

IEEE CyberSciTech/DASC/PICom/CBDCom 2024

Advanced Program

Day 1 (Fri)	09:30 – 17:00	Registration (near Golden Pavilion Room)	
	10:00 – 11:30	Birds-of-a-Feather (BoF) (Golden Pavilion Room)	
	13:00 – 14:30	Tutorial (Golden Pavilion Room)	
	14:30 – 15:00	Coffee Break (Golden Pavilion Room)	
	15:00 – 17:00	Panel Discussion (Golden Pavilion Room)	
	18:30 – 21:00	Welcome Reception (Sunset Restaurant, Paradise Garden Resort Hotel and Convention Center)	

Day 2 (Sat)	08:00 – 17:00	Registration (near Golden Pavilion Room)	
	08:30 – 09:00	Welcome Ceremony (Golden Pavilion Room)	
	09:00 – 10:20	Keynote Talks (Golden Pavilion Room)	
	10:20 – 10:40	Coffee Break (Golden Pavilion Room)	
		Session D2A-A (Golden Pavilion Room)	Session D2A-B (Sapphire Room)
		Session D2A-C (Jade Room)	Session D2A-D (Ruby Room)
	10:40 – 11:00	GAH-type Leveraging EEG Signal for People Identification under Different Emotion States - Zhiyong Huang, Yang Meng, An Guo, Waleed Ibrahim, Jonathan Ma	Architecting a Privacy-Aware IoT-Enabled Platform for Bathing Monitoring in Beach Resort: A Case Study - Giovanni Camarillo, Davide Caronella, Maria Di Ramondo, Corrado Santoro, Federico Fausto Santoro
	11:00 – 11:20	Parallels (BoF) in Foreign Language Teaching Practices in the Age of AI: Case Studies of Chinese and Japanese Learners - Xiaolin Wu, Shuang Zhu, Jiaqi Zhou, Raymond Yao	A Comprehensive System for Indoor Assistance and User Interaction - Francesco Cavallaro, Milana Russo, Corrado Santoro, Federico Fausto Santoro, Alessio Tufano
	11:20 – 11:40	(Online) Sequence-Integrated Radiology Report Generation Leveraging Positional Encoding for Text and Images - Yotai Pan, Kai Li, Han Zhu, Jinghui Wu, Fofie Shao, Junyi Xie, Guanghui Sun	Estimating Performance of Application Deployment on Distributed IoT-Edge Cloud Infrastructures - Fabrizio Manzoni, Alessandro Prada, Rosa Verdone, Andrea Vio
	11:40 – 12:00	(Online) A PISO-CNN-BLSTM model for predicting Leaf Area Index - Wang Dong, Zuo Guoyuan, Jinghui Xu, Joao Eduardo Batista, Qiao Jie, Huihui Liu	Graph Attention Network with LSTM for Smart Contract Vulnerability Detection - Kyungbin Jang, Hyunah Ra, Beom Jang
	12:00 – 13:30	Session D2P-A (Golden Pavilion Room)	Session D2P-B (Sapphire Room)
		CyberSciTech B	PICom A
	13:30 – 13:50	A Study on Adaptive Gradient Clipping Algorithms for Differential Privacy: Enhancing Cyber Security and Trust - Siman Chen, Wei Lang	A Study on Consumer Grade EEG Headsets in BCI Applications - Luigi Ricci, Paolo Zucchi, Franco Corbelli, Antonio Guarnieri, Massimo Mosci, Andrea Vio
	13:50 – 14:10	Adversarial Evaluation of AI-Based Security Alert Screening Systems - Samer Mikhia, Tao Bao, Takanishi Takahashi, Akira Tanaka, Seiji Oishi, Osamu Chikuda, Hiroe	Comprehensive Analysis of Edge Emotions Using Kinematic and Visual Features - Chuan-Yu Chang, Ai-Yee Chia, Ha-Yu Huang
	14:10 – 14:30	Privacy-Preserving Parameter Aggregation Scheme Based on Top Leaders for Federated Learning - Weiye Wang, Zhuotao Luo, Tianhui Li, Koushi Sakurai, Chuan-Bin Su	Securing Cardiacography Inspired Heart Activity Monitoring Using FMCM Radar - Walid Ibrahim, Jonathan Ma, Mouna Ma, Hsuan-Yang Jui, Alex Ou, Yitong Qi
	14:30 – 14:50	Internet Security and Privacy Awareness Among College Students in the Philippines - Jim Alives-Fox, Baby Grace Liago	Subject General and Subject-Specific Emotion Recognition Across Video Stimuli Using EEG Signals - Zhiyong Huang, An Guo, Jonathan Ma
