A Survey on Wireless Transmitter Localization Using Signal Strength Measurements  
Research output: Scientific - peer-review › Review Article

Modeling and Joint Mitigation of TX and RX Nonlinearity Induced Receiver Desensitization  
Research output: Scientific - peer-review › Article

Capacity Analysis of Joint Transmission CoMP With Adaptive Modulation  
Research output: Scientific - peer-review › Article

Analytical performance estimation of network-assisted D2D communications in urban scenarios with rectangular cells  
Research output: Scientific - peer-review › Article

Computing Platforms for Software-Defined Radio  
Research output: Scientific - peer-review › Anthology

Conclusions  
Research output: Scientific - peer-review › Chapter

Cooperative Mobile Positioning  
Research output: Scientific - peer-review › Chapter

Design and Implementation of IEEE 802.11a/g Receiver Blocks on a Coarse-Grained Reconfigurable Array  
Research output: Scientific - peer-review › Chapter

Design Transformation from a Single-Core to a Multi-Core Architecture Targeting Massively Parallel Signal Processing Algorithms  
Research output: Scientific - peer-review › Chapter

Efficient fast-convolution based implementation of 5G waveform processing using circular convolution decomposition  
Research output: Scientific - peer-review › Conference contribution

Filtered multitone multicarrier modulation with partially overlapping sub-channels  
Research output: Scientific - peer-review › Conference contribution
Novel Algorithms for High-Accuracy Joint Position and Orientation Estimation in 5G mmWave Systems
Research output: Scientific - peer-review › Conference contribution

Optimized fast convolution based filtered-OFDM processing for 5G
Research output: Scientific - peer-review › Conference contribution

Short range HF radio channel measurements: Multipath channel models
Saarnisaari, H., Hovinen, V., Tuomivaara, H. & Yli-Kaakinen, J. T. 2017
Research output: Scientific - peer-review › Other contribution

Synchronization in NC-OFDM-Based Cognitive Radio Platforms
Research output: Scientific - peer-review › Chapter

The Evolution of Software-Defined Radio: An Introduction
Research output: Scientific - peer-review › Chapter

The Future of Software-Defined Radio: Recommendations
Research output: Scientific - peer-review › Chapter

The Impact of Galileo Open Service on Location Based Services Markets
Research output: Scientific - peer-review › Chapter

Understanding the GNSS Signal Model
Research output: Scientific - peer-review › Chapter

Uuden sukupolven HF-kommunikaatiotekniikat: Tiivistelmäraportti
Research output: Professional › Commissioned report

Rinne, J., Keskinen, J., Berger, P. R., Lupo, D. & Valkama, M. 2017 In : IEEE Access.
Research output: Scientific - peer-review › Article

In preparation towards future cellular networks: the detailed analysis of macro and micro site densification and sector densification
Research output: Scientific - peer-review › Article

Monitoring intrusion in an area using WIFI-enabled devices
Della Rosa, F. & Nurmi, J. 13 Dec 2016 9520041
Research output: Scientific › Patent
Active RF cancellation of nonlinear TX leakage in FDD transceivers
Research output: Scientific - peer-review › Conference contribution

Digital predistortion for mitigating transmitter-induced receiver desensitization in carrier aggregation FDD transceivers
Research output: Scientific - peer-review › Conference contribution

Efficient Time-Domain Phase Noise Mitigation in cm-Wave Wireless Communications
Research output: Scientific - peer-review › Conference contribution

Fast-convolution filtered OFDM waveforms with adjustable CP length
Research output: Scientific - peer-review › Conference contribution

Methods for phase noise mitigation for DFT-S-OFDM waveforms
Research output: Scientific - peer-review › Conference contribution

Reference receiver enabled digital cancellation of nonlinear out-of-band blocker distortion in wideband receivers
Research output: Scientific - peer-review › Conference contribution

Wireless Optogenetic Neural Dust for Deep Brain Stimulation
Research output: Scientific - peer-review › Conference contribution

FPGA Implementation Issues of a Flexible Synchronizer Suitable for NC-OFDM-Based Cognitive Radios
Research output: Scientific - peer-review › Article

