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<tr>
<th>Time</th>
<th>Event</th>
<th>Rooms</th>
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<tbody>
<tr>
<td>14:00 ~ 17:00</td>
<td>ICUFN Committee Meeting (IAC/SC/OC)</td>
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<tr>
<td>13:00 ~ 17:00</td>
<td>Registration</td>
<td>Room A (EM317)</td>
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<td>Room B (EM321)</td>
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<td>Room E (EM316)</td>
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<tr>
<td>13:30 ~ 15:30</td>
<td>Workshop 1A: The 1st International Workshop on Technologies for 5G-V2X based Enhanced Automotive Valet Parking I (EAVP 2023 I)</td>
<td>Room A (EM317)</td>
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<td></td>
<td>Workshop 1B: The 3rd International Workshop on Artificial Intelligence for Information, Communication, and Applications (AIICA 2023)</td>
<td>Room B (EM321)</td>
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<td></td>
<td>Workshop 1C: The 4th International Workshop on Smart Radio for IoT Era I (SRIoT 2023 I)</td>
<td>Room C (EM323)</td>
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<td>Workshop 1D: The 1st International Workshop on Blockchain Intelligence Convergence I (BIC 2023 I)</td>
<td>Room D (EM315)</td>
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<td>Workshop 1E: The 10th International Workshop on Intelligent Vehicles I (IV 2023 I)</td>
<td>Room E (EM316)</td>
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<tr>
<td>15:30 ~ 16:00</td>
<td>Coffee Break</td>
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<tr>
<td>16:00 ~ 18:00</td>
<td>Workshop 2A: The 1st International Workshop on Technologies for 5G-V2X based Enhanced Automotive Valet Parking II (EAVP 2023 II)</td>
<td>Room A (EM317)</td>
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<tr>
<td></td>
<td>Workshop 2B: The 3rd International Workshop on B5G/6G Wireless Networks (B5G/6G 2023)</td>
<td>Room B (EM321)</td>
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<td></td>
<td>Workshop 2C: The 4th International Workshop on Smart Radio for IoT Era II (SRIoT 2023 II)</td>
<td>Room C (EM323)</td>
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<td>Workshop 2D: The 1st International Workshop on Blockchain Intelligence Convergence II (BIC 2023 II)</td>
<td>Room D (EM315)</td>
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<td></td>
<td>Workshop 2E: The 10th International Workshop on Intelligent Vehicles II (IV 2023 II)</td>
<td>Room E (EM316)</td>
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* The ending time of workshops may vary due to the different number of presentations.
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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09:00 – 09:30</td>
<td>Preparation, Registration, and Networking (with Coffee/Tea and Pastry)</td>
<td>ROOM S1 (Eiffel 4 AUDITORIUM)</td>
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<tr>
<td>09:30 ~ 10:30</td>
<td>Tutorial 1 Machine Learning in Digital Twin Edge Networks</td>
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<td>Prof. Yan Zhang, University of Oslo, Norway</td>
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<tr>
<td>10:30 ~ 11:30</td>
<td>Opening Address Prof. Seong Ho Jeong, Organizing Committee Chair</td>
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<td>Welcome Address 1 Prof. Een-Kee Hong, President of KICS</td>
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<td>Welcome Address 2 Prof. Catherine Kuszla, OMNES Education Research Dean</td>
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<tr>
<td></td>
<td>Keynote Speech 1 Deep Gaussian Process Based Radio Map Construction and Localization</td>
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<td></td>
<td>Prof. Shiwen Mao, Auburn University, USA</td>
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<tr>
<td>11:30 ~ 13:30</td>
<td>Lunch (43 quai de Grenelle, 75015 Paris)</td>
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<tr>
<td>13:30 ~ 14:50</td>
<td>Oral Session 1A Wireless and Communication Networks I</td>
<td>Room A (EM317) Room B (EM321) Rooms C (EM323)</td>
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<td>Oral Session 1B AI/Machine Learning Applications I</td>
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<td></td>
<td>Oral Session 1C Future Internet and Networks</td>
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<tr>
<td>14:50 ~ 15:00</td>
<td>Session Break</td>
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<tr>
<td>Time</td>
<td>Session 1A</td>
<td>Session 1B</td>
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<tr>
<td>15:00 ~ 16:20</td>
<td>Oral Session 2A: Wireless and Communication Networks II</td>
<td>Oral Session 2B: AI/Machine Learning Applications II</td>
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<tr>
<td>16:20 ~ 16:50</td>
<td>Coffee Break</td>
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<tr>
<td>18:30 ~ 20:30</td>
<td>Banquet (Novotel Paris Centre Tour Eiffel)</td>
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**July 6, 2023 (Thursday)**

