



Preliminary Program



2024 IEEE 99th Vehicular Technology Conference

24 – 27 June 2024

Singapore

VTC2024-Spring Technical Papers

Monday 24 June 2024

Monday, 24 June 2024 11:00 - 12:30 Heliconia 3402

Recent Results I

- 1 A Configurable Deep Learning-based Architecture for NPRACH Reception**
Yashwanth Ramesh Kumar, Technical University of Munich, Munich, Germany; Naveen Mysore Balasubramanya, Indian Institute of Technology Dharwad
- 2 A Robust Machine Learning Based UWB AOA Estimation Method**
Wenmin Zeng, Harbin Institute of Tehnology, Shenzhen; Jialin Zhang, Tingting Zhang, Harbin Institute of Technology (Shenzhen)
- 3 An Efficient Machine Learning-based Channel Prediction Technique for OFDM Sub-Bands**
Pedro E. G3ria Silva, National Institute of Telecommunications (INATEL); Jules M. Moualeu, University of the Witwatersrand;

Pedro J. H. Nardelli, Lappeenranta University of Technology; Yonghui Li, University of Sydney; Rausley Adriano Amaral de Souza, National Institute of Telecommunications (Inatel)

- 4 Autonomous Vehicular Systems: Architectural Strategies for Adaptive Multi-Objective Configuration**
Julian Demicoli, Technical University of Munich; Nicolai Palm, Ludwig Maximilian University Munich; Herbert Palm, Munich University of Applied Sciences; Oliver Kleikemper, Sebastian Steinhorst, Technical University of Munich
- 5 Blind Co-channel Interference Cancellation Using Fast Fourier Convolutions**
Mostafa Naseri, Eli de poorter, Ghent University; Ingrid Moerman, Imec - Gent University; H. Vincent Poor, Princeton Universtiy; Adnan Shahid, Ghent University

Monday, 24 June 2024 14:00 - 15:30 Heliconia 3504

Recent Results II

- 1 Cognitive Beamforming Design for Dual-Function Radar-Communications**
Tuan Le, Middlesex University London; Ivan Ku, Multimedia University; Xin-She Yang, Middlesex University; Christos Masouros, University College London; Tho Le-Ngoc, McGill University
- 2 Collaborative Vehicular Edge Computing Design for Delay-Sensitive Applications**
Voon Jing Yang, National Taiwan University
- 3 Design Considerations and Framework Analysis for Software-Defined Autonomous Vehicles**
Kratika Yadav, Swapnil Shinde, Indian Institute of Technology, Hyderabad
- 4 Efficient Modulation Recognition with Minimal Samples Leveraging Architecture Search and Knowledge Transfer in Combined Radar-Communication Environments**
Xixi zhang, Gejiacheng Lu, Nanjing University of Posts and Telecommunications; Juzhen Wang, Wuhan University; Yu Wang, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Guan Gui, Nanjing University of Posts and Telecommunications
- 5 Experimental Analysis of DRL-based Edge Caching for the Internet of Things**
Youcef Kardjadja, University of La Rochelle; Lucas Br3hon--Grataloup, Universit3 de Toulouse; Rahim Kacimi, Universit3 Toulouse III; Andr3-Luc Beylot, University of Toulouse

- 3 Generalized Approximating Message Passing Based Channel Estimation for RIS-Aided THz Communications with Beam Split**
Xin Su, Ruisi He, Peng Zhang, Bo Ai, Beijing Jiaotong University
- 4 Hier-FedMeta: A Hierarchical Federated Meta-Learning Framework for Personalized and Efficient IoV Systems**
Yiming Chen, Celimuge Wu, Zhaoyang Du, Yangfei Lin, University of Electro-Communications; Soufiene Djahel, Coventry University; Lei Zhong, Toyota Motor Corporation
- 5 Highly Accelerated Weighted MMSE Precoding Approach for FDD Systems with Incomplete CSI**
Donia Ben Amor, Michael Joham, Wolfgang Utschick, Technische Univesitat Munchen

Monday, 24 June 2024 14:00 - 15:30 Heliconia 3505

Recent Results IV

Monday, 24 June 2024 14:00 - 15:30 Heliconia 3505

Recent Results III

- 1 Exploring Live Payload Migrations for MTD in Microservices Architecture**
Anthony Mamaril, Rinchen Kolodziejczyk, ZHAW; Wissem Soussi, ZHAW, UZH; Gurkan Gur, Zurich University of Applied Sciences
- 2 Fully Autonomous Distributed Transmission Parameter Selection Method for Mobile IoT Applications Using Deep Reinforcement Learning**
Seiya Sugiyama, The University of Electro-Communications; Keigo Makizoe, Maki Arai, Mikio Hasegawa, Tokyo University of Science; Tomoaki Ohtsuki, Keio University; Aohan Li, The University of Electro-Communciations

- 1 Inference-Aware Reconstruction for Short-Packet Transmission in Industrial Metaverse**
Qinqin Xiong, Harbin Institute of Technology, Shenzhen; Xu Zhu, Harbin Institute of Technology (Shenzhen); Jie Cao, Harbin Institute of Technology, Shenzhen; Yufei Jiang, Harbin Institute of Technology (Shenzhen)
- 2 Insights into the performance of 5GOpen@TheBeacon: a flexible and scalable 5G testbed based on open-source solutions**
Jo3o Francisco Nunes Pinheiro, Andreas Gavrielides, University of Antwerp - imec; Miguel Camelo, Antwerp; Johann Marquez-Barja, University of Antwerp - imec
- 3 Integration of Visible Light and Backscatter Communications for Ambient Internet of Things**
Boxuan Xie, Alexis Dowhuszko, Kalle Koskinen, Lauri Mela, Jari Lietz3n, Kalle Ruttik, Aalto University; Riku J3ntti, Department of Communications and Networking, Aalto University; Jyri Hamalainen, Aalto University
- 4 Low-Complexity Detection Using Channel Dimensionality Reduction in 6G Uplink Systems**
Rubeena Aafreen, Indian Institute of Technology, Hyderabad; Mohammed Zafar Ali Khan, Indian Institute of Technology Hyderabad
- 5 MIMO-OTSM: Low Complexity Channel Estimation and MRC Detection under High Mobility Scenarios**
SAPTA GIRISH, Asfani Mohammed, Chiranjeevi Damacharla, Bharat Electronics Limited

Monday, 24 June 2024 16:00 - 17:30 Heliconia 3504

Recent Results V

- 1 Minimizing Power for Satellite Beamforming with Non-ideal Power Consumption Models**
Chih-Chi Liou, Yan-Yin He, National Yang Ming Chiao Tung University; Shang-Ho Tsai, National Chiao Tung University; Jen-Ming Wu, Hon Hai Research Institute
- 2 Multimodal Retrieval Augmented Generation Evaluation Benchmark**
Tienlan Sun, EduBeyond; Anaiy Somalwar, University of California, Berkeley; Hinson Chan, EduBeyond
- 3 On the Performance of Altruistic Infotaxis under Erroneous Communication Channel**
Nada Abughanam, Tamer Khattab, Amr Mohamed, Qatar University
- 4 On the Performance of IRS-Assisted SSK and RPM over Rician Fading Channels**
Harsh Raj, Indian Institute of Technology Guwahati; Ugrasen Singh, Aalto University, Helsinki; B. R. Manoj, Indian Institute of Technology Guwahati
- 5 Optimized Beamforming Design for PLS in Near-field Uplink Communications**
João Ferreira, Universidade Nova de Lisboa; Daniel Dinis, Copelabs, Universidade Lusófona; João Guerreiro, FCT-Universidade Nova de Lisboa, Instituto de Telecomunicações; Rui Dinis, Universidade Nova de Lisboa

Monday, 24 June 2024 16:00 - 17:30 Heliconia 3505

Recent Results VI

- 1 Optimizing Time Scheduling for Hybrid OMA-NOMA Systems under Imperfect SIC: An Alpha-fair Utility Approach**
Siva Mouni Nimalidinne, Indian Institute of Technology Hyderabad (IITH); Pranay Agarwal, IIT Bombay; Yoghitha Ramamoorthi, NTT Japan; Abhinav Kumar, Indian Institute of Technology Hyderabad (IITH)
- 2 Performance of Underlay Uplink NOMA over Nakagami-m Fading Channels with Imperfect SIC and CSI-Dependent Power Allocation**
Mayank Gupta, Indian Institute of Technology Delhi; Shankar Prakriya, Indian Institute of Technology, Delhi

3 Physical Layer Authentication Using Information Reconciliation

Atsu Kokubi Angélo Passah, Rodrigo C. de Lamare, Pontifical Catholic University of Rio de Janeiro; Arsenia Chorti, University of Cergy-Pontoise

4 Power Transfer between Two Antenna Arrays in the Near Field

Krishan Kumar Tiwari, Giuseppe Caire, Technical University of Berlin

5 Power Transmission Line Component Detection using YOLOv7 on single-board computer platforms

Nico Surantha, Eiichi Yamashina, Yuto Sato, Toru Iwao, Tokyo City University

Monday, 24 June 2024 16:00 - 17:30 Heliconia 3505

Recent Results VII

- 1 Task Offloading for MEC-V2X Assisted Autonomous Driving**
Yilun Zhang, Changrun Chen, H. Zhu, Jiangzhou Wang, University of Kent
- 2 Two-Path Parallel Cancellation ZP-OTFS Systems for Mitigating Residual Carrier Frequency Offset**
Henry Yeh, Cal State Long Beach; Hsiao-Hwa Chen, Chao-Yu Chen, National Cheng Kung University
- 3 Unleashing the Potential of Machine Learning and NLP Contextual Word Embedding for URL-Based Malicious Traffic Classification**
Yayathi Pavan Kumar S, Sudepta Mishra, Raushan Kumar Singh, IIT Ropar
- 4 V2I Blockage Modeling and Performance Evaluation for Connected Autonomous Vehicle**
Chi Weiqi, Jin Nakazato, The University of Tokyo; Manabu Tsukada, the University of Tokyo; Tomoki Murakami, NTT Corporation
- 5 WiFi Amplitude and Phase-based Respiratory Rate Monitoring**
Yunpeng Ge, Ivan Wang-Hei Ho, The Hong Kong Polytechnic University

Tuesday 25 June 2024

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3402

AI for UAVs

- 1 A Novel Semi-Supervised Learning Method Using Self-Adaptive Threshold for UAV Recognition**
Gejiacheng Lu, Xue Fu, Nanjing University of Posts and Telecommunications; Juzhen Wang, Wuhan University; Hao Huang, Yu Wang, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Guan Gui, Nanjing University of Posts and Telecommunications
- 2 Augmentation Based on Spectrogram Segments for UAV Operating Channel-Robust CNN Classifiers**
Tao Li, Xidian University; chaozheng Xue, xidian University; Yongzhao Li, Rui Zhang, Yuhuan Ruan, Xidian University; Dong Yang, xidian University
- 3 COMPASS: Communication-aware Trajectory Planning for UAV-based Rescue Missions via Non-Terrestrial Networks**
Tim Gebauer, Florian Weißberg, Christian Wietfeld, TU Dortmund University
- 4 Efficient UAV Authentication Based on Multi-Resolution Analysis and Multi-Scale ResNet**
Zhenxin Cai, Jin sha, Nanjing University; Yu Wang, Guan Gui, Nanjing University of Posts and Telecommunications

- 5 Graph Koopman Autoencoder for Predictive Covert Communication Against UAV Surveillance**
Sivaram Krishnan, Jihong Park, Deakin University; Gregory Sherman, Benjamin Campbell, Defence Science and Technology Group; Jinho Choi, Deakin University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3403

Deep Learning

- 1 A Time-saving Task Scheduling Algorithm Based on Deep Reinforcement Learning for Edge Cloud Collaborative Computing**
Wenhao Zou, Zongshuai Zhang, Institute of Computing Technology, Chinese Academy of Sciences, China; Nina Wang, ICT/CAS, China; Xiaochen Tan, University of Cambridge; Lin Tian, Institute of Computing Technology, Chinese Academy of Sciences
- 2 Adjustable Multi-Objective Deep Reinforcement Learning-Based Edge User Allocation**
Youcef Kardjadja, Yacine Ghamri-Doudane, University of La Rochelle; Mohamed Ibnkahla, Carleton University
- 3 Deep Learning-based EMI and IEMI Classification in 5G-R High-Speed Rail Wireless Communications**
Yejing Fan, University of Leeds; Li Zhang, University Of Leeds; Kang Li, University of Leeds

4 Deep learning-based Joint Transmit Beamforming for

Integrated Sensing and Communication System

Ruming Yang, Zhiming Zhu, Jiexin Zhang, Shu Xu, Southeast University; Chunguo Li, Southeast University, Nanjing, China; Yongming Huang, Luxi Yang, Southeast University

5 Deep Reinforcement Learning based Contention Window Optimization for IEEE 802.11 bn

Rong Yan, Tsinghua University; Mingjun Du, Sun Yat-sen University, Guangzhou, China; Xiao-Ping Zhang, Yuhang Dong, Tsinghua University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3404

Localization

1 A Novel Geometric Solution for Moving Target

Localization through Multistatic Sensing in the ISAC System

Shun Zhuge, NTU; Yugang MA, Institute for Infocomm Research, A-STAR; Zhiping Lin, NTU; Yonghong Zeng, Institute for Infocomm Research

2 Bayesian Learning (BL)-based Extended Target localization in mmWave MIMO OFDM JRC Systems in the presence of Doppler and clutter

Priyanka Maity, Indian Institute of Technology, Kanpur; Suraj Srivastava, Indian Institute of Technology Jodhpur; Aditya K. Jagannatham, Indian Institute of Technology Kanpur

3 Deep Learning-Based Direct Localization for Virtual Large Antenna Array

Shang-Ling Shih, National Sun Yat-Sen University; Chao-Kai Wen, National Sun Yat-Sen University, Taiwan

4 Near-Field Localization with an Exact Propagation Model in Presence of Mutual Coupling

Zohreh Ebadi, Amir Masoud Molaee, Muhammad Ali Babar Abbasi, Simon L. Cotton, Queen's University Belfast; Anvar Tukmanov, BT Research and Innovation; Okan, Yurduseven

5 RIS-Aided User Localization Design with Multiple Signal Classification based Orthogonal Subspace Projection

Wanning Meng, University of Shandong; Zheng Dong, Shandong University; Yong Zhou, ShanghaiTech University; Lei Li, Aerospace System Engineering Shanghai; Zhi Liu, Shandong University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3405

Satellite Communication I

1 Channel Estimation with OTFS Modulation for Random Access in LEO Satellite Communications

Zhonghui Jiang, Beijing University of Posts and Telecommunications; Huipeng Shi, The State Radio Monitoring Center Testing Center (SRTC); Yuming Zhang, Beijing University of Posts and Telecommunications; Kang Yan, The State Radio Monitoring Center Testing Center (SRTC); Yong Li, Beijing University of Posts and Telecommunications

2 Delay-Sensitive Coflow Routing for Time-Varying Topology in LEO Computing-Aware Networks

Shuang Yu, Shushi Gu, Harbin Institute of Technology (Shenzhen); zhikai zhang, Harbin Institute of Technology, Shenzhen; Zhang Qinyu, Harbin Institute of Tech.; Zihao Gao, Yulin Shi, China Academy of Space Technology; Wei Xiang, La Trobe University

3 Energy-Efficient Fast Data Retrieval Strategy Based on RS Coded Placement in LEO Constellation

Zhineng Wu, Shushi Gu, Harbin Institute of Technology (Shenzhen); zhikai zhang, Harbin Institute of Technology, Shenzhen; Zhang Qinyu, Harbin Institute of Tech.; Yifeng Jin, China Academy of Space Technology; lei zhang, cast; Wei Xiang, La Trobe University

4 Federated Kalman Filter-Based Fusion of LEO and GNSS Positioning

Jun-Sheng Shi, Bo-Heng Yeh, Jen-Ming Wu, National Tsing Hua University; Ronald Y. Chang, Academia Sinica

5 Joint Allocation of Downlink Power, Bandwidth and Timeslots Based on Maximizing Energy Efficiency for GEO Satellite Communication Systems

Soniya Fufa Hika, Southeast University; Likun Zhu, China Mobile Group Design Institute Co; Tianxiang Ji, China Mobile Group

Design Institute Company Ltd.; Haoyu Du, Chen Ming, Jiangtao Liu, Shihan Jin, Southeast University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3406

Performance in Transmission/Reception

1 Performance Analysis of Data-Carrying Reference Signal in Time-Varying Channels

Taiki Kato, Yokohama National University; Dr. Hiroki Imori, Dr. Chandan Pradhan, Dr. Szabolcs Malomsoky, Ericsson Research; Dr. Naoki Ishikawa, Yokohama National University

2 Performance Analysis of RIS-aided MISO Systems with EMI and Channel Aging

Taoyu Song, Enyu Shi, Yu Lu, Yiyang Zhu, Jiayi Zhang, Bo Ai, Beijing Jiaotong University

3 Performance Analysis of VLC Systems under Pulse Jamming and Random User Location

Aashish Mathur, Indian Institute of Technology Jodhpur

4 Performance Evaluation in presence of Beam Misalignment for Millimeter-Wave Full-Duplex Two-Way Relay Systems

Soumyasree Bera, Indian institute of technology, kharagpur; Debarati Sen, Amit Kumar Dutta, Indian Institute of Technology Kharagpur

5 Performance Evaluation of DCSK-Based PLC Systems Under Pulse Jamming

Vinay Mohan, Aashish Mathur, Indian Institute of Technology Jodhpur

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3501 B

Radio Access

1 A Hierarchical Learning Approach for Capacity Enhancement via Access Mode Selection in Wireless Powered Networks

Che Chen, Songhan Zhao, Shimin Gong, Bo Gu, Sun Yat-sen University; Wenjie Zhang, Minnan Normal University; Dusit Niyato, Nanyang Technological University

2 Age of Collection with Network-Coded Multiple Access: An Experimental Study

Yurong Lai, Shenzhen University; Hai Liu, The Hang Seng University of Hong Kong; Tse-Tin Chan, The Education University of Hong Kong; Haoyuan Pan, Changkun Jiang, Shenzhen University

3 Architecture Implementation and Feasibility Study on Blockchain-based Wireless Access Sharing

Takeru Fukushima, Motoharu Sasaki, Toshiro Nakahira, Daisuke Murayama, Tomoaki Ogawa, Yasushi Takatori, NTT Corporation

4 RACH-less Handover with Early Timing Advance Acquisition for Outage Reduction

Subhyal Bin Iqbal, Nokia Solutions and Networks, Munich, Technische Universität Dresden; Umur Karabulut, Ahmad Awada, Nokia Bell Labs; Philipp Schulz, Gerhard Fettweis, Technische Universität Dresden

5 Wake-Up Signal Multiplexing With Non-Coherently Detected Waveforms

Fredrik Berggren, Alberto Perotti, Branislav Popovic, Huawei Technologies Sweden AB

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3502

Vehicular Networks I

1 A Path-Backtracking-based Trust Management Scheme for VANETs

Cheong Chak Lam, Yujie Song, Yu'ang Zhang, Yue Cao, Wuhan University; Bruce Leow, University Teknologi Malaysia; Xinyuan Wang, Zhejiang Scientific Research Institute of Transport

2 Collaborative Sensing-Assisted Task Offloading and Resource Allocation for ISAC-Based Vehicular Clouds

Junzhe Lin, Zhang Liu, Ning Chen, Yifeng Zhao, Lianfen Huang, Xiamen University

3 Computation Offloading for Multi-server Multi-access Edge Vehicular Networks: A DDQN-based Method

Siyu Wang, Bo Yang, Zhiwen Yu, Northwestern Polytechnical University; Xuelin Cao, Xidian University; Yan Zhang, University of Oslo; Chau Yuen, Nanyang Technological University

