

Thursday, 10th Oct 2024

18.00-20.00 Welcome reception and registration

Friday, 11th Oct 2024

08.30-09.00 - Registration

09.00-09.15 - Opening Remarks

09.15-10.15 - Key note speech: Dr. Jiannong Cao

10.15-10.30 - Coffee break

10.30-12.30 - Session (Conference room 1): Wireless Sensing & Mobile Computing
Session (Conference room 2): Security & Privacy

12.30-13.30 - Lunch

13.30-14.30 - Session (Conference room 1): Machine Learning Systems
Session (Conference room 2): Interd. Distrib. Systems and Applications

14.30-16.00 - Session (Conference room 1): Blockchain; Theory & Protocols
Session (Conference room 2): Big Data & Large Models; ICPADS2024

16.00-16.15 - Coffee break

16.15-18.15 - Session 4 **Dr. Ivan Stojmenovic – Special Memorial Session**

19.00-22.00 - Banquet Dinner

Saturday, 12th Oct 2024

08.30-09.00 - Registration

09.00-10.00 - Key note speech: Dr. Jie Wu

10.00-10.15 - Coffee break

10.15-12.15 - Session (Conference room 1): Cloud and Edge Computing
Session (Conference room 2): Int. of Things & Cyber-Physical Systems

12.15-13.30 - Lunch

13.30-16.00 - Session (Conference room 1): High-Perf. Comp. & Data Center

16.00-16.15 - Coffee break

17.00-19.00 - Sightseeing tour of Knez Mihajlova & Kalemegdan Fortress

19.00-22.00 - Dinner (bohemians quarter Skadarlija – Tri Sesira) & Conference
Closing

Sunday, 13th Oct 2024

09.30-12.00 – Saint Sava Temple, Nikola Tesla museum visits

ICPADS 2024 Presentation Program

Friday, October 11th - CET Time

Wireless Sensing & Mobile Computing (Room 1) - Session Chair: **Yanni Yang**

- 10:30 BreathPass: Ultrasonic Authentication by Chest and Abdomen Movement while Breathing - Li, Lingkun; Dang, Fan; Liu, Duo; Cao, Zhichao
- 10:45 m2Vib: 2D Vibration Measurement Using a Single mmWave Radar - Wang, Haolin; Xu, Wei; Li, Zezhao; Yang, Yanni; Huang, Zhijian
- 11:00 A distributed convergecast algorithm for dynamic mobile networks - Agon-Rambosson, Aymeric; Lejeune, Jonathan; Sopena, Julien; Sens, Pierre
- 11:15 mmJaw: Remote Jaw Gesture Recognition with COTS mmWave Radar - Siddiqi, Awais Ahmad; He, Yuan; Chen, Yande; Sun, Yimiao; Xie, Yadong; Wang, Shu Fan
- 11:30 Chameleon: An Adaptive System for Overlapping Keystroke Signal Separation and Identification - Zhao, Jiayi; Huang, Yongzhi; Xie, Qipeng; WANG, WEIZHENG; Wang, Lu; WU, Kaishun
- 11:45 Effective Search Strategy for Moving Targets in Unknown Environments using Multiple Robots - Ye, Shujin; CHANG, Ming-Yui; Chan, Tse-Tin; Liu, Hai; Wang, Yue; Yu, Lu
- 12:00 Cover More with Less: Eliminating Blind Spots for Surveillance Camera via Passive WiFi Sensing - Mottakin, Khairul; Guo, Jinhua; Song, Zheng
- 12:15 Aortic Stenosis Detection by Improved Inception Convolution Network-Enabled Pulse Wave - Yang, Ruotong; Kang, Le; Zhou, Anfu; Cui, Hao; Ma, Huadong

