IWITC 2021

JIANT-IT International Workshop on Information Technology Convergence

February 25-26, 2021/ Online Conference.

Organized by

JIANT-IT Human Resource Development Center

Jeonbuk National University

Workshop Program

2021.2.25 (Thurs)

Session1: Future Semiconductor Device & Circuit   (Chair: Kihyun Kim)

[S1-1]	09:20~10:00	Relialbity Simulation of Technology-Computer Aided (TCAD) Simulation for Radiation Effects **Jungsik Kim (Gyeongsang National University, Korea)**	5
[S1-2]	10:00~10:40	A flexible thermoelectric power device **Sunjin Kim (Korea Atomic Energy Research Institute, Korea)**	6
[S1-3]	10:40~11:20	Silicon-based Near Infrared (NIR) Photodetector with High Responsivity **Kihyun Kim(Jeonbuk National University, Korea)**	7
[S1-4]	11:20~12:00	RF Circuit Design for Fast Spectrum Sensing Functionality **Donggu Im (Jeonbuk National University, Korea)**	8
[S1-5]	13:00~13:40	Introduction of Future of CMOS Image Sensor **Ilwoong Kwon (OmniVision Technology, USA)**	9
[S1-6]	13:40~14:20	Monolithic 3D Integration **Jin-Woo Han (NASA Ames Research Center, USA)**	10
[S1-7]	14:20~15:00	The Memory Subsystems and Protocols for Emerging Non-Volatile-Memories (NVMs) **Taeksang Song (Rambus Technology, USA)**	11
[S1-8]	15:00~15:40	Technology Development for Direct-Printed Dual-Gate Organic TFT Circuit Fabrication with 3-D Integration **Jimin Kwon (Standford University, USA)**	12

Session2: Artificial Intelligence   (Chair: Hyojong Lee)

[S2-1]	14:00-14:30	3D Lane Detection Methods for Autonomous Driving **Sang Jun Lee (Jeonbuk National University, Korea)**	13
[S2-2]	14:30-15:00	Face Sketch to Photo Synthesis via Deep Self-Attention	14

		Network **Weiguo Wan** (JiangXi University of Finance and Economics, China)	
[S2-3]	15:00-15:30	3D Object Detection, Multi-object Tracking, and Person Re-identification toward Scene Understanding **Xiaoyan Jiang** (Shanghai University of Engineering Science, China)	15
[S2-4]	15:30-16:00	3D Perception and its Applications **Yongbin Gao** (Shanghai University of Engineering Science, China)	16
[S2-5]	16:00-16:30	Deep Convolutional Neural Network for Single Image Restoration **Hyojong Lee** (Jeonbuk National University, Korea)	17

Session3: Media Communications & Applications   (Chair: Jaeho Choi)

[S3-1]	14:00-14:30	Wave structure function and spatial coherence radius of plane wave propagating in anisotropic atmospheric turbulence - comparison between maritime and terrestrial atmospheres **Jaeho Choi** (Jeonbuk National University, Korea)	18
[S3-2]	14:30-15:00	Probabilistic Factor Graph Modeling and Analysis of Biological Networks **Stephen Kotiang** (Wichita State University, USA)	19
[S3-3]	15:00-15:30	Deep learning methods for real-time face detetion and recognition **Youngshin Ahn** (Jeonbuk National University, Korea)	20
[S3-4]	15:30-16:00	Deep Features for Human Identification in Healthcare Systems Using Mobile Edge Computing **Wenjun YU** (Huizhou University, China)	21
[S3-5]	16:00-16:30	Optimal Power Allocation for Cooperative Relay Network Systems using Non-Orthogonal Multiple Access **Haiyang YU** (Huizhou University, China)	22

2021.2.26 (Fri)

Session4: Future wireless & The role of AI

(Chair: Sooyoung Kim, Xianglan Jin, Seok-Hwan Park)

[S4-1]	14:00~14:40	Two-Step Random Access for Machine-Type Communication **Jinho Choi (Deakin University, Australia)**	23
[S4-2]	14:40~15:20	Parallel deep learning detection network in the MIMO channel **Xianglan Jin (Jeonbuk National University, Korea)**	24
[S4-3]	15:20~16:00	Differential Scheme For Reconfigurable Intelligent Surface-Based Spatial Modulation System **Xue-Qin Jiang (Donghua University, China)**	25
[S4-4]	16:00~16:40	Learning-to-Optimize Approach for Beamforming Optimization **Seok-Hwan Park (Jeonbuk National University, Korea)**	26
[S4-5]	16:40~17:20	Decentralized optimization over communication-constrained networks: enabling the next generation machine intelligence **Stefano Rini (National Chiao Tung University, Taiwan)**	27
[S4-6]	18:00~19:00	ML meets MIMO systems **Heunchul Lee (Ericsson Research, Sweden)**	28
[S4-7]	19:00~20:00	Bayesian Federated Learning **Osvaldo Simeone (King's College London, UK)**	29