

WOCC, Friday, October 25, 2024

9:30-10:00	Welcome Remarks								
10:00-11:00	Keynote Session	Prof. Krishna Narayanan, Texas A&M University “Transformers Are Efficient In-Context Estimators for Wireless Communications”							
11:00-11:15	Tea Break								
11:15-12:15	Keynote Session	Prof. Ton Koonen, Eindhoven University of Technology “Optical Wireless Communication by Dynamically Steered High-Capacity Narrow Beams”							
12:15-13:30	Lunch								
13:30-15:10	W1	Wireless Networks and Communications		O1	Optical Communications and Networks		M1	Machine Learning and Artificial Intelligence	
	Invited Paper Presentation			Prof. Xin Jiang	Multi-dimensional Stokes vector modulations and mode-vector modulations in multi-core and multi-mode fibers		Prof. Qinglin Zhao	Remolding Blockchain for Fair Data Processing	
				Prof. You-Chia Chang , Prof. Yao-Wei Huang, Prof. Peichen Yu, Prof. Ming Lun Tseng, Prof. Kuo-Ping Chen	Special Session: Metasurface Design, Fabrication, and Applications		Paper Presentation		
15:10-15:30	Break								
15:30-17:10	W2	Wireless Networks and Communications		O2	Optical Communications and Networks		M2	Machine Learning and Artificial Intelligence	
	Prof. Yu-Guang Fang	How Vehicles Provide Service Support for Smart Cities		Prof. San-Liang Lee	High-power PCG-DFB Lasers for Optical Interconnect and Optical Sensing Recent Progress of Silicon Photonics		Paper Presentation		
	Paper Presentation			Prof. Peng-Chun Peng	Optical-Wireless Integration for Empowering 6G Mobile Communication Networks				
				Paper Presentation					
17:30-	Banquet / Best Paper Award Ceremony @Ho Hotel								

WOCC, Saturday, October 26, 2024

9:00-10:00	Keynote Session		Prof. Meng-Chu Zhou, New Jersey Institute of Technology “Using Diverse Dark Knowledge in Sample-Wise Multi-Teacher Distillation for Accurate Object Recognition”			
10:00-10:20	Break					
10:20-12:00	W3 Wireless Networks and Communications		O3 Optical Communications and Networks		M3 Machine Learning and Artificial Intelligence	
	Prof. Yu-Dong Yao	Deep Learning and Foundation Models in Wireless Research	Dr. Jhih-Heng Yan	Innovative Optical and Wireless Network (IOWN) – Paradigm shift of Communication and Computing Technology	Prof. Zhi Wei	Model-based deep embedding for the analysis of single-cell RNA sequencing data
	Paper Presentation		Paper Presentation		Paper Presentation	
12:00-13:30	Lunch					
13:30-15:10	W4 Wireless Networks and Communications		W5 Wireless Networks and Communications		M4 Machine Learning and Artificial Intelligence	
	Prof. Ming-Chun Lee	Integrated Sensing and Communications	Paper Presentation		Paper Presentation	
	Paper Presentation		Dr. Haoran Peng	URLLC and eMBB multiplexing with RIS: Modeling, analysis, and optimization		
15:10-15:30	Closing Ceremony					

Wireless Networks and Communication Session

10/25 (Fri.)	W1	Paper	Paper ID
	13:30-14:55	Joint delay and user activity detection in asynchronous massive access	1571030045
	14:55-14:20	Application of Integrated Sensing and Communication in Structural Health Monitoring	1571022683
	14:20-14:45	Harmonic MUSIC Method for mmWave Radar-based Vital Sign Estimation	1571021453
	14:45-15:10	Deep Learning-Based Handover Management for 6G Intelligent Networks	1571040389
	W2	Paper	
	15:30-16:00 (Invited talk)	How Vehicles Provide Service Support for Smart Cities	Prof. Yu-Guang Fang (City U)
	16:00-16:20	On the Multichannel Rendezvous Problem without Global Channel Enumeration	1571017425
	16:20-16:40	Profit Maximization in DRX Power Saving Configuration as a Service	1571030243
16:40-17:00	Two-Level Wireless Spectrum Resource Allocation for 5G Network Slicing	1571019627	
10/26 (Sat.)	W3	Paper	
	10:20-10:50 (Invited talk)	Deep Learning and Foundation Models in Wireless Research	Prof. Yu-Dong Yao (Stevens Institute of Technology)
	10:50-11:10	Affective Communication: Designing Semantic Communication for Affective Computing	1571017612
	11:10-11:30	Computer Vision aided Beamforming for V2X through Effective Communication	1571017742
	11:30-11:50	Priority-Aware Joint Computational Offloading and Resource Allocation in NOMA-Assisted Vehicular Edge Computing	1571018395
	W4	Paper	
	13:30-14:00 (Invited talk)	Integrated Sensing and Communications	Prof. Ming-Chun Lee (NYCU)
	14:00-14:20	Attenuated-RMMP: A Compressed Sensing Estimation over OTFS Modulation for High Doppler Shift Communications	1571019233
	14:20-14:40	Effectiveness Evaluation of Multi-user MIMO Tomlinson-Harashima Precoding in LEO Satellite Communication Systems	1571015401
	14:40-15:00	Delay-Aware Task Scheduling for Multi-Access Edge Computing on the Internet of Vehicles	1571015417
	W5	Paper	
	13:30-14:00 (Invited talk)	URLLC and eMBB multiplexing with RIS: Modeling, analysis, and optimization	Dr. Haoran Peng (CUHK)
	14:00-14:20	RF Front-end LoRa Transceiver with Antenna for Comparison with Gyro and Vehicle Communication	1571016980
14:20-14:40	Metasurface-Assisted Antenna for Bandwidth and Gain Boost in Extended UWB Applications	1571029422	
14:40-15:00	Substrate Selection for Improved Sensitivity in Noninvasive Blood Glucose Microwave Sensors	1571024817	

