WOCC 2024

THE 33rd WIRELESS AND OPTICAL COMMUNICATIONS CONFERENCE

OCTOBER 25-26, 2024 HSINCHU, TAIWAN

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1 Welcome Message

On behalf of the 2024 Organizing Committee of Wireless and Optical Communications Conference (WOCC2024), we welcome you to the 33rd WOCC conference on October 25th-26th 2024. The conference is hosted by National Yang Ming Chiao Tung University (NYCU).

The 33rd Wireless and Optical Communications Conference is an IEEE international conference. In the past three decades, WOCC has become one of the major conferences for telecommunications and networking professionals both in the U.S. and in the Asia-

Pacific region, as well as other regions of the world, presenting the latest innovations, discussing emerging techniques, exchanging research ideas, and exploring frontier issues. WOCC 2024 will also feature high-quality plenary speeches, as well as, invited keynotes from prominent research and industry leaders.

We hope your participation in WOCC 2024 is a productive and rewarding experience and thank you for your involvement and contribution in making WOCC 2024 a successful event.

Wireless Networks and Communications
Zhu Hu Hall 竹湖廳

Friday, October 25, 2024

9:30-10:00	Welcome Remarks		
10:00-11:00	Keynote Session	**Krishna Narayanan, Texas A&M University** **"Transformers Are Efficient In-Context Estimators for Wireless Communications"** **Host: Yu-Chih Huang (NYCU)**	
11:00-11:15	Tea Break		
11:15-12:15	Keynote Session	**Ton Koonen, Eindhoven University of Technology** **"Optical Wireless Communication by Dynamically Steered High-Capacity Narrow Beams"** **Host: Chi-Wai Chow (NYCU)**	
12:15-13:30	Lunch		
13:30-15:10	**Wireless Networks and Communications** **Chair: Yu-Chih Huang (NYCU)**		
	W1	Paper	Speaker
	13:30-14:55 (Invited Paper)	Joint delay and user activity detection in asynchronous massive access	Sertac Derya; Shih-Chen Yu; Hsu-Wen Vincent Young; Eduard A Jorswieck; Pin-Hsun Lin; Shih-Chun Lin
	14:55-14:20 (Invited Paper)	Application of Integrated Sensing and Communication in Structural Health Monitoring	Jie Yang; Chao-Kai Wen; Shi Jin
	14:20-14:45 (Invited Paper)	Harmonic MUSIC Method for mmWave Radar-based Vital Sign Estimation	Po-Hsuan Tseng; Chieh-Hsun Hsieh; Tung-Lin Tsai
	14:45-15:10 (Invited Paper)	Deep Learning-Based Handover Management for 6G Intelligent Networks	Yu-Han Huang; Shao-Yu Lien; Chih-Cheng Tseng
15:10-15:30	Break		
15:30-17:10	**Wireless Networks and Communications** **Chair: Shih-Chun Lin (NTU)**		
	W2	Paper	Speaker
	15:30-16:00 (Invited talk)	How Vehicles Provide Service Support for Smart Cities	Yu-Guang Fang (City U)
	16:00-16:20	On the Multichannel Rendezvous Problem without Global Channel Enumeration	Yi-Chia Cheng; Cheng-Shang Chang
	16:20-16:40	Profit Maximization in DRX Power Saving Configuration as a Service	Yi-Yun Li; He-Hsuan Liu; Kuang-Hsun Lin; Chih-Yu Wang; Hung-Yu Wei
	16:40-17:00	Two-Level Wireless Spectrum Resource Allocation for 5G Network Slicing	Ping-Cheng Lin; Fuchun Joseph Lin; Jyh-Cheng Chen; Chien Chen
18:00-	Banquet / Best Paper Award Ceremony **@Ho Hotel 2F (YEN YEN XUAN)**		