	14:50 – 15:10	Fuzzy Logic-Based Deep Reinforcement Learning Pre-Training: A Case Study in MEC Task Offloading - Jiahui Zhang, Yanghui Lin, Zhenyang Du, Wugdeste Bao	Multimodal Sequential Deep Learning for Apathy Detection in People Living with Dementia - Shehroz S. Khan, Grant Lau, Bing Yu, Kristine Newman, Alex Mallos, Andrea Iaroli
	15:10 – 15:30	Session D2P-E (Golden Pavilion Room)	Session D2P-F (Sapphire Room)
		CyberSciTech D	PICom B
	15:30 – 15:50	Detecting Characteristic Points in Breathing Cycles using FMCM Radar with Spirometer as Reference - Haotian Wang, Waleed Ibrahim, Jonathan Ma, Mouna Ma, Alex Ou	Migrating WSN Applications from Monoliths to a Modular Approach Based on the tinyDM Middleware: Scenarios and Analysis - Jakob Mik, Krzysztof Poteraj, Przemyslaw Zelazny
	15:50 – 16:10	Automotive Decision-Making in Roundabouts Using Deep Reinforcement Learning and Heuristics Rules - Hailuo Zhang, Weichen Ren, Shihai Yang, Huiyong Feng, Jin Hu	A Computer Vision Approach for Path Planning in Mobile Robots - Federico Fausto Santoro, Corrado Santoro, Milana Russo, Claudio Ruggeri
	16:10 – 16:30	Fake News Detection Based on Contrast Learning and Cascading Attention - Fu Li, Hui Zhang, Zhihao Liang, Shiqiang Wan	Exploiting Spatial Information for EEG-Based Gesture Recognition Using Graph Attention Networks - Tong Xu, Feng Wang, Jiebin Kwak, Jian Zhao, Jinhua He, Deluise Cheng
	16:30 – 16:50	Intelligent YOLOv8 for Pavement Patch Detection in Public Concrete and Bituminous Concrete and Bituminous Concrete Pavement Networks - Xingyu Wu, Bi Huang, Fei Dai, Shuai Wang, Xinhao Chen, Yong Ding	Reducing the Influence of Individual Variability in EEG-Based Fatigue Detection Using Transfer Learning - Huiwen Liu, Feng Wang, Jiebin Kwak, Jian Zhao, Jinhua He, Deluise Cheng
	16:50 – 17:10	(Online) Miniature White Human Image Dangerous Object Detection Based on Faster R-CNN - Bi He, Yang Gao, Jing Cao, Wenwei Cai, Xin Ma, Xueqin Zhao, Zhihao Lan	Enhancing Robot Systems Through a Distributed Multi-Agent Digital Twin Environment - Federico Fausto Santoro, Corrado Santoro, Milana Russo, Giovanni Camarillo

Day 3 (Sunday, 11/7)	08:00 – 17:00	Registration (near Golden Pavilion Room)	
	08:30 – 09:00	Keynote Talks (Golden Pavilion Room)	
	09:50 – 10:20	Coffee Break (Golden Pavilion Room)	
		Session D3A-A (Golden Pavilion Room)	Session D3A-B (Sapphire Room)
		CyberSciTech F	CyberSciTech G
		Session D3A-C (Jade Room)	Session D3A-D (Ruby Room)
	10:20 – 10:40	Leveraging Digital Twins and Generative AI for Effective Urban Mobility Management - Marzia Carzanella, Sara Ambrosio, Francesco Padoa, Paolo Carzanella, Salvatore Cuomo, Francesco Padoa	CDPP: A Crowdsourcing Task Allocation Method Based on Diverse Participant Preferences - Jiarun Xu, Zhiwen Xu, Zhenyong Huang, Lian Zuo, Zhenyong Huang, Lian Zuo
	10:40 – 11:00	Evaluation Guidance System Using UAVs of Multiple Types of Aircraft - Kazuhito Imai, Noriki Kaniyama	Money Allocation Among ISPs Based on Cooperative Games for CDN Promotion - Masaki Ito, Noriki Kaniyama
	11:00 – 11:20	Energy-Efficient Reliable Data Storage Service in Heterogeneous Clouds - Zhenyong Huang, Zhiwen Xu, Zhiye Huang, Erhe Yang, Jiarun Xu, Bi Guo	Assessing ChatGPT-generated Comments for Video Content Viewing in Online Learning - Jiaqi Wang, Jian Chen, Qian Qi
	11:20 – 11:40	Automated Monitoring by Fusing Multi-Stage Image Features - Linhua Zhang, Fan He, Xun Shao	Randomly Adjusting Semantic Communication System with Non-Real Image Compression - Chao Wu, Cuiyong Wu, Jiale Wu, Yanfeng Lin, Zhenyong Du, He Si, Wugdeste Bao
