THURSDAY, DECEMBER 10

Time: 14:00 - 15:45 (Taiwan time)

Room: 3F North Lounge

Session Chair: Mykola Servetnyk (Foxconn Advanced Communication Academy & National Chiao Tung University,

Taiwan)Session Chair

P-S4: EDGE COMPUTING (6 PAPERS)

(MWN2): Energy-Efficient Link Selection for Decentralized Learning via Smart Devices with Edge Computing Cheng-Wei Ching (National Chung Cheng University, Taiwan); Chung-Kai Yang (National Tsing Hua University, Taiwan); Yu-Chun Liu, Chia-Wei Hsu, Jian-Jhih Kuo, Hung-Sheng Huang and Jen-Feng Lee (National Chung Cheng University, Taiwan)

(NGNI1): Model Partition Defense against GAN Attacks on Collaborative Learning via Mobile Edge Computing

Cheng-Wei Ching, Tzu-Cheng Lin, Kung-Hao Chang, Chih-Chiung Yao and Jian-Jhih Kuo (National Chung Cheng University, Taiwan)

(SAC BD3): Probabilistic Skyline Query Processing over Uncertain Data Streams in Edge Computing Environments

Chuan-Chi Lai (National Chiao Tung University, Taiwan); Yan-Lin Chen and Chuan-Ming Liu (National Taipei University of Technology, Taiwan); Li-Chun Wang (National Chiao Tung University, Taiwan)

(SAC BD3): Unsupervised Federated Learning for Unbalanced Data

Mykola Servetnyk (Foxconn Advanced Communication Academy & National Chiao Tung University, Taiwan); Carrson C. Fung (National Chiao Tung University, Taiwan); Zhu Han (University of Houston, USA)

(SAC CCNS-2): A Robust Hierarchical Learning Approach for dynamic MEC Networks

Yi-Chen Wu (National TsingHua University, Taiwan); Che Lin (National Taiwan University & Institute of Communication Engineering, Taiwan); Tony Q. S. Quek (Singapore University of Technology and Design, Singapore)

(SAC MLC2): Federated Learning with Communication Delay in Edge Networks

Frank Po-Chen Lin (Purdue University, USA); Christopher G. Brinton (Purdue University & Zoomi Inc., USA); Nicolò Michelusi (Purdue University, USA)

THURSDAY, DECEMBER 10

Time: 16:00 - 17:30 (Taiwan time)

Room: R201A

P-S5: MACHINE LEARNING FOR COMMUNICATIONS (5 PAPERS)

(SAC IoTSCC5): **Semi-Supervised Learning with GANs for Device-Free Fingerprinting Indoor Localization** Kevin M. Chen and Ronald Y. Chang (Academia Sinica, Taiwan)

(SAC MLC10): Generalized Likelihood-Ratio Enabled Machine Learning for UE Detection over Grant-free SCMA

Ang Yang Lin and Po-Ning Chen (National Chiao Tung University, Taiwan); Shin-Lin Shieh (National Taipei University, Taiwan); Yu-Chih Huang (National Chiao Tung University, Taiwan)

(SAC MLC11): A Variational Autoencoder-Based Secure Transceiver Design Using Deep Learning Chia-Hung Lin (National Chiao Tung University, USA); Chao-Chin Wu, Kuan-Fu Chen and Ta-Sung Lee (National Chiao Tung University, Taiwan)

(SAC MLC1): **Unsupervised ResNet-Inspired Beamforming Design Using Deep Unfolding Technique** Chia-Hung Lin (National Chiao Tung University, Taiwan); Yen-Ting Lee (National Tsing Hua University, Taiwan); Wei-Ho Chung (National Tsing Hua University & Academia Sinica, Taiwan); Shih-Chun Lin (North Carolina State University, USA); Ta-Sung Lee (National Chiao Tung University, Taiwan)

(SAC MLC3): Deep CSI Compression and Coordinated Precoding for Multicell Downlink Systems An-An Lee, Yung-Shun Wang and Yao-Win Peter Hong (National Tsing Hua University, Taiwan)