Energy Consumption and Outage Performance Analysis of Heterogeneous Network with Varying Inter-tier Dependence
Research output: Scientific - peer-review › Conference contribution

Compact inband full-duplex relays with beyond 100 dB self-interference suppression: Enabling techniques and field measurements
Research output: Scientific - peer-review › Article

Low-Complexity Subband Digital Predistortion for Spurious Emission Suppression in Noncontiguous Spectrum Access
Research output: Scientific - peer-review › Article
Terahertz band communications: Applications, research challenges, and standardization activities
Research output: Scientific - peer-review › Conference contribution

Feasibility and Fundamental Limits of Energy-Harvesting Based M2M Communications
Research output: Scientific - peer-review › Conference contribution

Integrating Printed and Silicon Electronics
Mäntysalo, M. & Kraft, T. Sep 2016 International Conference on Flexible and Printed Electroncis . Yonezawa, Japan
Research output: Professional › Conference contribution

Location Based Beamforming in 5G Ultra-Dense Networks
Research output: Scientific - peer-review › Conference contribution

Implementation and performance evaluation of graphene-based passive UHF RFID textile tags
Research output: Scientific - peer-review › Conference contribution

Random Triangle: A Baseline Model for Interference Analysis in Heterogeneous Networks
Samuylov, A., Moltchanov, D., Gaidamaka, Y., Andreev, S. & Koucheryavy, Y. 1 Aug 2016 In : IEEE Transactions on Vehicular Technology. 65, 8, p. 6778-6782
Research output: Scientific - peer-review › Article

Optimization of Flexible Filter Banks Based on Fast Convolution
Research output: Scientific - peer-review › Article

Performance Considerations for Positioning with Signals of Opportunity
Research output: Scientific - peer-review › Conference contribution

Multilevel outphasing power amplifier system with a transmission-line power combiner
Research output: Scientific - peer-review › Conference contribution

Analysis and Augmented Spatial Processing for Uplink OFDMA MU-MIMO Receiver With Transceiver I/Q Imbalance and External Interference
Research output: Scientific - peer-review › Article

Performance and Cramer-Rao Bounds for DoA/RSS Estimation and Transmitter Localization Using Sectorized Antennas
Research output: Scientific - peer-review › Article

MULTI-POS: Marie Curie Network in Multi-technology Positioning
Data-Parallel Implementation of Reconfigurable Digital Predistortion on a Mobile GPU
Research output: Scientific - peer-review › Conference contribution

Sub-band Digital Predistortion for Noncontiguous Transmissions: Algorithm Development and Real-Time Prototype Implementation
Research output: Scientific - peer-review › Conference contribution

Analysis of a receiver-based reliable broadcast approach for vehicular networks
Research output: Scientific - peer-review › Conference contribution

An efficient indoor positioning particle filter using a floor-plan based proposal distribution
Research output: Scientific - peer-review › Conference contribution

Digitally Enhanced Wideband I/Q Downconversion Receiver With 2-Channel Time-Interleaved ADCs
Research output: Scientific - peer-review › Conference contribution

Hybrid Renewable Energy Routing for ISP Networks
Research output: Scientific - peer-review › Conference contribution

IEEE 802.11ac MIMO Transceiver Baseband Processing on a VLIW Processor
Research output: Scientific - peer-review › Conference contribution

Improving Disturbance Management with Combined Electricity and Mobile Network Situation Awareness System
Research output: Scientific - peer-review › Conference contribution

Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 16th International Conference, NEW2AN 2016, and 9th Conference, ruSMART 2016, St. Petersburg, Russia, September 26-28, 2016, Proceedings
Research output: Scientific - peer-review › Conference contribution

Joint 3D Positioning and Network Synchronization in 5G Ultra-Dense Networks Using UKF and EKF
Research output: Scientific - peer-review › Conference contribution

Multicarrier modulation for HF communications
Research output: Scientific - peer-review › Conference contribution
Optimization of parallel processing intensive digital front-end for IEEE 802.11ac receiver
Research output: Scientific › peer-review › Conference contribution

Parallel processing intensive digital front-end for IEEE 802.11ac receiver
Research output: Scientific › peer-review › Conference contribution