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<th>Time</th>
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<tr>
<td>09:00 – 09:30</td>
<td>Preparation, Registration, and Networking (with Coffee/Tea and Pastry)</td>
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<td>ROOM S2 (Eiffel 1 AMPHITHEATER)</td>
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<tr>
<td>09:30 ~ 10:30</td>
<td>Keynote Speech 2: Large Language Models for Telecom: the next big thing?</td>
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<td>Prof. Mérouane Debbah</td>
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<td>Khalifa University of Science and Technology in Abu Dhabi, UAE</td>
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<td>10:30 ~ 11:30</td>
<td>Tutorial 2: Towards Extreme Band Communications to Super-Connect the Connected and Connect the Unconnected</td>
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<td>Prof. Mohamed-Slim Alouini</td>
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<td>King Abdullah University of Science and Technology (KAUST), Saudi Arabia</td>
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<td>11:30 ~ 13:30</td>
<td>Lunch</td>
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<td></td>
<td>(43 quai de Grenelle, 75015 Paris)</td>
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<td>Room</td>
<td>Room A (EM317)</td>
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<tr>
<td>13:30 ~ 14:50</td>
<td>Oral Session 4A Wireless and Communication Networks III</td>
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<td>14:50 ~ 15:00</td>
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<tr>
<td>15:00 ~ 16:20</td>
<td>Oral Session 5A Wireless and Communication Networks IV</td>
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<td>16:20 ~ 16:50</td>
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<tr>
<td>16:50 ~ 18:10</td>
<td>Oral Session 6A Machine Learning and Computational Intelligence</td>
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<td>July 7, 2023 (Friday)</td>
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<tr>
<td>09:00 – 09:40</td>
<td>Preparation, Registration and Networking (with Coffee/Tea and Pastry)</td>
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<td>Room</td>
<td>Room A (EM317)</td>
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<tr>
<td>Closing</td>
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<td>Tentative Schedule, Subject to change</td>
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July 4, 2023 (Tuesday)

**Workshop 1A: The 1st International Workshop on Technologies for 5G-V2X based Enhanced Automotive Valet Parking I (EAVP I)**

Session Chair: Prof. KyungHi Chang (Inha University, Korea)

Room A (EM317), Time 13:30 ~ 15:30

[W1A-1] Multi-Modal Fine-Grained Retrieval with Local and Global Cross-Attention
Qiaosong Chen, Ye Zhang and Junzhuo Liu (Chongqing University of Posts and Telecommunications, China); Zhixiang Wang (Maastricht University, The Netherlands); Xin Deng and Jin Wang (Chongqing University of Posts and Telecommunications, China)

Mohammad Sajid Shahriar, Arati Kantu Kale and KyungHi Chang (Inha University, Korea (South))

[W1A-3] Occupant Attributes Recognition for Thermal Comfort in Passenger Car Cabin
Mingjie Liu and Zhengyan He (Chongqing University of Posts and Telecommunications, China); Fan Ren (Changan Automobile Intelligence Research Institute, China); Ping Liu (Chongqing University of Posts and Telecommunications, China); Jianbin Chen (Changan Automobile Intelligence Research Institute, China); Changhao Piao (Chongqing University of Posts and Telecommunications, China)

[W1A-4] Resource Allocation in NR-V2X Mode 2 Using Multi Agent DQN
Insung Lee and Duk Kyung Kim (Inha University, Korea (South))

[W1A-5] Two-Channel Image Dehazing Algorithm Based on the Improved Guided Filter
Ping Liu, Yang Luo, Mingjie Liu and Changhao Piao (Chongqing University of Posts and Telecommunications, China)

[W1A-6] Re-ID Technology for V2I Based Cooperative Driving Protocol
Junhyek Jang (Korea Electronic Technology Institute, Korea (South)); Ki-Taeg Lim, Sang Hun Yoon, Soo Hyun Jang and Daewon Chae (Korea Electronics Technology Institute, Korea (South))

**Workshop 1B: The 3rd International Workshop on Artificial Intelligence for Information, Communications, and Applications (AIICA 2023)**

Session Chair: Prof. Seong Ho Jeong (HUFS, Korea)

Room B (EM321), Time 13:30 ~ 15:30

[W1B-1] Implementation of Danger Degree Calculation System for Public Safety Services
Hyunho Park and Eunjung Kwon (ETRI, Korea (South)); Sungwon Byon (Electronics and Telecommunication Research Institute, Korea (South)); Minjung Lee (Electronics and Telecommunications Research Institute, Korea (South)); Young-Su Park and Eui-Suk Jung (ETRI, Korea (South))

[W1B-2] Adversarial Attacks on Deep Neural Networks Using Generative Perturbation Networks
Sudharman K Jayaweera (University of New Mexico & Bluecom Systems, USA)

[W1B-3] Evaluation of Neural Demappers for Trainable Constellation in an End-To-End Communication System
Nazmul Islam and Seokjoo Shin (Chosun University, Korea (South))

[W1B-4] A Machine Learning Approach for Analyzing and Predicting Suicidal Thoughts and Behaviors
Fahim Faisal and Mirza Muntasir Nishat (Islamic University of Technology, Bangladesh); Kazi Raine Ralhan (IUT, Bangladesh); Ahmad Shafuliah and Sanjida Ali (Islamic University of Technology, Bangladesh)
[W1B-5] A Content Recommendation Platform for People with Intellectual Disability
Maria Papadogiorgaki (Technical University of Crete, Greece); Konstantinos Apostolidis (Centre for Research and Technology Hellas, Greece); George Livanos, Ekaterini S Bei, Stylianos Zafeiris and Georgios A. Klados (Technical University of Crete, Greece); Vasileios Mezaris (Information Technologies Institute / CERTH, Greece); Michalis Zervakis (Technical University of Crete, Greece)