Optical Communications and Networks Session

	O1	Paper	Paper ID	
10/25 (Fri.)	13:30-14:00 (Invited Talk)	Multi-dimensional Stokes vector modulations and mode-vector modulations in multi-core and multi-mode fibers	Prof. Xin Jiang (CUNY)	
	14:00-15:15 (Special Session)	Metasurface Design, Fabrication, and Applications	Prof. Peichen Yu (NYCU)	
			Prof. You-Chia Chang (NYCU)	
			Prof. Yao-Wei Huang (NYCU)	
			Prof. Ming Lun Tseng (NYCU)	
			Prof. Kuo-Ping Chen (NTHU)	
	O2	Paper		
	15:30-16:00 (Invited Talk)	High-power PCG-DFB Lasers for Optical Interconnect and Optical Sensing Recent Progress of Silicon Photonics	Prof. San-Liang Lee (NTUST)	
	16:00-16:30 (Invited Talk)	Optical-Wireless Integration for Empowering 6G Mobile Communication Networks	Prof. Peng-Chun Peng (NTUT)	
16:30-16:50	Using PMMA Side-Glow Optical Fiber for Underwater Optical Camera Communication (UWOCC)	1571025047		
16:50-17:10	25 Gbit/s Transmission over 25 km Optical Fiber with Adaptive Optical Tracking in Fiber-Free-Space-Optical-Communication (FSOC) Network	1571025208		
10/26 (Sat.)	O3	Paper		
	10:20-10:50 (Invited Talk)	Innovative Optical and Wireless Network (IOWN) – Paradigm shift of Communication and Computing Technology	Dr. Jhih-Heng Yan (Chunghwa Telecom)	
	10:50-11:10	Broadband Silicon Photonics Mode-Division-Multiplexing Grating Coupler	1571019396	
	11:10-11:30	Finite Volume Based Full Vectorial Modesolver for Micro Structured Fibers and Plasmonic Waveguides	1571019466	

Machine Learning and Artificial Intelligence Session

	M1	Paper	Paper ID
10/25 (Fri.)	13:30-14:10 (Invited Talk)	Remolding Blockchain for Fair Data Processing	Prof. Qinglin Zhao (Macau University of Science and Technology)
	14:10-14:25	Pentagon-Match (PMatch) for Aerial Images: Using View-Invariant Planar Region for Homography Estimation	1571018519
	14:25-14:40	Vision-based Autonomous UAV Low-Altitude Road Following and Obstacle Avoidance	1571019407
	14:40-14:55	Dynamic Spectrum Access based on SDR Frequency Offset for Drone Communication under Public Protection and Disaster Relief	1571020675
	14:55-15:10	High Stability Marine Pollution Detection Model based on a Drone Platform	1571020698
	M2	Paper	
	15:30-15:45	Using Conditional Video Compressors for Image Restoration	1571025943
	15:45-16:00	Vision-guided Drone Perching to Extend Surveillance Time	1571026396
	16:00-16:15	CASML: Combining Cross-Scale Attention and Separate Mix-Layer for Lightweight Classification Network	1571034515
	16:15-16:30	Horizontal Pod Autoscaling for Precise Startup of AI Microservices at the Network Edge: A Hybrid Proactive and Reactive Approach	1571035895
16:30-16:45	Deepfake Detection through Temporal Attention	1571020072	
10/26 (Sat.)	M3	Paper	
	10:20-11:00 (Invited Talk)	Model-based deep embedding for the analysis of single-cell RNA sequencing data	Prof. Zhi Wei (New Jersey Institute of Technology)
	11:00-11:15	Self-Supervised Learning Enabled Task-Oriented Semantic Communication Using Limited Labels	1571010636
	11:15-11:30	Learning-Based Task Offloading and UAV Trajectory Optimization in SAGIN	1571012280
	11:30-11:45	A Novel PAPR Reduction of OFDM Based on Deep Learning	1571017800
	11:45-12:00	NMformer: A Transformer for Noisy Modulation Classification in Wireless Communication	1571019918
	M4	Paper	
	13:30-13:45	ViT-MAE Based Foundation Model for Automatic Modulation Classification	1571017972
	13:45-14:00	Few-Shot Open-Set Modulation Recognition Based on Signal Constellation and Meta-Learning	1571017978
14:00-14:15	BEpiC: Binary Episodes for Meta-Learning Towards Better Generalization	1571019904	
14:15-14:30	Group-and-Conquer for Multi-Speaker Single-Channel Speech Separation	1571026985	