Performance Evaluation of Cyclostationary Based Cooperative Sensing Using Field Measurements
Research output: Scientific › peer-review › Article

Power amplifier effects on frequency localized 5G candidate waveforms
Research output: Scientific › peer-review › Conference contribution

Printed epidermal electronic system
Research output: Scientific › Paper, poster or abstract

Private cloud deployment model in open-source mobile robots ecosystem
Research output: Scientific › peer-review › Conference contribution

Remotely Powered Piezoresistive Pressure Sensor: Toward Wireless Monitoring of Intracranial Pressure
Research output: Scientific › peer-review › Article

Short range HF radio channel measurements: Search for one path channels
Research output: Scientific › peer-review › Conference contribution

Statistical Trilateration with Skew-t Distributed Errors in LTE Networks
Research output: Scientific › peer-review › Article

The Possibilities of Graphene-Based Passive RFID Tags in High humidity Conditions
Research output: Scientific › peer-review › Conference contribution

Unified Analysis of Cooperative Spectrum Sensing over Composite and Generalized Fading Channels
Research output: Scientific › peer-review › Article
Using Competing Bacterial Communication to Disassemble Biofilms
Research output: Scientific - peer-review › Conference contribution

Energy cooperation for throughput optimization based on save-then-transmit protocol in wireless communication system
Dai, C-Q., Li, F-J. & Renfors, M. 26 Dec 2015 In : Eurasip Journal on Wireless Communications and Networking. 2015, 1, 119
Research output: Scientific - peer-review › Article

Context Awareness for Navigation Applications
Research output: Collection of articles › Doctoral Thesis

A Rigorous Evaluation of Gaussian Process Models for WLAN Fingerprinting
Research output: Scientific - peer-review › Conference contribution

A Comparison of Received Signal Strength Statistics between 2.4 GHz and 5 GHz bands for WLAN-based Indoor Positioning
Research output: Scientific - peer-review › Conference contribution

Hybrid Cooperative Positioning in Harsh Environments
Research output: Scientific - peer-review › Conference contribution

Characterization of Two-Turns External Loop Antenna with Magnetic Core for Efficient Wireless Powering of Cortical Implants
Research output: Scientific - peer-review › Article

Comparative End-to-End Analysis of Ca2+-Signaling-Based Molecular Communication in Biological Tissues
Research output: Scientific - peer-review › Article

Deployment of wireless sensor network in dispersed renewable energy sources for increasing efficiency of power distribution networks
Research output: Scientific - peer-review › Article

Emerging Technologies, Applications, and Standardizations for Connecting Vehicles: [From the Guest Editors]
Research output: Scientific › Article

Impact of Power Amplifier Nonlinearities in Multi-user Massive MIMO Downlink
Research output: Scientific - peer-review › Conference contribution
Modeling and Digital Mitigation of Transmitter Imperfections in Radio Communication Systems
Kiayani, A. 27 Oct 2015 Tampere University of Technology. 97 p. (Tampere University of Technology. Publication; vol. 1332)
Research output: Collection of articles › Doctoral Thesis

Novel Methods for Personal Indoor Positioning
Leppäkoski, H. 27 Oct 2015 Tampere University of Technology. 129 p. (Tampere University of Technology. Publication; vol. 1330)
Research output: Monograph › Doctoral Thesis

Nonlinear Distortion in Wideband Radio Receivers and Analog-to-Digital Converters: Modeling and Digital Suppression
Allen, M. 23 Oct 2015 Tampere University of Technology. 95 p. (Tampere University of Technology. Publication; vol. 1329)
Research output: Collection of articles › Doctoral Thesis

Signal strength readout and miniaturised antenna for metal-mountable UHF RFID threshold temperature sensor tag
Research output: Scientific - peer-review › Article

Capacity, Energy-Efficiency and Cost-Efficiency Aspects of Future Mobile Network Deployment Solutions
Yunas, S. F. 9 Oct 2015 Tampere University of Technology. 122 p. (Tampere University of Technology. Publication; vol. 1323)
Research output: Monograph › Doctoral Thesis