Saturday, October 26, 2024

9:00-10:00	Keynote Session	**Meng-Chu Zhou, New Jersey Institute of Technology** **"Using Diverse Dark Knowledge in Sample-Wise Multi-Teacher Distillation for Accurate Object Recognition"** **Host: Hong-Han Shuai (NYCU)**	
10:00-10:20	**Break**		
10:20-12:00	**Wireless Networks and Communications** **Chair: Ming-Chun Lee (NYCU)**		
	W3	Paper	Speaker
	10:20-10:50 (Invited talk)	Deep Learning and Foundation Models in Wireless Research	Yu-Dong Yao (Stevens Institute of Technology)
	10:50-11:10	Affective Communication: Designing Semantic Communication for Affective Computing	Chia-Han Lee; Po-Hsiang Huang; Tsung-Han Lee; Po-Hao Chen
	11:10:11:30	Computer Vision aided Beamforming for V2X through Effective Communication	Chia-Han Lee; Po-Hao Chen; Po-Hsiang Huang
	11:30-11:50	Priority-Aware Joint Computational Offloading and Resource Allocation in NOMA-Assisted Vehicular Edge Computing	Pradeep Chennakesavula; Jen-Ming Wu
12:00-13:30	Lunch		
13:30-15:10	**Wireless Networks and Communications** **Chair: Shin-Lin Shieh (NTHU)**		
	W4	Paper	Speaker
	13:30-14:00 (Invited talk)	Integrated Sensing and Communications	Ming-Chun Lee (NYCU)
	14:00-14:20	Attenuated-RMMP: A Compressed Sensing Estimation over OTFS Modulation for High Doppler Shift Communications	Jeng-Hau Wang; Jen-Ming Wu; Pradeep Chennakesavula
	14:20-14:40	Effectiveness Evaluation of Multi-user MIMO Tomlinson-Harashima Precoding in LEO Satellite Communication Systems	Nozomi Sasaki; Shuhei Saito; Hirofumi Suganuma; Fumiaki Maehara
	14:40-15:00	Delay-Aware Task Scheduling for Multi-Access Edge Computing on the Internet of Vehicles	You-Chiun Wang; Kuan-Yu Chen
15:10-15:30	Closing Ceremony		

Optical Communications and Networks
喜鵲廳 Versailles

Friday, October 25, 2024

13:30-15:10	**Optical Communications and Networks** **Chair: Yinchieh Lai (NYCU)**		
	01	Paper	Speaker
	13:30-14:00 (Invited Talk)	Mode vector modulation: A multidimensional Stokes vector modulation for multimode links	Xin Jiang (CUNY)
	14:00-15:15 (Special Session)	Metasurface Design, Fabrication, and Applications	Peichen Yu (NYCU)
			You-Chia Chang (NYCU)
			Yao-Wei Huang (NYCU)
			Ming Lun Tseng (NYCU)
			Kuo-Ping Chen (NTHU)
15:10-15:30	Break		
15:30-17:10	**Optical Communications and Networks** **Chair: Chi-Wai Chow (NYCU)**		
	02	Paper	Speaker
	15:30-16:00 (Invited Talk)	High-power PCG-DFB Lasers for Optical Interconnect and Optical Sensing	San-Liang Lee (NTUST)
	16:00-16:30 (Invited Talk)	Optical-Wireless Integration for Empowering 6G Mobile Communication Networks	Peng-Chun Peng (NTUT)
	16:30-16:50	Using PMMA Side-Glow Optical Fiber for Underwater Optical Camera Communication (UWOCC)	Jia-Fu Li; Yung-Jie Chen; Yun-Han Chang; Ho-Yu Wen; Chi-Wai Chow; Chien-Hung Yeh
	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	Yuan-Zeng Lin; Yu-Han Lin; Jian-Wen Chen; Kai-Zhong Cai; Chi-Wai Chow; Chien-Hung Yeh
18:00-	Banquet / Best Paper Award Ceremony **@Ho Hotel 2F (YEN YEN XUAN)**		