4 On the Adaptive Secure Coded Caching Scheme in Vehicle Networks
Ziping Huang, Lei Zheng, Guangzhou University; Yong Liu, South China Normal University; Juanjuan Ren, Guangzhou University; Qingchun Chen, School of Mechanical and Electric Engineering Guangzhou University

5 Price-Based Task Offloading for Load-Imbalance Vehicular Multi-Access Edge Computing
Jindou Xie, Dalian Maritime University; Fenghao Zheng, Wanli Wen, Yunjian Jia, Chongqing University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3503
Beamforming

1 Beamforming Design for IRS-assisted High-mobility ISAC Systems
Xingyu Peng, Zhejiang University; Qin Tao, Hangzhou Normal University; Xiaoling Hu, BUPT; Chongwen Huang, Xiaoming Chen, Zhejiang University

2 Improved Hybrid-Beamforming Design for Full-Duplex mmWave Point-to-Point Communication
Tsung-Ting Tsai, Jiun-Hung Yu, Yu T. Su, National Yang Ming Chiao Tung University

3 Minimum-Delay Beam Scheduling Leveraging Reflections for Switched Beamforming Systems
Chao Chen, Haojun Xu, Zhejiang Gongshang University; Rui Yin, Zhejiang University City College; Xiaohan Yu, Bo Ma, Chuanhuang Li, Zhejiang Gongshang University

4 Odometry-Aided mmWave Communications using Overparameterized Beamforming Optimization
Gary Lee, Ernest Kurniawan, Institute for Infocomm Research; Yuanjin Zheng, Nanyang Technological University

5 Robust Hybrid Beamforming Design for mmWave Massive MIMO Systems with Imperfect CSI
Fangyong Peng, Yan Yang, Beijing Jiaotong University

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3504
Energy Efficiency

1 Energy Efficiency Optimization of User-Centric Cell-free Massive MIMO System for URLLC Services
Yige Huang, Yanxiang Jiang, Southeast University; Fu-Chun Zheng, Harbin Institute of Technology (Shengzhen) & The University of York; Pengcheng Zhu, Dongming Wang, Southeast University

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3401 A
Resource Allocation

1 Matching Game Based Resource Allocation Scheme for Adaptive Semantic and Bit Communication Networks
Peixuan Li, Yichen Wang, Moqi Liu, Xi'an Jiaotong University; Haotian Liu, Xi'an Jiaotong University

2 Online Resource Allocation for Large-scale Deterministic Networks with Historical Data
Weiqian Tan, Southeast University; Binwei Wu, University of Electronic Science and Technology of China; Shuo Wang, Purple Mountain Laboratories; Tao Huang, Beijing University of Posts and Telecommunication

3 Optimized Age of Information for Relay Systems with Resource Allocation
Yichao Zhang, Yufei Jiang, Harbin Institute of Technology, Shenzhen; Xu Zhu, Harbin Institute of Technology (Shenzhen); Jie Cao, Harbin Institute of Technology, Shenzhen; Sumei Sun, Institute for Infocomm Research

4 Resource Allocation Strategy in AUV-Assisted Edge Computing UWSN with Hybrid Acoustic and MI Communication
Tengteng Li, Yisheng Zhao, Zhiyi Hu, Chaohua Song, Peng Liu, Fuzhou University

2 Energy Efficient Aerial RIS: Phase Shift Optimization and Trajectory Design

Hajar El Hammouti, Adnane Saoud, UM6P; Asmae Ennahkmi, CentraleSupélec; ElHoucine Bergou, Mohammed VI Polytechnic University

3 Energy-aware Age of Information (AoI) Minimization for Internet of Things in NOMA-based LEO Satellite Networks
Chih-Yu Lin, Wanjiun Liao, National Taiwan University

4 Energy-Efficient Hybrid Beamforming for Integrated Sensing and Communication Enabled mmWave MIMO Systems
Jitendra Singh, Indian Institute of Technology Kanpur India; Suraj Srivastava, Indian Institute of Technology Jodhpur; Aditya K. Jagannatham, Indian Institute of Technology Kanpur

5 Energy-efficient Integrated Sensing and Communication System and DNLFM Waveform
Yihua Ma, Zhifeng Yuan, Shuqiang Xia, Chen Bai, Zhongbin Wang, Yuxin Wang, ZTE Corporation

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3505
IoT

1 An AI-as-a-Service Platform for an Artificial Intelligence of Things (AIoT)
Ali Nadar, Jérôme Härrri, EURECOM

2 Dual Perigee: Reducing Latency in IoT Blockchain Through Efficient Peer Selection
Koki Koshikawa, Chiba University; Jong-Deok Kim, Won-Joo Hwang, Pusan National University; Kien Nguyen, Hiroo Sekiya, Chiba University

3 IoT Cloud RAN Testbed for Ultra-Precise TDoA-based Localization in LPWANs
Thomas Maul, Joerg Robert, Technische Universität Ilmenau; Sebastian Klob, Friedrich-Alexander Universität Erlangen-Nürnberg

4 Performance Analysis of Chaotic Phase Transformation for NB-IoT Uplink
Rishita S. Nambur, Naveen Mysore Balasubramanya, V. Shrikanth, Indian Institute of Technology Dharwad

5 Performance Evaluation and Low-Complexity Detection of the PHY Modulation of LR-FHSS Transmission in IoT Networks
Alireza Maleki, Ebrahim Bedeer, University of Saskatchewan; Robert Barton, Cisco Systems Inc.

5 Toward a Resource-Efficient Service Function Chain Mapping Mechanism : A Heuristic method
Dongshuai Niu, GuangWen Yi, Zhenzhou Tang, Wenzhou University

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3402
AI Resource Management

1 Adaptive Communication Resource Allocation for Federated Learning with UEP Strategies
Muhang Lan, University of Science and Technology of China; Song Xiao, Xidian University; Wenyi Zhang, University of Science and Technology of China

2 Deep Reinforcement Learning Based Dynamic Resource Slicing for eMBB and URLLC Traffic Considering Puncturing
Zhang Wenqi, Pan Zhiwen, Liu Nan, Xiaohu You, Southeast University

3 Enhanced Resource Allocation in Vehicular Networks via Multi-Agent Reinforcement Learning
Yu Zhang, Shufei Wang, Minyu Hua, Yibin Zhang, Nanjing University of Posts and Telecommunications; Tomoaki Ohtsuki, Keio University; Hikmet Sari, Guan Gui, Nanjing University of Posts and Telecommunications

4 Federated Reinforcement Learning for Resource Allocation in V2X Networks

Kaidi Cu, Shenglong Zhou, Imperial College London; Geoffrey Ye Li, Imperial College

5 Prediction of Resource Status in Medium Access Control for Vehicular Networks

Yafeng Deng, Young-June Choi, Ajou University

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3403

Federated Learning I

1 Communication-Learning Co-Design for Over-the-Air Federated Distillation

Zihao HU, The Chinese University of Hong Kong; Jia Yan, The Hong Kong University of Science and Technology (Guangzhou); Yingjun Zhang, Chinese University of Hong Kong; Jun Zhang, Khaled B. Letaief, Hong Kong University of Science and Technology

2 Federated Multi-Agent Reinforcement Learning for Heterogeneous Action Spaces

Sheng Shen, The University of Sydney; Teng Joon Lim, University of Sydney

3 Hierarchical Federated Learning with Edge Optimization in Constrained Networks

Xiaoyang Zhang, Chen-Khong Tham, Wang Wenyi, National University of Singapore

4 Joint Client Selection and Bandwidth Allocation Algorithm for Time-sensitive Federated Learning over Wireless Networks

Yu Tian, Institute of Computing Technology, Chinese Academy of Science; Nina Wang, ICT/CAS, China; Zongshuai Zhang, Wenhao Zou, Institute of Computing Technology, Chinese Academy of Sciences, China; Guoxue Zou, University of Chinese Academy of Sciences; Lin Tian, Institute of Computing Technology, Chinese Academy of Sciences

5 Privacy Preserving Energy-Aware Federated Learning Based Method for Energy Theft Detection

Zunaira Nadeem, Queen Mary University, London; Mona Jaber, Queen Mary University of London

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3404

Massive MIMO

1 A Low-Cost Receiver in Cell-Free Massive MIMO Systems with the Aid of Distributed Learning

Tianyu Chen, Nanjing University Of Posts And Telecommunications; Qi Zhang, NUPT; Jun Zhang, Nanjing University of Posts and Telecommunications

2 Cell-free Massive MIMO with Indoor/Outdoor Users: Problem Exposed and a Solution

Felip Riera-Palou, Guillem Femenias, University of the Balearic Islands

3 Gridless Channel Estimation for THz Ultra-Massive MIMO-OFDM Systems under Dual Wideband Effects

Soujanya Thallapalli, Debarati Sen, Indian Institute of Technology Kharagpur

4 Sensing Assisted Channel Extrapolation for TDD Massive MIMO-OFDM Systems

Yongbo Xiao, Zhejiang University; An Liu, College of ISEE, Zhejiang University

5 Subspace-based Semi-Blind Channel Estimation for User-Centric Cell-Free Massive MIMO Systems

Bowen Zhong, University of Liverpool; Xu Zhu, Harbin Institute of Technology (Shenzhen); Eng Gee Lim, Xi'an Jiaotong-Liverpool University

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3405

Satellite Communication II

1 Joint Detection and Decoding for Helicopter Satellite Communication System With LDPC Codes

Wei Bao, Jiangtao Wang, Xidian University; Yongchao Wang, University of Xidian

2 Joint On-Ground and On-Board Beamforming for Multi-Gateway Multibeam Satellites: Two-Timescale Approach

Tantao Gong, Southeast University; Tianyang Cao, Jing Wang, China Mobile Group Design Institute Co; Zhiyang, Li; Chen Ming, Southeast University

3 Optimizing Satellite Network Infrastructure: A Joint Approach to Gateway Placement and Routing

Yuma Abe, National Institute of Information and Communications Technology (NICT); Flor Ortiz, University of Luxembourg; Eva Lagunas, SnT, University of Luxembourg; Victor Monzon Baeza, University of Luxembourg; Symeon Chatzinotas, SnT, University of Luxembourg; Hiroyuki TSUJI, National Institute of Information and Communications Technology; NICT

4 Performance Analysis for Soft Satellite Switching in LEO Satellite Communication System

Chun-Tai Liu, Jen-Yi Pan, National Chung Cheng University; Shou-Hong Liou, Industrial Technology Research Institute

5 SDDRL-SR: A High-Reliability Satellite Routing Algorithm based on Deep Reinforcement Learning

Ding Zhaolong, ShanghaiTech university; Liu Huijie, Tian Feng, Yang Zijian, Innovation Academy for Microsatellites of CAS

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3406

Performance in Wireless Networks

1 Minimizing Clearing Time in mmWave Networks with Overlapping Coverage

Thanh Tung Vu, Swaroop Gopalam, Stephen V. Hanly, Iain B. Collings, Hazer Inaltekin, Macquarie University

2 Objective QoE Prediction for Video Streaming Services: A Novel Full-Reference Methodology

Adrian Perez Aguilar, University of Malaga; Mattia Lecci, Keysight Technologies, Inc.; Almudena Díaz Zayas, Universidad de Málaga; Hua Wang, Keysight Technologies

3 Performance Evaluation of 5G Standalone Seamless Home Routed Roaming for Connected Mobility in Cross-border Scenarios

Francisco Vázquez-Gallego, Jad Nasreddine, Marc Codina, Bruno Cordero, Estela Carmona-Cejudo, Martin Trullenque, Daniel Camps-Mur, Yuri Murillo, i2CAT Foundation; Philippe Seguret, Valeo Telematik und Akustik GmbH; Javier Polo, José López Luque, Cellnex Telecom S.A.

4 Performance Evaluation of Contention-based Random Access Procedure in Non-Terrestrial Network

Yen-Ting Lin, National Taiwan University of Science and Technology (NTUST); Ray-Guang Cheng, National Taiwan University Science and Technology (NTUST)

5 Real-Time Scene-Sensitive Anomaly Detection of 5G Control Plane Based on Markov Chain

Lulu Dai, Institute of Computing Technology, Chinese Academy of Sciences; Qian Sun, Chinese Academy of Sciences; Lin Tian, Institute of Computing Technology, Chinese Academy of Sciences

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3501 B

RF Design

1 A Geometry-Based RIS-Assisted Multi-User Channel Model with Deep Reinforcement Learning

Yuan Yuan, Ruisi He, Bo Ai, Beijing Jiaotong University; Tong Wu, National Institute of Metrology of China; Ruifeng Chen, Zhengyu Zhang, Yunwei Jin, Zhangdui Zhong, Beijing Jiaotong University

2 A Novel Deep Learning Based Time-Varying Multipath Component Tracking Algorithm

Haoyu Wang, Zhi Sun, Tsinghua University

3 Analytical Performance Bounds for Radio Map Estimation

Daniel Romero, Tien Ngoc Ha, Raju Shrestha, University of Agder; Massimo Franceschetti, UC San Diego

4 Flexible Beam Pattern Synthesis Method Based on Subarray for Satellite Communications

Bingliang Liu, Xidian University; Kaiqiang Qi, Xuan Feng, Institute of Telecommunication and Navigation Satellites; Yongjun Liu, Rui Chen, Xidian University

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3502

Vehicular Networks II

- 1 Access Mechanisms in Air-to-Ground Wireless Networks with Phased Array Antennas**
Chenguang Zhu, Huan Lin, Lianghai Ding, Shanghai Jiao Tong University
- 2 Adaptive Broadcast Scheduling Scheme for High-definition Map Tile Dissemination in Vehicular Networks**
Madhuri Annavazzala, Indian Institute of Technology Hyderabad; Supriya Dilip Tambe, IIT Hyderabad; Antony Franklin, Indian Institute of Technology, Hyderabad; Bheemarjuna Reddy Tamma, Indian Institute of Technology Hyderabad
- 3 Coordinated Nullforming with Limited Control Parameters for Spectrum Sharing Between High-Altitude Platforms and Terrestrial Networks**
Tsutomu Ishikawa, Koji Tashiro, Kenji Hoshino, Atsushi Nagate, SoftBank Corp.
- 4 Enhancing Production Planning in the Internet of Vehicles: A Transformer-based Federated Reinforcement Learning Approach**
Jinhua Chen, Hosei University, Japan; Zihan Zhao, Keping Yu, Hosei University; Shahid Mumtaz, Institute of Telecommunications; Joel Rodrigues, National Institute of Telecommunications (Inatel); Mohsen Guizani, Qatar University; Takuro Sato, Waseda University
- 5 Enhancing Uplink Scheduling in 5G Enabled Vehicular Networks: A Cross-Layer Approach with Predictive Buffer Status Reporting**
Veerendra Kumar Gautam, Indian Institute of Technology Hyderabad; Venkatarami Reddy Chintapalli, National Institute of Technology Calicut, Calicut, India; Bheemarjuna Reddy Tamma, Indian Institute of Technology Hyderabad; Siva Ram Murthy Chebiyyam, Indian Institute of Technology Madras

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3503

Beamforming and Tracking

- 1 Beamforming Designs for BER Minimization in LEO Satellite Communications with NOMA**
Chia-Hsin Yu, Yan-Yin He, National Yang Ming Chiao Tung University; Shang-Ho Tsai, National Chiao Tung University; Jen-Ming Wu, Hon Hai Research Institute
- 2 Differential Modulation and Beamforming for Finite Blocklength URLLC with mmWave massive MIMO**
Canjian Zheng, Harbin Institute of Technology (Shenzhen); Fu-Chun Zheng, Harbin Institute of Technology (Shengzhen) & The University of York; Jingjing Luo, Harbin Institute of Technology (Shenzhen)
- 3 Fast Beam Scanning and Tracking based on Frequency-gradient Array Antennas**
Hojae Lee, Sangrim Lee, Jayeong Kim, Byungkyu Ahn, Soonhee Kwon, LG Electronics
- 4 Joint Radar-Communication Beamforming for CRB-based Target Localization**
Tianhao Mao, Jie Yang, Le Liang, Southeast University; Shi Jin, Southern University
- 5 Vision-aided Multi-user Beam Tracking for mmWave Massive MIMO System: Prototyping and Experimental Results**
Kehui Li, Binggui Zhou, University of Macau; Jiajia Guo, Southeast University; Xi Yang, East China Normal University; Qing Xue, Chongqing University of Posts and Telecommunications; Feifei Gao, Tsinghua University; Professor Shaodan Ma, University of Macau

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3401 A

Resource Allocation for Greater Security

- 1 Federated Multi-Agent Deep Reinforcement Learning Approach for Resource Allocation in Platoon-Based NR-V2X**
Yiming Liu, Beijing University of Posts and Telecommunications

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3504

Energy Efficient Networks

- 1 Decentralized and Interference-Constrained Power Allocation for SU in DSA**
Yousi Lin, Xiamen University of Technology; Peiwen Qiu, The Ohio State University; Yaling Yang, Virginia Tech
- 2 Energy-Efficient Resource Management for Multi-UAV NOMA Networks Based on Deep Reinforcement Learning**
Xiangda Lin, Helin Yang, Kailong Lin, Liang Xiao, Xiamen University; Zhaoyuan Shi, Anqing Normal University; Wanting Yang, Zehui Xiong, Singapore University of Technology and Design
- 3 Energy-Efficient Topological Dependency and Data-Aware Splittable Task Offloading in Mobile Edge Networks**
Guoxue Zou, University of Chinese Academy of Sciences; Nina Wang, ICT/CAS, China; Zongshuai Zhang, Institute of Computing Technology, Chinese Academy of Sciences, China; Yu Tian, Institute of Computing Technology, Chinese Academy of Science; Wenhao Zou, Institute of Computing Technology, Chinese Academy of Sciences, China; Lin Tian, Institute of Computing Technology, Chinese Academy of Sciences; Shaobin Fan, China United Network Communications Group Company Limited
- 4 Towards Energy Efficient Federated Meta-learning in Edge Network**
Xubo Li, Yuanjie Jia, Huazhong University of Science and Technology; Yingyu Li, China University of Geosciences; Yong Xiao, Huazhong University of Science and Technology
- 5 Towards Net-Zero Carbon Emissions in Federated Edge Intelligence**
Haohui Cai, Yong Xiao, Huazhong University of Science and Technology; Yingyu Li, China University of Geosciences; Yujie Zhou, Huazhong University of Science and Technology; Dusit Niyato, Nanyang Technological University; Sumei Sun, Institute for Infocomm Research

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3505

IoT/IoV/M2M Applications

- 1 A Novel BLE Extended Advertising Based Industrial Automation Framework with Modbus Protocol**
Sukriti Gautam, Indian Institute of Technology (IIT) Ropar; Suman Kumar, IIT Ropar
- 2 Grid LSTM based Attention Modelling for Traffic Flow Prediction**
Rahul Biju, International Institute of Information Technology, Hyderabad; Usha Goparaju, IIITH; Deepak Gangadharan, International Institute of Information Technology, Hyderabad; Bappaditya Mandal, Keele University, United Kingdom
- 3 Hypersphere Projection-Guided Radio Frequency Fingerprinting Authentication in the Open World**
Xue Fu, Yu Wang, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Qianyun Zhang, Beihang University; Guan Gui, Nanjing University of Posts and Telecommunications; Tomoaki Ohtsuki, Keio University; Hikmet Sari, Nanjing University of Posts and Telecommunications
- 4 MI-Based Cross-Medium Communication for Multi-AUV-Assisted Underwater Data Acquisition**
Peng Liu, Yisheng Zhao, Zhiyi Hu, Chaohua Song, Tengpeng Li, Fuzhou University
- 5 RTOS based Data Logger using BLE Periodic Advertising for Cold Chain Temperature Monitoring**
Sukriti Gautam, Indian Institute of Technology (IIT) Ropar; Suman Kumar, IIT Ropar