3GPP LTE-assisted Wi-Fi-direct: Trial implementation of live D2D technology
Pyattaev, A., Hosek, J., Johnsson, K., Krkos, R., Gerasimenko, M., Masek, P., Ometov, A., Andreev, S., Sedy, J.,
Research output: Scientific - peer-review › Article

A non-repudiable negotiation protocol for security service level agreements
Research output: Scientific - peer-review › Article

Solutions to integrals involving the marcum Q-function and applications
, p. 1752-1756 5 p.
Research output: Scientific - peer-review › Article

Analytic Hierarchy Process for assessing e-health technologies for elderly indoor mobility analysis
Lohan, E-S., Cramariuc, O., Malicki, L., Samar Brencic, N. & Cramariuc, B. Oct 2015 MOBIHEALTH 2015: 5th EAI
International Conference on Wireless Mobile Communication and Healthcare - "Transforming healthcare through
innovations in mobile and wireless technologies". London: ICST, 4 p.
Research output: Scientific - peer-review › Conference contribution

Model-based design and implementation of an adaptive digital predistortion filter
on Signal Processing Systems (SiPS). Institute of Electrical and Electronics Engineers, IEEE, 6 p.
Research output: Scientific - peer-review › Conference contribution

Achievable transmission rates and self-interference channel estimation in hybrid full-duplex/half-duplex MIMO relaying
Korpi, D., Rihonon, T., Haneda, K., Yamamoto, K. & Valkama, M. 7 Sep 2015 2015 IEEE 82nd Vehicular Technology
Conference (VTC2015-Fall).
Research output: Scientific - peer-review › Conference contribution
Abstracting Application Development for Resource Constrained Wireless Sensor Networks
Laukkarinen, T. 4 Sep 2015 Tampere: Tampere University of Technology. 104 p. (Tampere University of Technology. Publication; vol. 1306)
Research output: Collection of articles › Doctoral Thesis

Frequency Response Mismatches in 4-channel Time-Interleaved ADCs: Analysis, Blind Identification, and Correction
Research output: Scientific - peer-review › Article

High-Efficiency Device Localization in 5G Ultra-Dense Networks: Prospects and Enabling Technologies
Research output: Scientific - peer-review › Conference contribution

Securing Network-Assisted Direct Communication: The Case of Unreliable Cellular Connectivity
Research output: Scientific - peer-review › Conference contribution

You are AIRing too Much: Assessing the Privacy of Users in Crowdsourcing Environmental Data
Research output: Scientific - peer-review › Conference contribution

Transceiver I/Q Imbalance and Widely-Linear Spatial Processing in Large Antenna Systems
Research output: Scientific - peer-review › Conference contribution

Evaluation of SPMA and higher order sectorization for homogeneous SIR through macro sites
Research output: Scientific - peer-review › Article

Performance analysis of IoT-enabling IEEE 802.11ah technology and its RAW mechanism with non-cross slot boundary holding schemes
Research output: Scientific - peer-review › Conference contribution

Molecular Communication Modeling of Antibody-Mediated Drug Delivery Systems
Research output: Scientific - peer-review › Article

Prioritized centrally-controlled resource allocation in integrated multi-RAT HetNets
Research output: Scientific - peer-review › Conference contribution

Wideband self-adaptive RF cancellation circuit for full-duplex radio: Operating principle and measurements
Research output: Scientific - peer-review › Conference contribution
Electro-textiles – The enabling technology for wearable antennas in wireless body-centric sensing systems
Research output: Scientific - peer-review › Conference contribution

Incorporating Bacterial Properties for Plasmid Delivery in Nano Sensor Networks
Research output: Scientific - peer-review › Article

Performance Evaluation of Wearable Passive RFID Tag for Human Indoor Positioning
Research output: Scientific - peer-review › Conference contribution

Digital Self-Interference Cancellation under Nonideal RF Components: Advanced Algorithms and Measured Performance
Research output: Scientific - peer-review › Conference contribution

Indoor Positioning Technology Assessment using Analytic Hierarchy Process for Pedestrian Navigation Services
Research output: Scientific - peer-review › Conference contribution