Saturday, October 26, 2024

10:20-12:00	**Wireless Networks and Communications** **Chair: Yao-Wei Huang (NYCU)**		
	O3	Paper	Speaker
	10:20-10:50 (Invited Talk)	Innovative Optical and Wireless Network (IOWN) – Paradigm shift of Communication and Computing Technology	Jhih-Heng Yan (Chunghwa Telecom)
	10:50-11:10	Broadband Silicon Photonics Mode-Division-Multiplexing Grating Coupler	Yi-Jang Hsu; Shao-Ru Lin; Yu-Wei Liu; Yinchieh Lai
	11:10:11:30	Finite Volume Based Full Vectorial Modesolver for Micro Structured Fibers and Plasmonic Waveguides	Yi-Jang Hsu; Min-Hua Chuang; Yinchieh Lai
12:00-13:30	Lunch		
13:30-15:10	**Wireless Networks and Communications** **Chair: Jiun-Hung Yu (NYCU)**		
	W5	Paper	Speaker
	13:30-14:00 (Invited talk)	URLLC and eMBB multiplexing with RIS: Modeling, analysis, and optimization	Kaiwen Zhuang; Linpeng Zhong; Jiaxin Wen; Limin Li; Haoran Peng
	14:00-14:20	RF Front-end LoRa Transceiver with Antenna for Comparison with Gyro and Vehicle Communication	Wen Cheng Lai
	14:20-14:40	Metasurface-Assisted Antenna for Bandwidth and Gain Boost in Extended UWB Applications	Patrick Odong; Ahmed Hassan Abd El-Malek; Ahmed Sayed Ahmed Abdelhamid Allam; Tanemasa Asano; Adel Bedair
	14:40-15:00	Substrate Selection for Improved Sensitivity in Noninvasive Blood Glucose Microwave Sensors	Ahmed A. Zakaria; Ahmed Sayed Ahmed Abdelhamid Allam; Tanemasa Asano; Adel Bedair
15:10-15:30	Closing Ceremony		

Machine Learning and Artificial Intelligence
風起廳 Function

Friday, October 25, 2024

13:30-15:10	**Machine Learning and Artificial Intelligence** **Chair: Hong-Han Shuai (NYCU)**		
	W1	Paper	Speaker
	13:30-14:10 (Invited Talk)	GRU-Based Winner Subcarrier Detection in Frequency Domain Contention for Wireless Networks	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	Yueh-Cheng Huang; Chen-Tao Hsu; Jen-Hui Chuang
	14:25-14:40	Vision-based Autonomous UAV Low de Road Following and Obstacle Avoidance	Gong-Yi Lee; Jyi- Shane Liu
	14:40-14:55	Dynamic Spectrum Access based on SDR Frequency Offset for Drone Communication under Public Protection and Disaster Relief	Bing-Hao Liao; Li-Chun Wang
	14:55-15:10	High Stability Marine Pollution Detection Model based on a Drone Platform	Po-Lun Lin; Yen-Lin Chen; Xiu-Zhi Chen
15:10-15:30	Break		
15:30-17:10	**Machine Learning and Artificial Intelligence** **Chair: Chia-Mu Yu (NYCU)**		
	M2	Paper	Speaker
	15:30-15:45	Using Conditional Video Compressors for Image Restoration	Yi-Hsin Chen; Yen-Kuan Ho; Ting-Han Lin; Wen-Hsiao Peng; Ching-Chun Huang
	15:45-16:00	Vision-guided Drone Perching to Extend Surveillance Time	Shih Chun Lin; Kuan-yu Tseng; Gih-Keong Lau
	16:00-16:15	CASML: Combining Cross-Scale Attention and Separate Mix-Layer for Lightweight Classification Network	Po-Yu Liao; Yu-Min Zhang; Jun-Wei Hsieh; Kuo-Chin Fan; Chun-Chieh Lee
	16:15-16:30	Horizontal Pod Autoscaling for Precise Startup of AI Microservices at the Network Edge: A Hybrid Proactive and Reactive Approach	Zhenggen Chen; Jin-Wei Chang; Chiang Chen; Chi-Yu Li; Ching-Chun Huang; Li-Chun Wang
	16:30-16:45	Deepfake Detection through Temporal Attention	Hsiu-Fu Wu; Chia-Mu Yu; Chia-Yi Hsu; Lin Chih-Hsun; Chun-Ying Huang
18:00-	Banquet / Best Paper Award Ceremony **@Ho Hotel 2F (YEN YEN XUAN)**		