2 Integrated Computation Offloading, UAV Trajectory Control, and Resource Allocation against Jamming in SAGIN

Minh Dat Nguyen, Université du Québec à Montréal (UQAM); Wessam Ajib, University of Quebec at Montreal; Wei-Ping Zhu, Concordia University; Gunes Karabulut Kurt, Polytechnique de Montreal, Canada

3 On the Impact of Age of Channel Information on Secure RIS-assisted mmWave Networks

Syed Waqas Haider Shah, IMDEA Networks Institute, Madrid, Spain; Marwa Qaraq, Hamad Bin Khalifa University; Saud Althunibat, Texas A&M University at Qatar; Joerg Widmer, Imdea

4 RIS-Aided Polarization Aware Optimal WPT

Srishti Sharma, IIT Delhi; Swades De, Indian Institute of Technology Delhi

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3402

AI-enhanced Communication I

1 A DDPG-Based Procedure for Mitigating Pilot Contamination in Massive MIMO RSMA Systems

Felipe Augusto Dutra Bueno, McMaster University; Jose Carlos Marinello, UTFPR - Brazil; Telex M. N. Ngatched, McMaster University

2 Channel Tracking with Minimal Overhead for Wideband MIMO Mobile Communication Systems

Siting Lv, Xiaohui Li, Xingbo Chen, Jiawen Liu, Mingli Shi, Xidian University

3 Dynamic Batching and Early-exiting for Accurate and Timely Edge Inference

Yechao She, Tuo Shi, City University of Hong Kong; Jianping Wang, City University of Hong Kong, Hong Kong; Bin Liu, Tsinghua University

4 Enhanced Semi-Supervised Radar Emitter Identification via Virtual Adversarial Training

Hong Wan, Nanjing University of Posts and Telecommunications; Qianyun Zhang, Beihang University; Yu Wang, Xue Fu, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Fumiyuki Adachi, Tohoku University; Guan Gui, Nanjing University of Posts and Telecommunications

5 Intelligent Reflecting Surface Aided Mobile Edge Computing with Rate-Splitting Multiple Access

Yinyu Wu, University of Chinese Academy of Sciences; Xuhui Zhang, The Chinese University of Hong Kong, Shenzhen; Huijun Xing, Chinese University of HongKong, Shenzhen; Weilin Zang, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences; Shuqiang Wang, Yanyan Shen, Shenzhen Institutes of Advanced Technology, CAS

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3403

Federated Learning II

1 AL-powered EdgeFL: Achieving Low Latency and High Accuracy in Federated Learning

Hung-Chin Jang, National Chengchi University; Hao-Po Chang, Dept. of Computer Science, National Chengchi University

2 Communication-Efficient Decentralized Federated Learning via One-Bit Compressive Sensing

Shenglong Zhou, Kaidi Cu, Imperial College London; Geoffrey Ye Li, Imperial College

3 Fast Wireless Federated Learning with Adaptive Synchronous Degree Control

Zhixiong Chen, Queen Mary University of London; Wenqiang Yi, University of Essex; Hyundong Shin, Kyung Hee University; Arumugam Nallanathan, Queen Mary University of London

4 Federated Deep Reinforcement Learning-enabled Task Offloading in Cloud-Edge-Terminal Collaborative Networks

Fanqi Yu, Bixia Tu, Yunfeng Wang, Huixian Gu, Yinxi Li, Miaoyu Lin, Xidian University; Haoyang Ding, University of Xidian; Guorong Zhou, Liqiang Zhao, Xidian University

5 Federated Generative Learning for Digital Twin Network Modeling

Dongzi Jin, Huazhong University of Science and Technology; Yingyu Li, China University of Geosciences; Yong Xiao, Huazhong University of Science and Technology

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3404

Millimeter Wave Systems

1 Design and Analysis of Super-Compact Millimeter Wave Antenna for 5G Vehicular Networks

Mehr E Munir, Prince Sultan University; Moustafa M. Nasralla, Maged Abdullah Esmail, Prince Sultan University, Riyadh, Saudi Arabia.

2 Millimeter Wave and Sub-THz Channel Measurements, Models, and Comparisons in Indoor Industrial Environment

Wang Yang, Chenxu Wang, Chongqing University of Posts and Telecommunications; Xi Liao, Chongqing University of Post and Telecommunications; Yi Chen, Huawei Technologies Co., Ltd; Ziming Yu, Huawei Technology Company; Wang Guangjian, Huawei Technologies Co., LTD

3 Millimeter Wave Radio Propagation Measurements and Channel Characterization in Indoor Factory Environments for ISAC

Wang Yang, Tianxiang Wang, Chongqing University of Posts and Telecommunications; Xiangquan Zheng, Institute of Systems Engineering, Academy of Military Science of PLA; Xi Liao, Chongqing University of Post and Telecommunications; Jie Zhang, University of Sheffield

4 Millimeter-Wave V2V Channel Characteristics in Underground and Open Parking Lots

Xichen Liu, Lin Yang, Guangrong Yue, Yutong Jiang, Dingrui Ke, Shuning Liu, Wangyang Zhou, University of Electronic Science and Technology of China

5 Wireless Multipath Component Estimation for Millimeter-Wave Beam-Scanning Systems

Nigus Yirga shimuye, François Quitin, Université Libre de Bruxelles; Claude Oestges, Université catholique de Louvain

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3405

Satellite Communication III

1 Calculating the Dynamic Parameter of the Maseng-Bakken Model for Earth-LEO Links

Ruizhan Shen, David Michelson, The University of British Columbia

2 Multigateway Robust Precoding for Multibeam Satellite Systems With Feeder Link Interference

Qing Su, Rui Chen, Xidian University; Xuan Feng, Institute of Telecommunication and Navigation Satellites

3 Transmit Power Aware Proportional Fair Scheduling Algorithm in LEO Satellite Communication System

Chun-Tai Liu, Jen-Yi Pan, National Chung Cheng University

4 User-Level Dynamic Beam Hopping Design for LEO Satellite Networks Based on Deep Reinforcement Learning Assisted Enhanced Genetic Algorithm

Haotian Liu, Xi'an Jiaotong University; Yichen Wang, Tao Wang, Peixuan Li, Xi'an Jiaotong University

5 Where Is My Route? Enabling Source Routing in LEO Satellite Networks

Vemuganti Sessa Satvik, Anand M. Baswade, Indian Institute of Technology, Bhilai

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3406

Wireless Network Security

1 Leveraging Group Secret Sharing Technology for FD-RAN: A Lightweight AKA Mechanism

WangNing, Southeast University; Jiacheng Chen, Peng Cheng Laboratory; Jianbing Ni, Queen's University; Liquan Chen, Southeast University; Haibo Zhou, Nanjing University

2 Privacy-Preserving Resource Allocation for Asynchronous Federated Learning

Xiaojing Chen, Zheer Zhou, Shanghai University; Wei Ni, CSIRO; Guangjin Pan, Shanghai University; Xin Wang, Fudan University; Shunqing Zhang, Yanzan Sun, Shanghai University

3 Reinforcement Learning Based Jamming Detection for Reliable Wireless Communications

Chen Wang, Yifan Chen, Zhiping Lin, Qiaoxin Chen, Liang Xiao, Xiamen University

4 Secure Communication Based on Reconfigurable Intelligent Surface in Satellite Communications with Similar Channels

Chengjun Jiang, Chensi Zhang, Xidian University; Chongwen Huang, Zhejiang University; Jianhua Ge, Xidian University; Chau Yuen, Nanyang Technological University

5 WiLiConnect: A Novel CSI Sharing Technique in Hybrid WiFi/LiFi Networks

Saswati Paramita, Arani Bhattacharya, Vivek Bohara, Anand Srivastava, IIT Delhi

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3501 B
RIS

1 A Sum-Rate Prediction Strategy based on RIS-aided IoT Networks Power Optimization Algorithm

Xuejie Hu, Yue Tian, Yousi Lin, Xianling Wang, Chen Zhu, Xiamen University of Technology; Yau Hee Kho, Victoria University of Wellington; Wenda Li, University College London

2 Effect of Spatial Correlation on RIS-Assisted Wireless Systems Using Pilot-Aided Channel Estimation

Shuangfei Guo, Hao Huang, Guan Gui, Hikmet Sari, Nanjing University of Posts and Telecommunications

3 Near-Field and Far-Field Beamforming Design for RIS-enabled Millimeter Wave Systems

Ziru Chen, Lin Cai, Illinois Institute of Technology; XING HAO, Northwest University

4 Power Consumption Analysis of a Reconfigurable Intelligent Surface for Self-Sustained Operations

Ammar Rafique, Information Technology University of The Punjab, Lahore, Pakistan; Ahsan Mehmood, LUMS; Naveed Ul Hassan, Lahore University of Management Sciences; Muhammad Qasim Mehmood, Muhammad Zubair, Information Technology University of The Punjab, Lahore, Pakistan

5 Segment Channel Modeling and Ricean K-Factor Estimation for RIS-Assisted NLOS Communications

Jian Sang, Boning Gao, Xiao Li, Wankai Tang, Southeast University; Shi Jin, Southern University; Ertugrul Basar, Koc University

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3502
Vehicular Communications

1 Receiver Designs for SC-SCMA Systems over Frequency Selective Channels

Tianzhu Qin, ziyi yang, Jia'ao Liang, Kaining Han, Jianhao Hu, University of electronic science and technology of china

2 Research on End-to-End CT-Polar System for Semantic Communication

Baoxin Su, Shufeng Li, Libiao Jin, Communication University of China; Lan Zhang, Clemson University; Deyou Zhang, KTH Royal Institute of Technology

3 Secure NOMA-Assisted Multi-User mmWave Vehicular Communications Using Artificial Noise

Yiting Yan, Ying Ju, Suheng Tian, Lei Liu, Jie Feng, Xidian University; Jianbo Du, Xi'an University of Posts and Telecommunications; Qingqi Pei, Xidian University; Celimuge Wu, The University of Electro-Communications, Japan

4 Toward Optimizing Delivery Probability in NR Sidelink by MCS Selection

Qiang Fu, Jiajia Liu, Jiadai Wang, Northwestern Polytechnical University

5 Universal IMU-Centric Spatiotemporal Calibration Algorithm for Heterogeneous Information

Yangfang Shi, Baowang Lian, Northwestern Polytechnical University; Yonghong Zeng, Institute for Infocomm Research; Yugang Ma, Institute for Infocomm Research, A-STAR; Yangyang Liu, Northwestern Polytechnical University

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3503
Channel Measurement

1 Channel Measurements for Integrated Sensing and Communication: Method and Prototype Test

Shengli Ding, Baolong Chen, Jianzhi Li, Junjie Tan, Jian Yao, Dajie Jiang, Fei Qin, VIVO Mobile Communication Co.Ltd.

2 Correlation-based Channel Measurement and Link-Level Analysis for THz Picocells on a University Street

Yuanbo Li, Yiqin Wang, Shanghai Jiao Tong University; Zhi Chen, University of Electronic Science and Technology of China; Yi Chen, Huawei Technologies Co., Ltd; Ziming Yu, Huawei Technology Company; Chong Han, Shanghai Jiao Tong University

3 Measurement-based Analysis of XL-MIMO Channel Characteristics in a Corridor Scenario

Qi Wei, Pan Tang, Haiyang Miao, Weirang Zuo, Tian Lei, Beijing University of Posts and Telecommunication; Zhang Jianhua, Beijing University of Posts and Telecommunications; Guangyi Liu, China Mobile Research Institute; Mengnan Jian, ZTE Corporation

4 Measurement-based Spatiotemporal Characterization of the Indoor Propagation Channels at 220 GHz

Wang Yang, Chongqing University of Posts and Telecommunications; Xianrong Zhou, Xi Liao, Chongqing University of Post and Telecommunications; Ziming Yu, Huawei Technology Company

5 MIMO Channel Capacity Measurements in an Outdoor-to-Indoor Environment at 6 and 37 GHz

Ruth Gebremedhin, CableLabs; Wilhelm Keusgen, Technische Universität Berlin; Dorin Viorel, Ruoyu Sun, CableLabs

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3504
Energy Management

1 Learning-Based Computation Offloading in Hierarchical MEC System with Energy Harvesting

Chufan Jian, Jie Gong, Sun Yat-Sen University

2 An Adaptive Content Sharing Scheme of Multi-Cluster Head for Energy Harvesting-Based D2D Multicast Communication

Ying Luo, South West University of Science and Technology; Jun-tao Wu, University of Electronic Science and Technology of China; Min Zeng, South West University of Science and Technology; Kai Xiong, University of Electronic Science and Technology of China; Hong Jiang, South West University of Science and Technology

3 Cognitive Covert Transmission Aided by Energy Harvesting

Rong Xie, Rui Chen, Kecong Hu, China Three Gorges University

4 Energy-Efficient Data Offloading for Earth Observation Satellite Networks

Lijun He, Northwestern Polytechnical University; Ziye Jia, Nanjing University of Aeronautics and Astronautics; Juncheng Wang, Hong Kong Baptist University; Feng Wang, Singapore University of Technology and Design; Erick Lansard, Chau Yuen, Nanyang Technological University

5 Energy-Efficient Joint Handover and Beam Switching Scheme for Multi-LEO Networks

Sz-Han Chen, National Yang Ming Chiao Tung University; Li-Hsiang Shen, National Central University; Kai-Ten Feng, National Yang Ming Chiao Tung University; Prof. Lie-Liang Yang, University of Southampton; Jen-Ming Wu, Hon Hai Research Institute

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3505
IoT/IoV/M2M Communications

1 Autonomous Cooperative Platooning Powered by LiDAR-Guided Adaptive Cruise Control

Abhishek Thakur, Rakshith Ram C.A., Srivishnu Sathvik, Indian Institute of Technology Hyderabad; Bhavani Badugu, Swapnil Shinde, Indian Institute of Technology, Hyderabad; P. Rajalakshmi, NMICPS TiHAN, Indian Institute of Technology Hyderabad

2 Indoor Backscattering Communication by Using Commercial LTE Pilots

Jingyi Liao, Xiyu Wang, Kalle Koskinen, Tianshu Zhang, Kalle Ruttik, Aalto University; Riku Jäntti, Department of Communications and Networking, Aalto University; Dinh Thuy Phan Huy, Orange

3 Joint Routing and Scheduling Optimization with Swarm Intelligence in Time-Sensitive Networking

Zhuoqun Wang, Lei SUN, Huizi Wang, Wenxue Hu, Jianquan Wang, Zhangchao Ma, University of Science and Technology Beijing

4 Low-complexity Broadband Array Processing in Dynamic Scenario with Jamming

Daniel Valle de Lima, Federal Institute of Education, Science and Technology of Ceará (IFCE); Joao Paulo Javidi da Costa, Antonio Arlis Santos da Silva, Giovanni Almeida Santos, Jose Alfredo Ruiz Vargas, Hamm-Lippstadt University of Applied Sciences (HSHL);

Auzuir Ripardo de Alexandria, Federal Institute of Education, Science and Technology of Ceará (IFCE)

5 Quasi-Neural Network based Sequence Detection for Single-Carrier Communications

Qinghe Du, Chenye Wang, Yi Jiang, Fudan University; Rong Ran, Ajou University

Wednesday 26 June 2024

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3402

AI-enhanced Communication II

1 Linear Regression-Based Channel Estimation for Non-Gaussian Noise

Prerna Chaudhary, Isha Chauhan, Indian Institute of Technology Delhi; B. R. Manoj, Indian Institute of Technology Guwahati; Manav R Bhatnagar, IIT Delhi

2 LiteWiHAR: A lightweight WiFi-based human activity recognition system

Chuan Liu, Yue Liu, Macao Polytechnic University; Yanling Hao, Queen Mary University of London; Xingqi Zhang, University College Dublin

3 On the Implementation of Neural Network-based OFDM Receivers

Moritz Benedikt Fischer, Sebastian Dörner, University of Stuttgart; Takayuki Shimizu, Chinmay Mahabal, Hongsheng Lu, Toyota Motor North America; Stephan ten Brink, University of Stuttgart

4 Power Adaptation for Goal-Oriented Communication over Fading Channels

Liangling Lai, Xiangyun Zhou, Australian National University

5 TRTFL: A Transformer based Robust Time-frequency Localization Detector for Spectrogram with Overlapping Signals

Runyi Zhao, Yuhan Ruan, Xidian University; Huacheng Xu, Northwest University; Tao Li, Rui Zhang, Dong Yang, Yongzhao Li, Xidian University

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3403

Federated Learning III

1 Cooperative Relay Assisted Federated Learning over Fading Channels

Zhihao Dong, Harbin Institute of Technology, Shenzhen; Xu Zhu, Harbin Institute of Technology (Shenzhen); Jie Cao, Harbin Institute of Technology, Shenzhen; Yufei Jiang, Harbin Institute of Technology (Shenzhen); Vincent K. N. Lau, The Hong Kong University of Science and Technology

2 Federated Learning for User Mobility Classification in 5G Heterogeneous Networks

Syed Maaz Shahid, Sungoh Kwon, University of Ulsan

3 Incentivizing Quality Contributions in Federated Learning: A Stackelberg Game Approach

Weicong Zhang, Qin Wang, Haitao Zhao, Wenchao Xia, Hongbo Zhu, Nanjing University of Posts and Telecommunications

4 Real-time Wireless Channel Prediction Based on Online Federated Learning

Siyang Liu, Congduan Li, Jieyi Deng, Sun Yat-sen University

5 SHFL: Selective Hierarchical Federated Learning for Non-IID Data Distribution

Fan-Hsun Tseng, Yu-Teng Lai, National Cheng Kung University

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3404

MIMO Systems I

1 A Decoding-aided Joint Estimation of Channel and Phase Noise in MIMO Systems

Conglin Wang, Southeast University

2 A Hybrid Transmission Scheme for Cell-Free Massive MIMO Systems with Phase Offset

Liyuan Qin, Rui Zhang, Yongzhao Li, Yuhan Ruan, Tao Li, Dong Yang, Xidian University; Hao Liu, Nokia Shanghai Bell; Tao Yang, Bell Labs, China

3 Convergence Condition of Simplified Information Geometry Approach for Massive MIMO-OFDM Channel Estimation

Mingrui Fan, Jiyuan Yang, Yan Chen, Southeast University; Anan Lu, Southeast University, Nanjing, China; Xiqi Gao, Southeast University; Xiang-Gen Xia, University of Delaware; Dirk T.M. Slock, EURECOM

4 Cost-Efficient VBI-Based Multiuser Detection for Uplink Grant-Free MIMO-NOMA

Boran Yang, Xiaoxu Zhang, Li Hao, Southwest Jiaotong University; George Karagiannidis, Aristotle University of Thessaloniki; Xin Quan, Southwest Jiaotong University; Octavia A. Dobre, Memorial University

5 Fully-/Partially-Connected Hybrid Beamforming for Multiuser mmWave MIMO Systems

Xin Liu, Yuan Jiang, Lei Zhao, Sun Yat-sen University; Liwei Liang, China Telecom Guangdong Branch

