COGNITIVE RADIO NETWORKS</b> .....	1387
<i>Zheng Wang ; Brian L. Mark</i>	
<b>THE NEW ENHANCEMENTS IN LTE-A REL-13 FOR RELIABLE MACHINE TYPE COMMUNICATIONS</b> .....	1392
<i>Mahmoud Elsaadany ; Walaah Hamouda</i>	
<b>ON THE USER ASSOCIATION AND RESOURCE ALLOCATION IN HETNETS WITH MMWAVE BASE STATIONS</b> .....	1397
<i>Cirine Chaieb ; Zoubeir Mlika ; Fatma Abdelkefi ; Wessam Ajib</i>	
<b>ADAPTIVE DIGITAL PRECODER CODEBOOK RESOLUTION FOR MILLIMETER WAVE HYBRID BEAMFORMING</b> .....	1402
<i>Ping-Heng Kuo ; Jaehyun Ahn ; Alain Mourad</i>	
<b>A NOVEL LOAD-AWARE CELL ASSOCIATION FOR SIMULTANEOUS NETWORK CAPACITY AND USER QOS OPTIMIZATION IN EMERGING HETNETS</b> .....	1408
<i>Ahmad Asghar ; Hasan Farooq ; Ali Imran</i>	
<b>MAPPING ANTENNA PRECODERS TO EQUAL POWER ANTENNA PATTERNS</b> .....	1415
<i>Colin Frank ; Tyler Brown</i>	
<b>SCHEDULING WIRELESS AD HOC NETWORKS IN POLYNOMIAL TIME USING CLAW-FREE CONFLICT GRAPHS</b> .....	1421
<i>Alper Köse ; Muriel Médard</i>	
<b>HARD-OUTPUT CHASE DETECTORS FOR LARGE MIMO: BER PERFORMANCE AND COMPLEXITY ANALYSIS</b> .....	1428
<i>Hadi Sardeddeen ; Mohammad M. Mansour ; Ali Chehab</i>	

<b>JOINT DESIGN OF BEAM SELECTION AND PRECODING FOR MMWAVE MU-MIMO SYSTEMS WITH LENS ANTENNA ARRAY .....</b>	<b>1433</b>
<i>Rongbin Guo ; Yunlong Cai ; Qingjiang Shi ; Minjian Zhao ; Benoit Champagne</i>	
<b>ROUTING PROTOCOL DESIGN IN TAG-TO-TAG NETWORKS WITH CAPABILITY-ENHANCED PASSIVE TAGS .....</b>	<b>1438</b>
<i>Chang Liu ; Zygmunt J. Haas</i>	
<b>RELAY SELECTION IN FDD AMPLIFY-AND-FORWARD COOPERATIVE NETWORKS .....</b>	<b>1444</b>
<i>A. Gouisseem ; L. Samara ; R. Hamila ; N. Al-Dhahir ; S. Foufou</i>	
<b>AUGMENTING PRACTICAL CROSS-LAYER MAC SCHEDULERS VIA OFFLINE REINFORCEMENT LEARNING .....</b>	<b>1451</b>
<i>Fabio Pianese ; Peter J. Danielsen</i>	
<b>TRANSFORMED-CHANNEL FEEDBACK FOR THE TWO-USER MISO INTERFERENCE CHANNEL .....</b>	<b>1457</b>
<i>Ariel Heller ; Yair Noam ; Benjamin M. Zaidel</i>	
<b>PERFORMANCE-COST TRADE-OFF OF JOINT BEAMFORMING AND USER CLUSTERING IN CLOUD RADIO ACCESS NETWORKS .....</b>	<b>1463</b>
<i>Ha Duc Thang ; Lila Boukhatem ; Megumi Kanew ; Steven Martin</i>	
<b>A HYBRID NETWORK SELECTION SCHEME FOR HETEROGENEOUS WIRELESS ACCESS NETWORK .....</b>	<b>1468</b>
<i>Nagina Zarin ; Anjali Agarwal</i>	
<b>THE IMPACT OF ADAPTIVE GUARDS FOR 5G AND BEYOND .....</b>	<b>1474</b>
<i>Ali Fatih Demir ; Hüseyin Arslan</i>	
<b>LORAWAN RADIO INTERFACE ANALYSIS FOR NORTH AMERICAN FREQUENCY BAND OPERATION .....</b>	<b>1479</b>
<i>Ahmed Alsohaily ; Elvino Sousa ; Adam J. Tenenbaum ; Ivo Maljevic</i>	
<b>AN INTEGRATED DESIGN OF STBC AND SIGNAL ALIGNMENT IN MIMO Y CHANNELS .....</b>	<b>1485</b>
<i>Zichao Zhou ; Xueying Yuan ; Jacek Ilow</i>	
<b>TOWARDS SCALABLE AND PRIVACY PRESERVING COMMERCIAL CONTENT DISSEMINATION IN SOCIAL WIRELESS NETWORKS .....</b>	<b>1492</b>
<i>Faezeh Hajiaghajani ; Subir Biswas</i>	
<b>DOWNLINK PERFORMANCE OF DENSE ANTENNA DEPLOYMENT: TO DISTRIBUTE OR CONCENTRATE? .....</b>	<b>1499</b>
<i>Mounia Hamidouche ; Ejder Bastug ; Jihong Park ; Laura Cottatellucci ; Mérouane Debbah</i>	
<b>DETECTION OF ANOMALOUS BEHAVIOR OF SMARTPHONES USING SIGNAL PROCESSING AND MACHINE LEARNING TECHNIQUES .....</b>	<b>1505</b>
<i>R. Soundar Raja James ; A. Albasir ; K. Naik ; M. Y. Dabbagh ; P. Dash ; M. Zamani ; N. Goel</i>	
<b>DOWNLINK COVERAGE AND AVERAGE CELL LOAD OF M2M AND H2H IN ULTRA-DENSE NETWORKS .....</b>	<b>1512</b>
<i>Mahmoud I. Kamel ; Walaa Hamouda ; Amr M. Youssef</i>	
<b>OPTIMAL RECEIVER DESIGN FOR SCMA SYSTEM .....</b>	<b>1517</b>
<i>Guangjin Chen ; Jincheng Dai ; Kai Niu ; Chao Dong</i>	
<b>VNF-B&amp;B: ENABLING EDGE-BASED NFV WITH CPE RESOURCE SHARING .....</b>	<b>1523</b>
<i>He Zhu ; Changcheng Iluang</i>	
<b>COEXISTENCE INTERFERENCE EVALUATION AND ANALYSIS OF LTE WITH 3D-MIMO SYSTEM .....</b>	<b>1528</b>
<i>Kaixi Xia ; Yafeng Wang ; Didi Zhang</i>	
<b>EFFICIENT DATA AND ENERGY TRANSFER IN IOT WITH A MOBILE COGNITIVE BASE STATION .....</b>	<b>1534</b>
<i>Abdullah M. Almasoud ; Ahmed E. Kamal</i>	
<b>QOS-GUARANTEED DATA RATE ALLOCATION FOR MIXED SERVICES ON LICENSED AND UNLICENSED BANDS IN LTE AND WIFI SYSTEMS .....</b>	<b>1539</b>
<i>Yuhang Sun ; Qixun Zhang ; Lei Ji ; Qinlong Wang ; Zhiyong Feng</i>	
<b>JOINT SUBCHANNEL ALLOCATION AND HYBRID PRECODING DESIGN FOR MMWAVE MULTI-USER OFDMA SYSTEMS .....</b>	<b>1545</b>
<i>Vu Nguyen Ha ; Duy H. N. Nguyen ; Jean-Francois Frigon</i>	
<b>CODEBOOK AND TRAINING SEQUENCE ASSISTED BEAMFORMING TRAINING FOR MIMO-OFDM SYSTEMS .....</b>	<b>1550</b>
<i>Yingming Tsai ; Tianyi Xu ; Guodong Zhang</i>	
<b>GAME THEORETIC ANALYSIS OF SUBLICENSING FOR PAL AND GAA BANDS IN SPECTRUM ACCESS SYSTEM .....</b>	<b>1556</b>
<i>Huiyang Wang ; Eryk Dutkiewicz ; Diep Nguyen ; Markus Dominik Mueck</i>	

<b>OPPORTUNISTIC-BASED DYNAMIC INTERFERENCE COORDINATION IN DENSE SMALL CELLS DEPLOYMENT</b> .....	1561
<i>Ying Chen ; Zihua Yang ; Hongtao Zhang</i>	
<b>RSSI QUANTIZATION FOR INDOOR LOCALIZATION SERVICES</b> .....	1566
<i>Wanxin Gao ; Ioanis Nikolaidis ; Janelle J. Harms</i>	
<b>CAPACITY REGIONS OF A MAC WITH A WIRELESS-POWERED RELAY-TO-DESTINATION LINK UNDER DIFFERENT RELAY STRATEGIES</b> .....	1573
<i>Runfa Zhou ; Roger S. Cheng</i>	
<b>MODELLING FOR DATA ACQUISITION, STORAGE AND TRANSMISSION OF EOS</b> .....	1578
<i>Yan Zhu ; Min Sheng ; Jiandong Li ; Runzi Liu ; Jianping Liu</i>	
<b>RESOURCE ALLOCATION WITH COMP TRANSMISSION IN ULTRA DENSE CLOUD-BASED LTE SMALL CELL NETWORKS</b> .....	1584
<i>Yu-Han Chen ; Hsi-Lu Chao ; Sau-Hsuan Wu ; Chai-Hien Gan</i>	
<b>LEAST ACTION ROUTING: IDENTIFYING THE OPTIMAL PATH IN A WIRELESS RELAY NETWORK</b> .....	1589
<i>Aris Moustakas ; Panayotis Mertikopoulos ; Zhengyuan Zhou ; Nick Bambos</i>	
<b>ACHIEVING PERFECT SECRECY CAPACITY OF AN ASYMMETRIC BIDIRECTIONAL RELAY CHANNEL</b> .....	1594
<i>Yacine Meziti ; Hua Wang</i>	
<b>ENHANCING CELLULAR M2M RANDOM ACCESS WITH BINARY COUNTDOWN CONTENTION RESOLUTION</b> .....	1600
<i>Mikhail Vilgelm ; Sergio Rueda Linares ; Wolfgang Kellerer</i>	
<b>ENERGY EFFICIENT UPLINK TRANSMISSION FOR UE-TO NETWORK RELAY IN HETEROGENEOUS NETWORKS</b> .....	1606
<i>Shiqing Zhang ; Xiaodong Xu ; Mengying Sun ; Xiaoxuan Tang ; Xiaofeng Tao</i>	
<b>RELAY SELECTION FOR MMWAVE COMMUNICATIONS</b> .....	1613
<i>Sungoh Kwon ; Joerg Widmer</i>	
<b>PFS: A NOVEL MODULATION CLASSIFICATION SCHEME FOR MIXED SIGNALS</b> .....	1619
<i>Kezhong Zhang ; Easton Li Xu ; Zhiyong Feng</i>	
<b>LEVEL-CROSSING RATE AND AVERAGE DURATION OF FADES OF NON-STATIONARY MULTIPATH FADING CHANNELS</b> .....	1624
<i>Matthias Pätzold ; Wiem Dahech ; Néji Youssef</i>	
<b>EXPERIMENTAL OVER-THE-AIR TESTING FOR COEXISTENCE OF 4G AND A SPECTRALLY EFFICIENT NON-ORTHOGONAL SIGNAL</b> .....	1631
<i>Tongyang Xu ; Izzat Darwazeh</i>	
<b>ADAPTIVE BEAMFORMING USING MONTE-CARLO ALGORITHM FOR MULTI-ANTENNA WIRELESS POWER TRANSFER</b> .....	1636
<i>Yubin Zhao ; Xiaofan Li ; Cheng-Zhong Xu ; Xiaodong Wang</i>	
<b>THE EFFECTS OF DYNAMIC ENVIRONMENT ON CHANNEL FREQUENCY RESPONSE-BASED INDOOR POSITIONING</b> .....	1641
<i>Elmer R. Magsino ; Ivan Wang-Hei Ho ; Zhenhui Situ</i>	
<b>CACHING AND BANDWIDTH ALLOCATION POLICY OPTIMIZATION IN HETEROGENEOUS NETWORKS</b> .....	1647
<i>Jiajun Wu ; Binqiang Chen ; Chenyang Yang ; Qi Li</i>	
<b>LOCOMOTION ACTIVITY RECOGNITION: A DEEP LEARNING APPROACH</b> .....	1653
<i>Fuqiang Gu ; Kouros Khoshelham ; Shahrokh Valaee</i>	
<b>POPULARITY BASED FILE CATEGORIZATION AND CODED CACHING IN 5G NETWORKS</b> .....	1658
<i>Mohsen Karimzadeh Kiskani ; Shahin Vakili ; Mohamed Cheriet</i>	
<b>INTERFERENCE MANAGEMENT BY EXPLOITING CACHED FILES AT USERS</b> .....	1663
<i>Kaiyang Guo ; Chenyang Yang ; Tingting Liu</i>	
<b>FASTER MPTCP SUB-FLOW ESTABLISHMENT FOR INTERACTIVE APPLICATIONS</b> .....	1669
<i>Péter Szilágyi</i>	
<b>OPTIMAL LINEAR ERROR-CORRECTING INDEX CODES FOR SOME GENERALIZED INDEX CODING PROBLEMS</b> .....	1676
<i>Simon Samuel ; Nujoom Sageer Karat ; B. Sundar Rajan</i>	
<b>ARTIFICIAL NEURAL NETWORK BASED HYBRID SPECTRUM SENSING SCHEME FOR COGNITIVE RADIO</b> .....	1682
<i>Maunil R. Vyas ; D. K. Patel ; M. Lopez-Benitez</i>	
<b>ADMISSION CONTROL AND LOAD MANAGEMENT IN UNDERLAY OFDMA COGNITIVE RADIO NETWORKS</b> .....	1689
<i>Fahime Khoramnejad ; Mehdi Rasti ; Hossein Pedram ; Shahrokh Valaee</i>	

