**Updates to the VTC2023-Spring Programme**

Tuesday, 20 June 2023

Tuesday, 20 June 2023 9:00 – 17:30 Affari 4th Floor

### W2: 2nd Workshop on Mission Critical Communications

The following paper has been added.

14 UAV Trajectory Optimization with Directional THz Links Using Deep Reinforcement Learning

Authors: Mohammad Taghi Dabiri, Mazen O. Hasna, Qatar University

Wednesday, 21 June 2023

Wednesday, 21 June 2023 11:00 - 12:30 Congressi - Room 4

### E1: Recent Results in Physical Layer I

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V4a.

4 AoI-oriented status updating in Large-scale Heterogeneous Multi-Channel Systems

Huijia Chi, Fan Zhang, Chao Xu, Northwest A&F University; Xijun Wang, Sun Yat-sen University

Wednesday, 21 June 2023 11:00 - 12:30 Congressi - Room 5

### F1: Recent Results in Machine Learning for Communications

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V4b.

1 Deep Learning-based Estimation for Multitarget Radar Detection

Mamady Delamou, Mohammed VI Polytechnic University; Ahmad Bazzi, New York University; Marwa Chafii, NYU Abu Dhabi; El Mehdi Amhoud, Mohammed VI Polytechnic University

Wednesday, 21 June 2023 14:00 - 15:30 Affari 2.2

### C2: IoV Networking II

The following paper has been added.

6 Trust Management and Bad Data Reduction in Internet of Vehicles Using Blockchain and AI

Rashmi Erandika Ratnayake, Madhusanka Liyanage, Liam Murphy, University College Dublin

Wednesday, 21 June 2023 14:00 - 15:30 Affari Adua Hall 2

### D2: Channel Modeling and Measurements I

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V1a.

2 Delay Spread by Antenna Beamwidth Effect for Mobile Kiosk Data Downloading Environment in the 285GHz bands

Jinhyung Oh, Jong Ho Kim, Electronics and Telecommunications Research Institute

Wednesday, 21 June 2023 14:00 - 15:30 Oince

### H2: Machine Learning for Sensing

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V6.

4 SwipeBot: DNN-based Autonomous Robot Navigation among Movable Obstacles in Cluttered Environments

Dzmitry Tsetserukou, Skolkovo Institute of Science and Technology

Wednesday, 21 June 2023 14:00 - 15:30 Auditorium Foyer - 2nd Floor

### P2: RF, E-Mobility, Radio Access, and Spectrum Management

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V2a.

6 Eco-driving over multi-signal road segments considering traffic flow constraints

Zhensen Yang, Chuang Wang, Huazhong University of Science and Technology; Yuling Fan, Huazhong Agricultural University; Lijun Zhang, Huazhong University of Science and Technology

Wednesday, 21 June 2023 16:00 - 17:30 Affari 2.2

### C3: Estimation & Detection

The following paper has been added.

5 Full-Duplex Mixed RF/FSO using Multiple Relays with Self-Interference

Akhilesh Kumar Savita, Anshul Jaiswal, IIT Roorkee; Ankit Garg, Netaji Subhas University of Technology

Wednesday, 21 June 2023 16:00 - 17:30 Congressi - Room 5

### F3: Recent Results in Resource Management I

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V4b.

3 Companding Transform Assisted Constant Envelope OFDM

Chongda Huang, Lilin Dan, Yue Xiao, University of Electronic Science and Technology of China

Wednesday, 21 June 2023 16:00 - 17:30 Oince

### H3: Large Intelligent Surfaces

The following paper has been added.

5 User Scheduling and Passive Beamforming for FDMA/OFDMA in Intelligent Reflection Surface

Wei Jiang, German Research Center for Artificial Intelligence; Hans Schotten, University of Kaiserslautern

Wednesday, 21 June 2023 16:00 - 17:30 Auditorium Foyer - 2nd Floor

### P3: Transmission & Reception and Vehicle Communications

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V1b.

6 Matrix Factorization and Deep Autoencoder based Clustering Scheme for Large-scale UAV Networks

Jiaolan Fang, Chan Wang, Rongpeng Li, Zhejiang University

Thursday, 22 June 2023

Thursday, 22 June 2023 11:00 - 12:30 Affari 2.1

### B4: UAV Communications I

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V1b.

6 Trajectory Design for Sum-Rate Enhancement in UAV-SCMA System

Saumya Chaturvedi, Indraprastha Institute of Information Technology Delhi; Vivek Bohara, IIIT-Delhi; Zilong liu, University of Essex; Anand Srivastava, IIIT DELHI

Thursday, 22 June 2023 11:00 - 12:30 Affari 2.2

### C4: IoT Networks I

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V4a.

2 DoIP: A Parallel Protocol Conversion Gateway for DMR over Internet Protocol

Wenkai Wang, Xidian University, China; Lina Zhu, Tom H. Luan, Changle Li, Xidian University

Thursday, 22 June 2023 11:00 - 12:30 Affari Adua Hall 2

### D4: RIS-assisted Communications

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V3.