Received Signal Strength models for WLAN and BLE-based indoor positioning in multi-floor buildings
Research output: Scientific - peer-review › Conference contribution

Receiver Architecture for Cognitive Positioning with CDMA and OFDM signals
Research output: Scientific - peer-review › Conference contribution

Systematic search for design contradictions in systems' architecture: Toward a computer aided analysis
Research output: Scientific - peer-review › Article

Feasibility study of the THz band for communications between wearable electronics
Research output: Scientific - peer-review › Conference contribution

Performance comparison of selected wired and wireless networks on chip architectures
Research output: Scientific - peer-review › Conference contribution

A molecular noise model for THz channels
Research output: Scientific - peer-review › Conference contribution
Analytical Performance Evaluation of Cooperative and Multi-Radio Concepts in Emerging Wireless Networks
Galinina, O. 2015 Tampere: Tampere University of Technology. 124 p. (Tampere University of Technology. Publication; vol. 1320)
Research output: Collection of articles › Doctoral Thesis

Analytic Symbol Error Rate Evaluation of M –PSK Based Regenerative Cooperative Networks Over Generalized Fading Channels
Research output: Scientific - peer-review › Conference contribution

Analyzing Assisted Offloading of Cellular User Sessions onto D2D Links in Unlicensed Bands
Research output: Scientific - peer-review › Article

An Analytical Approach to SINR Estimation in Adjacent Rectangular Cells
Research output: Scientific - peer-review › Conference contribution

A Novel Transform for Secret Key Generation in Time-varying TDD Channel under Hardware Fingerprint Deviation
Research output: Scientific - peer-review › Conference contribution

Antennas in Body-Centric Sensor Network Devices
Research output: Scientific - peer-review › Chapter

Application of the nonuniform filterbank for spectrum sensing in a cognitive radio: The European Commission 7th Framework Programme (FP7) project ICT-318362-EMPHATIC deliverable D8.1
Research output: Professional › Commissioned report

Area under ROC Curve of Energy Detection over Generalized Fading Channels
Research output: Scientific - peer-review › Conference contribution

A Spectrum Sensing Algorithm for Constant Modulus Primary Users Signals
Research output: Scientific - peer-review › Article

Assisted Handover Based on Device-to-Device Communications in 3GPP LTE Systems
Research output: Scientific - peer-review › Conference contribution

AUC study of energy detection based spectrum sensing over \( \eta-\mu \) and \( \alpha-\mu \) fading channels
Research output: Scientific - peer-review › Conference contribution
Cache storage attacks
Brumley, B. B. 2015 Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). Springer Verlag, p. 22-34 13 p. (Lecture Notes in Computer Science; vol. 9048)
Research output: Scientific - peer-review › Conference contribution

Channel Estimation and Equalization in Multi-User Uplink OFDMA and SC-FDMA Systems Under Transmitter RF Impairments
Research output: Scientific - peer-review › Article

Characterizing Fading in Wearable Communications Channels using Composite Models
Research output: Scientific - peer-review › Conference contribution

Coexistence of LTE and WLAN in Unlicensed Bands: Full-Duplex Spectrum Sensing
Research output: Scientific - peer-review › Conference contribution

Combined Electricity and Mobile Network Situation Awareness System for Disturbance Management
Research output: Scientific - peer-review › Conference contribution

Comparison of Detection Techniques for Multipath Propagation of Pseudolite Signals Used in Dense Industrial Environments
Research output: Scientific - peer-review › Article

Compressive Identification of Active OFDM Subcarriers in Presence of Timing Offset
Research output: Scientific - peer-review › Conference contribution

Covariance-based OFDM spectrum sensing with sub-Nyquist samples
Research output: Scientific - peer-review › Article

Data Rate Performance of Droplet Microfluidic Communication System
Research output: Scientific - peer-review › Conference contribution

Delayed key exchange for constrained smart devices
Design and Implementation of a Power-aware FFT Core for OFDM-based DSA-enabled Cognitive Radios
Research output: Scientific - peer-review › Article

Design of a Hybrid Multicore Platform for High Performance Reconfigurable Computing
Research output: Scientific - peer-review › Conference contribution