<b>DYNAMIC POPULARITY DRIVEN CACHING OPTIMIZATION AT BASE STATION</b> .....	1695
<i>Kaiqiang Qi ; Shengqian Han ; Chenyang Yang</i>	
<b>LINEAR PRECODER AND DECODER DESIGN FOR BIDIRECTIONAL FULL-DUPLEX MIMO OFDM SYSTEMS</b> .....	1700
<i>Omid Taghizadeh ; Vimal Radhakrishnan ; Ali Cagatay Ciriki ; Saeed Shojaee ; Rudolf Mathar ; Lutz Lampe</i>	
<b>NETWORK ECONOMICS OF SDN-BASED INFRASTRUCTURES: CAN WE UNLOCK VALUE THROUGH ICN MULTICAST?</b> .....	1705
<i>Vaggelis G. Douros ; Janne Riihijärvi ; Petri Mähönen</i>	
<b>ADAPTIVE LIMITED FEEDBACK DESIGNS IN MIMO BROADCAST SYSTEMS WITH SIMULTANEOUS WIRELESS INFORMATION AND POWER TRANSFER</b> .....	1710
<i>Xin Gui ; Hao Ni ; Meifang Jing</i>	
<b>A LTE/WLAN SELECTION METHOD BASED ON A NOVEL THROUGHPUT ESTIMATION METHOD</b> .....	1716
<i>Takayoshi Nakayama ; Hiroaki Senoo ; Yun Wen ; Yoshiharu Tajima ; Dai Kimura</i>	
<b>SELF-OPTIMIZED ADMISSION CONTROL FOR MULTITENANT RADIO ACCESS NETWORKS</b> .....	1722
<i>J. Pérez-Romero ; O. Sallent ; R. Ferrús ; R. Agustí</i>	
<b>MINIMAL DISTANCE APPROACH FOR STUDYING MULTI-FORM MIMO PRECODERS, APPLICATION TO FINITE-SNR DMT</b> .....	1727
<i>Thanh-Tin Nguyen ; Baptiste Vrigneau ; Olivier Berder</i>	
<b>EVALUATION OF VEHICULAR ANTENNA CONCEPTS UNDER DELAY LIMITED CAPACITY AS PERFORMANCE MEASURE FOR SAFETY CRITICAL MESSAGE TRANSFER</b> .....	1733
<i>Christian Arendt ; Adrian Posselt ; Peter Fertl ; Janis Notzel ; Holger Boche</i>	
<b>ERROR PERFORMANCE OF WIRELESS POWERED COGNITIVE RELAY NETWORKS WITH INTERFERENCE ALIGNMENT</b> .....	1739
<i>Sultangali Arzykulov ; Galymzhan Nauryzbayev ; Theodoros A. Tsiftsis ; Mohamed Abdallah</i>	
<b>PERFORMANCE OF COMPRESSIVE SENSING BASED ENERGY DETECTION</b> .....	1744
<i>Eva Lagunas ; Luca Rugini</i>	
<b>D2D-ASSISTED SLEEP MODE STRATEGIES FOR GREEN MOBILE NETWORKS</b> .....	1749
<i>A. M. Masucci ; S. E. Elayoubi ; A. Gati</i>	
<b>EFFICIENT TRAFFIC OFFLOADING FOR SEAMLESS CONNECTIVITY IN 5G NETWORKS ONBOARD HIGH SPEED TRAINS</b> .....	1755
<i>Leila Jalili ; Ali Parichehreh ; Stefan Alfredsson ; Johan Garcia ; Anna Brunstrom</i>	
<b>ROBUST DESIGN OF SC-FDE BASED TWO-WAY RELAY SYSTEMS UNDER CHANNEL UNCERTAINTY</b> .....	1761
<i>Peiran Wu ; Minghua Xia</i>	
<b>ON THE SPECTRAL MOMENTS OF NON-WSSUS MOBILE-TO MOBILE DOUBLE-RAYLEIGH FADING CHANNELS</b> .....	1767
<i>J. J. Jaime-Rodriguez ; C. A. Gutierrez ; Matthias Patzold ; Alireza Borhani</i>	
<b>PHYSICAL LAYER SECURITY IN FULL-DUPLEX CELLULAR NETWORKS</b> .....	1773
<i>Ayda Babaei ; A. Hamid Aghvami ; Arman Shojaeifard ; Kai-Kit Wong</i>	
<b>JOINT AUTOMOTIVE RADAR-COMMUNICATIONS WAVEFORM DESIGN</b> .....	1778
<i>Sayed Hossein Dokhanchi ; M. R. Bhavani Shankar ; Yogesh Anil Nijssure ; Thomas Stifter ; Saeid Sedighi ; Bjorn Ottersten</i>	
<b>OUTAGE CONSTRAINT BASED ROBUST BEAMFORMING DESIGN FOR NON-ORTHOGONAL MULTIPLE ACCESS IN 5G CELLULAR NETWORKS</b> .....	1785
<i>Faezeh Alavi ; Kanapathippillai Cumanan ; Zhiguo Ding ; Alister G. Burr</i>	
<b>GREEN HETEROGENEOUS NETWORKS VIA AN INTELLIGENT POWER CONTROL STRATEGY AND D2D COMMUNICATIONS</b> .....	1790
<i>Fereidoum H. Panahi ; Farzad H. Panahi ; Ghaith Hattab ; Tomoaki Ohtsuki ; Danijela Cabrici</i>	
<b>COMPENSATION OF SURVIVORSHIP BIAS IN PATH LOSS MODELING</b> .....	1798
<i>Koya Sato ; Kei Inage ; Takeo Fujii</i>	
<b>WIFI FINGERPRINT RELEASING FOR INDOOR LOCALIZATION BASED ON DIFFERENTIAL PRIVACY</b> .....	1803
<i>Yujia Zhu ; Yu Wang ; Qingyun Liu ; Yang Liu ; Peng Zhang</i>	
<b>SUM-RATE MAXIMIZATION FOR ENERGY HARVESTING-AIDED D2D COMMUNICATIONS UNDERLAID CELLULAR NETWORKS</b> .....	1809
<i>Chi-Han Lee ; Ronald Y. Chang ; Chun-Tao Lin ; Shin-Ming Cheng</i>	
<b>CFO ESTIMATION FOR QAM-FBMC SYSTEMS CONSIDERING NON-ORTHOGONAL PROTOTYPE FILTERS</b> .....	1815
<i>Hyungsik Han ; Hyuncheol Park</i>	



<b>MESSAGE PASSING RECEIVERS FOR LARGE-SCALE MULTIUSER MEDIA-BASED MODULATION</b> .....	1820
<i>Swaroop Jacob ; T. Lakshmi Narasimhan ; A. Chockalingam</i>	
<b>AN EXPLORATORY SEARCH STRATEGY FOR DATA ROUTING IN FLYING AD HOC NETWORKS</b> .....	1826
<i>Hakim Ghazzai ; Awatef Feidi ; Hamid Menouar ; Mohamed Lassaad Ammari</i>	
<b>ON THE PERFORMANCE OF MASSIVE GRANT-FREE NOMA</b> .....	1833
<i>Rana Abbas ; Mahyar Shirvanimoghaddam ; Yonghui Li ; Branka Vucetic</i>	
<b>HYBRID LIFI — WIFI INDOOR BROADCASTING SYSTEM</b> .....	1839
<i>Akash Gupta ; Parul Garg ; Nikhil Sharma</i>	
<b>ASSESSMENT OF MULTICARRIER WAVEFORMS FOR 5G SATELLITE</b> .....	1845
<i>Nicolas Cassiau ; Baptiste Chamaillard</i>	
<b>A LOAD BALANCING SCHEME FOR SUPPORTING SAFETY APPLICATIONS IN HETEROGENEOUS SOFTWARE DEFINED LTE-V NETWORKS</b> .....	1850
<i>Yangshui Gao ; Tao Luo</i>	
<b>EFFICIENT ENERGY BEAMFORMING FOR MULTI-DEVICE MICROWAVE WIRELESS POWER TRANSFER UNDER TX/RX POWER CONSTRAINTS</b> .....	1855
<i>Kentaro Murata ; Kohei Onizuka ; Toshiya Mitomo ; Makoto Higaki ; Kentaro Taniguchi ; Ryoko Matsuo ; Tsuguhide Aoki</i>	
<b>NOVEL BLIND MODULATION CLASSIFICATION OF CIRCULAR AND LINEARLY MODULATED SIGNALS USING CYCLIC CUMULANTS</b> .....	1861
<i>Sudhan Majhi ; Rahul Gupta ; Weidong Xiang</i>	
<b>ENERGY EFFICIENT ADVERTISEMENT PROTOCOL FOR COOPERATIVE BODY AREA NETWORKS</b> .....	1866
<i>L. H. Suraty Filho ; M. Maman</i>	
<b>ON THE INFLUENCE OF WALKING PEOPLE ON THE DOPPLER SPECTRAL CHARACTERISTICS OF INDOOR CHANNELS</b> .....	1873
<i>Ahmed Abdelgawwad ; Matthias Pätzold</i>	
<b>ENERGY EFFICIENCY OPTIMIZATION FOR SUPERIOR SELECTIVE REPORTING-BASED SPECTRUM SENSING</b> .....	1880
<i>Rajalekshmi Kishore ; C. K. Ramesha ; Sanjeev Gurugopinath ; Eshaan Sangodkar</i>	
<b>UPLINK AND DOWNLINK TRANSCIEVER DESIGN FOR OFDM WITH INDEX MODULATION IN MULTI-USER NETWORKS</b> .....	1886
<i>Merve Yüzgeccioğlu ; Eduard Jorswieck ; Communications Theory ; Communications Laboratory</i>	
<b>LOW COMPLEXITY EQUALIZATION ALGORITHMS FOR FREQUENCY SELECTIVE MILLIMETER WAVE CHANNEL</b> .....	1891
<i>Gaojian Wang ; Jiaxin Sun ; Gerd Ascheid</i>	
<b>FAST AND ROBUST VISUAL EGOMOTION ESTIMATION VIA STEREO VISION FOR INDOOR HAND-HELD AND WEARABLE LOCALIZATION/TRACKING APPLICATIONS</b> .....	1898
<i>Farhang Vedadi ; Shahrokh Valaee</i>	
<b>MULTI-USER MMWAVE COMMUNICATION BY INTERLEAVED BEAMFORMING WITH INTER-SUBARRAY CODING</b> .....	1905
<i>Zhengyi Li ; Atsushi Honda ; Toshihiro Shimura ; Kazuyuki Ozaki ; Shohei Ishikawa ; Chikara Kojima ; Shunsuke Fujio ; Ken-Ichi Nishikawa ; Hiroshi Ashida ; Takenori Ohshima ; Masahiko Shimizu ; Yoji Ohashi</i>	
<b>PERFORMANCE ANALYSIS OF REM-BASED HANDOVER ALGORITHM FOR MULTI-TIER CELLULAR NETWORKS</b> .....	1911
<i>Cristo Suarez-Rodriguez ; B. A. Jayawickrama ; Ying He ; Faouzi Bader ; Michael Heimlich</i>	
<b>LTE CELL LOAD ESTIMATION BY RADIO QUALITY MEASUREMENT OF UE BASED ON BS CONFIGURATION</b> .....	1917
<i>Takayuki Suzuki ; Takahiro Nobukiyo ; Takeo Onishi ; Daisuke Ohta ; Eiji Takahashi</i>	
<b>EFFICIENT TRANSMISSION SCHEMES FOR LOW-LATENCY NETWORKS: NOMA VS. RELAYING</b> .....	1923
<i>Yulin Hu ; M. Cenk Gursoy ; Anke Schmeink</i>	
<b>SORA: A STOCHASTIC OPTIMAL ROUTING ALGORITHM FOR WIRELESS SENSOR NETWORKS</b> .....	1929
<i>Xinshu Li ; Jianfeng Guan</i>	
<b>INVESTIGATING THE ENERGY-EFFICIENCY/DELAY JITTER TRADE OFF FOR VOLTE IN LTE DOWNLINK</b> .....	1935
<i>Karim Hammad ; Abdallah Moubayed ; Serguei Primak ; Abdallah Shami</i>	
<b>60 GHZ TEMPORAL DISPERSION CHARACTERISTICS WITH DIFFERENT ANTENNA POLARIZATIONS IN AN UNDERGROUND MINE</b> .....	1942
<i>Shah Ahsanuzzaman Md Tariq ; Charles L. Despinsi ; Sofiene Affes ; Chahe Nerguizian</i>	