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3405

Transmission and Reception I

1 Age of Information in Linear Multi-hop Wireless Networks

Xinhui Han, Haoyuan Pan, Shenzhen University

2 Beam Pattern Modulation Embedded mmWave Hybrid Transceiver Design Towards ISAC

Boxun Liu, Peking University; Shijian Gao, Samsung Semiconductor; Zonghui Yang, Xiang Cheng, Peking University

3 Blind Residual CFO Estimation via CNN-Enabled EM Algorithm

Penghao Cai, Fuqian Yang, Zhipeng Xue, Yutao Wang, Hanyu Zhu, Purple Mountain Laboratories; Xiqi Gao, Southeast University

4 Delay Performance of a Multi-hop Relay Network with Battery-Assisted Energy Harvesting Nodes

Amar Kumar Mishra, Indian Institute of Technology Delhi; Kamal Agrawal, Shiv Nadar Institution of Eminence; Vinay Kumar, Shankar Prakriya, Indian Institute of Technology, Delhi

5 Design of Capacity-Approaching Constellation and Pre-scaling for Spatial Modulation

Xinghao Guo, Yin Xu, Shanghai Jiao Tong University; Hanjian Hong, Shanghai Jiaotong University; Size Peng, Dazhi He, Wenjun Zhang, Shanghai Jiao Tong University; Yi-yan Wu, Communications Research Centre

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3406

Wireless Networks I

1 A DDoS Detection Method Over Radio Interfaces Based on Multiple Physical Layer Attributes

Yuhan Tian, Na Li, Xiaofeng Tao, Beijing University of Posts and Telecommunications; Xiashi Da, China Academy of Information and Communications Technology

2 A novel ZUC-PRN Generator using a Fully-Connected Neural Network.

Jayati Dutta, Priyanka Peri, Indian Institute of Technology Hyderabad; Rohith Malkuchi, Virginia Polytechnic Institute and State University, Blacksburg, USA

3 Confirmed-Location Group Membership for Intrusion-Resilient Cooperative Maneuvers

Júlio Mendonça, Azin Bayrami Asl, SnT, University of Luxembourg; Federico Lucchetti, University of Lausanne; Marcus Voelp, SnT, University of Luxembourg

4 Cybertwin-aided Transmission for Cloud-Native Applications in Multi-homing Wireless Networks
Zhou Zou, Mengy Zhang, Nanjing University; Jiacheng Chen, Peng Cheng Laboratory; Haibo Zhou, Nanjing University

5 Edge-to-cloud Latency Aware User Association in Wireless Hierarchical Federated Learning
Rung-Hung Gau, Di-Chun Liang, Ting-Yu Wang, National Yang Ming Chiao Tung University; Chun-Hung Liu, Mississippi State University, USA

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3501 B
RIS/IRS

1 Blind Channel Estimation for Reconfigurable Intelligent Surface Assisted OFDM Systems
Norisato Suga, Shibaura Institute of Technology

2 Combination of GSIC and RIS-Enabled Signal Separation in IQ Domain for Parallel Reception with Imperfect CSI
Weiran Luo, Sun Yat-Sen University; Xiaoxia Huang, Sun Yat-sen University

3 Joint Optimization for Secure IRS-assisted NOMA SWIPT Networks with Artificial Jamming
Ruoming Sun, Wei Wang, Dalian University of Technology; Lexi Xu, China United Network Communications Corporation; Nan Zhao, Dalian University of Technology; Naofal Al-Dhahir, University of Texas at Dallas; Xianbin Wang, Western University

4 MSE minimization for RIS-Assisted Wireless Networks with Phase Error and Phase-dependent Amplitude Response
Sin-Yu Huang, Research Center for Information Technology Innovation, Academia Sinica; Jia-You Lin, National Chung Cheng University; Chih-Yu Wang, Academia Sinica; Ren-Hung Hwang, National Yang Ming Chiao Tung University

5 Multi-IRS Empowered Terahertz Wireless Communication over Generalized Fading
Rithwik Premanand, Narendra Vishwakarma, Ranjan Singh, Nanyang Technological University, Singapore; A.S. Madhukumar, Nanyang Technological University

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3502
Vehicular Electronics / Robot Control

1 A Novel Estimation Scheme of Insensitive Areas for MEC Centralized Robot Control by Private 5G
Daisuke Uchida, Toshiba Corporation; Satoshi Takaya, Tatsuma Hirano, Tomoya Tandai, Toshiba Corp.; Hiroyuki Nishikawa, Toshiba Infrastructure Systems & Solutions Corp.

2 A Novel Gradient-based Motion Planning for Single-Track Two-wheeled Robots in Complex Environments
Mingfang Liu, Tsinghua university

3 A Position Aware Transformer Architecture for Traffic State Forecasting
Rajarshi Chattopadhyay, Chen-Khong Tham, National University of Singapore

4 Effect of oxygen excess ratio on the performance of a hybrid fuel cell system
Ali Moslehi, Mohsen Kandidayeni, Université du Québec à Trois-Rivières; Marie Hébert, UQTR; Souso Kelouwani, University du Québec à Trois-Rivières

5 Tire-Road Friction Coefficient Estimation of Sideslip-Camber Combined Situation
Yanru Suo, Dang Lu, Haidong Wu, Yandong Zhang, Jilin University; Tao Zhou, Wanli Tyre Corporation Limited

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3503
Channel Modeling

1 A Quasi-deterministic Channel Model for Underwater Acoustic Communication Systems
Yuxuan Yang, Yilin Ma, Southeast University; Hengtai Chang, Purple Mountain Laboratories; Cheng-Xiang Wang, Southeast University

2 An Improved Bounding Volume Hierarchies Method for V2V Ray Tracing Channel Modeling
Chen Wang, Southeast University; Songjiang Yang, Yinghua Wang, Purple Mountain Laboratories; Cheng-Xiang Wang, Jie Huang, Southeast University

3 BEM Based Channel Estimation via Sparse Bayesian Learning for OTFS over Fast Time-Varying Channel
Xing Zhang, Fangjiong Chen, Jie Feng, Maowu Zhou, Hua Yu, South China University of Technology

4 Channel Modeling Framework for Bistatic ISAC under 3GPP Standard
Chenhao Luo, Aimin Tang, Shanghai Jiao Tong University; Fei Gao, Nokia Bell Labs China; Jianguo Liu, Nokia Shanghai Bell; Xudong Wang, Shanghai Jiao Tong University

5 Characterization of Wireless Channel Semantics: A New Paradigm
Zhengyu Zhang, Ruisi He, Mi Yang, Xuejian Zhang, Ziyi Qi, Yuan Yuan, Bo Ai, Beijing Jiaotong University

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3504
Energy Management for Vehicles

1 Beyond Profit: A Multi-Objective Framework for Electric Vehicle Charging Station Operations
Shuoyao Wang, Jiawei Lin, Shenzhen University

2 Energy Efficiency Maximization for Secure Live Video Streaming in UAV Wireless Networks
Lan Yi, Jiansong Miao, Beijing University of Posts and Telecommunications; Tao Zhang, Beijing Jiaotong University; Yushun Yao, Beijing University of Posts and Telecommunications; Xiangyun Tang, Minzu University of China; Zaodi Song, North Automatic Control Technology Institute

3 Fair-enough Charging of Electric Vehicles
Tania Panayiotou, KIOS Research and Innovation Center of Excellence; George Ellinas, University of Cyprus

4 Impact of Smart Scheduling on Nationwide Charging Infrastructure of Harbour Crafts
Mohasha, A*STAR

5 Time-Efficient EV Energy Management through In-Motion V2V Charging
Shuohan Liu, Qilu University of Technology (Shandong Academy of Sciences); Wei Zhang, Shandong Computer Science Center; Yue Cao, Wuhan University; Prof Qiang Ni, Lancaster University; Carsten Maple, University of Warwick; Hai Lin, Wuhan University

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3505
IRS

1 BLMS and BRLS-based adaptive CSI estimation for IRS-assisted SISO and MIMO systems
Anand Mehrotra, Indian Institute of Technology Kanpur; Suraj Srivastava, Indian Institute of Technology Jodhpur; Aditya K. Jagannatham, Indian Institute of Technology Kanpur

2 IRS-assisted Access Link-based Multihop THz Communication
Shubha Sharma, Rithwik Premanand, Nanyang Technological University, Singapore; Ankush Vashista, Infocomm Technology, Singapore Institute of Technology, Singapore; A.S. Madhukumar, Nanyang Technological University

3 Joint Beamforming and Location Optimization for UAV-IRS Enhanced Cell-Free Network
Xiaokai Song, Wanli Ma, Harbin Institute of Technology; Jie Tang, South China University of Technology; Zhutian Yang, Zhendong Yin, Zhilu Wu, Harbin Institute of Technology

4 Joint Design for Cram r-Rao Bound and Secure Transmission in Semi-IRS Aided ISAC Systems
Wenjing Wei, Xiaowei Pang, Dalian University of Technology; Xiaoqi Qin, Beijing University of Posts and Telecommunications; Shiqi, Gong; Chengwen Xing, Beijing Institute of Technology; Nan Zhao, Dalian University of Technology; Dusit Niyato, Nanyang Technological University

5 Spectral Efficiency Optimization for Absorbable IRS based Wireless Communications with Strong Interferences

Xinyue Li, Harbin Institute of Technology, Shenzhen; Yufei Jiang, Xu Zhu, Harbin Institute of Technology (Shenzhen); Tong Wang,

Harbin Institute of Technology; Jie Cao, Long Li, Harbin Institute of Technology, Shenzhen

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3401 A
Edge Computing

1 AoI-Aware Energy-Efficient Vehicular Edge Computing Using Multi-Agent Reinforcement Learning With Actor-Attention-Critic

Liqin Xiao, Yan Lin, Yijin Zhang, Nanjing University of Science and Technology; Jun Li, Nanjing University of Science and Technology, China; Feng Shu, Hainan University

2 Decentralized Vehicular Edge Computing Framework for Energy-Efficient Task Coordination

Mohammad Fardad, Gabriel-Miro Muntean, Irina Tal, Dublin City University

3 Reducing Computation, Communication, and Storage Latency in Vehicular Edge Computing

Mostafa Kishani, Zdenek Becvar, Czech Technical University in Prague

4 Straggler Mitigation in Edge-Based Split Learning with Coalition Formation Game

Julia Fu, National Taiwan University; Chih-Yu Wang, Academia Sinica; Hung-Yu Wei, National Taiwan University

5 Validation and Evaluation of Computation Offloading in Campus Networks using a Real 5G Setup

Alexander Artemenko, Robert Bosch GmbH, Stuttgart, Germany; Kushal Kumar Narayana Swamy, SRH Hochschule Heidelberg, Germany; Eugen Volk, Robert Bosch GmbH, Stuttgart, Germany; Sven Erik Jeroschewski, Bosch.IO GmbH, Ullsteinstraße 128, Berlin, Germany; Johannes Dommel, Fraunhofer HHI

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3402
AI-enhanced Networks I

1 5G Real-Time QoS-Driven Packet Scheduler for O-RAN

Wenhao Zhang, Branka Vucetic, The University of Sydney; Wibowo Hardjajana, The University of Sydney

2 A Domain-Aware Framework for Interpretable and Resilient Propagation Models: Enabling Digital Twins for Wireless Networks

Syed Basit Ali Zaidi, University of Glasgow; Waseem Raza, Haneya Naeem Qureshi, University of Oklahoma; Muhammad Ali Imran, Ali Imran, Shuja Ansari, University of Glasgow

3 A DRL-Based Spectrum-Sharing Scheme for GEO-LEO Co-Existing Satellite Networks

Yi-Huai Hsu, Lee, Jiun-Ian, Liang-Ya Huang, Wei-Lin Hsiao, Yuan Ze University

4 A Hybrid GAN-Based Outage Detection Algorithm for Wireless Networks

Ma Liyuan, Southeast university

5 A Knowledge Graph-based Factor Screening Approach for Wireless Communication Networks

Yiming Zhou, Xuefang Liu, Wei Liu, Xidian University

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3403
Learning Techniques for Vehicles

1 A Dynamic Priority Packet Scheduling for UAV Assisted AoI-aware Network: A Deep Reinforcement Learning Approach

Xiaoying Fu, Jiansong Miao, Yushun Yao, Beijing University of Posts and Telecommunications; Tao Zhang, Beijing Jiaotong University; Shanling Bai, Lan Yi, Beijing University of Posts and Telecommunications

2 Collaborative Multimodal Vehicular Transformer Training Using Federated Learning

Xingjian Cao, Zonghang Li, Gang Sun, Hongfang Yu, University of Electronic Science and Technology of China

3 Deep Learning Based Uplink Precoding for High Speed Train Communications in FD-RAN

Zeyu Sun, Nanjing University; Jiwei Zhao, Zhejiang University; Yunting Xu, Nanjing University; Jiacheng Chen, Peng Cheng Laboratory; Haibo Zhou, Nanjing University; Lian Zhao, Toronto Metropolitan University

4 ManeuverNet - A Deep Learning Model For Vehicle Maneuver Prediction

Sruthi Sathy, Pandeewari Sankaranarayanan, Arvind Ramanujam, Rajesh Jayaprakash, Tata Consultancy Services

5 Reliable Federated Learning in Vehicular Communication Networks: An Intelligent Vehicle Selection and Resource Optimization Scheme

Tongzhou Yang, College of Communication Engineering, Jilin University; Qihao Li, Jilin University; Ning Zhang, University of Windsor; Linlin Zhao, Jilin University; Fengye Hu, College of Communication Engineering, Jilin University

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3404
MIMO Systems II

1 Interference Suppression Multiuser MMSE Multiplexing Combined with Optimal Joint Transmit/Receive Diversity for a Cellular Distributed MU-MIMO System

Ryo Takahashi, Panasonic System Networks R&D Lab. Co., Ltd.; Hidenori Matsuo, Fumiyuki Adachi, Tohoku University

2 Joint Beamforming and Phase Shift Design for RIS-aided Cell-Free Massive MIMO Systems with Electromagnetic Interference and Imperfect CSI

Shuxian Wen, Beijing jiaotong University; Enyu Shi, Yu Lu, Jiayi Zhang, Bo Ai, Beijing Jiaotong University

3 Learning-Based Universal Linear MIMO Precoder for Finite-Alphabet Inputs

Jaemin Kim, Junho Lee, Yoojin Choi, Samsung Electronics

4 Robust MMSE Precoding for Limited-Feedback Multiuser MIMO Systems

Wentao Zhou, Inkyu Lee, Korea University; Di Zhang, Zhengzhou University; M'erouane Debbah, KU 6G Research Center, Khalifa University of Science and Technology

5 Quasi-Optimum Detection of MIMO-SVD Signals with Strong Nonlinear Distortion Effects

João Gonçalves, Teresa Nogueira, Instituto Superior Técnico; Daniel Dinis, Copelabs, Universidade Lusófona; João Guerreiro, FCT-Universidade Nova de Lisboa, Instituto de Telecomunicações; Rui Dinis, Universidade Nova de Lisboa

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3405
Transmission and Reception II

1 Efficient Hardware Implementation of a Minimum Finder for WiFi 7 Soft ML Detector

Soonwoo Choi, Minki Ahn, Junyoung Jeong, Samsung Electronics

2 Energy Detection for Spatial Receive Diversity and On-Off Keying in Rayleigh Fading With Channel Norm Estimation

Ranjan K. Mallik, Indian Institute of Technology Delhi; Ross Murch, The Hong Kong University of Science and Technology

3 Few-Shot Specific Emitter Identification via Neural Architecture Search and Deep Transfer Learning

Feng Shi, Shufei Wang, Nanjing University of Posts and Telecommunications; Zhenxin Cai, Nanjing University; Yuchao Liu, Beihang University; Yu Wang, Nanjing University of Posts and Telecommunications; Fumiyuki Adachi, Tohoku University; Guan Gui, Nanjing University of Posts and Telecommunications

4 Fundamentals of Energy-Efficient Wireless Links: Optimal Ratios and Scaling Behaviors
Anders Enqvist, Royal Institute of Technology, Sweden; Özlem Tugfe Demir, TOBB University of Economics and Technology, Ankara, Türkiye; Cicek Cavdar, Emil Björnson, KTH Royal Institute of Technology

5 Hough Transform and Time-Frequency Ridge-based Interference Mitigation in Automotive FMCW Radars
Abhilash Gaur, Seshan Srirangarajan, Indian Institute of Technology Delhi; Po-Hsuan Tseng, National Taipei University of Technology; Kai-Ten Feng, National Yang Ming Chiao Tung University

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3406

Wireless Networks II

1 Efficient Task Offloading through Federated Learning in UAV-Assisted Edge Networks
Veera Manikantha Rayudu Tummala, Abhishek Hazra, Indian Institute of Information Technology, Sri City; Alakesh Kalita, Singapore Institute of Technology and Design; Mohan Gurusamy, National University of Singapore

2 Knowledge Distillation-based Learning Model Propagation for Urban Air Mobility
Kai Xiong, Juefei Xie, Zhihong Wang, Speng Leng, University of Electronic Science and Technology of China

3 Lightweight Instantly Decodable Network Coding in Wireless Broadcast
Le Wang, University of Science and Technology Beijing; Rina Su, Beijing Institute of Technology; Qifu Tyler Sun, University of Science and Technology Beijing; Shaoteng Liu, Network Technology Lab, Huawei Technologies CO.; Zhongshan Zhang, Beijing Institute of Technology; Linqi Song, City University of Hong Kong Shenzhen Research Institute

4 Reconfigurable Intelligent Surface-Aided Physical Layer Authentication With Deep Learning
Haixia Liu, Lixin Li, Xiao Tang, Wensheng Lin, Northwestern Polytechnical University; Fucheng Yang, Navy Aeronautical and Astronautical University; Tong Yin, Northwestern Polytechnical University; zhu han, University of Houston

5 RIS-Assisted Federated Learning Algorithm Based on Device Selection and Weighted Averaging
Yujun Cai, Shufeng Li, Junwei Zhang, Communication University of China; Deyou Zhang, KTH Royal Institute of Technology

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3501 B

Radio Performance and Resource Allocation

1 Distributed DRL with Multiple Learners for AP Clustering in Large-scale Cell-Free Deployment
Akio Ikami, Yu Tsukamoto, Takahide Murakami, KDDI Research, Inc.; Hiroyuki Shinbo, KDDI Research, Inc.; Yoshiaki Amano, KDDI Research, Inc.

2 Highly-Efficient Low-Latency Scheduling Method in Round-Trip Communication for Feedback Control
Ryotaro Iizuka, Takanori Hara, Tokyo University of Science; Yasuaki Yuda, Panasonic Corporation; Kenichi Higuchi, Tokyo University of Science

3 HQAM-OTFS: Enhancing the Shaping Gain of OTFS
Nalluru Sangeeta, IIT Guwahati; Sanjeev Sharma, IIT Varanasi; Kuntal Deka, A. Rajesh, IIT Guwahati

4 Latency-Aware Near-Real-Time RIC Deployment in User-Centric RAN With Cell-Free Massive MIMO: A Telecom Operator Perspective
Amr Amrallah, Takahide Murakami, Yu Tsukamoto, Akio Ikami, KDDI Research, Inc.; Hiroyuki Shinbo, KDDI Research, Inc.; Yoshiaki Amano, KDDI Research, Inc.