Security & Privacy (Room 2) - Session Chair: **Heng Qi**

- 10:30 Keep Me Updated: An Empirical Study of Proprietary Vendor Blobs in Android Firmware - Elliott Wen; Jiaying Shen; Burkhard C Wuensche
- 10:42 Simple but Powerful Beginning: Metamorphic Verification Framework for Cryptographic Hardware Design - Xu, Jianjun; Wu, Jiang; He, Jiayu; Yang, Deheng; Mao, Xiaoguang
- 10:54 SummSlim: A Universal and Automated Approach for Debloating Container Images - Zhang, Zhicong; Huang, Heqing; Xu, Shaowen; Zhou, Qihang; Zhang, Tianshu; Jia, Xiaoqi; Zhang, Weijuan
- 11:06 Privacy-preserving Compression for Efficient Collaborative Inference - Luo, Yuzhe; Qi, Ji; Yu, Jiageng; Chen, Ruizhi; Gao, Ke; Li, Ling
- 11:18 A local differential privacy extension scheme for sensitive locations of hotspot areas - Gui, Ruowei; Zhang, Xingjun; Gui, Xiaolin
- 11:30 Financial Fraud Defense Strategy based on Gradient Compensated Asynchronous Federated Learning - Liu, tongrui; Zhou, yizhi; Song, zhipeng; Jia, xibei; Wu, shan; Qi, Heng
- 11:42 LiteCrypt: Enhancing IoMT Security with Optimized HE and Lightweight Dual-Authorization - Xie, Qipeng; WANG, WEIZHENG; Huang, Yongzhi; Zheng, Mengyao; Shuai, Shang; Jiang, Linshan; Khan, Salabat; WU, Kaishun

- 11:54 TUSH-Key: Transferable User Secrets on Hardware Key - Sethuraman, Sibi C; Mitra, Aditya; Ghosh, Anisha; Thoppaen Suresh Babu, Rakesh
- 12:06 Towards Lightweight User Identification of Anonymous Cryptocurrency Wallet via Encrypted Traffic Correlation - Kong, Xiangdong; Jia, Jizhe; Wu, Jinhe; Shen, Meng; Zhu, Liehuang
- 12:18 FloomChecker: Repelling Free-riders in Federated Learning via Training Integrity Verification - Liang, Guanghao; Chang, Shan; Dai, Minghui; Zhu, Hongzi

Machine Learning Systems (Room 1) - Session Chair: **Jian Ren**

- 13:30 Accurate Traffic State Prediction with Deep Learning - Analyzing Statistical Aides for Identifying Anomalous Traffic Trends - Hancock, Jaxon R; Ren, Jian
- 13:45 LLMAir: Adaptive Reprogramming Large Language Model for Air Quality Prediction - Fan, Jinxiao; Chu, Haolin; Liu, Liang; Ma, Huadong
- 14:00 Hypergraph Neural Networks Based on Enclosing Subgraph Extraction for Link Prediction - Chen, Liang; Zhao, Ying; Sajjanhar, Atul
- 14:15 MIMO Based Uncertainty-aware Learning-to-Rank Query Optimizer - Xiong, Jincan; Xi, Rui; Chen, Xue; Yan, Zihan; Zhu, Junxin; Hou, Mengshu

Inter. Distributed Systems and Applications (Room 2) - Session Chair: **Liangchen Chao**

- 13:30 Python to Kubernetes: A Resource Management Framework for Compute- and Data-intensive Applications - Nagiyev, Andrey
- 13:45 BuildEnVR: An Immersive Analysis System for Indoor Environmental Field - Zhou, Zhengnan; Liu, Kebin; Xie, Yantong; Jin, Hangxu; Liu, Shi; Wang, Ruiqing; Zhao, Haitian; Lin, Borong
- 14:00 UAV Swarm Collaborative Transmission Optimization for Machine Learning Tasks - Chao, Liangchen
- 14:15 MDL: Multi-Granularity Distribution Features Learning for Unsupervised Person Re-Identification - Ji, Fangheng

Blockchain; Theory & Protocols (Room 1) - Session Chair: **Yi Yang**

- 14:30 BachLedger: Orchestrating Parallel Execution with Dynamic Dependency Detection and Seamless Scheduling - Yang, Yi; Shang, Guangyong ; Qi, Guangpeng; Ma, Zen ; Liu, Yaxiong ; Duan, Aocheng; Tian, Jiazhou ; Zhang, Meng ; Li, Jingying ; Ding, Xuan
- 14:45 Design and Optimization of Smart Contracts for Cross-Domain Sharing of Sensitive Data - Zhu, Manqing; Wang, Lingxiao; Li, Xiaohong
- 15:00 Scaling Permissioned Blockchain through LSM Disaggregation across Execution and Storage Nodes - Tian, Jiazhou; Qi, Guangpeng; Shang, Guangyong; Ma, Zhen; Liu, Yaxiong; Zhang, Meng; Li, Jingying; Wu, Delun; Yang, Yi; Ding, Xuan
- 15:15 MARS: Multi-Agent Deep Reinforcement Learning for Real-Time Workflow Scheduling in Hybrid Clouds with Privacy Protection - Cheng, Long; He, Haoyang; Gu, Yan; Liu, Qingzhi; Zhao, Zhiming; Fang, Fang