Saturday, October 26, 2024

10:20-12:00	**Machine Learning and Artificial Intelligence** **Chair: Hong-Han Shuai (NYCU)**		
	M3	Paper	Speaker
	10:20-11:00 (Invited Talk)	Model-based deep embedding for the analysis of single-cell RNA sequencing data	Zhi Wei (New Jersey Institute of Technology)
	11:00-11:15	Self-Supervised Learning Enabled Task-Oriented Semantic Communication Using Limited Labels	Run Gu; Wei Xu; Zhaohui Yang; Xiaohu You; Dusit Niyato
	11:15-11:30	Learning-Based Task Offloading and UAV Trajectory Optimization in SAGIN	Ping An; Liping Du; Yueyun Chen
	11:30-11:45	A Novel PAPR Reduction of OFDM Based on Deep Learning	Huan Wang; Liping Du; Meijie Yang; Yueyun Chen
	11:45-12:00	NMformer: A Transformer for Noisy Modulation Classification in Wireless Communication	Atik Faysal; Mohammad Rostami; Reihaneh Gh. Roshano; Wang Huaxia; Nikhil Muralidhar
12:00-13:30	Lunch		
13:30-15:10	**Machine Learning and Artificial Intelligence** **Chair: Hong-Han Shuai (NYCU)**		
	M4	Paper	Speaker
	13:30-13:45	ViT-MAE Based Foundation Model for Automatic Modulation Classification	Jikui Zhao; Qi Cheng; Wang Huaxia; Yu-Dong Yao
	13:45-14:00	Few-Shot Open-Set Modulation Recognition Based on Signal Constellation and Meta-Learning	Jikui Zhao; Wang Huaxia; Shengliang Peng
	14:00-14:15	BEpiC: Binary Episodes for Meta-Learning Towards Better Generalization	Atik Faysal; Mohammad Rostami; Wang Huaxia; Avimanyu Sahoo; Ryan Antle
	14:15-14:30	Group-and-Conquer for Multi-Speaker Single-Channel Speech Separation	Ya-Fan Yen; Hong-Han Shuai
15:10-15:30	Closing Ceremony		

3 ORGANIZING COMMITTEES

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4 KEYNOTES

Friday, 25 October 2024, 10:00-11:00

Transformers Are Efficient In-Context Estimators for Wireless Communications

Krishna Narayanan

Texas A&M University

The emergence of generative AI systems and the resounding success of ChatGPT have generated unprecedented interest in the capabilities of large language models (LLMs). Researchers are exploring a myriad of applications for LLMs, reporting record-breaking performance in many areas. While a theoretical understanding of LLMs remains in its infancy, strong empirical evidence indicates that LLMs and large transformer-based architectures possess two remarkable properties - they excel at predicting the next token in a time series, and they possess in-context learning abilities. We study these properties in relation to two canonical tasks in information theory -compression and symbol estimation. First, we design a lossless compression algorithm for English text using a large language model in conjunction with arithmetic coding, demonstrating state-of-the-art performance. We review results showing that transformers have sufficient expressive power to emulate some popular compression algorithms. Next, we show that symbol estimation in wireless communications can be framed as an in-context estimation problem. We prove that, for a subclass of such problems, a single-layer softmax attention transformer computes the optimal solution in the limit of large prompt length. Furthermore, we empirically demonstrate the proficiency of multi-layer transformers in efficiently solving broader in-context estimation problems. An overarching goal of the talk is to review recent result on in-context learning as applied to compression and estimation.