Digital correction of frequency response mismatches in 2-channel time-interleaved ADCs using adaptive I/Q signal processing
Research output: Scientific - peer-review › Article

Digital Mitigation of Transmitter-Induced Receiver Desensitization in Carrier Aggregation FDD Transceivers
Research output: Scientific - peer-review › Article

Digital Signal Transmission in Magnetic Induction Based Wireless Underground Sensor Networks
Research output: Scientific - peer-review › Article

Distance-based Interpolation and Extrapolation Methods for RSS-based Localization with Indoor Wireless Signals
Research output: Scientific - peer-review › Article

Dynamic and Flexible Spectrum Use with Frequency Localized Waveforms under Transmitter Nonidealities
Research output: Scientific - peer-review › Conference contribution

Efficient Energy Detection Methods for Spectrum Sensing under Non-Fat Spectral Characteristics
Research output: Scientific - peer-review › Article

Efficient Fast-Convolution Implementation of Filtered CP-OFDM Waveform Processing for 5G
Research output: Scientific - peer-review › Conference contribution

Embroidered Textile Antennas for Wireless Body-Centric Communication and Sensing
Research output: Scientific - peer-review › Conference contribution

Energy and delay performance of machine-type communications (MTC) in long-term evolution-advanced (LTE-A)
Research output: Scientific - peer-review › Chapter
Energy Detection of Unknown Signals over Cascaded Fading Channels
Research output: Scientific - peer-review › Article

Energy-Efficiency Analysis of Regenerative Cooperative Systems Under Spatial Correlation
Research output: Scientific - peer-review › Conference contribution

Exact Error Analysis and Energy-Efficiency Optimization of Regenerative Relay Systems under Spatial Correlation
Fikadu, M., Sofotasios, P., Valkama, M., Cui, Q. & Karagiannidis, G. 2015 In : IEEE Transactions on Vehicular Technology. 65, 7, p. 4973-4992
Research output: Scientific - peer-review › Article

Fast-convolution implementation of filter bank multicarrier waveform processing
Research output: Scientific - peer-review › Conference contribution

Faster Binary Curve Software: A Case Study
Research output: Scientific - peer-review › Conference contribution

Feasibility analysis of ITU-T P.1201 Amd.2 standard for video on demand services
Research output: Scientific - peer-review › Conference contribution

Flexible Digital Predistortion for Future Spectrally-Agile Waveforms and 5G Radio Systems
Research output: Scientific - peer-review › Conference contribution

Flexible fast-convolution implementation of single-carrier waveform processing for 5G
Research output: Scientific - peer-review › Conference contribution

Hybrid WLAN-RFID Indoor Localization Solution Utilizing Textile Tag
Research output: Scientific - peer-review › Article

Implementation of IEEE-802.11a/g receiver blocks on a coarse-grained reconfigurable array
Research output: Scientific - peer-review › Conference contribution

Interference Analysis and Performance Evaluation of 5G Flexible-TDD based Dense Small-Cell System
Research output: Scientific - peer-review › Conference contribution
Interference and SINR in Dense Terahertz Networks
Petrov, V., Moltchanov, D. & Koucheryavy, Y. 2015 2015 IEEE 82nd Vehicular Technology Conference (VTC2015-Fall). IEEE
Research output: Scientific - peer-review › Conference contribution

Internet of Things, Smart Spaces, and Next Generation Networks and Systems: 15th International Conference, NEW2AN 2015, and 8th Conference, ruSMART 2015, St. Petersburg, Russia, August 26-28, 2015, Proceedings
Research output: Scientific - peer-review › Anthology

IoT Use Cases in Healthcare and Tourism
Research output: Scientific - peer-review › Conference contribution

Joint Cooling and Information Transmission for Board-to-Board Communications
Research output: Scientific - peer-review › Conference contribution

K-Means Fingerprint Clustering for Low-Complexity Floor Estimation in Indoor Mobile Localization
Research output: Scientific - peer-review › Conference contribution

Low-Complexity Digital Correction of 4-Channel Time-Interleaved ADC Frequency Response Mismatch using Adaptive I/Q Signal Processing
Research output: Scientific - peer-review › Conference contribution