- 15:30 BELFAL: A Blockchain-based Ensemble Learning Framework for Anti-money Laundering in Cryptocurrency Markets - Li, Ziyi; Yao, Ruizhe; Yang, Dong; Zhang, Yifei; Mao, Hanyu; Yuan, Yong
- 15:45 PPaxos: An Adaptive Pull-Based Group Consensus Protocol for Edge Networks - Hao, Wei; Xu, Guangping; Wang, Jianshe; Wen, Yanyan

Big Data & Large Models; ICPADS2024 (Room 2) - Session Chair: **George Tsaramirsis**

- 14:30 Forecasting Sparse Taxi Demand using a Spatiotemporal Graph Neural Network with Crowdsensing Geolocation Data - Shen, Yifei; Shen, Jiaying
- 14:45 Jointly Trajectory Representation Learning on Road Network and Semantics using On-road IoT Data - Gao, Longfei; Zhao, Ying; Jiajia, Li; Zhang, Jing; Yang, Yu; Guo, Na
- 15:00 MLETune: Streamlining Database Knob Tuning via Multi-LLMs Experts Guided Deep Reinforcement Learning - Dong, Wenlong; Liu, Wei; Xi, Rui; Hou, Mengshu; Fan, Shuhuan
- 15:15 DiffusionHash: Diffusion Model for Deep Hash - Cao, Yuan; Meng, Fanlei; Wang, Yijun
- 15:30 Enchasing Robotic Process Automation with Generative AI: A Case Study from Academia - Latif, Abdul; ElBarachi, Mai; Tsaramirsis, George; Qudus Khan, Fazal

Saturday, October 12th - CET Time

Cloud and Edge Computing (Room 1) - Session Chair: **Ma Chao**

- 10:15 Enhancing Large Language Models with Knowledge Graphs for Robust Question Answering - Zhu, Zhui; Qi, Guangpeng; Shang, Guangyong; He, Qingfeng; Zhang, Weichen; Li, Ningbo; Chen, Yunzhi; Hu, Lijun; Zhang, Wenqiang; Dang, Fan
- 10:30 A Review of Data Placement and Replication Strategies Based on Machine Learning - Najjar, Amir*; Mokadem, Riad; Pierson, Jean-Marc
- 10:45 SwitchFlow: Optimizing HPC Workflow Performance with Heterogeneous Serverless Frameworks - Chen, Hao; Zichen, Xu; Dong, Yucong; Wen, Xin
- 11:00 Optimized Click Prediction on Mobile Devices via Device-Cloud Synergy - Pan, Shuyuan; Lu, Anqi; Hu, Youbing; Li, Lingzhi; Li, Zhijun
- 11:15 Optimal Power Control for Over-the-Air Federated Learning with Gradient Compression - Ruan, Mengzhe; Li, Yunhe; Zhang, Weizhou; Song, Linqi; Xu, Weitao
- 11:30 AdaDiffAD: Adaptively Segmenting Diffusion Models for Time Series Anomaly Detection in Dynamic JointCloud Environment - Ma, Chao; Yi, Lin; Zhou, Linjiang; Wang, Zepeng; Shi, Xiaochuan; Zhu, Weiping
- 11:45 Flexible LAN-WAN Orchestration for Communication Efficient Federated Learning over Large-Scale Mobile Devices - Yuan, Jinliang; Li, Qing; Dang, Fan; Xu, Mengwei; Ma, Xiao; Liu, Xuanzhe; Wang, Shangguang
- 12:00 Efficient Point Cloud Analytics on Edge Devices - Zhu, Kunxiong; Wu, Zhenlin; Liu, Hongyuan; Zhu, Kunxiong