Friday, 25 October 2024, 11:15-12:15

Optical Wireless Communication by Dynamically Steered High-Capacity Narrow Beams

Ton Koonen

Eindhoven University of Technology

The need for wireless communication is growing fast, driven by the growing numbers of people who want to use broadband internet services, fast data file transfer, video streaming, etc., wherever they are, and this growth is also fueled by the upcoming internet-of-things. Wireless communication by radio techniques (such as Wi-Fi and 5G) is running into its limits due to spectrum congestion within the (licensed) RF bands and crosstalk in densely populated areas. Optical wireless communication (OWC) by steered narrow beams can alleviate these problems, as it can provide ‘fiber-like’ high capacity at high user densities without causing crosstalk and experiencing congestion in the abundant optical spectrum available. Moreover, it is highly energy efficient as it needs to offer capacity only where and when needed, and it is free from electromagnetic interference (EMI) issues. The keynote will review the state-of-the-art OWC, present the pros and cons of beam-steered OWC, discuss how the key functions can be realized, and show how these have been implemented and validated in a bidirectional experimental OWC system featuring high-definition video streaming.

Saturday, 26 October 2024, 09:00-10:00

Using Diverse Dark Knowledge in Sample-Wise Multi-Teacher Distillation for Accurate Object Recognition

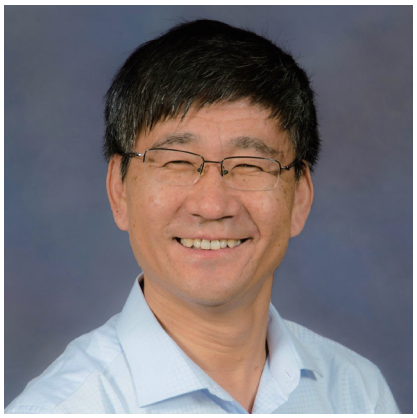
Meng-Chu Zhou

New Jersey Institute of Technology

Ensemble learning and knowledge distillation are widely studied as effective techniques in deep learning and gained such engineering applications as autonomous driving, Industry 4.0/5.0 and robotics. Their combination has achieved remarkable success in transferring various knowledge from multiple complex teacher networks to a simple student one. However, existing studies focus on classification diversity but overlook the crucial role of diverse dark knowledge in effective knowledge distillation. How to utilize such knowledge to improve the performance of a student network remains unexplored. To do so, we for the first time propose to apply diverse dark knowledge to sample-wise multi-teacher knowledge distillation. We train teacher networks on all samples to maintain accuracy and encourage diverse dark knowledge generation by applying constraints to the size and direction of output feature vectors. To reduce the impact of ensemble errors of teacher networks on the performance of a student one, we combine all teacher networks and their ensemble into multi-teacher networks. Furthermore, inspired by human educational experiences, we propose a relative confidence computing mechanism to select the optimal knowledge sample-wisely from each teacher network. The overall performance of the proposed method is verified by using it to perform multiple object recognition tasks and compare its results with the state-of-the-art ones.

NOTE

INVITED SPEAKERS



Friday, 25 October 2024, 15:30-16:00 DAY 1

How Vehicles Provide Service Support for Smart Cities

Yu-guang Fang

City University of Hong Kong, China

Observing that the most popular and omnipresent things in a typical large city are vehicles. If a large number of vehicles are equipped with powerful capabilities of sensing, communications, computing, storage, and intelligence (simply SCCSI capability), such vehicles roaming around a city will automatically form a network of multi-dimensional resources for SCCSI services, potentially offering an economically attractive and sustainable alternative solution to realizing the vision of smart cities. In this talk, the speaker will discuss how to leverage connected SCCSI-empowered vehicles to take full advantage of both vehicular mobility and spectrum/computing opportunities to beef up the edge for various kinds of smart city operations and services.