Low-profile head-worn antenna with a monopole-like radiation pattern
Research output: Scientific - peer-review › Article

LTE Performance Analysis Using Queuing Systems with Finite Resources and Random Requirements
Research output: Scientific - peer-review › Conference contribution

MIMO channel estimation and data detection: The European Commission 7th Framework Programme (FP7) project ICT-318362-EMPhAtiC deliverable D4.2
Research output: Professional › Commissioned report

Mobile GPU Accelerated Digital Predistortion on a Software-defined Mobile Transmitter
Research output: Scientific - peer-review › Conference contribution

Multi-Antenna Interference Cancellation for Black Space Cognitive Radio Communications
Multimode, non-uniform filterbank: The European Commission 7th Framework Programme (FP7) project ICT-318362-EMPhAtiC deliverable D2.2
Research output: Professional › Commissioned report

Network-Assisted Device-to-Device Connectivity: Contemporary Vision and Open Challenges
Research output: Scientific - peer-review › Conference contribution

Novel Indoor Positioning Mechanism via Spectral Compression
Research output: Scientific - peer-review › Article

On capacity of active relaying in magnetic induction based wireless underground sensor networks
Research output: Scientific - peer-review › Conference contribution

On Capturing Spatial Diversity of Joint M2M/H2H Dynamic Uplink Transmissions in 3GPP LTE Cellular System
Research output: Scientific - peer-review › Conference contribution

On Predicting Video Quality Expectations of Mobile Users
Research output: Scientific - peer-review › Conference contribution

On the Effects of UE Transceiver Non-Reciprocity in Coordinated TDD Multi-Cell MIMO Network
Research output: Scientific - peer-review › Conference contribution

Optimized burst truncation in fast-convolution filter bank based waveform generation
Research output: Scientific - peer-review › Conference contribution
Software simulations and experiments: The European Commission 7th Framework Programme (FP7) project ICT-318362-EMPhAtiC deliverable D9.2
Research output: Professional › Commissioned report

Spectrum sensing in generalized multipath fading conditions using square-law combining
Research output: Scientific - peer-review › Conference contribution

Start-up and Frequency Stability Analysis using Time-Varying Root Locus
Jain, S. & Tchamov, N. 2015 In : IEICE Electronics Express. 12, 22, 12.20150661
Research output: Scientific - peer-review › Article

Statistical Sensor Fusion of Ultra Wide Band Ranging and Real Time Kinematic Satellite Navigation
Research output: Scientific - peer-review › Conference contribution

Study of the Duty Cycle Challenges for Short Range Devices Deployment Based on the IEEE 802.11ah in M2M and IoT Network
Research output: Scientific › Article

Subband Energy Based Reduced Complexity Spectrum Sensing under Noise Uncertainty and Frequency-Selective Spectral Characteristics
Research output: Scientific - peer-review › Article

Techno-Economical Comparison of Dynamic DAS and Legacy Macrocellular Densification: Capacity and Cost-Efficiency Analysis of Alternative Deployment Solutions for Outdoor Service Provisioning
Research output: Scientific - peer-review › Article

The effects of RF impairments in Vehicle-to-Vehicle Communications
Research output: Scientific - peer-review › Conference contribution

The η − μ / Inverse Gamma Composite Fading Model
Research output: Scientific - peer-review › Conference contribution

The κ − μ / Inverse Gamma Fading Model
Research output: Scientific - peer-review › Conference contribution

Training design and algorithms for channel estimation: The European Commission 7th Framework Programme (FP7) project ICT-318362-EMPhAtiC deliverable D3.1
Understanding Practical Limitations of Network Coding for Assisted Proximate Communication
Research output: Scientific › peer-review › Article

Understanding the IoT connectivity landscape: a contemporary M2M radio technology roadmap
Research output: Scientific › peer-review › Article

Unified Analysis of Cooperative Spectrum Sensing over Generalized Multipath Fading Channels
Research output: Scientific › peer-review › Conference contribution

User's happiness in numbers: Understanding mobile YouTube quality expectations
Research output: Scientific › peer-review › Conference contribution

