2023 Wireless Telecommunications Symposium (WTS 2023)

Boston, Massachusetts, USA 19 – 21 April 2023



IEEE Catalog Number: CFP23WTS-POD ISBN:

978-1-6654-9093-1

Copyright © 2023 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:
 CFP23WTS-POD

 ISBN (Print-On-Demand):
 978-1-6654-9093-1

 ISBN (Online):
 978-1-6654-9092-4

ISSN: 1934-5070

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



Table of Contents

Towards Generating True Random Numbers using Magnetoresistive RAM...1

A comparison of power allocation mechanisms for 5G D2D mobile communication networks...8

BER Analysis of Cross-QAM Uncoded Space-Time Labeling Diversity with Three Transmit Antennas in Nakagami-m Fading Channels...15

Concurrent Transmitting LiDAR Sensor with Bipolar Optical Codes...21

Encryption-Aware PHY Security for Wiretap Channels with Multiple Jammers...32

Implementation and Investigation of High Endurance UAVs in a 4G LTE Network for Monitoring Power Lines...38

VLC Indoor Positioning Using RFR and SVM Reduced Features Machine Learning Techniques...47

Elbow estimation -based source enumeration method for LPI/LPD signals...53

Demonstration of Open Radio Access Network Intelligent Controllers...59

Methods of Automating Power Swapping Mechanisms for Extending UAV Flight Missions...66

Enhanced Pseudonym Changing in VANETs: How Privacy is Impacted Using Factitious Beacons...76

An Efficient Fast Walsh-Hadamard Transform Based OFDM-IM Scheme with Lower PAPR...82

Federated/Deep Learning in UAV Networks for Wildfire Surveillance...88