	11:40 – 12:00	An Automated Memory Image Forensic Scheme for Linux Systems Based on Communication Technology - Ruihan Chen, He Si, Cuiyong Lin, He Si	Traffic Prediction by Integrating Multi-Cycle Features and Spatio-Temporal Features - Luguang Ni, Benrong Huang, Lai Tu
	12:00 – 13:30	Session D3P-A (Golden Pavilion Room)	Session D3P-B (Sapphire Room)
		CyberSciTech J	PICom C
	13:30 – 13:50	Integrated Evaluation System for Intelligent Models - Xinyi Yang, Zhihao Lan	Traffic Classification for Network Slicing Using Machine Learning Techniques - Giselle Gao, Claudio Mosti de Farias, Fabiana Coimbra Delalio
	13:50 – 14:10	Deep Knowledge Tracing Model Integrating Multiple Feature Personalization Factors - Yufan Wang, Xinghui Xu, Fanfan Meng, Yixin Tang	DICE: Distributed Code Generation and Execution - Kunal Rast, Giuseppe Convello, Simrat Chakrabarti
	14:10 – 14:30	Analysis of Business Model of Co-Creation Digital-Twin City Using Evolutionary Game - Kaito Kobori, Noriki Kaniyama	Projected Quantum Kernel for IoT Data Analysis - Francesco D'Amico, Luca Mariani, Carlo Mastromeo, Jacopo Settimo, Andrea Vio
	14:30 – 14:50	FastGuard: Enhancing Data Privacy Integrity: Effective Facial Anonymization in Public Events - Chao Voraupakul, Apinart Charoensakul, Suphannong Jongsakulpong, Chanchai Teekasarnkarn, Wuttichong Jitabongkarn	(Online) Prediction of Personal Exposure to PM2.5 Using a Model of Stationary and Variable Air Quality Metrics - DK Arora
	14:50 – 15:10	Efficient Feature Extraction Model for Surveillance Systems Using Drone Imagery - Jiahui Chen, Yuyangyong Lee, Kang Hyun Jo	Towards cryptographic agility manifests in end-to-end encryption systems: a position paper from the perspective of cryptosystem designers, Alessandro Sotgiu and Lawrence Herwey
	15:10 – 15:30	Session D3P-E (Golden Pavilion Room)	Session D3P-F (Sapphire Room)
		IoT-Life	PICom D
	15:30 – 15:50	Analyzing the Impact of Effect Sounds on Real-World Human Emotions and Behaviors by Adding Effect Sounds to Human Actions - Yixin Tang	(Online) Network-Based Analysis of Alzheimer's Disease Using ADNI-Derived Synthetic Connectomes - Camela Corici, Anabela Sotgiu
	15:50 – 16:10	Impacts of Internet of Things (IoT) Leveraging Radio Frequency Identification (RFID) and Internet Protocol (IP) on Business Continuity (BC) and Disaster Recovery (DR) - Nani Kumar Agarwal, Gurleen Singh Bhat, Chiranjeevi Mallekothu Padi, Esai S. Rajakrishna	(Online) Design and Implementation of a Flexible Mobile Edge Middleware for Multi-Protocol Wireless Connectivity - Tatiana Reimer, Luis Eduardo Traversa Rio, Milana Russo, Leonardo Luchessa, Markus Enders
	16:10 – 16:30	A New Smart Classroom-Based User Authentication System via Signature Image Recognition Handwriting Behaviors Identification - Zhenyong Xu, Siyu Xiong, Bi Guo	(Online) A Deep Learning-Based Digital Twin for Indoor Temperature Prediction in Smart Buildings - Mel. Babul Arora, Anshu Arora, Yashraj Singh, Zhenyong Xu, Zhenyong Xu
	16:30 – 16:50	Investigating Dependability Management of Wearable Device Data for Health and Fitness - Tao Zhou, Tianhe Hu, Hong Chen	(Online) Anomaly Identification and Classification of Network Traffic Using Optimized Machine Learning Approach - Yuhang Wang, Yuhang Wang, Yuhang Wang