<b>A FRAMEWORK FOR OPTIMIZING FILE TRANSFERS BETWEEN MOBILE DEVICES AND THE CLOUD .....</b>	<b>1947</b>
<i>Armen Dzhagaryan ; Aleksandar Milenkovic</i>	
<b>FREQUENCY DEPENDENCE OF SITE-SPECIFIC PATH LOSS IN URBAN MACRO CELL ENVIRONMENTS BETWEEN 2 AND 66 GHz BANDS.....</b>	<b>1954</b>
<i>Motoharu Sasaki ; Mitsuki Nakamura ; Minoru Inomata ; Wataru Yamada ; Naoki Kita ; Yasushi Takatori ; Koshiro Kitao ; Tetsuro Imai</i>	
<b>DRIVER'S BLINK DETECTION USING DOPPLER SENSOR .....</b>	<b>1959</b>
<i>Kohei Yamamoto ; Kentaroh Toyoda ; Tomoaki Ohtsuki</i>	
<b>SHARPE RATIO FOR JOINT USER ASSOCIATION AND SUBCARRIER ALLOCATION DESIGN IN DOWNLINK HETEROGENEOUS CELLULAR NETWORKS .....</b>	<b>1965</b>
<i>Nur Ilyana Anwar Apandi ; Shuang Tian ; Wibowo Hardjawana ; Phee Lep Yeoh ; Branka Vucetic</i>	
<b>SUCCESSFUL ONE WAY DATA COMMUNICATION PROBABILITY OF ENERGY HARVESTING COGNITIVE RELAY NETWORK WITH SPATIALLY RANDOM PRIMARY USERS .....</b>	<b>1970</b>
<i>Anupam Shome ; Saswat Chakrabarti ; Priyadip Ray</i>	
<b>ENERGY-HARVESTING USER FAIRNESS IN WIRELESS INFORMATION AND POWER TRANSFER OFDMA NETWORKS .....</b>	<b>1975</b>
<i>Jithin George ; Phee Lep Yeoh ; Brian S. Krongold</i>	
<b>LEARNING FROM EXPERIENCE: A DYNAMIC CLOSED-LOOP QOE OPTIMIZATION FOR VIDEO ADAPTATION AND DELIVERY .....</b>	<b>1982</b>
<i>Imen Triki ; Rachid El-Azouzi ; Majed Haddad ; Quanyan Zhu ; Zhiheng Xu</i>	
<b>TIME AND POWER ALLOCATION FOR NON-ORTHOGONAL MULTIPLE ACCESS RELAYING NETWORKS .....</b>	<b>1987</b>
<i>Yue Xiao ; Li Hao ; Zheng Ma ; Zhengquan Zhang ; Zequn Fang</i>	
<b>AN SDR-BASED TURBO-SIC IMPLEMENTATION: TOWARDS A 5G NEW RADIO ADVANCED RECEIVER FOR UPLINK BOOSTING .....</b>	<b>1992</b>
<i>Milan Zivkovic ; Juergen Otterbach ; Marcos Tavares ; Dale Harman ; Dragan Samardzija</i>	
<b>MAPCACHING: A NOVEL MOBILITY AWARE PROACTIVE CACHING OVER C-RAN .....</b>	<b>1999</b>
<i>Jianmei Dai ; Danpu Liu</i>	
<b>RELAY SELECTION AND RESIDUAL SELF-INTERFERENCE MITIGATION FOR COGNITIVE FULL-DUPLEX TWO-WAY MIMO RELAYING SYSTEM.....</b>	<b>2005</b>
<i>Nachiket Ayir ; P. Ubaidulla</i>	
<b>INTER-NETWORK COOPERATIVE LOCALIZATION IN HETEROGENEOUS NETWORKS WITH UNKNOWN TRANSMIT POWER .....</b>	<b>2011</b>
<i>Saliha Büyükköçörak ; Günes Karabulut Kurt ; Abbas Yongaçoglu</i>	
<b>A BENCHMARK FOR D2D IN CELLULAR NETWORKS: THE IMPORTANCE OF INFORMATION .....</b>	<b>2016</b>
<i>Yigit Ozcan ; Catherine Rosenberg ; Fabrice Guillemin</i>	
<b>HIGH-EFFICIENCY MATCHING MECHANISM FOR OFF-CHIP TABLES IN OPENFLOW-ENABLED LEGACY SWITCH.....</b>	<b>2023</b>
<i>Jheng-Jyun Wang ; Chi-Hsiang Hung ; Li-Chun Wang ; Kuo-Chen Wang ; Chain-Wu Lee</i>	
<b>MOBILITY AWARE CACHING INCENTIVE SCHEME FOR D2D CELLULAR NETWORKS .....</b>	<b>2028</b>
<i>Danyang Wang ; Hailing Li ; Shuo Wang ; Juwo Yang ; Xinwei Liu ; Xing Zhang</i>	
<b>BER OF AN OPTICALLY PRE-AMPLIFIED FSO SYSTEM UNDER MÁLAGA TURBULENCE, POINTING ERRORS, AND ASE NOISE .....</b>	<b>2034</b>
<i>Prakriti Saxena ; Aashish Mathur ; Manav R. Bhatnagar ; Zabih Ghassemlooy</i>	
<b>TRIPLE PARALLEL CONCATENATED TRELLIS CODED MODULATION.....</b>	<b>2040</b>
<i>Toshiki Matsumine ; Hideki Ochiai</i>	
<b>A NOVEL TASK ALLOCATION FOR MAXIMIZING RELIABILITY CONSIDERING FAULT-TOLERANT IN VANET REAL TIME SYSTEMS.....</b>	<b>2045</b>
<i>Yao Xiao ; Zhiyuan Ren ; Hailin Zhang ; Chen Chen ; Chenhua Shi</i>	
<b>JOINT ALLOCATION STRATEGIES FOR RADIO AND PROCESSING RESOURCES IN VIRTUAL RADIO ACCESS NETWORKS (V-RAN) .....</b>	<b>2052</b>
<i>Ghina Dandachi ; Tijani Chahed ; Salah Eddine Elayoubi ; Nada Chendeb Taher ; Ziad Fawal</i>	
<b>SECRECACY ANALYSIS OF RANDOM WIRELESS NETWORKS WITH MULTIPLE EAVESDROPPERS .....</b>	<b>2058</b>
<i>Satyanarayana Vuppala ; Symeon Chatzinotas ; Bjorn Ottersten</i>	
<b>COMPUTATION OFFLOADING FOR MOBILE EDGE COMPUTING: A DEEP LEARNING APPROACH .....</b>	<b>2065</b>
<i>Shuai Yu ; Xin Wang ; Rami Langar</i>	

<b>DOWNLINK RADIO RESOURCE ALLOCATION WITH MU-MIMO AND CARRIER AGGREGATION IN 5G NETWORKS.....</b>	2071
<i>Mustapha Amara ; Afef Feki</i>	
<b>MILLIMETER WAVE CHANNEL MEASUREMENTS IN A RAILWAY DEPOT .....</b>	2077
<i>Berna Bulut ; Thomas Barratt ; Di Kong ; Jue Cao ; Alberto Loaiza Freire ; Fai Tila ; Simon Armour ; Mark Beach ; Andrew Nix</i>	
<b>MINIMIZING TRANSMISSION COST FOR MULTIPLE SERVICE FUNCTION CHAINS IN SDN/NFV NETWORKS .....</b>	2082
<i>Faqqiang Liu ; Xin Chen ; Wei An ; Yong Peng ; Jiuyue Cao ; Yan Zhang</i>	
<b>ANALYTICAL APPROACH TO BASE STATION SLEEP MODE POWER CONSUMPTION AND SLEEP DEPTH .....</b>	2088
<i>Oluwakayode Onireti ; Abdelrahim Mohamed ; Haris Pervaiz ; Muhammad Imran</i>	
<b>SOFTWARE DEFINED VPLS ARCHITECTURES: OPPORTUNITIES AND CHALLENGES .....</b>	2095
<i>Madhusanka Liyanage ; Mika Ylianttila ; Andrei Gurto</i>	
<b>CHANNEL QUALITY PREDICTION IN LTE: HOW FAR CAN WE LOOK AHEAD UNDER REALISTIC ASSUMPTIONS?.....</b>	2102
<i>Mustapha Amara ; Afef Feld ; Stefan Valentin</i>	
<b>THE PRODUCT OF TWO <math>\kappa</math>-<math>\mu</math> VARIATES AND THE <math>\kappa</math>-<math>\mu</math>/<math>\kappa</math>-<math>\mu</math> COMPOSITE FADING MODEL.....</b>	2108
<i>Nidhi Bhargav ; Carlos Rafael Nogueira Da Silva ; Young Jin Chun ; Élvio João Leonardo ; Simon L. Cotton ; Michel Daoud Yacoub</i>	
<b>THE IMPACT OF DURATION AND SETTINGS OF TCP MEASUREMENTS ON AVAILABLE BANDWIDTH ESTIMATION IN MOBILE NETWORKS .....</b>	2113
<i>Samira Homayouni ; Vaclav Raida ; Philipp Svoboda ; Markus Rupp</i>	
<b>MMRTI: RADIO TOMOGRAPHIC IMAGING USING HIGHLY-DIRECTIONAL MILLIMETER-WAVE DEVICES FOR ACCURATE AND ROBUST INDOOR LOCALIZATION .....</b>	2119
<i>Avishek Patra ; Ljiljana Simic ; Marina Petrova</i>	
<b>SECURE TRANSMISSION IN POWER BEACON ASSISTED WIRELESS COMMUNICATION NETWORKS.....</b>	2126
<i>Yuzhen Huang ; Ping Zhang ; Jinlong Wang ; Qihui Wu</i>	
<b>BLIND MULTIPLE CARRIER FREQUENCY OFFSETS ESTIMATION FOR OFDM WITH DISTRIBUTED MULTI-ANTENNA RECEIVER.....</b>	2132
<i>Yunqi Feng ; Weile Zhang ; Yinghao Ge</i>	
<b>USER SCHEDULING FOR NON-ORTHOGONAL TRANSMISSION IN UAV-ASSISTED RELAY NETWORK.....</b>	2138
<i>Jaeuk Baek ; Sang Ik Han ; Younghan Han</i>	
<b>JOINT HYBRID RF/BASEBAND TRANSCEIVER DESIGN FOR MULTI-USER MIMO DOWNLINK IN MILLIMETER WAVE COMMUNICATION SYSTEM .....</b>	2143
<i>Deepa Jagyasi ; P. Ubaidulla</i>	
<b>EXPERIMENTAL CHARACTERIZATION OF GEOMETRY-BASED CHANNEL MODELS IN SUBURBAN MICROCELLS .....</b>	2148
<i>Claude Oestges ; Natalia Dementieva ; Evgenii Vinogradov</i>	
<b>OUTAGE PROBABILITY ANALYSIS FOR <math>\alpha</math>-<math>\mu</math>/<math>\kappa</math>-<math>\mu</math> AND <math>\kappa</math>-<math>\mu</math>/<math>\alpha</math>-<math>\mu</math> FADING SCENARIOS.....</b>	2153
<i>Nidhi Bhargav ; David E. Simmons ; Carlos Rafael Nogueira Da Silva ; Élvio João Leonardo ; Simon L. Cotton ; Michel Daoud Yacoub</i>	
<b>A D2D MODE SELECTION SCHEME WITH ENERGY CONSUMPTION MINIMIZATION UNDERLAYING TWO-TIER HETEROGENEOUS CELLULAR NETWORKS .....</b>	2158
<i>Ping Chu ; Xiaoxiang Wang ; Dongyu Wang ; Lei Yu</i>	
<b>SRS-BASED D2D NEIGHBOR DISCOVERY SCHEME FOR LTE CELLULAR NETWORKS.....</b>	2163
<i>Leila Nasraoui ; Leila Najjar Atallah</i>	
<b>EXPERIMENTAL RESULTS FOR ARTIFICIAL INTELLIGENCE-BASED SELF-ORGANIZED 5G NETWORKS.....</b>	2168
<i>Wei Jiang ; Mathias Strufe ; Hans D. Schotten</i>	
<b>WAVEFORM AND SPECTRUM MANAGEMENT FOR UNMANNED AERIAL SYSTEMS BEYOND 2025 .....</b>	2174
<i>Jaber Kakar ; Vuk Marojevic</i>	
<b>MWQOE: A USER-CENTERED CONTEXT-AWARE MODEL FOR EVALUATING THE MOBILE WEB QUALITY OF EXPERIENCE.....</b>	2179
<i>Josephina Antoniou ; Elias Allayiotis</i>	
<b>ACCELERATED VIRTUAL SWITCHING SUPPORT OF 5G NFV-BASED MOBILE NETWORKS.....</b>	2186
<i>Joyce Mwangama ; Neco Ventura</i>	

