Qualifications
Doctor of Science (Technology), Telecommunications Technology
Award Date: 19 Dec 2018
Master of Science (Technology), Information Technology
Award Date: 30 Sept 2016

Research outputs

**Approximate computing in 5G and 6G wireless systems: A survey and future outlook**

**A Survey on Low-Power GNSS**

**Direction of Arrival Method for L-Shaped Array with RF Switch: An Embedded Implementation Perspective**

**Approximation Opportunities in Edge Computing Hardware: A Systematic Literature Review**

**Fast Real-World Implementation of a Direction of Arrival Method for Constrained Embedded IoT Devices**

**Acceptable Margin of Error: Quantifying Location Privacy in BLE Localization**

**LoRaWAN: Lost for Localization?**

**Towards the Advanced Data Processing for Medical Applications Using Task Offloading Strategy**

**The future of computing paradigms for medical and emergency applications**

**Implementation of Embedded Multiple Signal Classification Algorithm for Mesh IoT Networks**
Measurements of User and Sensor Data from the Internet of Things (IoT) Devices

Managing Perceived Loneliness and Social-Isolation Levels for Older Adults: A Survey with Focus on Wearables-Based Solutions

A Survey of Security in Cloud, Edge, and Fog Computing

2022 International Conference on Localization and GNSS - Conference Proceedings

An Open-Source Software-Defined Receiver for GNSS Algorithms Benchmarking

Distributed ledger technology: State-of-the-art and current challenges

Evaluation of Real-Life LoRaWAN Localization: Accuracy Dependencies Analysis Based on Outdoor Measurement Datasets

Hands-On Experience with UWB: Angle of Arrival Accuracy Evaluation in Channel 9

On Applicability of Imagery-based CNN to Computational Offloading Location Selection

Performance Analysis of Different LoRaWAN Frequency Bands for mMTC Scenarios

Special Issue: Measurements of User and Sensor Data from the Internet of Things (IoT) Devices
Ometov, A. (Guest ed.) & Torres-Sospedra, J. (Guest ed.), 2022, In: Data.

Towards Approximate Computing for Achieving Energy vs. Accuracy Trade-offs

WiP Proceedings of the International Conference on Localization and GNSS (ICL-GNSS-WiP 2022)
Effectiveness modelling of digital contact-tracing solutions for tackling the COVID-19 pandemic

On Machine Learning Applicability to Transaction Time Prediction for Time-Critical C-ITS Applications

Wearables for Industrial Work Safety: A Survey

WIP Proceedings of the International Conference on Localization and GNSS (ICL-GNSS 2021)

On Secret Sharing with Newton’s Polynomial for Multi-Factor Authentication

Applying Machine Learning to LTE Traffic Prediction: Comparison of Bagging, Random Forest, and SVM

Pitfalls of LPWA Power Consumption: Hands-On Design of Current Probe

Technical Perspectives of Contact-Tracing Applications on Wearables for COVID-19 Control

Towards Energy Efficiency in the Internet of Wearable Things: A Systematic Review

Measurements of Mobile Blockchain Execution Impact on Smartphone Battery

Analytical TCP Model for Millimeter-Wave 5G NR Systems in Dynamic Human Body Blockage Environment

Improving the Precision of Wireless Localization Algorithms: ML Techniques for Indoor Positioning

Modeling of Distributed Ledgers: Challenges and Future Perspectives

Blockchain Evaluation Approaches: State-of-the-Art and Future Perspective
Privacy versus Location Accuracy in Opportunistic Wearable Networks

An Overview on Blockchain for Smartphones: State-of-the-Art, Consensus, Implementation, Challenges and Future Trends

2020 International Conference on Localization and GNSS - Conference Proceedings

WiP Proceedings of the International Conference on Localization and GNSS (ICL-GNSS 2020)

Performance Analysis of Onshore NB-IoT for Container Tracking During Near-the-Shore Vessel Navigation

Applying Blockchain Technology for User Incentivization in mmWave-based Mesh Networks

Comparative study on GNSS positioning systems for autonomous vessels in the arctic region

The Internet of Bodies Needs a Human Data Model

Обзор проблем внедрения технологии распределенного реестра

Environmental monitoring with distributed mesh networks: An overview and practical implementation perspective for urban scenario

Action-Oriented Programming Model: Collective Executions and Interactions in the Fog

Analytical characterization of the blockage process in 3GPP New Radio systems with trilateral mobility and multi-connectivity

Implementation of 3GPP LTE Cat-M1 Technology in NS-3: System Simulation and Performance
Challenges of Privacy-aware Localization on Wearable Devices

A perspective on wireless M-bus for smart electricity grids

Blockchain Technology for Smartphones and Constrained IoT Devices: A Future Perspective and Implementation

On the performance of narrow-band internet of things (NB-IoT) for delay-tolerant services

Secure environmental monitoring for industrial internet of things: From framework to live implementation

Positioning information privacy in intelligent transportation systems: An overview and future perspective

Challenges of Multi-Factor Authentication for Securing Advanced IoT Applications

Evaluating SIR in 3D mmWave Deployments: Direct Modeling and Feasible Approximations

