# Table of Contents

Modified CS-based Downlink Channel Estimation with Temporal Correlation in FDD Massive MIMO Systems  1

Device-to-Device Communications in the millimeter Wave Band: A Novel Distributed Mechanism  8

Modeling Millimeter Wave Tropospheric Attenuations for UAS and Terrestrial Aviation Communications  14

31 GHz Path Loss Measurement and Modeling for Indoor/Outdoor Environments  23

An Efficient Wireless Access Point Selection Algorithm for Location Determination Based on RSSI Interval Overlap Degree Determination  31

Autoencoder-based Network Anomaly Detection  39

Pareto Optimization for Uplink NOMA Power Control  44

Cooperative New Flow Handling Scheme for Wireless Multi-hop Software Defined Networks  49

Automated Oscillation Detection and Correction of Fused Wearable Sensor Signals using Machine Learning  55

Detecting Traffic Anomaly in Wireless Networks, An Analytics Methodology  61

Near-Instant Link Failure Recovery in 5G Wireless Fog-Based-Fronthaul Networks  67

Theoretical Performance Evaluation of System Capacity in Multi-user MIMO THP with Ordering  73

User Throughput-Based Quality of Experience  79

Automated Class-based Compression for Real-Time Epileptic Seizure Detection  85

Personalized Recommendation for Weibo Comic Users  91

Predictive Self-Learning Content Recommendation System for Multimedia Contents  97
Secure Multi-protocol Gateway for Internet of Things 103

A Highly Accurate Machine Learning Approach for Developing Wireless Sensor Network Middleware 111

On Improving Imputation Accuracy of LTE Spectrum Measurements Data 118

SAGE Algorithm Based MAP Channel Estimation for Multi-Cell Massive MIMO Systems 125

Adjustment of Firing Phase Changing Probability in Extended-Desync TDMA 130

A Software-Defined Networking framework for IoT based on 6LoWPAN 135

A New Routing Protocol for UAV Relayed Tactical Mobile Ad Hoc Networks 142

Measurement-based characterization of the 3.5 GHz channel for 5G-enabled IoT at complex industrial and office topologies 146

Channel Access Mechanisms for Video Streaming over LTE-Unlicensed 155

Energy Efficient Sensor Selection Method in Cooperative Spectrum Sensing with Low-Complexity 162

A VHO Scheme for Supporting Healthcare Services in 5G Vehicular Cloud Computing Systems 168

Simulation-based Optimization for Reconfiguration of Mobile Wireless Sensor Network 174