3 On the Optimal Assignment of Mirror Element in UAV and OIRS-Assisted OWC based Architecture

Priyanka Singh, Vivek Bohara, Anand Srivastava, IIIT-Delhi

Thursday, 22 June 2023 11:00 - 12:30 Congressi - Room 5

### F4: Recent Results in Resource Management II

The following paper is withdrawn from this session.

5 Path Planning for Unmanned Aerial Vehicles: Peak Power Minimization

Bahareh Jafari, University of Massachusetts Amherst; Hamid Saeedi, University of Doha for Sci. and Tech.; Saeede Enayati, Hossein Pishro-Nik, University of Massachusetts Amherst

Friday, 23 June 2023

Friday, 23 June 2023 11:00 - 12:30 Affari 2.2

### C7: Localization and Direction Finding

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V6.

3 Hierarchical visual localization based on Sparse Feature Pyramid for adaptive reduction of keypoint map size

Andrei Potapov, Mikhail Kurenkov, Pavel Karpyshev, Evgeny Yudin, Alena Savinykh, Evgeny Kruzhkov, Dzmitry Tsetserukou, Skolkovo Institute of Science and Technology

Friday, 23 June 2023 11:00 - 12:30 Congressi - Room 101

### G7: Spectrum Management and Sensing

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V8.

4 On Spectrum Sensing for mmWave and THz Beam-based Communications

Junwei Zang, Qiao Liu, Jia He, Wang Guangjian, Huawei Technologies Co., Ltd

Friday, 23 June 2023 11:00 - 12:30 Oince

### H7: DL for Networks

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V5a.

1 Deep Reinforcement Learning Based Subchannel Selection and Power Allocation in Wireless Networks with Imperfect CSI

Ningzhe Shi, University of Chinese Academy of Sciences; Yu Zhang, State Key Lab of Processors, Institute of Computing Technology, CAS; Yiqing Zhou, Institute of Computing Technology, Chinese Academy of Sciences

Friday, 23 June 2023 14:00 - 15:30 Congressi - Room 101

### G8: System Security

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V2b.

2 Joint jammer selection and jamming power allocation scheme in covert communications assisted by multiple friendly jammers

Zhijun Han, University of Chinese Academy of Sciences; Yu Zhang, State Key Lab of Processors, Institute of Computing Technology, CAS; Yiqing Zhou, Yanli Qi, Institute of Computing Technology, Chinese Academy of Sciences

Friday, 23 June 2023 16:00 - 17:30 Affari 2.2

### C9: User and Transmission Scheduling

The following paper is withdrawn from this session and will be presented in Session H3.

4 User Scheduling and Passive Beamforming for FDMA/OFDMA in Intelligent Reflection Surface

Wei Jiang, German Research Center for Artificial Intelligence; Hans Schotten, University of Kaiserslautern

Friday, 23 June 2023 16:00 - 17:30 Affari Adua Hall 2

### D9: Modulation & Coding

The following papers are withdrawn from this session and will be presented as virtual papers in Session V9.

3 Expectation Propagation Detection for Polarization Modulation

Min Liu, Shuaixin Yang, Yue Xiao, Wenhui Xiong, University of Electronic Science and Technology of China

5 Index Coded PSK Modulation for Prioritized Receivers over Rayleigh Fading Channels

Arindam Paul, IISC Bangalore; B. Sundar Rajan, Indian Institute of Science, Bangalore

Friday, 23 June 2023 16:00 - 17:30 Congressi - Room 4

### E9: Recent Results in MIMO

The following paper is withdrawn from this session and will be presented as a virtual paper in Session V5b.

4 On the Design of Superimposed Pilots in MIMO-OFDM with Index Modulation

Lijun Yang, Lilin Dan, Chu Zhao, University of Electronic Science and Technology of China

**Virtual Paper Presentations**

Wednesday, 21 June 2023 11:00 - 12:30 Virtual

### V1a: Antennas, Propagation, and RF

The following paper has been added.

7 Delay Spread by Antenna Beamwidth Effect for Mobile Kiosk Data Downloading Environment in the 285GHz bands

Jinhyung Oh, Jong Ho Kim, Electronics and Telecommunications Research Institute

Wednesday, 21 June 2023 11:00 - 12:30 Virtual

### V1b: UAVs, Vehicular Networks, and Telematics

The following papers have been added.

8 Matrix Factorization and Deep Autoencoder based Clustering Scheme for Large-scale UAV Networks

Jiaolan Fang, Chan Wang, Rongpeng Li, Zhejiang University

9 Trajectory Design for Sum-Rate Enhancement in UAV-SCMA System

Saumya Chaturvedi, Vivek Bohara, IIIT-Delhi; Zilong Liu, University of Essex; Anand Srivastava, IIIT-Delhi

Wednesday, 21 June 2023 14:00 - 15:30 Virtual

### V2a: E-Mobility and E-Vehicles

The following paper has been added.