<b>A NOVEL MOBILITY PREDICTION SCHEME FOR OUTDOOR CROWDED SCENARIO USING FUZZY C-MEANS.....</b>	2193
<i>Pengbo Yang ; Xi Li ; Hong Ji ; Heli Zhang</i>	
<b>DESIGN OF PRIVACY-PRESERVING MOBILE BITCOIN CLIENT BASED ON <math>\gamma</math>-DENIABILITY ENABLED BLOOM FILTER.....</b>	2198
<i>Kota Kanemura ; Kentaroh Toyoda ; Tomoaki Ohtsuki</i>	
<b>COOPERATIVE SENSING DELAY MINIMIZATION IN CLOUD-ASSISTED DSA NETWORKS.....</b>	2204
<i>Shree Krishna Sharma ; Xianbin Wang</i>	
<b>EVENT-DRIVEN DATA AGGREGATION AND REPORTING FOR CRSN-BASED SUBSTATION MONITORING.....</b>	2210
<i>Sabrina Aroua ; Inès El Korbi ; Yacine Ghamri-Doudane ; Leila Azouz Saidane</i>	
<b>MULTI-PAIR TWO WAY AF FULL-DUPLEX MASSIVE MIMO RELAYING WITH ZFR/ZFT PROCESSING.....</b>	2217
<i>Ekant Sharma ; Rohit Budhiraja ; K. Vasudevan</i>	
<b>A SEMI-OUTSOURCING SECURE DATA PRIVACY SCHEME FOR IOT DATA TRANSMISSION.....</b>	2224
<i>Xiaoshuai Zhang ; Stefan Poslad ; Zixiang Ma</i>	
<b>ON THROUGHPUT MAXIMIZATION BASED ON OPTIMAL UPDATE INTERVAL IN LI-FI NETWORKS.....</b>	2229
<i>Mohammad Dehghani Soltani ; Majid Safari ; Harald Haas</i>	
<b>EXACT PERFORMANCE ANALYSIS OF DF BASED MIXED TRIPLE-HOP RF/FSO/RF COMMUNICATION SYSTEM.....</b>	2235
<i>Sanya Anees ; Manav R. Bhatnagar</i>	
<b>DECODE-COMPRESS AND FORWARD RELAY: AWGN AND CONSTELLATION CONSTRAINED CHANNELS.....</b>	2240
<i>Ahmed Attia Abotabl ; Aria Nosratinia</i>	
<b>ENERGY EFFICIENCY OF RELAY AIDED D2D COMMUNICATIONS UNDERLAYING CELLULAR NETWORKS.....</b>	2245
<i>Rui Zhang ; Yongzhao Li ; Cheng-Xiang Wang ; Yuhua Ruan ; Hailin Zhang</i>	
<b>AN ANALYSIS OF THE COLLECTION TREE PROTOCOL (CTP) IN MOBILE SENSING ENVIRONMENTS.....</b>	2250
<i>Nadra Ben Otman ; Ramiro Liscano ; Shahram Shah Heydari</i>	
<b>A NOVEL CS-BASED NON-ORTHOGONAL MULTIPLE ACCESS MIMO SYSTEM FOR DOWNLINK OF MTC IN 5G.....</b>	2257
<i>Kesen He ; Yangqing Li ; Changchuan Yin</i>	
<b>JOINT CODING FOR PROACTIVE CACHING WITH CHANGING FILE POPULARITIES.....</b>	2262
<i>Mohamed Amir ; Ebrahim Bedeer ; M. H. Ahmed ; Tamer Khattab</i>	
<b>BIT PRECISION STUDY OF A NON-ORTHOGONAL ITERATIVE DETECTOR WITH FPGA MODELLING VERIFICATION.....</b>	2268
<i>Tongyang Xu ; Izzat Darwazeh</i>	
<b>ADAPTIVE FULL DUPLEX COMMUNICATIONS IN COGNITIVE RADIO NETWORKS.....</b>	2273
<i>Vahid Towhidlou ; Mohammad Shikh Bahaie</i>	
<b>JOINT OPTIMIZATION OF POLAR CODES AND STBCS.....</b>	2278
<i>Hossein Khoshnevis ; Ian Marsland ; Hamid Jafarkhani ; Halim Yanikomeroglu</i>	
<b>PERFORMANCE COMPARISON OF CONSTANT ENVELOPE DCT- AND FFT-BASED OFDM SYSTEMS WITH PHASE MODULATION OVER FREQUENCY-NONSELECTIVE FADING CHANNELS.....</b>	2284
<i>Rayan H. Alsisi ; Raveendra K. Rao</i>	
<b>HYBRID CRAMER RAO BOUND ON TIME DELAY ESTIMATION IN RAYLEIGH FADING CHANNELS.....</b>	2290
<i>Imen Nasr ; Leila Najjar Atallah ; Sofiane Cherif ; Benoît Geller</i>	
<b>POLAR CODED MULTI-ANTENNA MULTIDIMENSIONAL CONSTELLATIONS IN PARTIALLY COHERENT CHANNELS.....</b>	2295
<i>Hossein Khoshnevis ; Ian Marsland ; Halim Yanikomeroglu</i>	
<b>OPTIMAL RESOURCE ALLOCATION FOR CONTENT DELIVERY IN D2D COMMUNICATIONS.....</b>	2301
<i>Can Güven ; Suzan Bayhan ; Gürkan Gür ; Salim Eryigit</i>	
<b>WEIGHTED FAST ITERATIVE SHRINKAGE THRESHOLDING FOR 3D MASSIVE MIMO CHANNEL ESTIMATION.....</b>	2306
<i>Ahmed Nasser ; Maha Elsbrouty ; Osamu Muta</i>	
<b>ON THE INTEGRATION OF LORAWAN WITH THE 5G TEST NETWORK.....</b>	2311
<i>Rumana Yasmin ; Juha Petäjajarvi ; Konstantin Mikhaylov ; Ari Pouttu</i>	

<b>A STUDY OF THE IMPACT OF MERGING SCHEMES ON CLUSTER STABILITY IN VANETS</b> .....	2317
<i>Mengying Ren ; Jun Zhang ; Lyes Khoukhi ; Houda Labiod ; Véronique Vèque</i>	
<b>ON THE PERFORMANCE OF AF BASED MIXED TRIPLE-HOP RF/FSO/RF COMMUNICATION SYSTEM</b> .....	2324
<i>Sanya Anees ; Pillarisetty Sai Sri Harsha ; Manav R. Bhatnagar</i>	
<b>COMPUTE-AND-FORWARD ON GAUSSIAN INTERFERENCE RELAY CHANNEL</b> .....	2330
<i>Ammar Jlassi ; Larbi Ben Hadj Slama ; Abdellatif Zaidi ; Sofiane Cherif</i>	
<b>NON-ORTHOGONAL MULTIPLE ACCESS BASED HYBRID BEAMFORMING IN 5G MMWAVE SYSTEMS</b> .....	2335
<i>Wei Wu ; Danpu Liu</i>	
<b>ULTRA-NARROWBAND FOR ENERGY-SCAVENGING-POWERED WIRELESS SENSOR NETWORKS</b> .....	2342
<i>Mhd Zaher Mahfouz ; Arjan Meijerink ; Mark J. Bentum</i>	
<b>BASE STATION ASSISTED NEIGHBOR DISCOVERY IN DEVICE TO DEVICE SYSTEMS</b> .....	2349
<i>Daoud Burghal ; Arash Saber Tehrani ; Andreas F. Molisch</i>	
<b>UAV ASSISTED PUBLIC SAFETY COMMUNICATIONS WITH LTE-ADVANCED HETNETS AND FEICIC</b> .....	2356
<i>Abhaykumar Kumbhar ; Simran Singh ; Ismail Guvenc</i>	
<b>EFFICIENT MESSAGES BROADCASTING WITHIN VEHICULAR SAFETY APPLICATIONS</b> .....	2363
<i>Khireddine Benaïssa ; Abdelhamid Mellouk ; Salim Bitam</i>	
<b>COVERAGE IN DOWNLINK HETEROGENEOUS MMWAVE CELLULAR NETWORKS WITH USER-CENTRIC SMALL CELL DEPLOYMENT</b> .....	2368
<i>Xueyuan Wang ; Esmâ Turgut ; M. Cenk Gursoy</i>	
<b>GRANT-LESS UPLINK TRANSMISSION FOR LTE OPERATED IN UNLICENSED SPECTRUM</b> .....	2375
<i>Jinyu Zhang ; Wenting Chang ; Huaning Niu ; Salvatore Talarico ; Hongwen Yang</i>	
<b>AN LTE-U COEXISTENCE SCHEME BASED ON COGNITIVE CHANNEL SWITCHING AND ADAPTIVE MUTING STRATEGY</b> .....	2381
<i>Zhiqiang Wang ; Hosen Md Shawkat ; Sicong Zhao ; Bin Shen</i>	
<b>RESOURCE PARTITIONING FOR MILLIMETER-WAVE INBAND SELF-XHAUL NETWORKS</b> .....	2387
<i>Seungkwon Cho ; Seungkwon Baek</i>	
<b>RESOURCE SHARING FOR D2D COMMUNICATION IN MULTI SMALL CELL NETWORKS</b> .....	2391
<i>Faiza Ali ; Sobia Jangsher ; Farrukh Aziz Bhatti</i>	
<b>SIMULATION OF IEEE 1902.1 (RUBEE) PROTOCOL FOR COMMUNICATION WITH BURIED ASSETS</b> .....	2396
<i>Stefano Dantas ; André N. Barreto ; Leonardo Aguayo ; A. Judson Braga ; Lucas S. Silva ; Luis G. Uzeda Garcia</i>	
<b>ENHANCE CELL-EDGE RATES BY AMPLIFY-FORWARD SHARED RELAYS IN DENSE CELLULAR NETWORKS</b> .....	2402
<i>S. Arvin Ayoughi ; Wei Yu</i>	
<b>ON-OFF NECKLACE CODES FOR ASYNCHRONOUS MUTUAL DISCOVERY</b> .....	2407
<i>Olav Tirkkonen ; Zexian Li ; Lu Wei ; Alexey Vinel</i>	
<b>RELAY-ASSISTED HANDOVER TO OVERCOME BLOCKAGE IN MILLIMETER-WAVE NETWORKS</b> .....	2413
<i>Won-Ik Kim ; Jae-Su Song ; Seungkwon Baek</i>	
<b>MAXIMUM EIGENVALUE-BASED SPECTRUM SENSING OVER <math>\alpha</math>-<math>\kappa</math>-<math>\mu</math> AND <math>\alpha</math>-<math>\eta</math>-<math>\mu</math> FADING CHANNELS</b> .....	2418
<i>B. Samudhyatha ; Sanjeev Gurugopinath ; K. Saraswathi</i>	
<b>DESIGN OF PERMUTATION-BASED SPARSE CODE MULTIPLE ACCESS SYSTEM</b> .....	2423
<i>Michel Kulhandjian ; Claude D'Amours</i>	
<b>OUTAGE PROBABILITY ANALYSIS OF A TWO-HOP RAYLEIGH-LOGNORMAL RELAY NETWORK</b> .....	2429
<i>Ahmed Wagdy Shaban ; Mohamed Oussama Damen</i>	
<b>MULTI-OBJECTIVE OPTIMIZATION FOR BALANCING ENERGY EFFICIENCY AND CHANNEL CAPACITY FOR MACHINE TYPE COMMUNICATIONS IN LTE NETWORKS</b> .....	2435
<i>Shaoyi Xu ; Shuai Gao</i>	
<b>ADMISSION CONTROL AND POWER ALLOCATION IN WIRELESS POWER CHARGING NETWORKS</b> .....	2440
<i>Ali Bayat ; Sonia Aïssa</i>	
<b>A DHT-BASED MULTICARRIER MODULATION SYSTEM WITH PAIRWISE ML DETECTION</b> .....	2445
<i>Juquan Mao ; Chin-Liang Wang ; Lei Zhang ; Chang He ; Pei Xiao ; Konstantinos Nikitopoulos</i>	
<b>CONTENTION-BASED UPLINK SMALL DATA TRANSMISSION FOR MASSIVE MTC IN 5G</b> .....	2451
<i>Hua Chao ; Yonggang Wang</i>	