Friday, 25 October 2024, 13:30-14:00 DAY 1

Mode vector modulation: A multidimensional Stokes vector modulation for multimode links

Xin Jiang

The City University of New York, Staten Island, NY

Polarization-based, direct-detection modulation formats, such as Stokes vector modulation (SVM) for single-mode links and mode vector modulation (MVM) for multimode links, have garnered significant attention due to their potential to improve the spectral efficiency and energy consumption of shorthaul communications. In this invited paper, we review the latest studies on SVM and MVM, including the optimized geometric constellation shaping and bit-to-symbol mapping, the accurate modeling of MVM propagation over few-mode fibers (FMFs), and the the experimental implementation of various SVM/MVM constellations.

Friday, 25 October 2024, 13:30-14:10 DAY 1

GRU-Based Winner Subcarrier Detection in Frequency Domain Contention for Wireless Networks

Qing-lin Zhao

Macau University of Science and Technology, China

Single-carrier frequency domain contention (S-FDC) is an efficient wireless contention mechanism leveraging orthogonal frequency-division multiplexing (OFDM). In each S-FDC round, nodes randomly select and signal on one OFDM subcarrier while simultaneously listening to all subcarriers. Each node independently identifies the activated subcarrier with the smallest index, designating it as the winner. Accurate detection of the winner subcarrier is vital for S-FDC, yet it poses significant challenges due to unavoidable power leakage issues stemming from frequency asynchronization among nodes. In this talk, we introduce two gated-recurrent-unit (GRU)-based schemes that integrate the unique characteristics of S-FDC as domain knowledge to address this problem. The first scheme splits the subcarrier sequence into two segments and adaptively switches between them for winner subcarrier detection. The second scheme jointly considers both segments and refines the essential features for detection. Extensive simulation experiments validate the effectiveness of our schemes, highlighting the potential of deep learning to enhance the performance of FDC.

Friday, 25 October 2024, 15:30-16:00 DAY 1

High-power PCG-DFB Lasers for Optical Interconnect and Optical Sensing

San-Liang Lee

National Taiwan University of Science and Technology

High-power DFB lasers with high efficiency and reliability are highly demanded for applications like co-packaged optics (CPO) for AI/HPC applications. light detection and ranging (LiDAR) systems, and free space optical (FSO) communication. Besides high output power, reduced relative intensity noise (RIN) and narrow linewidth are required for most of the applications. The demands for high-power lasers are dramatically increasing due to the needs of using one laser to feed many optical modulators in CPO based optical transceivers. Many groups have recently reported high-power, narrow linewidth, single-mode operation, and low-RIN semiconductor lasers by optimizing the lateral waveguide structure. We proposed to use multiple-section cascaded PCG-DFB structure to raise the photon density at the output end and thus enhance the output power. In this talk we will demonstrate experimentally the performance enhancement for PCG-DFB high-power laser with up to 10 grating segments and manifest the potential mechanisms leading the power boost and reduction in linewidth.

Friday, 25 October 2024, 16:00-16:30 DAY 1

Optical-Wireless Integration for Empowering 6G Mobile Communication Networks

Peng-Chun Peng

National Taipei University of Technology, Taiwan

The upcoming sixth-generation (6G) mobile communication networks are expected to exhibit characteristics such as ultra-low latency, extreme communication speed, robust security measures, reliable connectivity, low energy consumption, and the ability to support a massive number of various connected devices. To realize the full potential of 6G mobile communication networks, the concept of optical-wireless integration is a key enabler to revolutionize the way data is transmitted, received, and processed. This talk will explore the emergence of optical-wireless integration, including radio-over-fiber and photonic-assisted wireless communication systems, as well as the integration of artificial intelligence (AI) and sensing technologies. Additionally, it will cover advancements in new radio access network architecture design, performance optimization strategies, enhanced radio access technologies, and free-space optical (FSO) communications for 6G mobile communication networks.

NOTE

Saturday, 26 October 2024, 10:20-10:50 DAY 2

Deep Learning and Foundation Models in Wireless Research

Yu-Dong Yao

Stevens Institute of Technology

Artificial intelligence, particularly deep learning, has made remarkable advances in recent years, achieving significant breakthroughs in the development of novel models, algorithms, and applications. As researchers in the field of wireless communications, we are committed to leveraging deep learning to identify emerging challenges, tackle new problems, and create innovative applications. In this presentation, we will report our recent work in deep learning research for designing future wireless communications systems, with a particular focus on using the foundation model approach to address a diverse set of wireless communications topics.