5 Low-Latency Resource Allocation for Store-and-Forward Transmission in UAV-aided LEO Communication
Jinho Choi, Sivaram Krishnan, Jihong Park, Deakin University

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3502

Vehicular Safety

1 AllTheDocks road safety dataset: A cyclist perception and experience
Chia-Yen Chiang, Ruikang Zhong, Queen Mary University of London; Jennifer Ding, The Alan Turing Institute; Joseph Wood, City, University of London; Mona Jaber, University of Surrey; Joseph Bee, Zwing's

2 Infrastructure-Assisted Collaborative Perception in Automated Valet Parking: A Safety Perspective
Yukuan Jia, Jiawen Zhang, Tsinghua University; Shimeng Lu, Huazhong University of Science and Technology; Baokang Fan, Ruiqing Mao, Sheng Zhou, Tsinghua University; Zhisheng Niu, Tsinghua University, China

3 Mitigating Link-flooding Attacks in Intelligent Transportation System
YuXia, BeijingJiaotongUniversity; Ying Liu, Beijing Jiaotong University; Jianhui Yin, BeijingJiaotongUniversity; Yikun Li, Beijing Jiaotong University; Chengxiao Yu, Peng Cheng Laboratory

4 Next-Gen Vehicular Detection: A Fusion of RF Signal and Fisheye Camera Technologies
Parmet Kaur Dhindsa, Zhenni Pan, Shigeru SHIMAMOTO, Waseda University

5 Real-time risk tag forecasting for safer intelligent transportation
Wei Ming Dan Chia, Singapore Institute of Technology

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3503

Codebook Systems / Antennas

1 A Novel Spherical Codebook Design for Uplink SCMA in Satellite Communications
zhao lingli, Chaowei Wang, Mingliang Pang, Wenyuan Wang, Weidong Wang, Beijing University of Posts and Telecommunications; Fan Jiang, Xi'an University of Posts and Telecommunications; Lexi Xu, China United Network Communications Corporation

2 Limited Feedback on Measurements: Sharing a Codebook or a Generative Model?
Nurettin Turan, Benedikt Fesl, Technical University of Munich; Michael Joham, Munich University of Technology; Zhengxiang Ma, Anthony C. K. Soong, Baoling Sheen, Weimin Xiao, Futurewei Technologies; Wolfgang Utschick, Technische Univesitat Munchen

3 Multiple Antenna-based THz Communication System with Channel Correlation
Shubha Sharma, Nanyang Technological University, Singapore; Ankush Vashistha, Infocomm Technology, Singapore Institute of Technology, Singapore; A.S. Madhukumar, Nanyang Technological University

4 On Reducing the Search Complexity for PMI Selection in Codebook-based 5G NR Systems
Harivignesh A, Arunesh Anbukani, Indian Institute of Technology, Madras; K Giridhar, IIT Madras

5 Wideband Communications Aided by Movable Antenna
Lipeng Zhu, Wenyan Ma, National University of Singapore; Zhenyu Xiao, Beihang University; Rui Zhang, National University of Singapore

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3504

Adhoc and Sensor Networks I

1 A Fast Weighted Clustering Algorithm for FANET
Wangna, Meng Xiao, Zhongliang Zhao, Beihang University; Yang Liu, Nanyang Technological University

2 On the Effects of Retransmissions in Single-Cell Slotted Aloha LPWANs
Udo Schilcher, University of Klagenfurt; Stavros Toumpis, Athens University of Economics and Business; Siddhartha S. Borkotoky, Indian Institute of Technology Bhubaneswar, India; Jorge F. Schmidt, Digital Factory Vorarlberg GmbH; Christian Bettstetter, University of Klagenfurt

3 Distributed Spatial Multiplexing (MIMO) System for Practical MANETs with Multiple Imperfections
Mus'ab Yüksel, University of Applied Sciences Darmstadt; Raphael T. L. Rolny, armasuisse Science and Technology; Marc Kuhn, ZHAW; Michael Kuhn, University of Applied Sciences Darmstadt

4 Goodput analysis for burst-noisy low-speed wireless networks during message segmentation
Takashi Ikegawa, The University of Tokyo

5 Joint Computation Offloading with Phase-Shift Design for RIS-Assisted Multi-UAV MEC Network
Shumo Wang, Southeast University; Xiaoqin Song, Nanjing University of Aeronautics and Astronautics; Tiecheng Song, Southeast University

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3505

OFDM/OFDMA

1 Chinese Remainder Theorem Based Carrier Offset Estimation for High-Mobility OFDM Systems
Wei Huang, Bohao Shi, Jun Wang, Xiaoping Li, Qihang Peng, University of Electronic Science and Technology of China

2 Massive Up-Link Multi-User with OFDMA-IDMA Combination based on IEEE 802.11ax
Ta Viet Tai, Le Hoang Nam, Nguyen Viet Ha, Tran Thi Thao Nguyen, VNUHCM-University of Science

3 Real-time Experiments towards an Automotive OFDMA Communication Bus
Matthias Koepp, Kai Habel, Fraunhofer Heinrich-Hertz-Institute, HHI, Berlin; Volker Jungnickel, Fraunhofer HHI

4 Robust PAM Mapping for U-OFDM OWC Systems with LED Nonlinearity
Cheng Yuan, Yufei Jiang, Xu Zhu, Harbin Institute of Technology (Shenzhen)

5 Tensor Based Channel Estimation for Multi-RIS Assisted OFDM System
Hao Liu, Southeast University; Southeastern University; Yuxing Lin, Xiao Li, Southeast University; Shi Jin, Southern University

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3402

AI-enhanced Networks II

1 A Network Slicing Elastic Switching Algorithm For VR Devices Based on DDQN
Zhou Yuanyuan, Xiaohui Li, Siting Lv, Guodong He, Mingli Shi, Xingbo Chen, Xidian University

2 Accelerating DNN-Based Detection by MADDNESS Approximation
Shuaicong Gong, Shuangyi Qian, Southeast University; Chunming Zhao, Ming Jiang, National Mobile Communications Research Lab., Southeast University; Yifan Zhang, Southeast University

3 Hybrid Model-Data-Driven User-Activity Detection Network for Massive Random Access
Guangyue Sun, Zhaoji Zhang, xidian university; Ying Li, Xidian University

4 Radio frequency fingerprinting using autoencoder generated features on IEEE 802.15.4 networks
Ines Pereira, NOVA School of Science and Technology / Instituto de Telecomunicações; Luis Bernardo, Universidade Nova de Lisboa / Instituto de Telecomunicações; Rodolfo Oliveira, Universidade Nova de Lisboa/Instituto de Telecomunicações; Paulo Pinto, Universidade Nova de Lisboa

5 Zoom-inRCL: Root Cause Localization at Virtualized Infrastructure Layer for B5G/6G Network Slicing
Yawen Tan, Xidian University; Jiadai Wang, Jiajia Liu, Northwestern Polytechnical University

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3403

Learning Techniques in Communications I

1 3D Positioning via Green Learning in mmWave Hybrid Beamforming Systems
Kai-Rey Liu, Sau-Hsuan Wu, National Yang Ming Chiao Tung University; C.-C. Jay. Kuo, University of Southern California; Prof. Lie-Liang Yang, University of Southampton; Kai-Ten Feng, National Yang Ming Chiao Tung University

2 Adaptive Signal Feature-Based Deep Learning for Enhanced Specific Emitter Identification
Junzhi Xu, Miao Chen, Nanjing University of Posts and Telecommunications; Fangqing Wen, China Three Gorges University; Gejiacheng Lu, Lifan Hu, Yu Wang, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Guan Gui, Nanjing University of Posts and Telecommunications

3 Advancements in Bangla Speech Emotion Recognition: A Deep Learning Approach with Cross-Lingual Validation
Khorshed Alam, United International University; Mahbubul Haq Bhuiyan, Md Junayed Hossain, Md Fahad Monir, Md Asif Bin Khaled, Independent University, Bangladesh

4 Approaching the MMSE Bound of Channel Estimation by Machine Learning

Federico Penna, Samsung Electronics; Hyukjoon Kwon, Samsung; Dongwoon Bai, Samsung US R&D Center

5 Deep Joint Source-Channel Coding using Overlap Image Division for Block Noise Reduction
Ryunosuke Yamamoto, Yoshiaki Inoue, Daisuke Hisano, Osaka University

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3404

MIMO Systems III

1 MADDNESS Detector for MIMO Systems with Learning Vector Quantization
Shuangyi Qian, Shuaicong Gong, Southeast University; Chunming Zhao, Ming Jiang, National Mobile Communications Research Lab., Southeast University

2 MSE Minimization in RIS-Aided MU-MIMO with Discrete Phase Shifts and Fronthaul Quantization
Parisa Ramezani, KTH Royal Institute of Technology; Yasaman Khorsandmanesh, KTH; Emil Björnson, KTH Royal Institute of Technology

3 Novel Prony-Based Channel Prediction Methods for Time-varying Massive MIMO Channels
Ching-Tang Huang, Yu-Chih Huang, National Yang Ming Chiao Tung University; Shin-Lin Shieh, National Taipei University; Po-Ning Chen, National Yang Ming Chiao Tung University

4 PAPR Reduction Using Average Transmit Signal Power Difference Among Transmit Antennas for Massive MIMO-OFDM with Uniform Planar Array
Soma Taguchi, Takanori Hara, Tokyo University of Science; Satoshi Suyama, Satoshi Nagata, NTT DOCOMO INC.; Kenichi Higuchi, Tokyo University of Science

5 Position-Aware Beam Training for Near-Field Millimeter-Wave XL-MIMO Communications
Yongcheng Liu, Weicao Deng, Min Li, Minjian Zhao, Zhejiang University

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3405

Transmission and Reception III

1 Hybrid Linear and Nonlinear Uplink Cooperative Interference Cancellation for Cellular-Connected UAV
Xin Wei, University of Electronic Science and Technology of China; Weidong Mei, UESTC; Zhi Chen, University of Electronic Science and Technology of China

2 Instantaneous Bandwidth Estimation for Efficient Sampling of Electrocardiograms
Christopher Willuweit, Johannes Königs, Carsten Bockelmann, Armin Dekorsy, University of Bremen

- 3 Irregular Element Selection for Intelligent Reflecting Surface with Mutual Coupling**
Fan-Hsun Tseng, Chin-Hung Liu, National Cheng Kung University; Hsin-Hung Cho, Chi-Yuan Chen, National Ilan University
- 4 Multi-Modal Fusion for Enhanced Automatic Modulation Classification**
Yingkai Li, Shufei Wang, Gao Shen, Yibin Zhang, Nanjing University of Posts and Telecommunications; Qianyun Zhang, Beihang University; Yun Lin, Harbin Engineering University; Guan Gui, Nanjing University of Posts and Telecommunications
- 5 Multi-Stage Time-Space-Power Resource Allocation: From the Perspective of User Experience Rate**
Kehua Zhang, Harbin Institute of Technology, Shenzhen; Zhongxiang Wei, Tongji University; Xu Zhu, Wenjun Hou, Zhihao Dong, Harbin Institute of Technology (Shenzhen)

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3406

Wireless Protocols

- 1 A random access protocol for mixed-traffic in LEO satellite-based IoT communication**
Thien Thi Thanh Le, Singapore University of Technology and Design; Naveed Ul Hassan, Lahore University of Management Sciences; Erick Lansard, Chau Yuen, Nanyang Technological University
- 2 Age of Information Aware Task Allocation for Crowd Sensing: A Pricing-Matching Approach**
Wenqian Zhou, Xuying Zhou, Ning Jin, Jingyi Xu, China Jiliang University; Wei Wang, Zhejiang University; Chau Yuen, Nanyang Technological University
- 3 Design and Implementations of non-3GPP Wireline Access Gateway for 5G Wireless and Wireline Convergence**
Pai-Hui Wang, Hung-Chang Tsao, Li-Hsing Yen, Chien-Chao Tseng, National Yang Ming Chiao Tung University
- 4 Equitas: Fairness-Aware Dynamic Link Selection for EMLSR Operation in IEEE 802.11be**
Ching-Lun Tai, Shyam Krishnan Venkateswaran, Raghupathy Sivakumar, Georgia Institute of Technology
- 5 Target Tracking with Integrated Sensing and Communications in IEEE 802.11bf**
Ching-Lun Tai, Jingyuan Zhang, Douglas M. Blough, Raghupathy Sivakumar, Georgia Institute of Technology

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3501 B

UAV Communication

- 1 Multiple UAV-based FSO System with Opportunistic Relay Selection over M'alaga Turbulence Channel**
Deepshikha Singh, Indian Institute of Technology Indore; Swaminathan R, Indian Institute of Technology Indore, India
- 2 Outage Performance of Dual-Hop with Wavelength Diversified UAV-Based FSO Links Under Sandstorms**
Mohammed Gismalla, Suhail I. Al-Dharrab, Saleh Alawsh, Ali Hussein Muqaibel, King Fahd University of Petroleum and Minerals
- 3 Resource Allocation Strategy for Wireless Powered Communication Networks with UAV-Assisted Edge Computing**
Xinyu Zhang, Yisheng Zhao, Hongyi You, Kaige Jian, Li Liang, Fuzhou University
- 4 UAV Trajectory and Resource Optimization for NOMA-VLC Systems via HA-DRL Algorithm**
Liang Li, Shenzhen International Graduate School, Tsinghua University; Weishen Wang, Tsinghua Shenzhen International Graduate School; Yuxuan Liao, Shenzhen International Graduate School, Tsinghua University; Xinke Tang, Peng Cheng Laboratory; Yuhan Dong, Tsinghua University
- 5 UAV Trajectory Optimization for Sensing Exploiting Target Location Distribution Map**
Xiangming Du, Shuowen Zhang, The Hong Kong Polytechnic University; Liang Liu, The Hong Kong Polytechnic University, Hong Kong

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3502

Automated Vehicles

- 1 Can Edge Computing fulfill the requirements of automated vehicular services using 5G network ?**
Wendlasida Ouedraogo, Telecom SudParis; Andrea Araldo, Badii Jouaber, Hind Castel, Remy Grunblatt, Telecom SudParis, Institut Polytechnique de Paris
- 2 Generative AI-enabled Sensing and Communication Integration for Urban Air Mobility**
Zifan Sha, Xidian University; Wenwei Yue, xidian university; Shuo Wang, Nan Cheng, Xidian University; Jiaming Wu, Chalmers University of Technology; Changle Li, Xidian University
- 3 PointGAN: A Catalyst for Enhanced Vulnerable Road User Detection in Autonomous Navigation**
Gunasekaran Raja, Anna University; Hosam Alhakami, Umm Al-Qura University, Makkah, Saudi Arabia; Sahaya Beni Prathiba, Vellore Institute of Technology, Chennai, India; Jeyadev Needhidevan, Priyadarshni Vasudevan, Rupali Subramanian, Anna University, MIT Campus, Chennai, India; Kapal Dev, Munster Technological University
- 4 Prioritization of Maneuver Coordination Messages and the Impact of Decentralized Congestion Control**
Daniel Maksimovski, Technische Hochschule Ingolstadt; Silas Lobo, CARISSMA Institute for Electric; Christian Facchi, Technische Hochschule Ingolstadt
- 5 Reducing Communication Cost and Latency in Autonomous Vehicles with Subscriber-centric Selective Data Distribution**
Nora Sperling, Rolf Ernst, Technische Universität Braunschweig

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3503

Coding I

- 1 Block Code Design Based on Golay Code for Future Communication Systems**
Changlong Xu, Liangming Wu, Wei Liu, Hao Xu, Qualcomm
- 2 Deep Joint Source Channel Coding With Attention Modules Over MIMO Channels**
Weiran Jiang, Beijing Jiaotong University; Wei Chen, Bo Ai, Beijing Jiaotong University
- 3 Hybrid Shaping for Bit-Interleaved Coded Modulation with Iterative Decoding**
Jiayi Yang, Sun Yat-sen University; Qianfan Wang, Sun yat-sen university; Congduan Li, Xiao Ma, Sun Yat-sen University
- 4 Intelligent Degree Distribution of Rateless Codes in Industrial Scenarios**
Jinhui Tang, Yusun Fu, Yue Qiao, Junpeng Yin, Shanghai Jiao Tong University
- 5 Low-Complexity Decoder of Analog Fountain Codes for Industrial Internet of Things**
Zhang Ke, Peng Cheng Laboratory; Jian Jiao, Harbin Institute of Technology (Shenzhen); Ye Wang, Broadband Communication Department, Pengcheng Laboratory; Rongxing Lu, University of New Brunswick; Zhang Qinyu, Harbin Institute of Tech.

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3504

Adhoc and Sensor Networks II

- 1 On or Move On? Optimal Mobile Data Collection in mmWave Sensor Networks**
Vamshi Vijay Krishna Jeripotula, V Mahendran, Venkataramana Badarla, Indian Institute of Technology Tirupati
- 2 Received Signal Aided Implicit Node Clustering in LPWAN**
Takahiro Saraya, Aoto Kaburaki, Koichi Adachi, The University of Electro-Communications; Osamu TAKYU, Shinshu University; Takeo Fujii, The University of Electro-Communications; Mai Ohta, Fukuoka University
- 3 Stackelberg Differential Game Based Resource Allocation in Drone-Enabled Mobile Network With Blockchain Integration**
Die Wang, Yunjian Jia, Chongqing University; Liang Liang, University of Chongqing

**4 SWIPT-Enabled MISO Ad Hoc Network Underlay
RSMA-based Cellular Network with IRS**

Nguyen Thi Thanh Van, Nguyen Cong Luong, Phenikaa University;
Feng Shaohan, Zhejiang Gongshang University Hangzhou; Shimin
Gong, Sun Yat-sen University; Dusit Niyato, Nanyang Technological
University; Dong In Kim, Sungkyunkwan University

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3505
OTFS

**1 A Low-Complexity Standard-Compliant PAPR Reduction
Scheme for OTFS Modulation**

Salil Sharma, IMDEA Networks Institute; Syed Waqas Haider Shah,
IMDEA Networks Institute, Madrid, Spain; Joerg Widmer, Imdea

**2 BER Analysis of IRS Aided OTFS Modulation in
Presence of IQ Imbalance at the Receiver**

Sanjeet Kumar Bhagat, IIT Bhubaneswar; SAPTA GIRISH, Bharat
Electronics Limited; Pravas Ranjan Sahu, Indian Institute of
Technology Bhubaneswar

**3 ED-OTFS: A New Waveform Design for Orthogonal
Time Frequency Space Modulation in High-speed Mobile
Communication Scenarios**

ruilin Liu, Gaoze Mu, Jiandi Hu, Ye Gong, Beijing University of
Posts and Telecommunications; Yanzhao Hou, Beijing University of
Post Technology; Cui Qimei, Xiaofeng Tao, Beijing University of
Posts and Telecommunications; Whai-En Chen, National Chiao Tung
University, Taiwan

**4 Graph-based Untrained Neural Network Detector for
OTFS Systems**

Hao Chang, Branka Vucetic, The University of Sydney; Wibowo
Hardjawana, The University of Sydney

**5 On the PAPR of Discrete Zak Transform Based OTFS
Modulation**

Vineetha Yogesh, Anagha V, Indian Institute of Science, Bengaluru;
Sandesh Rao Mattu, A Chockalingam, Indian Institute of Science

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3505
Advanced Applications

**1 Attention-based Global Feature Extraction Method For
Image Retrieval**

Xiangyun He, Lin Ma, Weiqiang Zhao, Harbin Institute of
Technology; Danyang Qin, Heilongjiang University

**2 Key Point Detection Assisted Near-Field User
Localization and Channel Reconstruction**

Mengyuan Li, Yu Han, Southeast University; Shi Jin, Southern
University

**3 Integrated 3D Farm Modeling with Photogrammetry and
Optical Camera Communication**

Miyu Yamada, Tokyo University of Agriculture and Technology;
Naoto Yoshimoto, Chitose Institute of Science and Technology; Yu
Nakayama, Tokyo University of Agriculture and Technology