<b>WIRELESS-POWERED NOMA RELAYS FOR OUT-OF-COVERAGE DEVICES</b> .....	2457
<i>Syeda Kanwal Zaidi ; Syed Faraz Hasan ; Xiang Gui</i>	
<b>ON THE PERFORMANCE OF NETWORK-ASSISTED INDOOR DEVICE-TO-DEVICE COMMUNICATION USING LOCATION AWARENESS AND REALISTIC PATH LOSS MODELS</b> .....	2462
<i>Mansi Peer ; Vivek Ashok Bohara ; Anand Srivastava</i>	
<b>DYNAMIC UWB OFF-BODY RADIO CHANNELS — HUMAN BODY SHADOWING EFFECT</b> .....	2469
<i>Timo Kumpuniemi ; Juha-Pekka Mäkelä ; Matti Hämäläinen ; Kamya Yekeh Yazdandoost ; Jari Ilmatti</i>	
<b>PERFORMANCE EVALUATION OF THE DYNAMIC TRAJECTORY DESIGN FOR AN UNMANNED AERIAL BASE STATION IN A SINGLE FREQUENCY NETWORK</b> .....	2476
<i>Margot Deruyck ; Alberto Marri ; Silvia Mignardi ; Luc Martens ; Wout Joseph ; Roberto Verdone</i>	
<b>POWER CONTROL IN ARQ TRANSMISSION WITH WIRELESS ENERGY REPLENISHMENT</b> .....	2483
<i>Sixing Yin ; Lihua Li ; Zhaowei Qu</i>	
<b>A CONVOLUTIONAL NEURAL NETWORK FOR SEARCH TERM DETECTION</b> .....	2488
<i>Hojjat Salehinejad ; Joseph Barfett ; Parham Aarabi ; Shahrokh Valaee ; Errol Colak ; Bruce Gray ; Tim Dowdell</i>	
<b>SEQUENTIAL CHANNEL ESTIMATION IN THE PRESENCE OF RANDOM PHASE NOISE IN NB-IOT SYSTEMS</b> .....	2494
<i>Fredrik Rusek ; Sha Hu</i>	
<b>IMPACT OF SOUNDPROOF WALLS ON V2V COMMUNICATION IN URBAN VIADUCT SCENARIOS AT 5.9 GHZ BAND</b> .....	2499
<i>Changzhen Li ; Junyi Yu ; Kun Yang ; Wei Chen ; Fang Li ; Yishui Shui</i>	
<b>DATA-DRIVEN PERFORMANCE EVALUATION OF CARRIER AGGREGATION IN LTE-ADVANCED</b> .....	2504
<i>Norbert Ludant ; Nicola Bui ; Ana García Armada ; Joerg Widmer</i>	
<b>MSTM: A NOVEL MAP MATCHING APPROACH FOR LOW-SAMPLING-RATE TRAJECTORIES</b> .....	2510
<i>Yupeng Tuo ; Xiaochun Yun ; Yongzheng Zhang</i>	
<b>ON THE ACHIEVABLE SECRECY RATE OF THE MIMO VLC GAUSSIAN WIRETAP CHANNEL</b> .....	2517
<i>Mohamed Amine Arfaoui ; Ali Ghrayeb ; Chadi Assi</i>	
<b>PHYSICAL LAYER SECURITY IN D2D-ENABLED CELLULAR NETWORKS: ARTIFICIAL NOISE ASSISTED</b> .....	2522
<i>Yajun Chen ; Xinsheng Ji ; Jing Yang ; Kaizhi Huang ; Ming Yi</i>	
<b>A SEMI-MARKOV DECISION PROCESS-BASED COMPUTATION OFFLOADING STRATEGY IN VEHICULAR NETWORKS</b> .....	2528
<i>Zhe Wang ; Zhangdui Zhong ; Minming Ni</i>	
<b>DYNAMIC CENTERED GROUP KEY MANAGEMENT FOR UNMANNED AERIAL VEHICLE NETWORKS WITH MULTIBEAM CONCURRENT TRANSMISSIONS</b> .....	2534
<i>Qian Mao ; Fei Hu ; Ji Qi</i>	
<b>HIGHLY ISOLATED BROADBAND FIVE-PORT CIRCUIT FOR V-BAND HIGH DATA-RATE WIRELESS COMMUNICATIONS</b> .....	2540
<i>C. Hannachi ; S. O. Tatu</i>	
<b>GENETIC ALGORITHMS FOR LIFETIME ELONGATION OF CLUSTERED WSN</b> .....	2544
<i>Aya Taha ; Samy S. Soliman ; Ashraf Badawi</i>	
<b>ENERGY EFFICIENCY ANALYSIS FOR FUTURE 3D ULTRA DENSE MOBILE NETWORKS WITH SLEEP MODE</b> .....	2551
<i>Lei Zhang ; Xinyu Gu ; Zhenyu Liu ; Lin Zhang</i>	
<b>HYBRID OPTICAL/RF BACKHAULING FOR 5G NETWORKS</b> .....	2557
<i>M. H. Almekhlafi ; Ahmed S. Ibrahim ; Y. A. Fahmy ; H. M. Elsayed ; M. M. Khairy</i>	
<b>RSSI-BASED SELF-LOCALIZATION WITH PERTURBED ANCHOR POSITIONS</b> .....	2562
<i>Vikram Kumar ; Reza Arablouei ; Raja Jurdak ; Branislav Kusy ; Neil W. Bergmann</i>	
<b>EXPERIMENTAL STUDY OF THE BEAM WANDER MITIGATION IN FREE SPACE OPTICAL COMMUNICATIONS USING SINGLE INPUT MULTIPLE OUTPUT SYSTEM</b> .....	2568
<i>M. Ijaz ; G. Harris ; B. Adebisi ; W. Popoola ; S. Rajbhandari</i>	
<b>UD-MAC: DELAY TOLERANT MULTIPLE ACCESS CONTROL PROTOCOL FOR UNMANNED AERIAL VEHICLE NETWORKS</b> .....	2573
<i>Xinyi Liu ; Zhiqing Wei ; Zhiyong Feng ; Fan Ning</i>	
<b>LTE EVOLUTION — LATENCY REDUCTION AND RELIABILITY ENHANCEMENTS FOR WIRELESS INDUSTRIAL AUTOMATION</b> .....	2579
<i>Ismet Aktas ; Mohammad H. Jafari ; Junaid Ansari ; Torsten Dudda ; Shehzad A. Ashraf ; John C. S. Arenas</i>	
<b>EFFICIENT DCT-MCM DETECTION FOR SINGLE AND MULTI-ANTENNA WIRELESS SYSTEMS</b> .....	2586
<i>Chang He ; Pei Xiao ; Lei Zhang ; Juquan Mao ; Aijun Cao ; Konstantinos Nikitopoulos</i>	

<b>TOWARDS HIGH PERFORMANCE SHORT POLAR CODES: CONCATENATED WITH THE SPINAL CODES.....</b>	2592
<i>Dan Dong ; Shaohua Wu ; Xiaoming Jiang ; Jian Jiao ; Qinyu Zhang</i>	
<b>GRAPH-BASED RESOURCE ALLOCATION WITH CONFLICT AVOIDANCE FOR V2V BROADCAST COMMUNICATIONS .....</b>	2597
<i>Luis F. Abanto-Leon ; Arie Koppelaar ; Sonia Heemstra De Groot</i>	
<b>THREE-DIMENSIONAL DYNAMIC CHANNEL MODELING AND TRACKING FOR TERAHERTZ BAND INDOOR COMMUNICATIONS .....</b>	2604
<i>Shuai Nie ; Ian F. Akyildiz</i>	
<b>LOW-COST CODE-AIDED ML TIMING RECOVERY FROM TURBO-CODED QAM TRANSMISSIONS .....</b>	2609
<i>Faouzi Bellili ; Souheib Ben Amor ; Achref Methenni ; Sofiene Affes</i>	
<b>SIMPLIFICATION AS DESIGN PRINCIPLE FOR 5G: A NATIVE IP DATA PLANE FOR A LEAN PACKET SYSTEM .....</b>	2616
<i>Fabio Giust ; Aqsa Malik ; Marco Liebsch</i>	
<b>INTERFERENCE-LIMITED MIXED MÁLAGA-M AND GENERALIZED-K DUAL-HOP FSO/RF SYSTEMS .....</b>	2623
<i>Imene Trigui ; Nesrine Cherif ; Sofiene Affes ; Xianbin Wang ; Victor Leung ; Alex Stephenne</i>	
<b>FAIR AIRTIME ALLOCATION FOR CONTENT DISSEMINATION IN WIFI-DIRECT-BASED MOBILE SOCIAL NETWORKS .....</b>	2629
<i>Zhifei Mao ; Yuming Jiang</i>	
<b>MAXIMUM LIKELIHOOD DETECTION OF PRECODED SFBC IN FREQUENCY-SELECTIVE FADING CHANNELS .....</b>	2636
<i>A. Al-Dweik ; R. Hamila ; L. Samara ; O. Filio-Rodriguez</i>	
<b>DUAL-HOP MÁLAGA-M FSO SYSTEMS WITH POINTING ERRORS .....</b>	2642
<i>Nesrine Cherif ; Imène Trigui ; Sofiene Affes</i>	
<b>BLUEID: ENABLING ROBUST IN-CAR LOCALIZATION AND ON-DEMAND PERSONALIZATION USING BLUETOOTH.....</b>	2647
<i>Pei Huang ; Pei Zheng</i>	
<b>TWO-PLAYER D2D INTERFERENCE CANCELING GAMES .....</b>	2654
<i>Liang Zhou ; Olav Tirkkonen ; Randall Berry</i>	
<b>FPGA PROTOTYPING OF A STAR-BASED TIME-DELAY ESTIMATOR FOR 5G RADIO ACCESS .....</b>	2661
<i>Haithem Haggui ; Faouzi Bellili ; Sofiene Affes</i>	
<b>SPHERE DECODER WITH DICHOTOMIC SEARCH.....</b>	2666
<i>Mohamed-Achraf Khsiba ; Ghaya Rekaya-Ben Othman</i>	
<b>UNIFIED STOCHASTIC GEOMETRY ANALYSIS OF DOWNLINK CELLULAR NETWORKS .....</b>	2673
<i>Imene Trigui ; Sofiene Affes ; Ben Liang</i>	
<b>GENERALIZED SINR ANALYSIS FOR DEVICE-TO-DEVICE COMMUNICATIONS .....</b>	2680
<i>Imene Trigui ; Ben Liang ; Sofiene Affes</i>	
<b>MANAGING A CLUSTER OF IOT BROKERS IN SUPPORT OF SMART CITY APPLICATIONS .....</b>	2686
<i>Shadha Tabatabai ; Ihab Mohammed ; Ala Al-Fuqaha ; Mohammad A. Salahuddin</i>	
<b>AN INVESTIGATION OF THE SOLAR IRRADIANCE EFFECT ON VISIBLE LIGHT COMMUNICATIONS .....</b>	2692
<i>Mohamed Sufyan Islim ; Harald Haas</i>	
<b>GEOMETRIC-BASED KNN LOCALIZATION USING SENSOR DISSIMILARITY INFORMATION .....</b>	2698
<i>Duc A. Tran ; Siyuan Gong ; Quynh Vo</i>	
<b>GAME-BASED SECURE SENSING FOR THE MOBILE COGNITIVE RADIO NETWORK.....</b>	2704
<i>Jihen Bennaceur ; Sami Souihi ; Hanen Idoudi ; Leila Azouz Saldane ; Abdelhamid Mellouk</i>	
<b>INTERFERENCE MITIGATION AND TRAFFIC ADAPTATION IN FULL-DUPLEX SMALL CELL NETWORKS.....</b>	2711
<i>Jingwen Bai ; Shu-Ping Yeh ; Yang-Seok Choi</i>	
<b>IMPROVING D2D COMMUNICATIONS USING 3D BEAMFORMING IN 5G WIRELESS NETWORKS.....</b>	2717
<i>William Diego ; Jean-Marc Kelif</i>	
<b>A MULTILAYER LINK QUALITY ESTIMATOR FOR RELIABLE MACHINE-TO-MACHINE COMMUNICATION .....</b>	2723
<i>Wendley S. Da Silva ; Daniel F. Macedo ; Michele Nogueira ; Thi Mai Trang Nguyen ; José Marcos S. Nogueira</i>	
<b>LOW-COMPLEXITY MMSE DETECTOR FOR MASSIVE MIMO SYSTEMS BASED ON DAMPED JACOBI METHOD.....</b>	2730
<i>Juan Minango ; Celso De Almeida ; Carlos Daniel Altamirano</i>	

<b>A FIRST EMPIRICAL LOOK ON INTERNET-SCALE EXPLOITATIONS OF IOT DEVICES</b> .....	2735
<i>Mario Galluscio ; Nataliia Neshenko ; Elias Bou-Harb ; Yongliang Huang ; Nasir Ghani ; Jorge Crichigno ; Georges Kaddoum</i>	
<b>APPLICATION OF LINK ADAPTATION IN BODY AREA NETWORKS</b> .....	2742
<i>Martina Barbi ; Kamran Sayrafian ; Mehdi Alasti</i>	
<b>ROBUST POWER ALLOCATION FOR NOMA IN HETEROGENEOUS VEHICULAR COMMUNICATIONS WITH IMPERFECT CHANNEL ESTIMATION</b> .....	2748
<i>Shengjie Guo ; Xiangwei Zhou</i>	
<b>TRANSMISSION DESIGN WITH RF ENERGY HARVESTING OVER WIRELESS MULTI-ACCESS CHANNELS</b> .....	2753
<i>Fatemeh Amirnavaei ; Jiawei Yu ; Min Dong</i>	
<b>CONTROLLING CLOUD DATA ACCESS PRIVILEGE: CRYPTANALYSIS AND SECURITY ENHANCEMENT</b> .....	2758
<i>Yaser Baseri ; Abdelhakim Hafid ; Mohammed Amine Togou ; Soumaya Cherkaoui</i>	
<b>OPTIMUM UAV POSITIONING FOR BETTER COVERAGE-CONNECTIVITY TRADEOFF</b> .....	2763
<i>Mai A. Abdel-Malek ; Ahmed S. Ibrahim ; Mohamed Mokhtar</i>	
<b>A COGNITIVE MIMO TRANSCEIVER FOR ENHANCED 4G AND BEYOND LINK-LEVEL THROUGHPUT</b> .....	2768
<i>Imen Mrissa ; Faouzi Bellili ; Sofiene Affes ; Alex Stephenne</i>	
<b>ACCURATE RANGE-FREE ANN-BASED LOCALIZATION IN WIRELESS SENSOR NETWORKS</b> .....	2773
<i>Ahmad El Assaf ; Slim Zaidi ; Sofiene Affes ; Nahi Kandil</i>	
<b>BUFFER MANAGEMENT USING INTEGRATED QUEUEING MODELS FOR MOBILE ENERGY HARVESTING SENSORS</b> .....	2779
<i>Sophie Zareei ; Amir Hosein Afshar Sedigh ; Jeremiah D. Deng ; Martin Purvis</i>	
<b>ASSOCIATION OF NETWORKED FLYING PLATFORMS WITH SMALL CELLS FOR NETWORK CENTRIC 5G+ C-RAN</b> .....	2784
<i>Syed A. W. Shah ; Tamer Khattab ; Muhammad Zeeshan Shakir ; Mazen O. Hasna</i>	
<b>A MOBILE TWO-WAY WIRELESS COVERT TIMING CHANNEL SUITABLE FOR PEER-TO-PEER MALWARE</b> .....	2791
<i>Forest C. Mead ; Jeffrey M. Zielinski ; Lanier Watkins ; William H. Robinson</i>	
<b>PROGRESSIVE HYBRID GREYFIELD WIRELESS ACCESS VIRTUALIZATION WITH LEVERAGED COMBINING OF CLOUD, FOG, AND LEGACY RANS</b> .....	2797
<i>Slim Zaidi ; Sofiene Affes ; Mourad Azzakhmam ; Charles Despins ; Keyvan Zarifi ; Peiyong Zhu</i>	
<b>ML TIME DELAY ESTIMATION FOR 5G LINKS WITH DSS MULTI-CARRIER MULTIPATH MIMO RADIO ACCESS</b> .....	2804
<i>Ahmed Masmoudi ; Faouzi Bellili ; Sofiene Affes ; Ali Ghrayeb</i>	
<b>VECTORING-BASED DYNAMIC SPECTRUM MANAGEMENT FOR G-FAST MULTI-USER FULL-DUPLEX TRANSMISSION</b> .....	2810
<i>Wouter Lanneer ; Jeroen Verdyck ; Paschalis Tsiaflakis ; Jochen Maes ; Marc Moonen</i>	
<b>ENABLING LTE EMULATION BY INTEGRATING CORE EMULATOR AND LTE-EPC NETWORK (LENA) SIMULATOR</b> .....	2815
<i>Ayman Sabbah ; Abdallah Jarwan ; Omneya Issa ; Mohamed Ibnkahla</i>	
<b>PERFORMANCE OF COGNITIVE SPATIAL MODULATION MIMO SYSTEMS UNDER TRANSCEIVER HARDWARE IMPAIRMENTS</b> .....	2821
<i>Ali Afana ; Najah Abu Ali ; Salama Ikki</i>	
<b>USER POSITIONING BY EXPLORING MIMO MEASUREMENTS WITH PARTICLE SWARM OPTIMIZATION</b> .....	2826
<i>Zhenyu Shi ; Yi Wang</i>	
<b>SPARSE TIME-VARIANT IMPULSE RESPONSE ESTIMATION FOR VEHICULAR CHANNELS USING THE C-LASSO</b> .....	2831
<i>Thomas Blazek ; Christoph F. Mecklenbräuker</i>	
<b>ON THE USE OF TEE FOR MISSION CRITICAL PUBLIC SAFETY USE CASES</b> .....	2836
<i>Ali Raza</i>	
<b>COMPOSITION PROPERTIES OF BAYESIAN DIFFERENTIAL PRIVACY</b> .....	2841
<i>Jun Zhao</i>	
<b>COUPLING CHANNEL ESTIMATION BASED SELF-INTERFERENCE CANCELLATION IN MASSIVE MIMO FULL-DUPLEX SYSTEM</b> .....	2846
<i>Daimeng Chen ; Fangfang Liu ; Chunyan Feng ; Wen Zhao</i>	
<b>OUTAGE REDUCTION WITH JOINT SCHEDULING AND POWER ALLOCATION IN 5G MMWAVE CELLULAR NETWORKS</b> .....	2851
<i>Chun-Han Yao ; Yin-Yi Chen ; Biswa P. S. Sahoo ; Hung-Yu Wei</i>	