Packet level performance assessment of mmWave backhauling technology for 3GPP NR Systems
Ray-Based Modeling of Unlicensed-Band mmWave Propagation Inside a City Bus

Social, Private, and Trusted Wearable Technology under Cloud-Aided Intermittent Wireless Connectivity
Ometov, A., 23 Nov 2018, Tampere University of Technology. 63 p. (Tampere University of Technology. Publication; vol. 1603)

Analyzing Effects of Directionality and Random Heights in Drone-based mmWave Communication

Upper bound on capacity of 5G mmWave cellular with multi-connectivity capabilities

Modeling Three-Dimensional Interference and SIR in Highly Directional mmWave Communications

Multi-Factor Authentication: A Survey
Ometov, A., Bezzateev, S., Mäkitalo, N., Andreev, S., Mikkonen, T. & Koucheryavy, Y., 5 Jan 2018, In: Cryptography. 2, 1

3D folded loop UAV antenna design

Advanced wireless m-bus platform for intensive field testing in Industry 4.0-based systems

Communication capabilities of wireless M-BUS: Remote metering within smartgrid infrastructure

Concept design and performance evaluation of UAV-based backhaul link with antenna steering

Dynamic Resource Sharing in 5G with LSA: Criteria-Based Management Framework
Mobility-Centric Analysis of Communication Offloading for Heterogeneous Internet of Things Devices

On the Fraction of LoS Blockage Time in mmWave Systems with Mobile Users and Blockers

Performance Limitations of Parsing Libraries: State-of-the-Art and Future Perspectives

System-level analysis of IEEE 802.11ah technology for unsaturated MTC traffic

A SyMPHOnY of Integrated IoT Businesses: Closing the Gap between Availability and Adoption

Multi-factor authentication for wearables: Configuring system parameters with risk function

Comparative evaluation of radio propagation properties at 15 GHz and 60 GHz frequencies

Multi-factor authentication: A survey and challenges in V2X applications

Analyzing D2D mobility: Framework for steady communications and outage periods prediction

Secure and connected wearable intelligence for content delivery at a mass event: A case study

Towards better knowledge work experiences with new Ambient workspace: Concept and prototype

Effects of Heterogeneous Mobility on D2D-and Drone-Assisted Mission-Critical MTC In 5G

Analytical performance estimation of network-assisted D2D communications in urban scenarios with rectangular cells
Facilitating the Delegation of Use for Private Devices in the Era of the Internet of Wearable Things

Flexible Spectrum Management in a Smart City within Licensed Shared Access Framework

Mobile Social Networking under Side-Channel Attacks: Practical Security Challenges

Modeling Unreliable Operation of mmWave-based Data Sessions in Mission-Critical PPDR Services

Reliability-centric analysis of offloaded computation in cooperative wearable applications

Safe, Secure Executions at the Network Edge: Coordinating Cloud, Edge, and Fog Computing

Time-dependent SIR analysis in shopping malls using fractal-based mobility models

Wired/Wireless Internet Communications: 15th IFIP WG 6.2 International Conference, WWIC 2017, St. Petersburg, Russia, June 21–23, 2017, Proceedings

Wireless M-bus in Industrial IoT: Technology overview and prototype implementation

Dynamic social trust associations over D2D communications: An implementation perspective

D2D communications for mobile devices: Technology overview and prototype implementation

Remote management of intelligent devices: Using TR-069 protocol in IoT

A Harmonized Perspective on Transportation Management in Smart Cities: The Novel IoT-Driven Environment for Road Traffic Modeling
Dynamic Trust Associations over Socially-Aware D2D Technology: A Practical Implementation Perspective.

Dynamic trust management framework for robotic multi-agent systems

Optimizing network-assisted WLAN systems with aggressive channel utilization

Validating information security framework for offloading from LTE onto D2D links

Toward trusted, social-aware D2D connectivity: Bridging across the technology and sociality realms

Implementing secure network-assisted D2D framework in live 3GPP LTE deployment

Feasibility characterization of cryptographic primitives for constrained (wearable) IoT devices

A unifying perspective on proximity-based cellular-assisted mobile social networking

A novel security-centric framework for D2D connectivity based on spatial and social proximity

A trial of yoking-proof protocol in RFID-based smart-home environment

Implementing a broadcast storm attack on a mission-critical wireless sensor network

Visualizing Big Data
3GPP LTE-assisted Wi-Fi-direct: Trial Implementation of live D2D technology

Visualizing Big Data with Augmented and Virtual Reality: Challenges and Research Agenda

Securing Network-Assisted Direct Communication: The Case of Unreliable Cellular Connectivity

An Analytical Approach to SINR Estimation in Adjacent Rectangular Cells

Network-Assisted Device-to-Device Connectivity: Contemporary Vision and Open Challenges

Fairness characterization in contemporary IEEE 802.11 deployments with saturated traffic load

Towards Big Data Visualization for Augmented Reality

Characterizing the Effect of Packet Losses in Current WLAN Deployments

Short-range communications within emerging wireless networks and architectures: A survey
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