	16:50 – 17:10	(Online) Analyzing Eye Movements of Drivers with Varying Levels of Experience During U-Turn Segment - Haojie Wang, Luyang Wang, Yuhang Zhu, Jian Wang, Bi Guo	(Online) Identifying Emerging Research Topics in Computer Science Using Overlapping Community Detection on Graph Neural Networks Predicted Graphs - Constantinos Sotgiu, Christos Christodoulakis, Antonio Charamouskas, Nicolas Tsapaloudis
	17:10 – 17:30	(Online) Analyzing the Interaction Behaviors of Gollux Chess-Playing Based on Human Pose Estimation - Yu Qi, Bi Guo, Chongyue Zhang, Siyu Xiong	(Online) A Domain Model for Urban Digital Twins - Stephan Heller
	19:00 – 22:00	Gala Dinner (Regency Ballroom)	

Day 4 (Friday, 11/8)	08:00 – 11:00	Registration (near Golden Pavilion Room)	
		Session D4A-A (Golden Pavilion Room)	Session D4A-B (Sapphire Room)
		CyberSciTech M	CyberSciTech N
	08:30 – 08:50	DMGDF: Enhancing Neural Network Design for Edge AI Implementation - Kuo-Yi Chang, Kun Lin Li, Ming-Hua Sheu, Ezu-Hong Wang	Checking the Neural Networks' Substituting Ability and Proposing Three Challenges for Human-like Substituting - Seongmin Kim, Kanghyun Jo
	08:50 – 09:10	Dynamic Objects Removal and Clustering for Object Detection - Kwanho Kim, Daeyoung Kim, Kanghyun Jo	A QoP Power Estimation of Vehicles on the Road - Jaehyun Sung, Kanghyun Jo
	09:10 – 09:30	Low-Precision Injection for Performance Boosting of Image Classification - Minseung Kim, Jonghae Lee, Kang-Hyun Jo	Cross-Layer Performance Analysis of Delay-Doppler Domain Multi-Carrier Modulation for Vehicular Networks - Gangqiu Wang, Gailiang Wu, Yanghui Lin, Zhenyong Du, Wugdeste Bao, He Si
	09:30 – 09:50	Descriptor Feature Map for Classification - Jonghae Lee, Minseung Kim, Kanghyun Jo	Twelve Green Video Energy-Saving Potentials in Streaming - Robert Seidler, Martin Laak, Gökdem Güllü, Stefan Albanese, Stephan Seidler
	09:50 – 10:10	Session D4A-C (Golden Pavilion Room)	Session D4A-D (Sapphire Room)
		CyberSciTech O	PICom E
	10:10 – 10:30	A Two-Stage Depression Recognition Model Based on Improved YOLOv5 and Spatial-Temporal CNN-Transformer Network - Jiaqi Zhang, Qian Jie	Improving the Adaptability of SEMD-Based Gesture Recognition Using Variational Model Decomposition and Transfer Learning - Xian Wu, Feng Wang, Jian Zhao, Seichi Kawata, Jinhua Shi
	10:30 – 10:50	Detection of Smoking Behaviors Using Human Key Point and YOLOv6 - Wackilong Zhang, Anton Louie P. De Ocampo, Rowel M. Hernandez	PCoVAD Method for Detecting eBike eBike - Jinghui Liu, Jinhua Shi, Jian Zhao, Feng Wang, Seichi Kawata
	10:50 – 11:10	Transformer: A Lesion Segmentation Network for Primary Liver Cancer from 3D CECT Volume - Shih-Huang Jiaei, Jiaei Liu, Xueyan Wang, Xian Nie	Enhanced Gesture Recognition via Interpretable Temporal Convolutional Networks Utilizing Spatial-Temporal SMO Features - Xiaohu Xu, Jinhua Shi, Feng Wang, Seichi Kawata, Eduardo Fumihiko Fukushima, Jiaqi Woo
	11:10 – 11:30	Joint Filter: Tactile Sensor-Based Non-Invasive Approach to Sleep Apnea - Riya Mahajan, Yegor Du, Alexander Schmidt, Gabriele Trossello, Yashraj Tail, Shigeki Sugano	ARFISTE: Optimizing Federated Learning in Resource-Constrained Environments Through Data Sampling Techniques - Nazim Anis, Claudio Mosti de Farias, Fabiana Coimbra Delalio, Paulo Henrique Corbelli
	11:30 – 11:50	Bi-SIS: Self-Sovereign Identity Bound to Biometrics - Yoshiko Yasunuma, Masakazu Fujio, Wataru Nakamura, Kenta Takahashi	
	11:50 – 12:20	Closing Ceremony (Golden Pavilion Room)	
	14:30 – 16:00	Conference Organizational Meeting	