**4 Robust Online Temperature Management for Passively
Cooled Base Stations**

Yi Zhao, Uppsala university; Zhanwei Yu, Uppsala University; Tao
Deng, Soochow University; Di Yuan, uppsala university

**5 Wireless Gesture Recognition by Commercial LTE
Signals with Inter-Cell Interference Mitigation**

Shidong Liu, Rui Peng, Yafei Tian, Beihang University

Thursday 27 June 2024

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3401 A
Sensing and Detection

**1 A High-resolution Ultrasonic Environmental Sensing
Scheme for Indoor Automated Guided Vehicle Obstacle
Avoidance**

Yao Zhiwei, University of Tsinghua

**2 A Novel Sample Selection based Detection Algorithm for
Asynchronous SCMA Systems**

Han Kaining, Yonghang Dai, Zhang Xuanbo, Jianhao Hu,
University of Electronic Science and Technology of China

**3 A Real-Time Large Animal Detection Lightweight
Network for Autonomous Driving on Highways**

Fengchen Wei, University of Sussex

**4 A Real-World Road Damage Detection Method Using the
YOLOv5s Network**

Ziqin Feng, Youxiang Huang, Nanjing University of Posts and
Telecommunications; Zhiyi Lu, Nanjing Great Information
Technology Co., Ltd.; Feng Shi, Guan Gui, Nanjing University of
Posts and Telecommunications

**5 YoloV8 Based Novel Approach for Object Detection on
LiDAR Point Cloud**

Sriya Behera, Bhaskar Anand, Indian Institute of Technology
Hyderabad; P. Rajalakshmi, NMICPS TiHAN, Indian Institute of
Technology Hyderabad

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3402
Antenna Design

**1 Analysis of Spatial Non-Stationary Characteristics for 6G
XL-MIMO Communication**

Weirang Zuo, Pan Tang, Haiyang Miao, Qi Wei, Tian Lei, Zhang
Jianhua, Beijing University of Posts and Telecommunications;
Guangyi Liu, China Mobile; Mengnan Jian, ZTE Corporation

**2 Dual-polarized High-Isolation Dielectric Resonator
Antenna for Full-duplex mMIMO**

Yuanzhe Gong, Tho Le-Ngoc, McGill University

**3 Joint Azimuth-Elevation-Delay Estimation in Massive
MIMO via Progressive Subspace Matching**

Haoyu Wang, Zhi Sun, Tsinghua University

**4 Real-Time Over-the-Air Emulation of Rician Fading
Channels for Mobile Antenna Testing**

Ali Kourani, Mar Francis De Guzman, Aalto University; Ruiyuan
Tian, Huawei Technologies Oy (Finland); Katsuyuki Haneda, Aalto
University

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3403
Learning Techniques in Communications II

**1 Delay-Doppler Channel Estimation in DZT-OTFS via
Deep Learning in Time-Frequency Domain**

Sandesh Rao Mattu, A Chockalingam, Indian Institute of Science

**2 Distributed Adaptive Multiuser Scheduling via Multi-
Agent Reinforcement Learning in Multicell MIMO
Cellular Networks**

shaozhuang bai, Xi'an Jiaotong university; Zhenzhen Gao, Xi'an
Jiaotong University; Xuewen Liao, Xi'an Jiaotong university;
Xiaodong Sun, Xi'an Polytechnic University

**3 High Accuracy WiFi Sensing for Vital Sign Detection with
Multi-task Contrastive Learning**

Yilun Wang, The University of Sydney; Peng Cheng, La Trobe
University; Shenghong Li, CSIRO, Marsfield, Australia; Branka
Vucetic, The University of Sydney; Yonghui Li, University of
Sydney

**4 Learning of Constellation Shaping with Maximum Norms
for Terahertz Communication**

Bo Che, Qi He, Zun Tan, Zhi Chen, University of Electronic Science
and Technology of China

**5 Multi-Armed Bandit based Learning Algorithms for
Offloading in Queuing Systems**

M Sushma, Naveen K P, Indian Institute of Technology Tirupati

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3404

MIMO Systems IV

- 1 Low-Complexity Linear Decoupling of Users for Uplink Massive MU-MIMO Detection**
Sowmya Sreenivasan, Gokularam Muthukrishnan, K Giridhar, Indian Institute of Technology Madras
- 2 Superimposed Training in Cell-free Massive MIMO: Is It Really Worth It?**
Miquel Duran, Felip Riera-Palou, Guillem Femenias, University of the Balearic Islands; Hien Quoc Ngo, Queen's University Belfast; M. Julia Fernández-Getino García, Universidad Carlos III de Madrid
- 3 Uplink Performance Analysis and Bits Allocation for Massive MIMO Systems with Mixed ADCs**
Ziqing Zhen, Jin Xu, Shumei Wei, Xiaofeng Tao, Beijing University of Posts and Telecommunications
- 4 Waveform Design with Detection Probability Maximization for MIMO-OFDM Integrated Sensing and Communication System**
Yuxin Huo, Chengzhao Shan, Yongkui Ma, Honglin Zhao, Harbin Institute of Technology
- 5 Window Function Design for Non-uniform MIMO Array**
Mingsai Huan, Baoxi Guo, Yu Tu, Junli Liang, Northwestern Polytechnical University; Yugang MA, Institute for Infocomm Research, A-STAR; Yonghong Zeng, Institute for Infocomm Research

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3405

Transmission and Reception IV

- 1 Bayesian Learning-Based Sparse Channel Estimation in Visible Light ADO-OFDM Systems**
Shubham Saxena, Indian Institute of Technology Kanpur; Suraj Srivastava, Indian Institute of Technology Jodhpur; Saurabh Sharma, Aditya K. Jagannatham, Indian Institute of Technology Kanpur
- 2 Iterative Channel Estimation/Detection for DZT-OTFS Using Superimposed Pilot Frames**
Vineetha Yogesh, Indian Institute of Science, Bengaluru; Sandesh Rao Mattu, A Chockalingam, Indian Institute of Science
- 3 Off-Grid Channel Estimation for Uniform Planar Arrays Using Sparse Bayesian Learning**
Qijia Zhou, Yuan Jiang, Lei Zhao, Sun Yat-sen University; Changjian Liu, South China Sea Survey Center of the Ministry of Natural Resources
- 4 PAPR Reduction Method Based on Commonly Reserved Tones Among Multiple Users in FDMA Uplink**
Ryusei Yamazaki, Tokyo University Of Science; Takanori Hara, Tokyo University of Science; Satoshi Suyama, NTT DOCOMO, INC.; Satoshi Nagata, NTT DOCOMO INC.; Kenichi Higuchi, Tokyo University of Science
- 5 Widely-Linear Processing of Faster-than-Nyquist Signaling in the Presence of IQ Imbalance**
Fouad Ismael, University of Saskatchewan and Alexandria University; Ebrahim Bedeer, University of Saskatchewan

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3406

Wireless Sensing

- 1 Efficient Design for NOMA Enabled Integrated Sensing and Semantic Communication**
Zhouxiang Zhao, Yating Tang, Yuzhi Yang, Zhejiang University; Yuanyuan Dong, Zhejiang Lab; Lexi Xu, China United Network Communications Corporation; Zhaohui Yang, Zhaoyang Zhang, Zhejiang University
- 2 Enhanced Wireless Sensing by Exploiting Opportunistic 5G-NR Signals**
Rui Peng, Yafei Tian, Shengqian Han, Beihang University
- 3 Goal-Oriented Communications for Distributed Sensing: a joint scheduling and estimation approach**
Maxime Ferreira Da Costa, Salah Eddine Elayoubi, Wassim Hajji, CentraleSupélec

- 4 Probing the time-evolution of the sub-THz radio channel at 160 GHz for communication and sensing**

Wilhelm Keusgen, Technische Universität Berlin; Taro Eichler, Rohde & Schwarz

- 5 VehicleTalk: Lightweight V2V Network Enabled by Optical Wireless Communication and Sensing**

Yang Song, Ruoshen Mo, Pinpin Zhang, Chenchen Wang, Yimao Sun, Yanbing Yang, Sichuan University; Zhengguo Sheng, University of Sussex

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3501 B

UAV Networks I

- 1 Analysis of Handover Rate and Coverage Performance of Mobile Users in UAV Networks**
Neetu R. R., IIIT-Delhi; gourab ghatk, IIT delhi; Vivek Bohara, IIIT-Delhi; Anand Srivastava, IIIT DELHI
- 2 Delay-Tolerant Multi-agent DRL for Trajectory Planning and Transmission Control in UAV-assisted Wireless Networks**
Zesong Fan, Shimin Gong, Yusi Long, Lanhua Li, Bo Gu, Sun Yat-sen University; Nguyen Cong Luong, Phenikaa University
- 3 Experimental Evaluation of the Performance of UAV-assisted Data Collection for Wake-up Radio-enabled Wireless Networks**
Abhimanyu Venkatraman Sheshashayee, Matteo Bordin, Pietro Brach del Prever, Davide Villa, Hai Cheng, Northeastern University; Chiara Petrioli, University of Rome La Sapienza; Tommaso Melodia, Stefano Basagni, Northeastern University
- 4 Intelligent Energy-Efficient and Fair Resource Scheduling for UAV-Assisted Space-Air-Ground Integrated Networks Under Jamming Attacks**
Shihao Chen, Helin Yang, Liang Xiao, Changyuan Xu, Xiamen University; Xianzhong Xie, Chongqing University of Posts and Telecommunications; Wanting Yang, Zehui Xiong, Singapore University of Technology and Design
- 5 Joint Optimization of Flying Trajectory and Task Offloading for UAV-enabled MEC Networks: A Digital Twin-Assisted Hybrid Learning Approach**
Jiaqi Wu, Jingjing Luo, Harbin Institute of Technology (Shenzhen); Tong Wang, Lin Gao, Harbin Institute of Technology

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3502

Intelligent Transportation I

- 1 A Blockchain-Enabled Framework of UAV Coordination for Post-Disaster Networks**
Sana Hafeez, Runze Cheng, Lina Mohjazi, Muhammad Ali Imran, Yao Sun, University of Glasgow
- 2 A Low-Rank Approach of MIMO Optimization for Edge Smart Ports**
Zechen He, Jiale Wang, Ping Feng, Jiahong Ning, Tingting Yang, Dalian Maritime University
- 3 A Novel Cross-Modal Scene Recognition Algorithm Leveraging Semantic Information**
ChanghaoHu, Hengyu Liu, Bangzhen Huang, Lianfen Huang, Xiamen University; Zhibin Gao, Jimei University; Yifeng Zhao, Xiamen University
- 4 Antenna Evaluation in Wireless Power Transmission System for Autonomous Underwater Vehicles**
Haruki Sugino, Satoshi Ishitani, Atsuya Mizota, Sora Anzai, Mamiko Inamori, Tokai University
- 5 Automated Record Keeping for Statewide Winter Road Maintenance using Telematics Tracks**
Yaguang Zhang, Aaron Ault, James V. Krogmeier, Purdue University

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3503

Coding II

- 1 Mobile Molecular Communication with Relay Assisted Network Coding: Framework and Analysis**
Arjav Praveen Jain, Prateek Mukherjee, Sandeep Joshi, Birla Institute of Technology and Science Pilani

2 Peak Age of Collection in Coordinated Direct and Relay Transmission with Physical-Layer Network Coding
Guiyu Meng, The Education University of Hong Kong; Hai Liu, The Hang Seng University of Hong Kong; Tse-Tin Chan, The Education University of Hong Kong

3 Precoding Schemes for Wireless Beam Modulation System
Xiao Chen, Congxi Liu, Xinyan Yu, Hang Long, Beijing University of Posts and Telecommunications

4 Representative Ordered Statistics Decoding of Polar Codes
Wang Yiwen, Qianfan Wang, Jifan Liang, Xiao Ma, Sun Yat-sen University

5 Systematic Turbo-Polar, Turbo-LDPC-Polar, and Turbo-LDPC Codes Based on Belief Propagation Decoding
Rahim Umar, Atta Quddus, Yi Ma, University of Surrey

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3504

Heterogeneous Networks I

1 A Novel Video-on-Demand Broadcasting Scheme for Heterogeneous Receivers
Ruijie Ma, Ming Chen, Xingjun Wang, Tsinghua University

2 Data Aggregation Based Massive Machine-Type Communications Coexisting With Human-to-Human Communications: Mechanism Design and Performance Evaluation
Tao Wang, Yichen Wang, Yixin Wang, Xi'an Jiaotong University

3 Enhancing Fairness by Iterative Radio Resource Splitting and User Grouping for CoMP
Caroline Zoll, Technical University of Munich; Michael Einhaus, HTWK Leipzig

4 Joint Channel Estimation and User Activity Detection for mmWave Grant-Free Massive MTC Networks Under Pilot Contamination Attack
Yixin Wang, Yichen Wang, Tao Wang, Xi'an Jiaotong University; Julian Cheng, University of British Columbia

5 On the Resource Allocation and User Association in Future Multi-Band Wireless Networks
Feres Darouich, Canada; Cirine Chaieb, Wessam Ajib, University of Quebec at Montreal; Fatma Abdelkefi, Sup'Com

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3505

Power Constrained Communication

1 Age of Synchronization Minimization in Wireless Networks with Random Updates and Hybrid ARQ under Power Constraints
Yuqiao He, Guozhi Chen, Yuchao Chen, Jintao Wang, Jian Song, Tsinghua University

2 Energy-Efficiency Maximization in Cellular D2D-Based V2X Networks with Statistical CSI
Jing Lu, Yuan Jiang, Lei Zhao, Sun Yat-sen University; Liwei Liang, China Telecom Guangdong Branch

3 Joint Energy Harvesting, Semantic Transmission Selection, Channel Allocation and Power Control for Resource-Constrained IoT Networks
Nguyen Huu Sang, Nguyen Duc Hai, Nguyen Duc Duy Anh, Nguyen Cong Luong, Phenikaa University; Shimin Gong, Sun Yat-sen University; Dusit Niyato, Nanyang Technological University

4 Joint Power and Channel Allocation to Minimize Age of Information in Wireless Networks with Time-Varying Channels and Power Constraints
Guozhi Chen, Yuchao Chen, Jintao Wang, Jian Song, Tsinghua University

5 Mean Peak Age of Information Analysis of Energy-Aware Computation Offloading in IIoT Networks
Ernest Tan, Agency for Science, Technology and Research; A.S. Madhukumar, Nanyang Technological University

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3505

Advances in Communications

1 Link-Level Performance Analysis of DVB Standards in Ultra-Dense LEO Satellite-Terrestrial Networks
Xin Zhang, Yilei Wang, Xiaohan Qin, Nanjing University; Zitian Zhang, Zhejiang Gongshang University; Haibo Zhou, Nanjing University; Xuemin (Sherman) Shen, University of Waterloo

2 MMSE-Aided UAMP Detection for MIMO-OTFS
Xuanyun Ma, Jin Xu, Chao Dong, Beijing University of Posts and Telecommunications; Kai Niu, Beijing University of Posts and Telecommunications; Hongze Zhang, Beijing University of Posts and Telecommunications

3 Next-Gen Security: Enhanced DDoS Attack Detection for Autonomous Vehicles in 6G Networks
Sudha Anbalagan, Vellore Institute of Technology, Chennai, India; Wajdi Alhakami, Taif University, Taif, Saudi Arabia; Mugundh Jambukeswaran Bhooma, Vijai Suria Marimuthu, Anna University, MIT Campus, Chennai, India; Kapal Dev, Munster Technological University; Gunasekaran Raja, Anna University

4 Optimal partially superimposed pilot pattern for OTFS communication
Rabah Ouchikh, Ecole Militaire Polytechnique of Algeria; Abdeldjalil Aissa El Bey, IMT Atlantique; Thierry Chonavel, IMT Atlantique, Brest, France; Nacerredine Lassami, Ecole Militaire Polytechnique

5 Performance Evaluation of Routing Protocol for 6G UAV Communication Networks
Vu Khanh Quy, Hung Yen University of Technology and Education; Abdellah Chehri, Royal Military College of Canada; Vi Hoai Nam, Chu Thi Minh Hue, Nguyen Minh Quy, Hung Yen University of Technology

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3401 A

Spectrum Management

1 A Novel Hybrid ARQ Enabled Network Slicing Scheme for Service Level Agreement Guarantee
Jiayi Zheng, Tao Yu, Shunqing Zhang, Yanzan Sun, Shanghai University

2 DSRC Performance under the Adjacent Channel Interference of Cellular-based V2X at 5.9GHz Band
Hieu Nguyen, Guan Yong Liang, Nanyang Technological University

3 Elimination of Index Ambiguity for Overlapped Signals in Spectrum Sensing
Shuai Zhou, Xidian University; Dishan Wei, Institute of Tracking and Communication Technology; Tao Li, Yongzhao Li, Rui Zhang, Yuhuan Ruan, Dong Yang, Xidian University

4 Maximum Eigenvalue Detection based Spectrum Sensing in RIS-aided System with Correlated Fading
Nikhilsingh Parihar, International Institute of Information Technology, Hyderabad; Praful Mankar, IIT Hyderabad; Sachin

Chaudhari, International Institute of Information Technology, Hyderabad

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3402

Emerging Technologies in Communication

1 A Low-Complexity Clustering-Aided DQN Method for Dynamic Antenna Control in HAPS
Mondher Bouazizi, Siyuan Yang, Tomoaki Ohtsuki, Keio University

2 An OpenAirInterface-based Ambient Backscatter Communication System Using Pilots
Xin Wang, Orange Innovation China; Dinh Thuy Phan Huy, Orange; Xiaoyu Wang, Orange Innovation China

3 CVTSA: Cooperative VNF and Time-slot Scheduling Algorithm for NFV Orchestration
Chenxi Liao, Jia Chen, Deyun Gao, Xu Huang, Beijing Jiaotong University; Jingjing Liu, China Mobile Group Liaoning Company Limited; Shang Liu, Dongsheng Qian, Beijing Jiaotong University

4 Secure and Efficient Data Sharing for Indoor Positioning with Federated Learning in Mobile Blockchain Networks
Yiping Zuo, Zhengxin, Chen Dai, Nanjing University of Posts and Telecommunications; Jiajia Guo, Southeast University; Fu Xiao, Nanjing University of Posts and Telecommunications; Shi Jin, Southern University

5 User Association with Collaborative Computing for 6G Wireless Networks
Yang Qichen, Jin Xu, Xiaofeng Tao, Beijing University of Posts and Telecommunications

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3403

Learning Techniques in Communications III

1 Multimodal Deep Learning Empowered Millimeter-Wave Beam Prediction
Binpu Shi, Min Li, Ming-Min Zhao, Ming Lei, Liyan Li, Zhejiang University

2 NeuralGesture Communication: Translating one Sign Language to another Sign Language using Deep Learning Model and gTTs.
Sumaia Anjum Shaba, Sharmin Islam Shroddha, Independent University Bangladesh; Md Junayed Hossain, Md Fahad Monir, Independent University, Bangladesh

3 Optimal Base Station Sleep Control via Multi-agent Reinforcement Learning with Data-driven Radio Environment Map Calibration
Yoshihiro Okawa, Fujitsu Limited; Natsuki Morita, Fujitsu limited; Jun Kakuta, Masatoshi Ogawa, Fujitsu Limited

4 Reinforcement Learning Based Interference Coordination for Port Communications
Siyao Li, Chuhuan Liu, Yifan Chen, Liang Xiao, Helin Yang, Xiamen University