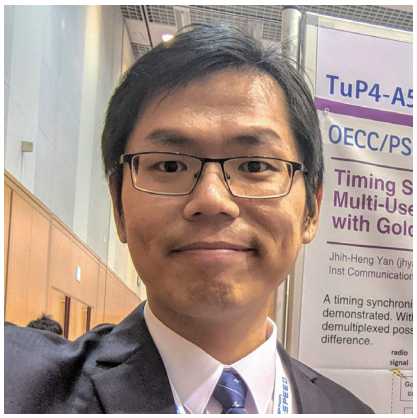
Saturday, 26 October 2024, 10:20-11:00 DAY 2

Model-based deep embedding for the analysis of single-cell RNA sequencing data

Zhi Wei

New Jersey Institute of Technology

Single-cell RNA sequencing (scRNA-seq) promises to provide high resolution of cellular differences. However, the analysis of scRNA-seq data remains a statistical and computational challenge, due to the pervasive dropout events obscuring the high dimensional data matrix with prevailing ‘false’ zero count observations. Furthermore, subsequent differential expression analysis after clustering incurs the so-called “double use of data" problem, which will compromise type 1 error control for standard statistical tests. In this talk, I will introduce model-based deep autoencoders to address these issues. The proposed approaches leverage the most recent developments in feature representation learning in deep learning and feature selection in statistical learning, as well as prior information from domain scientists. Extensive experiments on both simulated and real datasets demonstrate that the proposed methods can boost clustering performance significantly while effectively filtering out most irrelevant genes. Our methods can generate more biologically meaningful clusters with enhanced interpretability as desired by biologists.



Saturday, 26 October 2024, 10:20-10:50 DAY 2

Innovative Optical and Wireless Network (IOWN) – Paradigm shift of Communication and Computing Technology

Jhih-Heng Yan

Chunghwa Telecom, Taiwan

Toward Beyond 5G and 6G era, a paradigm shift computing and communication capabilities is expected to empower the world with enhanced performance and sustainability. To achieve this goal and address the challenges, Innovative Optical and Wireless Network (IOWN) has proposed key technologies of all-photonic network (APN) and data-centric infrastructure (DCI) to improve not only the transmission capacity and latency but also the energy efficiency. These key technologies will support innovative use cases with high requirements and become the enablers of new digital services of next generation.

NOTE

5 INVITED PAPERS

Friday, 25 October 2024, 13:30-14:55

Joint delay and user activity detection in asynchronous massive access

Sertac Derya、Shih-Chen Yu、Hsu-Wen Vincent Young、Eduard A Jorswieck、Pin-Hsun Lin、Shih-Chun Lin

Friday, 25 October 2024, 14:55-14:20

Application of Integrated Sensing and Communication in Structural Health Monitoring

Jie Yang、Chao-Kai Wen、Shi Jin

Friday, 25 October 2024, 14:20-14:45

Harmonic MUSIC Method for mmWave Radar-based Vital Sign Estimation

Po-Hsuan Tseng、Chieh-Hsun Hsieh、Tung-Lin Tsai

Friday, 25 October 2024, 14:45-15:10

Deep Learning-Based Handover Management for 6G Intelligent Networks

Yu-Han Huang、Shao-Yu Lien、Chih-Cheng Tseng

6 SPECIAL SESSION

Friday, 25 October 2024, 14:00-15:15

| Metasurface Design, Fabrication, and Applications

Peichen Yu、You-Chia Chang、Yao-Wei Huang、Ming Lun Tseng、Kuo-Ping Chen

7 PAPER LIST

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WOCC 2024

THE 33rd WIRELESS AND OPTICAL COMMUNICATIONS CONFERENCE

OCTOBER 25-26, 2024 HSINCHU, TAIWAN


WOCC 2024