<b>ON THE HIGHER ORDER STATISTICS OF CAR CLUSTERING IN VEHICLE COMMUNICATIONS NETWORKS ON A ROAD</b> .....	2857
<i>Gleb Dubosarskii ; Serguei Primak ; Xianbin Wang</i>	
<b>LOW-COMPLEXITY UPLINK RESOURCE ALLOCATION ALGORITHM BASED ON HYPERGRAPH CLUSTERING FOR D2D COMMUNICATIONS</b> .....	2862
<i>Yifang Ren ; Gang Chuai</i>	
<b>A COMPACT DUAL STANDARD MIMO ANTENNA SYSTEM FOR MOBILE APPLICATIONS</b> .....	2868
<i>Muhammad Ikram ; Mohammad S. Sharawi ; Hussein Attia</i>	
<b>DETECTION CAPACITY OF MULTIDETECTOR NETWORKS WITH APPLICATIONS TO COGNITIVE RADIO</b> .....	2871
<i>Ghurumuruhan Ganesan</i>	
<b>LEADING INNOVATIONS TOWARDS 5G: EUROPE'S PERSPECTIVE IN 5G INFRASTRUCTURE PUBLIC-PRIVATE PARTNERSHIP (5G-PPP)</b> .....	2878
<i>Jose Alcaraz-Calero ; Ioannis-Prodromos Belikaidis ; Carlos Jesus Bernardos Cano ; Pascal Bisson ; Didier Bourse ; Michael Bredel ; Daniel Camps-Mur ; Tao Chen ; Xavier Costa-Perez ; Panagiotis Demestichas ; Mark Doll ; Salah Eddine Elayoubi ; Andreas Georgakopoulos ; Arne Mämmelä ; Hans-Peter Mayer ; Miquel Payaro ; Bessem Sayadi ; Muhammad Shuaib Siddiqui ; Miurel Tercero ; Qi Wang</i>	
<b>REAL-TIME CLOUD ROBOTICS IN PRACTICAL SMART CITY APPLICATIONS</b> .....	2883
<i>Nazli Khan Beigi ; Bahar Partov ; Soodeh Farokhi</i>	
<b>SCHEDULING SERVICES ON AN IOT DEVICE UNDER TIME-WEIGHTED PRICING</b> .....	2888
<i>Ioannis Avgouleas ; Nikolaos Pappas ; Vangelis Angelakis</i>	
<b>GENERALIZED SUBBAND-FILTERED AND PULSE-SHAPED MULTICARRIER FOR QUASI-SYNCHRONOUS UPLINK ACCESS</b> .....	2893
<i>Wooram Shin ; Giyoon Park ; Gerhard Wunder ; Seungkwon Baek ; Joonhyuk Kang</i>	
<b>ENERGY-SAVING TRAFFIC SCHEDULING IN HYBRID SOFTWARE DEFINED RECHARGEABLE WSNS</b> .....	2900
<i>Xiaohui Ma ; Yunkai Wei ; Ning Yang</i>	
<b>SMART CARDIAC HEALTH MANAGEMENT IN IOT THROUGH HEART SOUND SIGNAL ANALYTICS AND ROBUST NOISE FILTERING</b> .....	2906
<i>Arijit Ukil ; Uttam Kumar Roy</i>	
<b>MULTI-RAT SCHEDULING FOR HETEROGENEOUS NETWORKS</b> .....	2911
<i>Pawel Kryszkiewicz</i>	
<b>NETWORK SLICING VIA FUNCTION DECOMPOSITION AND FLEXIBLE NETWORK DESIGN</b> .....	2916
<i>Diomidis S. Michalopoulos ; Mark Doll ; Vincenzo Sciancalepore ; Dario Bega ; Peter Schneider ; Peter Rost</i>	
<b>TOWARDS EFFICIENT MONITORING IN A SENSOR CLOUD</b> .....	2922
<i>Vojislav B. Mišić ; Jelena Mišić ; Fatemeh Banaie</i>	
<b>DYNAMIC NETWORK SLICING AND RESOURCE ALLOCATION FOR HETEROGENEOUS WIRELESS SERVICES</b> .....	2928
<i>Jeongho Kwak ; Joonyoung Moon ; Hyang-Won Lee ; Long Bao Le</i>	
<b>RELIABLE VEHICLE LOCATION IN ELECTRONIC TOLL COLLECTION SERVICE WITH COOPERATIVE INTELLIGENT TRANSPORTATION SYSTEMS</b> .....	2933
<i>M. Randriamasy ; A. Cabani ; H. Chafouk ; G. Fremont</i>	
<b>REAL-TIME CELLULAR ACTIVITY MONITORING USING LTE RADIO MEASUREMENTS</b> .....	2940
<i>Mohammed M. Olama ; Teja Kuruganti ; Miljko Bobrek ; Stephen Killough ; James J. Nutaro ; Gautam S. Thakur</i>	
<b>OPTIMIZED INDOOR POSITIONING FOR STATIC MODE SMART DEVICES USING BLE</b> .....	2945
<i>Quang Huy Nguyen ; Princy Johnson ; Trung Thanh Nguyen ; Martin Randles</i>	
<b>HOOKE JEEVES SEARCH METHOD FOR INITIAL BEAM ACCESS IN 5G MMWAVE CELLULAR NETWORKS</b> .....	2951
<i>Mohammed Jasim ; Adel Aldalbahi ; Abdallah Khreishah ; Nasir Ghani</i>	
<b>RESEARCH ON MACHINE LEARNING ALGORITHMS AND FEATURE EXTRACTION FOR TIME SERIES</b> .....	2958
<i>Lei Li ; Yabin Wu ; Yihang Ou ; Qi Li ; Yanquan Zhou ; Daoxin Chen</i>	
<b>IMPACT OF USER TERMINAL ANTENNA SPACING ON INTER-TERMINAL INTERFERENCE CANCELLATION IN MULTI-USER FULL DUPLEX MIMO TRANSMISSION</b> .....	2963
<i>Atsuto Kawagoe ; Naoki Honma ; Nobuyasu Takemura</i>	
<b>A TRAFFIC MODEL FOR MACHINE-TYPE COMMUNICATIONS USING SPATIAL POINT PROCESSES</b> .....	2967
<i>Henning Thomsen ; Carles Navarro Manchon ; Bernard Henri Fleury</i>	
<b>OUTDOOR EXPERIMENTS ON 5G RADIO ACCESS USING DISTRIBUTED MIMO AND BEAMFORMING IN 28-GHZ FREQUENCY BAND</b> .....	2973
<i>Daisuke Kurita ; Kiichi Tateishi ; Atsushi Harada ; Yoshihisa Kishiyama ; Shoji Itoh ; Hideshi Murai ; Arne Simonsson ; Peter Ökvist</i>	

<b>ON ACTIVE, FINE-GRAINED RAN AND SPECTRUM SHARING IN MULTI-TENANT 5G NETWORKS</b> .....	2979
<i>Shah Nawaz Khan ; Leonardo Goratti ; Roberto Riggio ; Shahriar Hasan</i>	
<b>ARTIFICIAL-NOISE-AIDED SECURE COMMUNICATION WITH FULL-DUPLEX ACTIVE EAVESDROPPER</b> .....	2984
<i>Zunning Liu ; Na Li ; Xiaofeng Tao ; Si Li ; Jin Xu ; Baofeng Zhang</i>	
<b>MAC LAYER DESIGN AND EVALUATION OF A NARROWBAND WI-FI SYSTEM</b> .....	2991
<i>Yu Wang ; Luis Felipe Del Carpio ; Dennis Sundman ; Divya Peddireddy ; Anna Larmo</i>	
<b>AREA SPECTRAL EFFICIENCY AND COVERAGE FOR MIXED DUPLEXING NETWORKS WITH DIRECTIONAL TRANSMISSIONS</b> .....	2997
<i>Sanjay Goyal ; Alphan Sahin ; Robert L. Olesen</i>	
<b>DEPLOYING A BTLE POSITIONING SYSTEM: PRACTICAL ISSUES ON CALIBRATION</b> .....	3004
<i>Ana M. Bernardos ; Luca Bergesio ; Eduardo Metola ; Daniel Ortiz ; José R. Casar</i>	
<b>DECENTRALIZED ITERATIVE COMMUNITY CLUSTERING APPROACH (DICCA)</b> .....	3010
<i>Amhmed Bhih ; Princy Johnson ; Trung Nguyen ; Martin Randles</i>	
<b>ACTIVATION FUNCTIONS OF DEEP NEURAL NETWORKS FOR POLAR DECODING APPLICATIONS</b> .....	3017
<i>Jihoon Seo ; Juyul Lee ; Keunyoung Kim</i>	
<b>POSITION-AIDED MILLIMETER WAVE V2I BEAM ALIGNMENT: A LEARNING-TO-RANK APPROACH</b> .....	3022
<i>Vutha Va ; Takayuki Shimizu ; Gaurav Bansal ; Robert W. Heath</i>	
<b>60 GHZ CIRCULARLY POLARIZED DIELECTRIC RESONATOR ANTENNA FED BY PRINTED RIDGE GAP WAVEGUIDE</b> .....	3027
<i>Md. Hosne Mobarok Shamim ; Hussein Attia ; Mohammad S. Sharawi ; Ahmed A. Kishk</i>	
<b>DATA CACHING AND SELECTION IN 5G NETWORKS USING F2F COMMUNICATION</b> .....	3031
<i>Ismaeel Al Ridhawi ; Nour Mostafa ; Yehia Kotb ; Moayad Aloqaily ; Ibrahim Abualhaol</i>	
<b>AN AGENT-BASED MODEL TO EVALUATE SMART HOMES SUSTAINABILITY POTENTIAL</b> .....	3037
<i>Julien Walzberg ; Thomas Dandres ; Réjean Samson ; Nicolas Merveille ; Mohamed Cheriet</i>	
<b>A REDUNDANT GATEWAY PROTOTYPE FOR WIRELESS AVIONIC SENSOR NETWORKS</b> .....	3044
<i>Davide Scazzoli ; Andrea Mola ; Bilhanan Silverajan ; Maurizio Magarini ; Giacomo Verticale</i>	
<b>PERSONALIZED MOBILE RAPID SENTENCE READING WITH MULTI-LINGUAL EXTENSION</b> .....	3051
<i>Toshiyuki Maeda ; Masumi Yajima ; Akiyoshi Wakatani</i>	
<b>HIGH RESOLUTION CSI FEEDBACK WITH BEAM SPACE MIMO</b> .....	3055
<i>Ruiqi Zhang ; Yongxing Zhou ; Bingyu Qu</i>	
<b>A COMPARISON OF BEAM REFINEMENT ALGORITHMS FOR MILLIMETER WAVE INITIAL ACCESS</b> .....	3060
<i>Hao Guo ; Behrooz Makki ; Tommy Svensson</i>	
<b>MAP-RP: MAP-BASED RESOURCE RESELECTION PROCEDURE FOR AUTONOMOUS LTE-V2V</b> .....	3067
<i>Giammarco Cecchini ; Alessandro Bazzi ; Barbara M. Masini ; Alberto Zanella</i>	
<b>A FLEXIBLE FEEDBACK FRAMEWORK FOR 5G MASSIVE MIMO SYSTEMS</b> .....	3073
<i>Salam Akoum ; Xiaoyi Wang ; Arunabha Ghosh</i>	
<b>SECURING CRITICAL INFRASTRUCTURE IN SMART CITIES: PROVIDING SCALABLE ACCESS CONTROL FOR CONSTRAINED DEVICES</b> .....	3079
<i>Marian Buschsieweke ; Mesut Günes</i>	
<b>SERVICE MANAGEMENT PLATFORM TO SUPPORT SERVICE MIGRATIONS FOR IOT SMART CITY APPLICATIONS</b> .....	3085
<i>Kai Kientopf ; Saleem Raza ; Simon Lansing ; Mesut Günes</i>	
<b>5G VIA EVOLVED PACKET CORE SLICES: COSTS AND TECHNOLOGY OF EARLY DEPLOYMENTS</b> .....	3090
<i>Wolfgang Kiess ; Malla Reddy Sama ; József Varga ; Johannes Prade ; Hans-Jochen Morper ; Klaus Hoffmann</i>	
<b>NEAR-FAR EFFECT ON CODED SLOTTED ALOHA</b> .....	3097
<i>Ehsan Ebrahimi Khaleghi ; Cedric Adjih ; Amira Alloum ; Paul Mühlethaler</i>	
<b>SECURITY ESTABLISHMENT FOR IOT ENVIRONMENTS IN 5G: DIRECT MTC-UE COMMUNICATIONS</b> .....	3104
<i>Filipe Conceicao ; Nouha Oualha ; Djamel Zeghlache</i>	
<b>GREEN PROCESS OFFLOADING IN SMART HOME</b> .....	3109
<i>Shahin Vakiliinia ; Iman Vakiliinia ; Mohamed Cheriet</i>	
<b>PRIORITIZED RESOURCE RESERVATION FOR REDUCING RANDOM ACCESS DELAY IN 5G URLLC</b> .....	3114
<i>Yu-Jia Chen ; Li-Yu Cheng ; Li-Chun Wang</i>	