Internet of Things & Cyber-Physical Systems (Room 2) - Session Chair: **Fan Dang**

- 10:15 A Comprehensive Evaluation of Bluetooth Low Energy Mesh - Zhao, Yize; Wang, Lin; Liu, Zijuan; Xu, Yifan; Dang, Fan; Wang, Xu; Zhao, Haitian
- 10:27 A QoE-Aware Adaptive Energy-Efficient Transmission Scheduling Method - Yuan, Yankun; Wang, Lin; Liu, Zijuan; Dang, Fan; Wang, Xu; Zhao, Haitian
- 10:39 CHESS: Concurrent Charging with Efficient Phase Scheduling - Wu, Dié; Zhang, Chenglong; Li, Jingwen; LIU, TANG; She, Kun; Zhao, Jianhong
- 10:51 From Agents to Robots: A Training and Evaluation Platform for Multi-robot Reinforcement Learning - Liang, Zhixuan; Cao, Jiannong; Jiang, Shan; Cao, Rui; Xu, Huafeng
- 11:03 Sensor-Integrated Transformer-RF Model for Human Activity Recognition - Kang, Yisen; Wang, Zheng; Sun, Xiaoqi; Wang, Huan; Lu, Ruiqi; Zou, Dengpeng; Liao, Mingyuan; Shi, Xiaokang; Wang, Yanwen; Li, Renfa
- 11:15 Towards LLM-Powered Ambient Sensor Based Multi-Person Human Activity Recognition - Huang, Yongtao ; Yen, I-Ling; Bastani, Farokh
- 11:27 Pruning Blockchain Protocols for Efficient Access Control in IoT Systems - Yuan, Jinliang; Li, Qing; Dang, Fan; Xu, Mengwei; Ma, Xiao; Liu, Xuanzhe; Wang, Shangguang
- 11:39 NAP: Network Adaptive Proxy for Dynamic Traffic Management in Edge Computing - Mao, Zhongjun; Li, Xin; Bu, Yanling

High-Perf. Comp. & Data Center (Room 1) - Session Chair: **Ozcan Ozturk**

- 13:30 Optimization of One-to-Many Communication Primitives for Dragonfly Topologies - Duro, José; Castelló, Adrián; Gomez, Maria E.; Sahuquillo, Julio; Quintana, Enrique
- 13:45 Priority-aware deadlock recovery algorithm for multi-chiplet systems - Chen, Zhiqiang; Wang, Yongwen; Zhou, Hongwei; Li, Mengjin
- 14:00 Seasonal study of user demand and IT system usage in datacenters - Landré, Damien; Philippe, Laurent; Pierson, Jean-Marc
- 14:15 Analysis of Parallel Graph Applications - Atik, Funda; Yesil, Serif; Ouarnoughi, Hamza; Niar, Smail; Ozturk, Ozcan
- 14:30 Generic and ML Workloads in an HPC Datacenter: Node Energy, Job Failures, and Node-Job Analysis - Chu, Xiaoyu; Hofstätter, Daniel; Ilager, Shashikant; Talluri, Sacheendra; Kampert, Duncan; Podareanu, Damian; Duplyakin, Dmitry; Brandic, Ivona; Iosup, Alexandru
- 14:45 Parallel K-means on GPU using Warp-Centric Strategies - Cordeiro, Michel B; Zola, Wagner M N
- 15:00 The Bicameral Cache: a split cache for vector architectures - Rebolledo, Susana; Perez, Borja; Bosque, Jose Luis; Hsu, Peter
- 15:15 TensorPolyMul: Accelerating Polynomial Multiplication in NTT-unfriendly Lattice-based Cryptography Using Tensor Cores - Bian, Yi; Zheng, Fangyu; Jing, Jiwu

- 15:30 Lightweight Operating System Services for Incremental Checkpointing in Speculative Discrete Event Simulation on Linux Platforms - Montesano, Federica; Marotta, Romolo; Quaglia, Francesco
- 15:45 Hybrid Data Center: A New Green Data Center Model with High-Reliability - Li, Haowei; Li, Canqiang; Zhao, Yiyang; Zhu, Yan; Zuo, Yunbo