5 WideRate: Reinforcement Learning Rate Adaptation for Mobile Wide Area Networks
Karyn Doke, Elham Sadeghi, Vaasu Taneja, Habib Affinnih, University at Albany, SUNY; Petko Bogdanov, Mariya Zheleva, University at Albany

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3404

NOMA

1 Energy Efficiency Maximization for Hybrid NOMA Strategy in Multi-User MEC Networks
Wenqi Huang, Kaidi Wang, University of Manchester; Zhiguo Ding, UMIST

2 Handover Algorithms for Enhanced Throughput in a Hybrid OMA-NOMA System with imperfect SIC
Abhirami S, Siva Mouni Nimalidinne, Sai Dhiraj Amuru, Abhinav Kumar, Indian Institute of Technology Hyderabad (IITH)

3 On Performance of Cooperative OFDM Index Modulation aided Hybrid NOMA System
Rahul Makkar, LNM Institute of Information Technology, Jaipur; Monika Jain, Centre of Electronic Governance; Divyang Rawal, The LNMIIT; Nikhil Sharma, LNMIIT; Vijay Kumar Chakka, Shiv Nadar University

4 RIS-Aided MU-NOMA Systems with Imperfect CSI and Generalized Hardware Impairments
Qian Zhang, Guanghui Luo, Ju Liu, Zheng Dong, Yunxiao Li, Shandong University

5 Sub-channel Assignment and Power Allocation in NOMA-enhanced Federated Learning Networks
Yushen Lin, Kaidi Wang, University of Manchester; Zhiguo Ding, UMIST

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3405

Navigation

1 A New Adaptive Fading Instrumental Variable Pseudolinear Kalman Filter for 3D AOA Target Tracking
Mengxia He, S. C. Chan, The University of Hong Kong

2 Adaptive Point Cloud Clustering Algorithm for Practical Roadside MmWave Radar Systems

Luyi Zhang, Jinhang Zhang, Haixin Shi, Lu Gao, Xiaopeng Hu, Rui Chen, Xidian University

3 Feature Extraction using Variational Auto-encoder for Radar-based Posture Detection Systems

Eugene Casmin, NOVA University of Lisbon / Instituto de Telecomunicações; Rodolfo Oliveira, Universidade Nova de Lisboa/Instituto de Telecomunicações

4 Implementation of NavIC L1 Transmitter and Receiver
Satheesh Kumar Simhachalam, Indian Institute of Hyderabad

5 Undermining Live Feed ML Object Detection Accuracy with EMI on Vehicular Camera Sensors

Raushan Kumar Singh, Sudeepa Mishra, Yayathi Pavan Kumar S, IIT Ropar

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3406

Semantic Communications

1 Editable-DeepSC: Cross-Modal Editable Semantic Communication Systems

Wenbo Yu, Bin Chen, Harbin Institute of Technology, Shenzhen; Qinshan Zhang, Shu-Tao Xia, Tsinghua University

2 Partial Sampling-based Semantic Communications for Internet of Things

Kaiwen Yu, Qi He, Gang Wu, University of Electronic Science and Technology of China

3 Semantic Communication Challenges: Understanding Dos and Avoiding Don'ts

Jinho Choi, Jihong Park, Deakin University; Eleonora Grassucci, Danilo Comminiello, Sapienza University of Rome

4 Universal Weighted-Knowledge Bases for Task-Unaware Semantic Communication Systems

Shiyao Jiang, Harbin Institute of Technology in ShenZhen; Jian JIAO, Harbin Institute of Technology (Shenzhen); Zhang Ke, Peng Cheng Laboratory; Ye Wang, Broadband Communication Department, Pengcheng Laboratory; Rongxing LU, University of New Brunswick; Zhang Qinyu, Harbin Institute of Tech.

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3501 B

UAV Networks II

1 Joint UAV Trajectory Control and Channel Assignment for UAV-Based Networks with Wireless Backhauling

Minh Dat Nguyen, Université du Québec à Montréal (UQAM); Wessam Ajib, University of Quebec at Montreal; Wei-Ping Zhu, Concordia University

2 Modeling of Multi-UAV Networks based on Integrated Access and Backhaul for NTN

Jinho Choi, Deakin University

3 NOMA Assisted Semi-Grant-Free Transmission in UAV Networks with Multi-User Scheduling

Junlin Huang, Huabing Lu, Dalian University of Technology; Jie Tang, South China University of Technology; Nan Zhao, Dalian University of Technology; Zhaoyuan Shi, Anqing Normal University; Xianbin Wang, Western University

4 Securing the Skies: An IRS-Assisted AoI-Aware Secure Multi-UAV System with Efficient Task Offloading

Poorvi Joshi, National University of Singapore; Alakesh Kalita, Singapore Institute of Technology and Design; Mohan Gurusamy, National University of Singapore

5 UAV-Enabled D2D Vehicular Communication Network: Link Selection and Outage Analysis

Arjav Praveen Jain, Birla Institute of Technology And Science, Pilani; Sandeep Joshi, Birla Institute of Technology and Science Pilani, India

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3502

Intelligent Transportation II

1 Broadband Beamforming via Frequency Invariance Transformation and PARAFAC Decomposition for Jamming Mitigation in V2X Scenarios

Daniel Valle de Lima, Federal Institute of Education, Science and Technology of Ceará (IFCE); Joao Paulo Javidi da Costa, Antonio

Arlis Santos da Silva, Giovanni Almeida Santos, Jose Alfredo Ruiz Vargas, Hamm-Lippstadt University of Applied Sciences (HSHL); Auzair Ripardo de Alexandria, Federal Institute of Education, Science and Technology of Ceará (IFCE)

2 CAV as a Mobile Control Platform: A Paradigm for Traffic Management on Highways

Xianhui Wu, Xidian University; Wenwei Yue, xidian university; Zifan Sha, Xidian University; Yimeng Feng, Macquarie University

3 Digital Twin Aided Predictive Scheduling and Bandwidth Allocation for Multi-Vehicle Cooperative Perception Systems

Binbin Lu, University of Macau; Xumin Huang, GDUT; Yuan Wu, University of Macau; Liping Qian, Zhejiang University of Technology; Dusit Niyato, Nanyang Technological University; Tony Q.S. Quek, Singapore University of Technology and Design; Cheng-Zhong Xu, Department of Computer and Information Science, University of Macau

4 Distributed DRL for Device Access in Symbiotic Radio-Aided High-Speed Railway Networks

Difei Jia, Fengye Hu, Jilin University; Qianqian Zhang, University of Electronic Science and Technology of China (UESTC); Zhuang Ling, Jilin University

5 Synthetic Time-series Data Generation with 3D Convolution for EV Systems

Xudong Hu, Guihai Zhang, Biplab Sikdar, National University of Singapore

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3503

Communications in Specialized Environments

1 A Maritime Multi-User GBSM for Land-to-Ship Communications

Su pingfan, southeast university; Hengtai Chang, Purple Mountain Laboratories; Cheng-Xiang Wang, Yilin Ma, Jie Huang, Southeast University; Yubei He, Durham University

2 A Novel 3D GBSM for 6G Satellite-UAV-Ground Wireless Communications

Zayyad Haleed, Xichen Mao, Jie Huang, Cheng-Xiang Wang, Southeast University

3 Incremental Deployment of Base Stations for Optimal Overlap Coverage in Urban Environments

Jingyu Lyu, Southeast University; Songjiang Yang, Yinghua Wang, Purple Mountain Laboratories; Xichen Mao, Cheng-Xiang Wang, Jie Huang, Southeast University

4 Modeling Ambient Light in Stratified Waters for Underwater Optical Wireless Communication

Tharuka Govinda Waduge, Boon-Chong Seet, Kay C. Vopel, Auckland University of Technology

5 Wireless Channel Measurements, Characterization, and Comparisons in Aircraft Cabin at 28 GHz, 38 GHz and 130 GHz

Xi Liao, Chongqing University of Post and Telecommunications; Hao Tang, Wang Yang, Chongqing University of Posts and Telecommunications; Yi Chen, Huawei Technologies Co., Ltd; Ziming Yu, Huawei Technology Company; Wang Guangjian, Huawei Technologies Co., LTD

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3504

Heterogeneous Networks II

1 An Improved SB-SPS Scheme with Low Transmission Delay for Relay Transmission in Vehicle Platooning with C-V2X Sidelink Communication

Kohei Murata, Kosuke Sanada, Hiroyuki HATANO, Kazuo Mori, Mie University

2 Multi-Dimensional Constellation for OTFS-based Vehicular-IoT in Time-Variant Channel

Ch Santosh Reddy, Indian Institute of Technology, Kharagpur; Debarati Sen, Indian Institute of Technology Kharagpur; CHETNA SINGHAL, IIT,Kharagpur

3 Multi-Scenario Task Scheduling Based on Heterogeneous-Agent Reinforcement Learning in Space-Air-Ground Integrated Network

Kexin Fan, Harbin Institute of Technology, Shenzhen; Bowen Feng, Harbin Institute of Technology (Shenzhen); Junyi Yang, zhikai zhang, Harbin Institute of Technology, Shenzhen; Zhang Qinyu, Harbin Institute of Tech.

4 Multi-sided Matching for Space-Air-Ground Integrated Systems

Abdoul Karim A. H. Saliyah, UM6P; Doha Hamza, University of Prince Mugrin; Hajar El Hammouti, UM6P; Jeff S. Shamma, Illinois University; Mohamed-Slim Alouini, KAUST

5 Task scheduling algorithm for heterogeneous Computing Power Network

Guodong He, Xiaohui Li, Siting Lv, Zhou Yuanyuan, ZhiGang Ni, Xingbo Chen, Xidian University

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3505

Privacy and Security

1 Charging Ahead: A Hierarchical Adversarial Framework for Counteracting Advanced Cyber Threats in EV Charging Stations

Mohammed Almehdhar, Abdullatif Albaseer, Mohamed Abdallah, Ala Al-Fuqaha, Hamad Bin Khalifa University

2 Evaluating the Impact of Privacy-Preserving Federated Learning on CAN Intrusion Detection

Gabriele Digregorio, Elisabetta Cainazzo, Stefano Longari, Michele Carminati, Stefano Zanero, Politecnico di Milano

3 RIS-Assisted Integrated Sensing and Communication System With Physical Layer Security Enhancement by DRL Approach

Peng Jiang, Xiaowen Cao, Yejun He, Shenzhen University; Xianxin Song, Zhonghao Lyu, The Chinese University of Hong Kong, Shenzhen

4 Spoofing Detection in the Physical Layer with Graph Neural Networks

Tien Ngoc Ha, Daniel Romero, University of Agder

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3505

Positioning

1 A Self-Supervised Approach for Cooperative Neighboring Vehicle Positioning System based on Spatial-Temporal Learning Techniques

Mei-Qi Huang, Hsin-Yuan Chang, National Tsing Hua University, Taiwan, R.O.C.; Chih-Yu Wang, Academia Sinica; Wei-Ho Chung, National Tsing Hua University, Taiwan, R.O.C.

2 Cooperative Source Positioning Based on 1D AOA and Depth Measurements: A Closed-form Solution

Yonghua Chen, Hua Yu, Yuanyuan Ou, Jie Li, Fei Ji, South China University of Technology

3 Enhanced Weighted K-nearest Neighbour Positioning

Xinze Li, Hanan Al-Tous, Aalto University; Salah Eddine Hajri, Huawei Technologies CO. LTD.; Olav Tirkkonen, Aalto University

4 GVIL: Tightly Coupled GNSS-Visual-Inertial-Lidar for Position Estimation in Challenging Environments

Yangfang Shi, Baowang Lian, Northwestern Polytechnical University; Yonghong Zeng, Ernest Kurniawan, Institute for Infocomm Research; Yugang MA, Institute for Infocomm Research, A-STAR

5 WiFi Positioning with Mobility-Induced Graphs

Kyuwon Han, Yonsei University; Seung Min Yu, Korea Railroad Research Institute; Seong-Lyun Kim, Yonsei University; Seung-Woo Ko, Inha University

VTC2024-Spring Virtual Papers

Tuesday 25 June 2024

Tuesday, 25 June 2024 11:00 - 12:30 Heliconia 3506

Antenna Systems, Propagation, and RF Design

- 300 GHz propagation loss estimation method for BAN assuming walking behavior**
Kazuki Takezawa, Satoshi Ito, KDDI Research, Inc.; Takahiro Hayashi, KDDI Research Inc.
- First-Fresnel-Zone Based Path Loss Estimation for IRS-Assisted Millimeter Wave Communications**
Hiroki Aoki, Satoshi Ito, Takuya Ohto, Takahiro Hayashi, KDDI Research Inc.
- Flexible Secondary Beamforming Using Holographic Meta-Surfaces for Multi-Mode Vortex Beam Transmission in Wireless Communications**
Yufei Zhao, Nanyang Technological University; Ziyang Wang, Xinyu XUE, Beihang University; Afkar Mohamed Ismail, Xiaoyan MA, Guan Yong Liang, Nanyang Technological University
- Ultra-low Altitude Channel Measurement in Riverside Environments at 1.4 GHz**
Bin Li, Northwestern Polytechnical University; Renjie Li, Jiakang Yan, Northwest Polytechnic University
- Stacked Intelligent Metasurface Enabled Near-Field Multiuser Beamfocusing in the Wave Domain**
Xing Jia, University of Electronic Science and Technology of China (UESTC); Jiancheng An, Nanyang Technological University; Hao Liu, Lu Gan, University of Electronic Science and Technology of China; Marco Di Renzo, CentraleSupélec, Paris-Saclay University; M'erouane Debbah, KU 6G Research Center, Khalifa University of Science and Technology; Chau Yuen, Nanyang Technological University

- Aol-Based Coded Hybrid Automatic Repeat Request Strategy for Non-Terrestrial Networks**
Ruopu Du, Harbin Institute of Technology, Shenzhen; Bowen Feng, Yi~Yang, Harbin Institute of Technology (Shenzhen); Zhang Qinyu, Harbin Institute of Tech.
- D2D Communications with Energy Harvesting: An Optimal Secrecy Throughput Perspective**
Ajay Singh, IIT Jammu; Surjeet, Kumar
- Primary Rate Maximization in Movable Antennas Empowered Symbiotic Radio Communications**
Bin Lyu, Hao Liu, Wenqing Hong, Nanjing University of Posts and Telecommunications; Shimin Gong, Sun Yat-sen University; Feng Tian, Nanjing University of Posts and Telecommunications
- Spectral Efficiency Maximization for Probabilistic Semantic Communication with Rate Splitting**
Zhouxiang Zhao, Zhaohui Yang, Zhejiang University; Mingzhe Chen, Princeton University; Xu Gan, Chongwen Huang, Zhejiang University; Yao Sun, University of Glasgow; Qianqian Yang, Zhejiang University; Wei Xu, Southeast University; Zhaoyang Zhang, Zhejiang University
- User Association and Resource Allocation in Large Language Model Based Mobile Edge Computing System over 6G Wireless Communications**
Liangxin Qian, Jun Zhao, Nanyang Technological University
- Propagation Path-Informed High-Generalization Path Loss Model for Unknown Region Estimation**
Satoshi Ito, Takahiro Hayashi, KDDI Research, Inc.
- DragFly: Joint Threat Object Detection And UAV Trajectory Planning in Hostile Environments**
Akkapatch Thouchamongkol, Hong-Yi Chen, Yan-Hao Wang, Quan Tran Dinh Dai, National Chung Cheng University; Van-Linh Nguyen, National Chung Cheng University, Taiwan

Tuesday, 25 June 2024 14:00 - 15:30 Heliconia 3506

Electric Vehicles, Vehicular Electronics and Intelligent Transportation

- A Data Synchronization Incentive Scheme in Vehicular Digital Twin Network with Stackelberg Game**
Jingru Tan, Xiaoqing Yang, Jinkai Zheng, Tom H. Luan, Xidian University; Longxiang Gao, Qilu University of Technology; Zhou Su, Xi'an Jiaotong University
- A Probabilistic Data Offloading and Pricing Mechanism based on Stackelberg Game for Vehicular Crowdsensing**
Hengrui Cui, Ruoyu Zhang, Xumin Huang, Weifeng Zhong, Guangdong University of Technology
- Advanced Traffic Demand Generation in SUMO: ML-based Prediction of Flow Rate based on Real-world Measured Datasets**
Anjie Qiu, Prapul Alemada Sathish, Donglin Wang, RPTU Kaiserslautern Landau
- Augmented Cross Layer Refinement Network-based Lane Detection in Adverse Weather Conditions**
luoyuechen, Harbin Institute of Technology; Fuxi Wen, Tsinghua University
- Coverage Path Planning for AUVs Cooperative Environment Detection in Integrated Underwater Acoustic Communication and Detection Networks**
Yike Wu, Xiaoxiao Zhuo, Liang Tang, Shanghai Institute of Microsystem and Information Technology, CAS; Fengzhong Qu, Zhejiang University; Yu Zhao, Shanghai Institute of Microsystem and Information Technology, CAS; Zhiyong Bu, Shanghai Institute of Microsystem and Information Technology CAS

- Enhancing Cold Start Efficiency: Model Based Performance Analysis of an Integrated Thermal System for Fuel Cell Battery Powertrain with Waste Heat Recovery**
Sonat Arslan, Berk Opuz, Ahmet Furkan Erol, Burhan Özece, Oytun Karaduman, Onur Bar??, AVL Research & Engineering
- LOCUS: Efficient Urban Transportation using Localized Vehicular Coordination**
Chandra Shekhar, IIT Bhubaneswar; Sudipta Saha, Indian Institute of Technology, Bhubaneswar
- Maximization of Profit and Throughput of EV-Charging Station Integrated with PV and ESS**
Ram Mohan Chowdary Kota, Jaishree Mayank, Sanjeet Kumar Nayak, IIITDM Kancheepuram
- Precoding Design for Coordinated Multicast and Unicast Transmission in C-V2V Massive MIMO With Imperfect CSI**
Xinxin Niu, Li You, Southeast University; Anan Lu, Southeast University, Nanjing, China; Xiqi Gao, Southeast University
- Prioritized Task Offloading in Vehicular Edge Computing Using Deep Reinforcement Learning**
Ashab Uddin, Ahmed Hamdi Sakr, Ning Zhang, University of Windsor
- Resilient Post-Disaster Rescue Framework Using Mobile and Connected Electric Vehicles**
Yang Zheng, Nan Chen, Tennessee Tech University; Miao Wang, University of North Carolina at Charlotte

12 Resource Allocation in Large Language Model Integrated 6G Vehicular Networks

Chang Liu, Jun Zhao, Nanyang Technological University

13 Route Optimization for Increased EV-to-EV Charging Profitability and Efficiency

Shorooq Alaskar, University of Maryland Baltimore County; Mohamed Younis, University of Maryland

14 Spatio-temporal Coordinated Mobile Electric Vehicle Charging in Integrated Transportation and Distribution Systems

Miao Wang, Ran Zhang, University of North Carolina at Charlotte; Tianyue Zang, Stanford University

Tuesday, 25 June 2024 16:00 - 17:30 Heliconia 3506

IoV, IoT, M2M, Sensor Networks, and Ad-Hoc Networking**1 A DRL-based Server Selection Scheme for IoT Federated Learning in Sparse LEO Satellite Constellations**

Pengxiang Qin, Dongyang Xu, Xi'an Jiaotong University; Chinmay Chakraborty, Birla Institute of Technology; Osama Alfarraj, King Saud University; Keping Yu, Hosei University; Mohsen Guizani, Qatar University

2 Performance Analysis of UAV-Assisted Sensor Networks for Emergency Scenarios

Saud Althunibat, Texas A&M University at Qatar; Mohammad Taghi Dabiri, Mazen O. Hasna, Qatar University; Khalid Qaraqe, TAMU