8 Eco-driving over multi-signal road segments considering traffic flow constraints

Zhensen Yang, Chuang Wang, Huazhong University of Science and Technology; Yuling Fan, Huazhong Agricultural University; Lijun Zhang, Huazhong University of Science and Technology

Wednesday, 21 June 2023 14:00 - 15:30 Virtual

### V2b: Wireless Networks

The following paper has been added.

9 Joint jammer selection and jamming power allocation scheme in covert communications assisted by multiple friendly jammers

Zhijun Han, University of Chinese Academy of Sciences; Yu Zhang, State Key Lab of Processors, Institute of Computing Technology, CAS; Yiqing Zhou, Yanli Qi, Institute of Computing Technology, Chinese Academy of Sciences

Wednesday, 21 June 2023 16:00 - 17:30 Virtual

### V3: Emerging Technologies in Communiations

The following paper has been added.

7 On the Optimal Assignment of Mirror Element in UAV and OIRS-Assisted OWC based Architecture

Priyanka Singh, Vivek Bohara, Anand Srivastava, IIIT-Delhi

Thursday, 22 June 2023 11:00 - 12:30 Virtual

### V4a: IoV, IoT, M2M and Sensor Networks

The following papers have been added.

14 DoIP: A Parallel Protocol Conversion Gateway for DMR over Internet Protocol

Wenkai Wang, Lina Zhu, Tom H. Luan, Changle Li, Xidian University

15 AoI-oriented status updating in Large-scale Heterogeneous Multi-Channel Systems

Huijia Chi, Fan Zhang, Chao Xu, Northwest A&F University; Xijun Wang, Sun Yat-sen University

Thursday, 22 June 2023 11:00 - 12:30 Virtual

### V4b: Recent Results I

The following papers have been added.

14 Deep Learning-based Estimation for Multitarget Radar Detection

Mamady Delamou, Mohammed VI Polytechnic University; Ahmad Bazzi, New York University; Marwa Chafii, NYU Abu Dhabi; El Mehdi Amhoud, Mohammed VI Polytechnic University

15 Companding Transform Assisted Constant Envelope OFDM

Chongda Huang, Lilin Dan, Yue Xiao, University of Electronic Science and Technology of China

Thursday, 22 June 2023 14:00 - 15:30 Virtual

### V5a: Machine Learning and AI

The following paper has been added.

24 Deep Reinforcement Learning Based Subchannel Selection and Power Allocation in Wireless Networks with Imperfect CSI

Ningzhe Shi, University of Chinese Academy of Sciences; Yu Zhang, State Key Lab of Processors, Institute of Computing Technology, CAS; Yiqing Zhou, Institute of Computing Technology, Chinese Academy of Sciences

Thursday, 22 June 2023 14:00 - 15:30 Virtual

### V5b: Recent Results II

The following paper has been added.

19 On the Design of Superimposed Pilots in MIMO-OFDM with Index Modulation

Lijun Yang, Lilin Dan, Chu Zhao, University of Electronic Science and Technology of China

Thursday, 22 June 2023 16:00 - 17:30 Virtual

### V6: Positioning, Navigation, and Sensing

The following papers have been added.

7 SwipeBot: DNN-based Autonomous Robot Navigation among Movable Obstacles in Cluttered Environments

Dzmitry Tsetserukou, Skolkovo Institute of Science and Technology

8 Hierarchical visual localization based on Sparse Feature Pyramid for adaptive reduction of keypoint map size

Andrei Potapov, Mikhail Kurenkov, Pavel Karpyshev, Evgeny Yudin, Alena Savinykh, Evgeny Kruzhkov, Dzmitry Tsetserukou, Skolkovo Institute of Science and Technology

Friday, 23 June 2023 14:00 - 15:30 Virtual

### V8: Spectrum Management, Access, Services and Security

The following paper has been added.

8 On Spectrum Sensing for mmWave and THz Beam-based Communications

Junwei Zang, Qiao Liu, Jia He, Wang Guangjian, Huawei Technologies Co., Ltd

Friday, 23 June 2023 16:00 - 17:30 Virtual

### V9: Transmission and Reception

This paper will also be presented in session C3

9 Full-Duplex Mixed RF/FSO using Multiple Relays with Self-Interference

Akhilesh Kumar Savita, Anshul Jaiswal, IIT Roorkee; Ankit Garg, Netaji Subhas University of Technology

The following paper has been added.

24 Index Coded PSK Modulation for Prioritized Receivers over Rayleigh Fading Channels

Arindam Paul, IISC Bangalore; B. Sundar Rajan, Indian Institute of Science, Bangalore

25 Expectation Propagation Detection for Polarization Modulation

Min Liu, Shuaixin Yang, Yue Xiao, Wenhui Xiong, University of Electronic Science and Technology of China