<b>CACHE-ENABLED D2D COMMUNICATION: A SOCIAL PERSPECTIVE .....</b>	<b>3119</b>
<i>Yue Wang ; Xiaofeng Tao ; Xuefei Zhang</i>	
<b>PRECODING FOR GENERALIZED FREQUENCY DIVISION MULTIPLEXING WITH LINEAR RECEIVERS .....</b>	<b>3125</b>
<i>Aman Sikri ; K. V. Srinivas</i>	
<b>TWO-DIMENSION CSI ACQUISITION FOR MASSIVE MIMO SYSTEMS .....</b>	<b>3130</b>
<i>Hui Li ; Runhua Chen ; Qiubin Gao ; Rakesh Tamrakar ; Shaohui Sun</i>	
<b>UNDERSTANDING CORRELATION BETWEEN OFFLINE MOBILITY AND ONLINE BROWSING TENDENCY IN MOBILE NETWORK .....</b>	<b>3136</b>
<i>Qi Li ; Yuanyuan Qiao ; Wenhui Lin ; Jie Yang</i>	
<b>APPLYING BIT-LEVEL PROBABILISTICALLY SHAPED CODED MODULATION FOR HIGH-THROUGHPUT COMMUNICATIONS .....</b>	<b>3143</b>
<i>Marcin Pikus ; Wen Xu</i>	
<b>ACCEPTABLE RANGE OF SPATIAL DENSITY IN AN AD HOC NETWORK OF UAVS .....</b>	<b>3149</b>
<i>Ali Rakhshan ; Hossein Pishro-Nik</i>	
<b>EXPLORING THE ECONOMICAL BENEFITS OF VIRTUALIZED WIRELESS SENSOR NETWORKS .....</b>	<b>3154</b>
<i>Roland Katona ; Victor Cionca ; Donna O'Shea ; Dirk Pesch</i>	
<b>COMPUTATIONALLY EFFICIENT SYMBOL-LEVEL PRECODING COMMUNICATIONS DEMONSTRATOR .....</b>	<b>3159</b>
<i>J. C. Merlano-Duncan ; Jevgenij Krivochiza ; Stefano Andrenacci ; Symeon Chatzinotas ; Björn Ottersten</i>	
<b>CAPACITY GAIN ANALYSIS FOR UNDERLAYING FULL-DUPLEX D2D COMMUNICATIONS WITH A NOVEL INTERFERENCE MANAGEMENT SCHEME .....</b>	<b>3164</b>
<i>Xinjing Hou ; Fang Liu ; Yuanan Liu</i>	
<b>BLUETOOTH NOW OR LOW ENERGY: SHOULD BLE MESH BECOME A FLOODING OR CONNECTION ORIENTED NETWORK? .....</b>	<b>3169</b>
<i>Yuri Murillo ; Brecht Reynnders ; Alessandro Chiumento ; Salman Malik ; Pieter Crombez ; Sofie Pollin</i>	
<b>THROUGHPUT AND ENERGY CONSUMPTION TRADE-OFF IN TRAFFIC SPLITTING IN HETEROGENEOUS NETWORKS WITH DUAL CONNECTIVITY .....</b>	<b>3175</b>
<i>Sandrine Boumard ; Ilkka Harjula ; Kari Horneman ; Honglin Hu</i>	
<b>MULTIPLE RESOURCE REUSE FOR D2D COMMUNICATION WITH UNIFORM INTERFERENCE IN 5G CELLULAR NETWORKS .....</b>	<b>3180</b>
<i>Abubaker M. Waswa ; Dariush M. Soleymani ; Stephen Mwanje ; Jens Mueckenheim ; Andreas Mitschele-Thiel</i>	
<b>URBAN CHANNEL MODELS FOR SMART CITY IOT-NETWORKS BASED ON EMPIRICAL MEASUREMENTS OF LORA-LINKS AT 433 AND 868 MHZ .....</b>	<b>3187</b>
<i>Pascal Jörke ; Stefan Böcker ; Florian Liedmann ; Christian Wietfeld</i>	
<b>COGNITIVE-FEMTOCELL BASED RESOURCE ALLOCATION IN MACROCELL NETWORK .....</b>	<b>3193</b>
<i>Joydev Ghosh ; Dushantha Nalin K. Jayakody ; Marwa Qaraqe</i>	
<b>HYBRID BEAMFORMING WITH SPATIAL MODULATION IN MULTI-USER MASSIVE MIMO MMWAVE NETWORKS .....</b>	<b>3198</b>
<i>Merve Yüzgeçcioglu ; Eduard Jorswieck</i>	
<b>IMPACT OF USER HEIGHT ON THE COVERAGE OF 3D BEAMFORMING-ENABLED MASSIVE MIMO SYSTEMS .....</b>	<b>3204</b>
<i>Mahdi Baianifar ; Soheil Khavari ; S. Mohammad Razavizadeh ; Tommy Svensson</i>	
<b>A DYNAMIC DETECTING FUNCTION DEPLOYMENT IN UNSAFE WIRELESS NETWORKS .....</b>	<b>3209</b>
<i>Feng Zhang ; Yunkai Wei ; Lixiang Ma</i>	
<b>MILLIMETER-WAVE BEAM-STEERING ANTENNA ARRAY FOR 5G APPLICATIONS .....</b>	<b>3214</b>
<i>Mohamad Mantash ; Tayeb A. Denidni</i>	
<b>SPECTRUM SHARING OPPORTUNITIES IN LAND MOBILE RADIO BANDS: A DATA-DRIVEN APPROACH .....</b>	<b>3217</b>
<i>Humphrey Rutagemwa ; Kareem E. Baddour ; Amir Ghasemi</i>	
<b>INTER-OPERATOR DYNAMIC CAPACITY SHARING FOR MULTI-TENANT VIRTUALIZED PON .....</b>	<b>3222</b>
<i>Nima Afraz ; Amr Elrasad ; Hamed Ahmadi ; Marco Ruffini</i>	
<b>OPTIMIZED MOBILITY MODELS FOR DISASTER RECOVERY USING UAVS .....</b>	<b>3228</b>
<i>Onye Erim ; Collin Wright</i>	
<b>HIGH-RESOLUTION WIDEBAND SPECTRUM SENSING BASED ON SPARSE BAYESIAN LEARNING .....</b>	<b>3233</b>
<i>Peng Cheng ; Yonghui Li ; Zhuo Chen ; Branka Vucetic</i>	
<b>MMWAVE CHANNEL PROPAGATION MODELING FOR V2X COMMUNICATION SYSTEMS .....</b>	<b>3238</b>
<i>Bogdan Antonescu ; Miedad Tehrani Moayyed ; Stefano Basagni</i>	

<b>INTERFERENCE CANCELLATION IN FULL-DUPLEX MULTICELL NETWORKS</b> .....	3244
<i>Huan Wu ; Eddy Hum ; Wanyi Shiu ; James G. Griffiths</i>	
<b>ON THE SUITABILITY OF BLUETOOTH 5 FOR THE INTERNET OF THINGS: PERFORMANCE AND SCALABILITY ANALYSIS</b> .....	3249
<i>Stefan Böcker ; Christian Arendt ; Christian Wietfeld</i>	
<b>A COMPARATIVE STUDY OF POSSIBLE SOLUTIONS FOR TRANSMISSION OF VEHICULAR SAFETY MESSAGES IN LTE-BASED NETWORKS</b> .....	3256
<i>Hossein Soleimani ; Azzedine Boukerche</i>	
<b>A PREDICTIVE COLLISION DETECTION PROTOCOL USING VEHICULAR NETWORKS</b> .....	3261
<i>Noura Aljeri ; Azzedine Boukerche</i>	
<b>DUAL-POLARIZED SQUARE-RING SLOT-COUPLED PATCH ANTENNA FOR MASSIVE MIMO APPLICATION</b> .....	3266
<i>Mingde Du ; Dong Han</i>	
<b>A BLOCKCHAIN-BASED REPUTATION SYSTEM FOR DATA CREDIBILITY ASSESSMENT IN VEHICULAR NETWORKS</b> .....	3270
<i>Zhe Yang ; Kan Zheng ; Kan Yang ; Victor C. M. Leung</i>	
<b>CAPACITY AND COVERAGE ANALYSIS FOR FD-MIMO BASED THZ BAND 5G INDOOR INTERNET OF THINGS</b> .....	3275
<i>Nabil Khalid ; Naveed A. Abbasi ; Ozgur B. Akan</i>	
<b>A COMPACT UWB MIMO ANTENNA WITH INVERTED U-SHAPED SLOT FOR WLAN REJECTION</b> .....	3282
<i>T. Asghar ; B. Ijaz ; K. S. Alimgeer ; M. S. Khan ; R. Shubair</i>	
<b>A SIMULATOR OF SPATIALLY CORRELATED COMPLEX-VALUED NAKAGAMI FADING CHANNELS</b> .....	3286
<i>Jia-Chin Lin</i>	
<b>EFFICIENT RESOURCE ALLOCATION FOR VIDEO STREAMING FOR 5G NETWORK-TO- VEHICLE COMMUNICATIONS</b> .....	3292
<i>Farhan Pervez ; Abdulkareem Adinoyi ; Halim Yanikomeroglu</i>	
<b>CHANNEL-BASED MAPPING DIVERSITY FOR ENHANCING THE PHYSICAL LAYER SECURITY IN THE INTERNET OF THINGS</b> .....	3298
<i>Sasi Vinay Pechetti ; Abhishek Jindal ; Ranjan Bose</i>	
<b>IOT-RF: A ROUTING FRAMEWORK FOR THE INTERNET OF THINGS</b> .....	3304
<i>Muhammad Omer Farooq ; Thomas Kunz</i>	
<b>BLIND POLARIZATION OBLIQUE PROJECTION BASED INTER-USER INTERFERENCE CANCELLATION IN FULL DUPLEX MULTIUSER MIMO SYSTEM</b> .....	3311
<i>Wen Zhao ; Chunyan Feng ; Fangfang Liu ; Caili Guo ; Yao Nie</i>	
<b>SAVE-THEN-TRANSMIT SCHEME FOR GAUSSIAN CHANNELS POWERED BY RANDOM ENERGY HARVESTERS</b> .....	3316
<i>Linsong Du ; Kun Yang ; Chuan Huang</i>	
<b>USER SCHEDULING IN MASSIVE MIMO SYSTEMS WITH A LARGE NUMBER OF DEVICES</b> .....	3322
<i>Martin Kuerbis ; Naveen Mysore Balasubramanya ; Lutz Lampe ; Alexander Lampe</i>	
<b>OPTIMAL ENERGY HARVESTING TIME AND POWER ALLOCATION POLICY IN CRN UNDER SECURITY CONSTRAINTS FROM EAVESDROPPERS</b> .....	3328
<i>Hung Tran ; Truong Xuan Quach ; Ha-Vu Tran ; Elisabeth Uhlemann</i>	
<b>A DESIGN OF PHASED ARRAY ANTENNA WITH METAMATERIAL CIRCULAR SRR FOR 5G APPLICATIONS</b> .....	3336
<i>Chaker Essid ; Abdelaziz Samet</i>	
<b>JOINTLY POSITIONING MULTIPLE USERS IN AID OF USER-TO-USER DISTANCES</b> .....	3340
<i>Yi Wang ; Beihua Wu ; Zhenyu Shi</i>	
<b>A STUDY OF DEEP LEARNING NETWORKS ON MOBILE TRAFFIC FORECASTING</b> .....	3345
<i>Chih-Wei Huang ; Chiu-Ti Chiang ; Qihui Li</i>	
<b>INTEGRATING PNC AND RLNC FOR BSM DISSEMINATION IN VANETS</b> .....	3351
<i>Minglong Zhang ; Peter Han Joo Chong ; Boon-Chong Seet ; Saeed Ur Rehman ; Arun Kumar</i>	
<b>CONNECTING MOBILITY, ONLINE BEHAVIOR AND URBAN STRUCTURE FROM CELLULAR NETWORK DATA</b> .....	3356
<i>Bo Wen ; Yuanyuan Qiao ; Wenhui Lin ; Jie Yang</i>	
<b>IMPACT OF AGGREGATION FACTOR ON DELAY PERFORMANCE IN GROUP-BASED MACHINE TYPE COMMUNICATIONS</b> .....	3363
<i>Yu-Jia Chen ; Zi-Qi Wang ; Li-Chun Wang</i>	
<b>COMPARISON OF ACCESS POINT DISTRIBUTIONS AND BEAMFORMING STRATEGIES FOR MASSIVE MIMO NETWORKS: A STOCHASTIC GEOMETRY APPROACH</b> .....	3369
<i>Charles Wiame ; Luc Vandendorpe ; Claude Oestges</i>	