3 Performance of MAC Layer Mechanisms in DECT-2020 NR mMTC Technology

Andrey Samuylov, Dmitri Moltchanov, Tampere University; Mirza Alam, Juho Pirskanen, Jussi Numminen, Wirepas Oy; Yevgeni Koucheryavy, Mikko Valkama, Tampere University

4 Proactive Adaptation of Data Rate in Mobile LoRa-based IoT Devices using Machine Learning

Laura Acosta García, University of Cartagena; Juan Aznar Poveda, University of Innsbruck (UIBK); Antonio-Javier García-Sánchez, Joan García Haro, Universidad Politécnica de Cartagena; Thomas Fahringer, University of Innsbruck (UIBK)

5 Q-learning Based mmWave Beam Adjustment for Joint Communication and Sensing Under IoV Wireless Networks

Tao Yue, Li Yan, Xuming Fang, Southwest Jiaotong University; Yi Li, China Academy of Railway Sciences; Qing Xue, Chongqing University of Posts and Telecommunications

6 Real Time Vehicle Identification: An IoT-Assisted Approach

Chandra Shekhar, IIT Bhubaneswar; Manish Kausik H, Sudipta Saha, Indian Institute of Technology, Bhubaneswar

7 Secure Key Distribution Scheme in IoT Networks Exploiting Channel State Information

Tasneem Alshamaseen, Hamad Bin Khalifa University; Saud Althunibat, Texas A&M University at Qatar; Marwa Qaraqe, Elmehdi Illi, Hamad Bin Khalifa University

8 Blockchain-based Vehicle-to-Vehicle Energy Trading Mechanism: A Bayesian Game Approach with Mixed Pricing Strategy

Haoxin Chang, SOUTHWEST JIAOTONG UNIVERSITY; Gang Liu, Southwest Jiaotong University; Zheng Ma, SOUTHWEST JIAOTONG UNIVERSITY; Wei Wang, State Key Laboratory of Rail Transit Engineering Informatization

9 Multi-AUV Collaborative Data Collection and Trajectory Planning in Integrated Sensing and Communication for Underwater Acoustic Networks

Tianhao Hu, Xiaoxiao Zhuo, Liang Tang, Shanghai Institute of Microsystem and Information Technology, CAS; Zhanya Li, Shanghai Institute of Microsystem and Information Technology, CAS; Wenkai Lu, Shanghai Institute of Microsystem and Information Technology, CAS; Fengzhong Qu, Zhejiang University

10 TRDS-Net: A Resource-Efficient and Lightweight Convolutional Neural Network Model for Digit Recognition

Zhiheng Kong, Wensong Liao, Jiahui Mao, Chong Tan, Hong Liu, Min Zheng, Shanghai Institute of Microsystem and Information Technology CAS

Wednesday 26 June 2024

Wednesday, 26 June 2024 11:00 - 12:30 Heliconia 3506

Machine Learning and AI for Communications**1 RF2LiDAR: Enabling Digital Twin Using MIMO RF Signals**

Shubham Khunteta, Samsung R&D Institute-Bengaluru, India; Yeswanth Reddy Guddeti, Samsung R&D Institute-Bangalore; Ashok Kumar Reddy Chavva, Samsung; Avani Agrawal, Samsung R&D Institute-Bangalore

2 A Deep Learning-Based Spatial Domain Beam Prediction in Massive MIMO System

Bei Yang, China Telecom Research Institute; Ruishen Yang, Delft University of Technology; Xin Liang, Beijing University of Posts and Telecommunications; Ziyang Zhang, Peng Chen, China Telecom Research Institute

3 Adversarial Attacks Targeting Point-to-Point Wireless Networks

Ahmad Ghasemi, University of Massachusetts Amherst; Majid Moradikia, Worcester Polytechnic Institute (WPI); Seyed A. Zekavat, Worcester Polytechnic Institute; Hossein Pishro-Nik, University of Massachusetts, Amherst

4 AI Based Low Complexity Design for Digital Pre-distorter for Next Generation Wireless Systems

Shubham Khunteta, Samsung R&D Institute-Bengaluru, India; Avani Agrawal, Samsung R&D Institute-Bangalore; SEUNGIL PARK, 6G Research Team, Samsung Electronics, Seoul, South Korea; Ashok Kumar Reddy Chavva, Samsung; J. Jang, Suhwook Kim, 6G Research Team, Samsung Electronics, Seoul, South Korea

5 Distributed Unknown Specific Emitter Identification based on Federated Learning

Hongyujie Xiao, Southwest Jiaotong University; Heng Liu, Key Lab of Information Coding and Transmission; Yi Zhou, Liu Yang, Zheng Ma, Southwest Jiaotong University

6 Fast Best Beam Prediction and Overhead Reduction for 6G Networks: A Deep Learning Approach

Jalal Jalali, JuliaSpace; Juan Roa, Futurewei Technologies; Yifei Song, Virginia Tech; Renjian Zhao, Baoling Sheen, Futurewei Technologies

7 Hybrid Beamforming for Millimeter Wave Relay Systems: A Deep Unfolding Approach

Zhen Luo, Southwest University; Xinyu Wang, Fu Xie, Hongqing Liu, Chongqing University of Posts and Telecommunications

8 Robust Clustered Federated Learning Against Malicious Agents

Sisui NGOH, Singapore University of Technology and Design; Abhishek Pal Majumder, University of Reading; Lingjie DUAN, Singapore University of Technology and Design

9 Visual Sensing-Based Path Loss Prediction Method

Yixuan Tian, Yutong Sun, Li Yu, Zhang Jianhua, Yuxiang Zhang, Beijing University of Posts and Telecommunications; Guangyi Liu, China Mobile

10 Adaptive Neural Network for Eigen-Decomposition of Multi-dimensional Channel Kernels

Iresha Amarasekara, University at Albany (SUNY); Zhibin Zou, University at Albany; Aveck Dutta, University at Albany SUNY

Wednesday, 26 June 2024 14:00 - 15:30 Heliconia 3506

Positioning, Navigation, and Mobile Satellite Systems**1 Drone Propeller Speed Measurement: Case Study using 5GHz RF and mmWave Radar**

Heba Awad, Julie A McCann, Imperial College London

2 Multi-Sources Information Fusion Learning for Multi-Points NLOS Localization

Bohao Wang, Fenghao Zhu, Zhejiang University; Mengbing Liu, Nanyang Technological University; Chongwen Huang, Qianqian Yang, Zhejiang University; Ahmed Alhammedi, Technology Innovation Institute; Zhaoyang Zhang, Zhejiang University; M'erouane Debbah, KU 6G Research Center, Khalifa University of Science and Technology

3 Real-Time UWB and IMU Fusion Positioning System for Urban Rail Transit with High Mobility

Rongjing Wang, Hanli Jiang, Qianqian Zhang, Gang Liu, Southwest Jiaotong University; F. Richard Yu, Carleton University, Canada

4 Information Freshness of a Relay Priority Transmission System

李月, 西北师范大学; 贾向东, Northwest Normal University; 郭宇新, 西北师范大学

5 Off-Grid DOA Estimation Algorithm Based on Expanded Matrix and Matrix Pencil

Xuruoyang Jin, Haotian Chen, Chunyi Song, Zhiwei Xu, Zhejiang University; Guoyu Cui, Changyou Men, Quan Sun, Vango Technologies

6 A Parallel ADMM Approach for PAPR Reduction in Mixed-Numerology Systems

Yuhang Zhou, Jiaxuan Li, Xiaoran Liu, Jun Xiong, Haitao Zhao, National University of Defense Technology

Thursday, 27 June 2024 11:00 - 12:30 Heliconia 3506

Radio Access Technology and Heterogeneous Networks**1 An Adaptive Coded Caching Scheme for Time-Varying Channels**

Mirna Haidar, Lebanese university, saint joseph university; Yasser Fadlallah, University of Science and Arts in Lebanon, USA; Hadi Edmond Sawaya, Saint Joseph University, Lebanon; abed ellatif samhat, Lebanese university

2 Improved Design of Resource Hopping based Multiple Access for Grant-free Random Access in 6G mMTC System

Wanyue Zhang, Beijing Jiaotong University, China; Guangkai Li, National Computer Network Emergency Response Technical Team; Guoyu Ma, Yiyang Ma, Beijing Jiaotong University; Wanqiao Wang, China Electric Power Research Institute; Botao Feng, Bo Ai, Beijing Jiaotong University

3 Interference Avoidance in Hotspot Areas for Cell-Free Millimeter-Wave Massive MIMO Systems

Shihao Zhu, Junhui Liu, Ming Zhao, Zhou Wuyang, University of Science and Technology of China

4 Stochastic Geometry Analysis for Distributed RIS-Assisted mmWave Communications

Yuan Xu, Zhejiang University; Wei Li, Nanyang Technological University; Chongwen Huang, Zhejiang University; Yongxu Zhu, The University of Warwick; Zhaohui Yang, Zhejiang University; Jun Yang, ZTE Corporation; Jiguang He, TII; Zhaoyang Zhang, Zhejiang University; M'erouane Debbah, KU 6G Research Center, Khalifa University of Science and Technology

11 Residual-Network Enabled Deep soft Interference Cancellation for MIMO Detection Without Channel State Information

Li Tong, Beijing University of Posts and Telecommunications

7 Earliest Partial Relay Synchronous Cooperation Scheme for Multi-Relay IoT System with the Tradeoff of AoI, Energy Efficiency and Throughput

???, Xiaoping Ma, Northwest Normal University; Junyan Wang, Sun Yat-sen University; Xianghua Han, Northwest Normal University

8 Impact of Pointing Errors on the Performance of IRS-Assisted Multi-User THz-NOMA

Khaled Altuwaigi, Ahmad Massud Tota Khel, Han Wen, Khairi Hamdi, University of Manchester

9 Joint Multi-User Grouping and AP Switch On/Off for Energy-Efficient Cell-Free Massive MIMO

Masaaki Ito, Issei Kanno, Yoji Kishi, KDDI Research, Inc.; Wei Yu Chen, Andreas F. Molisch, University of Southern California

10 Low-Complexity Frequency Invariant Beamformer Design Based on SRV-Constrained Array Response Control

Zihao Teng, Huaguo Zhang, University of Electronic Science and Technology of China; Jiancheng An, Nanyang Technological University; Lu Gan, University of Electronic Science and Technology of China; Hongbin Li, Stevens Institute of Technology; Chau Yuen, Nanyang Technological University

11 Opportunistic Quantization for Fronthaul Overhead Reduction in Beyond 5G Distributed Base Stations

G. D. Surabhi, Shruti Venkatesh, Bharath Shamasundar, Samsung R&D Institute - Bangalore; Ashok Kumar Reddy Chavva, Samsung

12 Superdirectivity-Based Electromagnetic Hybrid Beamforming for Holographic Communications

Ran Ji, Chongwen Huang, Zhejiang University; Xiaoming Chen, Xi'an Jiaotong University; Wei E. I. Sha, Zhejiang University, China; Linglong Dai, Tsinghua University; Jiguang He, TII; Zhaoyang Zhang, Zhejiang University; Chau Yuen, Nanyang Technological University; M'erouane Debbah, KU 6G Research Center, Khalifa University of Science and Technology

5 Variational Bayesian Inference-Based Joint Active User Detection and Channel Estimation in Cell-free Massive MIMO

Junhui Liu, Shihao Zhu, Ming Zhao, Zhou Wuyang, University of Science and Technology of China

6 Distributed Bayesian Sparse Signal Recovery Algorithm with Minimal Communication Load in Networks

Mudassir Masood, King Fahd University of Petroleum and Minerals

7 Offloading and Quality Control for AI Generated Content Services in 6G Mobile Edge Computing Networks

Yitong Wang, Chang Liu, Jun Zhao, Nanyang Technological University

8 Orchestration of Emulator Assisted 6G Mobile Edge Tuning for AI Foundation Models: A Multi-Agent Deep Reinforcement Learning Approach

Wenhan Yu, Terence Jie Chua, Jun Zhao, Nanyang Technological University

9 Outage Probability of Wireless Powered Cooperative NOMA over Fluctuating Two-Ray Fading

Pawan Kumar, Aryan, National Institute of Technology Rourkela; Kalpana Dhaka, IIT Guwahati

10 Secure and Energy-Efficient Mobile Edge Computing with UAV-Mounted-RIS Assistance

Ali A. Nasir, King Fahd University of Petroleum and Minerals

11 The Convergence of Artificial Intelligence Foundation Models and 6G Wireless Communication Networks

Mohamed Reda Shoeib, Wang Zefan, Jun Zhao, Nanyang Technological University

12 Universal Black-Box Adversarial Attacks on Deep Learning Models for Specific Emitter Identification

Kailun Chen, Yibin Zhang, Nanjing University of Posts and Telecommunications; Zhenxin Cai, Nanjing University; Yu Wang,

Chen Ye, Nanjing University of Posts and Telecommunications; Yun Lin, Harbin Engineering University; Guan Gui, Nanjing University of Posts and Telecommunications

Thursday 27 June 2024

Thursday, 27 June 2024 14:00 - 15:30 Heliconia 3506

Spectrum Management, Green Communications, Services and Security**1 Applying Evolutionary Algorithms for Cell Switch-Off to Reduce Network Energy Consumption**

Jesús Galeano-Brajones, University of Extremadura; Carlos Pupiales, Aalborg University; Daniela Laselva, Nokia; Javier Carmona-Murillo, University of Extremadura; Francisco Luna, University of Málaga

2 Energy-efficient UAV-BS-coordinated Data Collection for Wireless Sensor Networks of High-speed Railways

Junkai Wang, Li Yan, Xuming Fang, Southwest Jiaotong University; Qing Xue, Chongqing University of Posts and Telecommunications; Yi Li, China Academy of Railway Sciences

3 Energy-Oriented Offloading Decision and Multidimensional Resource Allocation for UAV-Assisted Edge Computing Systems

Fang Ye, Weibo Hao, Jingchuan Zhang, Yibing Li, Harbin Engineering University

4 Optimizing UAV-Assisted FANETs: Reliability in Multihop Routing over Rician Fading Channels

Payal Mittal, Santosh Shah, Anirudh Agarwal, The LNM Institute of Information Technology, Jaipur; Deepak Mishra, University of New South Wales (UNSW) Sydney

5 Outage Probability Analysis for D2D-based Multi-antenna V2V Underlay System

Kalpna Dhaka, Indian Institute of Technology Guwahati

6 UAV Path Planning for Surveillance Applications: Rotary-Wing vs. Fixed-Wing UAVs

Bahareh Jafari, University of Massachusetts Amherst; Hamid Saeedi, UDST and Tarbiat Modares University; Hossein Pishro-Nik, University of Massachusetts, Amherst

Thursday, 27 June 2024 16:00 - 17:30 Heliconia 3506

Wireless Networks: Protocols, Security and Services**1 Navigating Connected Car Cybersecurity: Location Anomaly Detection with RAN Data**

Feng Wang, Syracuse University; Yaron Koral, Kenichi Futamura, AT&T Laboratories

2 QoS-Optimized Deployment of Mobile Relay AUVs in Underwater Acoustic Sensor Networks

Fang Ye, Hengyu Xu, Yibing Li, Tao Jiang, Zitao Zhou, Harbin Engineering University

3 Toward Steady Video Content Delivery for High-Speed Vehicles

Xinchang Zhang, Shandong Normal University

4 A Multi-link Based Seamless Handoff Scheme for Next Generation Wi-Fi Networks

??, ??????; Li Yan, Rong He, Xuming Fang, Southwest Jiaotong University; Liuming Lu, Chaoming Luo, Guangdong OPPO Mobile Telecommunications Corp

5 Detecting Location Spoofing Attacks using Multiple Angle of Signal Arrivals in MM-Wave Vehicular Networks

Chandana Sai Thondebhavi Shanthakumar, California State University, Sacramento; Aishwarya Chawariya, Intel Corporation; Yuan Cheng, Grand Valley State University; Mohammed E. Eltayeb, California State University, Sacramento

7 Security of RIS-Aided Energy Harvesting Based D2D Communications in Cognitive Cellular Network

K. Sree Venkateswara Rao, Indian Institute of Technology, Jammu; Ajay Singh, IIT Jammu

8 Seeing is Believing: A Federated Learning Based Prototype to Detect Wireless Injection Attacks

Aadil Hussain, Nitheesh Gundapu, Sarang Drugkar, Suraj Kiran, IIT Delhi; Harshan Jagadeesh, IIT Delhi, India; Ranjitha Prasad, Indraprastha Institute of Information Technology Delhi

9 Dynamic Environment-Adaptive UAV-Assisted Integrated Sensing and Communication

Keyi Cheng, Xiamen University

10 Evaluating Position Prediction Methods for High Speed UAV based Flying Ad Hoc Networks

Guowen Hu, Chongqing University of Technology; Wei Liu, Chongqing University of Technology; Ming Xu, Yu Xia, Nanjing University of Aeronautics and Astronautics; Jing Mao, Chongqing University of Technology; Cheng Xu, Nanjing University of Aeronautics and Astronautics; Shunren Hu, Chongqing University of Technology; Daqing Huang, Nanjing University of Aeronautics and Astronautics

11 Optimized Control-Centric Communication in Cooperative Adaptive Cruise Control Systems

Mahdi Razzaghpour, Shahriar Shahram, Rodolfo Valiente, University of Central Florida; Mahdi Zaman, Univ. of Central Florida; Yaser P. Fallah, University of Central Florida

12 TRIMO: An Efficient Multimodal Misbehavior Detection Model in Vehicular Networks

Van-Linh Nguyen, National Chung Cheng University, Taiwan; Lan-Huong Nguyen, National Chung-Cheng University; Wen-Pin Liu, Hao-En Ting, Xuan-Zhang Hu, National Chung Cheng University

6 Environment-Aware Codebook for RIS-Assisted MU-MISO Communications: Implementation and Performance Analysis

Zhiheng Yu, University of Electronic Science and Technology of China; Jiancheng An, Nanyang Technological University; Lu Gan, University of Electronic Science and Technology of China; Chau Yuen, Nanyang Technological University

7 Evaluation of 5G Train Neutral Host Architecture for Future 5G Railway Communications

Ali El Amine, IRT Saint Exupery; Jad Nasreddine, Martin Trullenque, i2CAT Foundation; Luca Petrucci, Axbryd; Philippe Veyssiere, IRT Saint Exupery; Nuria Trujillo, Hispasat; Francisco Vázquez-Gallego, Daniel Camps-Mur, i2CAT Foundation

8 On the Secrecy of SWIPT Systems: An Amount of Confusion Loss Perspective

Soleha Kousar, Indian Institute of Technology Jammu; Ajay Singh, IIT Jammu

9 Site-specific Deployment Optimization of Intelligent Reflecting Surface for Coverage Enhancement

Dongsheng Fu, University of Xiamen; Xintong Chen, Xiamen University; Jiangbin Lyu, National University of Singapore; Liquan Fu, Xiamen University

10 Switching MAC Protocols for UAV Networks in Tactical Scenario

Qingnan Sun, Nanjing University of Aeronautics and Astronautics

**11 Toward a Unified Analytical Framework for ISAC
Fundamentals in Cellular Networks**
Xu Gan, Chongwen Huang, Zhaohui Yang, Xiaoming Chen,
Zhejiang University; Jiguang He, TII; Zhaoyang Zhang, Zhejiang

University; Chau Yuen, Yong Liang Guan, Nanyang Technological
University; Merouane Debbah, Technology Innovation Institute