WarmPie: A bare-bones implementation of message passing interface for embedded many-cores
Research output: Scientific › peer-review › Conference contribution

Wireless Authentication using OPACITY Protocol
Research output: Scientific › peer-review › Conference contribution

Vehicle Positioning
Collin, J. 15 Dec 2014 FI124697B
Research output: Scientific › Patent

Efficient User, Service, or Content Representation for Device Communication
Research output: Scientific › Patent

Precoded Massive MU-MIMO Uplink Transmission under Transceiver I/Q Imbalance
Research output: Scientific › peer-review › Conference contribution

Method and Apparatus for Communicating with Smart Objects
Savolainen, T., Reunamäki, J. & Silverajan, B. 9 Oct 2014 20140304381
Research output: Scientific › Patent

Method and apparatus for determining environmental context utilizing features obtained by multiple radio receivers
Research output: Scientific › Patent
Interference suppression with antenna arrays in OFDM systems under transceiver I/Q imbalance
Research output: Scientific - peer-review › Conference contribution

Reconfigurable antenna based DOA estimation and localization in cognitive radios: Low complexity algorithms and practical measurements
Research output: Scientific - peer-review › Conference contribution

Co-modeling of embedded networks using systems and SDL: From theory to practice
Research output: Scientific - peer-review › Chapter

A blind frequency response mismatch correction algorithm for 4-channel Time-Interleaved ADC
Research output: Scientific - peer-review › Conference contribution

Adaptive mobile tracking in unknown non-line-of-sight conditions with application to digital TV networks
Research output: Scientific - peer-review › Article

Analysis and Rate Optimization of OFDM-Based Cognitive Radio Networks Under Power Amplifier Nonlinearity
Research output: Scientific - peer-review › Article

Analysis of Channel Non-Reciprocity Due to Transceiver and Antenna Coupling Mismatches in TDD Precoded Multi-User MIMO-OFDM Downlink
Research output: Scientific - peer-review › Conference contribution

Analysis of Oscillator Phase-Noise Effects on Self-Interference Cancellation in Full-Duplex OFDM Radio Transceivers
Research output: Scientific - peer-review › Article

Analytic Expressions and Bounds for Special Functions and Applications in Communication Theory
Research output: Scientific - peer-review › Article

Analytic performance evaluation of M-QAM based decode-and-forward relay networks over enriched multipath fading channels
Research output: Scientific - peer-review › Conference contribution
Analytic solutions to a Marcum Q-function-based integral and application in energy detection of unknown signals over multipath fading channels


Analyzing Impacts of Coexistence between M2M and H2H Communication on 3GPP LTE System


Analyzing the overload of 3GPP LTE system by diverse classes of connected-mode MTC devices


Antibody-based molecular communication for targeted drug delivery systems


A PET project from Finland : Automating GNSS receiver testing


A roadmap for traffic engineering in software defined networks


A routing framework for energy harvesting wireless nanosensor networks in the Terahertz Band


A statistical-physical model of interference in diffusion-based molecular nanonetworks


Capturing Spatial Randomness of Heterogeneous Cellular/WLAN Deployments With Dynamic Traffic


Cell planning for outdoor distributed antenna systems in dense urban areas


Cellular traffic offloading onto network-assisted device-to-device connections

Closed-form Analysis of Channel Non-Reciprocity Due to Transceiver and Antenna Coupling Mismatches in Multi-user Massive MIMO Network
Research output: Scientific - peer-review › Conference contribution

Delay-based Congestion Control Mechanism for Video Services: Mechanism including Backward Loading and Real-time Modes
Research output: Scientific - peer-review › Conference contribution

Delivering uniform connectivity and service experience to converged 5G wireless networks
Research output: Scientific - peer-review › Conference contribution

Dense Small-Cell Networks: Rethinking the Radio Interface Beyond LTE-Advanced
Research output: Scientific - peer-review › Conference contribution

Deployment strategies and performance analysis of Macrocell and Femtocell networks in suburban environment with modern buildings
Research output: Scientific - peer-review › Conference contribution

Digital post-processing based wideband receiver linearization for enhanced spectrum sensing and access
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