<b>ADJACENT CHANNEL INTERFERENCE CANCELLATION FOR ROBUST SPECTRUM SHARING IN SATELLITE COMMUNICATIONS SYSTEMS</b> .....	3374
<i>Minh Tri Nguyen ; Long Bao Le</i>	
<b>DPS SIGNALING WITH OFDM-LIKE COMPLEXITY AND SUPERIOR SER PERFORMANCE IN 5G DOUBLY DISPERSIVE SCENARIOS</b> .....	3379
<i>Karim Said ; A. A. Louis Beex</i>	
<b>ANALYTICAL STUDY ON THE ESTIMATION OF PRIMARY ACTIVITY DISTRIBUTION BASED ON SPECTRUM SENSING</b> .....	3384
<i>Ahmed Al-Tahmeesschi ; Miguel López-Benítez ; Kenta Umebayashi ; Janne Lehtomäki</i>	
<b>ENHANCING TCP END-TO-END PERFORMANCE IN MILLIMETER-WAVE COMMUNICATIONS</b> .....	3389
<i>Minho Kim ; Seung-Woo Ko ; Seong-Lyun Kim</i>	
<b>COMBINATION OF VISIBLE LIGHT AND RADIO FREQUENCY BANDS FOR DEVICE-TO-DEVICE COMMUNICATION</b> .....	3394
<i>Pavel Mach ; Zdenek Becvar ; Mehیار Najla ; Stanislav Zvanovec</i>	
<b>A CONTENTION-BASED INITIAL BEAM SEARCH SCHEME FOR MMWAVE CELLULAR COMMUNICATIONS</b> .....	3401
<i>Soojung Jung ; Seungkwon Baek</i>	
<b>MATHEMATICAL MODEL OF LORAWAN CHANNEL ACCESS WITH CAPTURE EFFECT</b> .....	3406
<i>Dmitry Bankov ; Evgeny Khorov ; Andrey Lyakhov</i>	
<b>WHY WOULD 5G NEED OPTICAL WIRELESS COMMUNICATIONS?</b> .....	3411
<i>Tezcan Cogalan ; Harald Haas</i>	
<b>PRECISION OF RSS-BASED INDOOR GEOLOCATION IN IOT APPLICATIONS</b> .....	3417
<i>Julang Ying ; Kaveh Pahlavan ; Xinrong Li</i>	
<b>MACHINE LEARNING BASED SCHEME FOR CONTENTION WINDOW SIZE ADAPTATION IN LTE-LAA</b> .....	3422
<i>Zoraze Ali ; Lorenza Giupponi ; Josep Mangues-Bafalluy ; Biljana Bojovic</i>	
<b>VEHICLE AS A RESOURCE FOR CONTINUOUS SERVICE AVAILABILITY IN SMART CITIES</b> .....	3429
<i>Moayad Aloqaily ; Ismaeel Al Ridhawi ; Burak Kantraci ; Hussein T. Mouftah</i>	
<b>COVERAGE MAXIMIZATION FOR A POISSON FIELD OF DRONE CELLS</b> .....	3435
<i>Mohammad Mahdi Azari ; Yuri Murillo ; Osama Amin ; Fernando Rosas ; Mohamed-Slim Alouini ; Sofie Pollin</i>	
<b>ON MUTUAL INFORMATION OF MEASURED 60 GHZ WIDEBAND INDOOR MIMO CHANNELS: TIME DOMAIN SINGULAR VALUES</b> .....	3441
<i>Jiri Blumenstein ; Roman Marsalek ; Tomas Gotthans ; Ronald Nissel ; Markus Rupp</i>	
<b>TIME-VARYING K FACTOR OF THE MM-WAVE VEHICULAR CHANNEL: VELOCITY, VIBRATIONS AND THE ROAD QUALITY INFLUENCE</b> .....	3446
<i>Jiri Blumenstein ; Ales Prokes ; Josef Vychodil ; Martin Pospisil ; Tomas Mikulasek</i>	
<b>OPTIMIZED IOT SERVICE ORCHESTRATION</b> .....	3451
<i>Duong Tuan Nguyen ; Kim Khoa Nguyen ; Mohamed Cheriet</i>	
<b>ENERGY AWARE ROUTING FOR INTERNET OF THINGS WITH HETEROGENEOUS DEVICES</b> .....	3457
<i>Dudu Ok ; Furqan Ahmed ; Piergiuseppe Di Marco ; Roman Chirikov ; Cicek Cavdar</i>	
<b>ADAPTIVE SYNCHRONIZATION REFERENCE SELECTION FOR OUT-OF-COVERAGE PROXIMITY SERVICES</b> .....	3462
<i>Samantha Gamboa ; Fernando J. Cintron ; David Griffith ; Richard Rouil</i>	
<b>A FAST PATH MATCHING ALGORITHM FOR INDOOR POSITIONING SYSTEMS USING MAGNETIC FIELD MEASUREMENTS</b> .....	3469
<i>Zixiang Ma ; Stefan Poslad ; Shaoxiong Hu ; Xiaoshuai Zhang</i>	
<b>A BASE STATION SELECTION SCHEME FOR HANDOVER IN A MOBILITY-AWARE ULTRA-DENSE SMALL CELL URBAN VEHICULAR ENVIRONMENT</b> .....	3474
<i>Shipra Kapoor ; David Grace ; Tim Clarke</i>	
<b>SIMULATING LARGE-SCALE NETWORKS FOR PUBLIC SAFETY: PARALLEL AND DISTRIBUTED SOLUTIONS IN NS-3</b> .....	3479
<i>Ismael Al-Shiab ; Ayman Sabbah ; Abdallah Jarwan ; Omneya Issa ; Mohamed Ibnkahla</i>	
<b>LDPC ENCODING FOR PARTIAL-DUPLEX WIRELESS COMMUNICATION</b> .....	3486
<i>Hamid R. Barzegar ; Luca Reggiani</i>	
<b>IMPROVED SPATIALLY-COUPLED MULTIUSER TRANSMISSION VIA CONSTELLATION ROTATION</b> .....	3491
<i>Min Jiang ; Zhongwei Si</i>	

<b>POLARIZATION MODE DISPERSION ESTIMATION ALGORITHM BASED ON SELECTION COMBINING IN DUAL-POLARIZED CHANNELS .....</b>	<b>3497</b>
<i>Bingcheng Wang ; Fangfang Liu ; Chunyan Feng ; Shulun Zhao</i>	
<b>WIDEBAND SELF-SUSTAINED DRA FED BY PRINTED RIDGE GAP WAVEGUIDE AT 60 GHZ.....</b>	<b>3502</b>
<i>Hussein Attia ; Ahmed A. Kishk</i>	
<b>DESIGN AND IMPLEMENTATION OF NOMA SUBBAND SCHEDULING TOWARDS LARGER BANDWIDTH BEYOND LTE-A.....</b>	<b>3505</b>
<i>Quang-Tuan Thieu ; Chun Wang ; Chun-Hsiung Wang ; Hung-Yun Hsieh</i>	
<b>A DYNAMIC BANDWIDTH AND POWER ALLOCATION SCHEME FOR COOPERATIVE D2D COMMUNICATIONS .....</b>	<b>3512</b>
<i>Zeqian Ye ; Qimei Cui ; Nan Hu ; Fan Yang</i>	
<b>COMPACT UWB MIMO ANTENNA WITH ASYMMETRIC COPLANAR STRIP FEEDING CONFIGURATION .....</b>	<b>3518</b>
<i>Ahmed A. Ibrahim ; Jan Machac ; Raed M. Shubair ; Milan Svanda</i>	
<b>ELIOT: DESIGN OF AN EMULATED IOT PLATFORM .....</b>	<b>3522</b>
<i>Alli Mäkinen ; Jaime Jiménez ; Roberto Morabito</i>	
<b>DISTRIBUTED ZERO-FORCING AF BEAMFORMING FOR ENERGY-EFFICIENT COMMUNICATIONS IN NETWORKED SMART CITIES.....</b>	<b>3529</b>
<i>Slim Zaidi ; Oussama Ben Smida ; Sofiene Affes ; Shahrokh Valaee</i>	
<b>ENHANCED RANGE-FREE LOCALIZATION IN WIRELESS SENSOR NETWORKS USING A NEW WEIGHTED HOP-SIZE ESTIMATION TECHNIQUE .....</b>	<b>3536</b>
<i>Mohamed Guadane ; Wassima Bchimi ; Abdelaziz Samet ; Sofiene Affes</i>	
<b>RESILIENT END-TO-END CONNECTIVITY FOR SOFTWARE DEFINED UNMANNED AERIAL VEHICULAR NETWORKS .....</b>	<b>3541</b>
<i>Gokhan Secinti ; Parisa Borhani Darian ; Berk Canberk ; Kaushik R. Chowdhury</i>	
<b>APPLYING RELIABILITY THEORY FOR FUTURE WIRELESS COMMUNICATION NETWORKS.....</b>	<b>3546</b>
<i>Tom Höfler ; Lucas Scheuven ; Norman Franchi ; Meryem Simsek ; Gerhard P. Fettweis</i>	
<b>OPTIMIZING POWER ALLOCATION IN MISSION CRITICAL COGNITIVE RADIO NETWORKS.....</b>	<b>3553</b>
<i>Ayman Sabbah ; Mohamed Ibnkahla</i>	
<b>PSMA FOR 5G: NETWORK THROUGHPUT ANALYSIS.....</b>	<b>3560</b>
<i>M. Moltafet ; N. Mokari ; M. R. Javan ; H. Saeedi ; H. Pishro-Nik</i>	
<b>PRECODED OFDM FOR ASYNCHRONOUS UPLINK WITH TRANSPARENCY TO OFDM RECEIVER.....</b>	<b>3566</b>
<i>Saeed Afrasiabi-Gorgani ; Gerhard Wunder ; Wooram Shin</i>	
<b>CHANNEL ESTIMATION AND OPTIMAL PILOT SIGNALS FOR UNIVERSAL FILTERED MULTI-CARRIER (UFMC) SYSTEMS.....</b>	<b>3571</b>
<i>Lei Zhang ; Chang He ; Juquan Mao ; Ayesha Ijaz ; Pei Xiao</i>	
<b>TOWARDS QOE-AWARE HAS VIDEO STREAMING OVER LTE.....</b>	<b>3577</b>
<i>Ashkan Sobhani ; Abdulsalam Yassine ; Shervin Shirmohammadi</i>	
<b>LIGHTWEIGHT SECURITY PROTOCOLS FOR THE INTERNET OF THINGS.....</b>	<b>3583</b>
<i>Xin-Wen Wu ; En-Hui Yang ; Junhu Wang</i>	
<b>DRONE PRIVACY SHIELD: A WIFI BASED DEFENSE.....</b>	<b>3590</b>
<i>Andy Sun ; Wei Gong ; Ryan Shea ; Jiangchuan Liu ; Xue Steve Liu ; Qinglong Wang</i>	
<b>PROTOCOL CONVERSION AND WEIGHTED RESOURCE ALLOCATION IN VIRTUAL SMALL CELLS OF 5G ULTRA DENSE NETWORKS FOR COST-EFFECTIVE SERVICE PROVISIONING .....</b>	<b>3595</b>
<i>Xiaoyu Duan ; Yanan Liu ; Akram Bin Sediq ; Gary Boudreau ; Xianbin Wang</i>	
<b>VEHICLE-TO-VEHICLE PROPAGATION CHANNEL FOR TRUCK-TO-TRUCK AND MIXED PASSENGER FREIGHT CONVOY .....</b>	<b>3601</b>
<i>Rui Wang ; Olivier Renaudin ; C. Umit Bas ; Seun Sangodoyin ; Andreas F. Molisch</i>	
<b>USER ASSOCIATION AND BANDWIDTH ALLOCATION FOR TERRESTRIAL AND AERIAL BASE STATIONS WITH BACKHAUL CONSIDERATIONS.....</b>	<b>3606</b>
<i>Elham Kalantari ; Irem Bor-Yaliniz ; Abbas Yongacoglu ; Halim Yanikomeroglu</i>	
<b>COMBINATORIAL CODE DESIGNS FOR ULTRA-RELIABLE IOT RANDOM ACCESS .....</b>	<b>3612</b>
<i>Christopher Boyd ; Roope Vehkalahti ; Olav Tirkkonen</i>	
<b>PHYSICAL-LAYER NETWORK CODING WITH MULTIPLE ANTENNAS: AN ENABLING TECHNOLOGY FOR SMART CITIES .....</b>	<b>3617</b>
<i>Vaibhav Kumar ; Barry Cardiff ; Mark F. Flanagan</i>	
<b>Author Index</b>	