Workshop 1C: The 4th International Workshop on Smart Radio for IoT Era I (SRIoT 2023 I)

Session Chair: Prof. Takeo Fujii (The University of Electro-Communications, Japan)
Room C (EM323), Time 13:30 ~ 15:30

[W1C-1] MPTCP Evaluation for Heterogeneous Wireless Networks
Naotaka Sakaguchi and Takenori Sumi (Mitsubishi Electric Corporation, Japan); Yukimasa Nagai (Mitsubishi Electric Corp., Japan); Jianlin Guo, Kieran Parsons and Philip Orlik (Mitsubishi Electric Research Laboratories, USA)

[W1C-2] Opportunistic Division and Allocation of Machine Learning Task for WSN
Eri Hosonuma (The University of Tokyo, Japan); Nobuyuki Tanaka and Takuma Yamazaki (Shibaura Institute of Technology, Japan); Akihito Taya and Yuuki Nishiyama (The University of Tokyo, Japan); Kaoru Sezaki (University of Tokyo, Japan); Takumi Miyoshi and Taku Yamazaki (Shibaura Institute of Technology, Japan)

[W1C-3] Implementation and Evaluation of Synchronized SS-CDMA Using Wireless Two-Way Interferometry (Wi-Wi)
Serena Akasaka (Hiroshima University, Japan); Suguru Kameda (Hiroshima University, Japan); Satoshi Yasuda and Nobuyasu Shiga (National Institute of Informations and Communications Technology, Japan)

[W1C-4] Initial Path Injection-Based Opportunistic Routing for Digital Twin-Enabled Smart Cities
Takuma Yamazaki (Shibaura Institute of Technology, Japan); Eri Hosonuma and Shota Ono (The University of Tokyo, Japan); Taku Yamazaki and Takumi Miyoshi (Shibaura Institute of Technology, Japan)

[W1C-5] Observation Data and 3D Map-Based Radio Environment Estimation for Drone Wireless Communications
Shota Yamada, Takeo Fujii, Katsuya Suto and Koya Sato (The University of Electro-Communications, Japan)

[W1C-6] Water Level Monitoring System Based on 429MHz LoRa with Packet Level Index Modulation
Yudai Koike and Osamu Takyu (Shinshu University, Japan)

Workshop 1D: The 1st International Workshop on Blockchain Intelligence Convergence I (BIC 2023 I)

Session Chair: Prof. Ki-Hyung Kim (Ajou University, Korea)
Room D (EM315), Time 13:30 ~ 15:30

[W1D-1] An Analysis of the Threats Posed by Botnet Malware Targeting Vulnerable Cryptocurrency Miners
Joseph K Wrieden and Vassilis G. Vassilakis (University of York, United Kingdom (Great Britain))

[W1D-2] Smart Contract-Based Checkpoint for Initial PoW Network Security
Seungmin Kim, Gyeongdeok Maeng and Heung-No Lee (Gwangju Institute of Science and Technology, Korea (South))

[W1D-3] Home IoT Authority Control Method Based on DID Auth
Workshop 1E: The 10th International Workshop on Intelligent Vehicles I (IV 2023 I)
Session Chair: Prof. Dong Seog Han (Kyungpook National University, Korea)
Room E (EM316), Time 13:30 ~ 15:30

[W1E-1] Bimodal Speech Emotion Recognition Using Fused Intra and Cross Modality Features
Samuel Kakuba and Dong Seog Han (Kyungpook National University, Korea (South))

[W1E-2] MPNet: Multiscale Predictions Based on Feature Pyramid Network for Semantic Segmentation
Quyen Van Toan and Min Young Kim (Kyungpook National University, Korea (South))

Simeon Ajakwe (Kumoh National Institute of Technology, Gumi, Korea (South)); Ikechi Saviour Igboanusi, Jung Hyeon Kim, Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))

Workshop 2A: The 1st International Workshop on Technologies for 5G-V2X based Enhanced Automotive Valet Parking II (EAVP II)
Session Chair: Prof. KyungHi Chang (Inha University, Korea)
Room A (EM317), Time 16:00 ~ 18:00

Yongsheng Wang and Yugong Luo (Tsinghua University, China); Yanchen Ku (Audi China, China); Jia Shi and Mingyuan Bian (Tsinghua University, China)

[W2A-2] Multiple Camera Based Lightweight Localization Technology for Indoor Parking Lot
Soo Hyun Jang, Dae Kyo Shin and Jang Hyun Baek (Korea Electronics Technology Institute, Korea (South)); Junhyek Jang (Korea Electronic Technology Institute, Korea (South))

Workshop 2B: The 3rd International Workshop on B5G/6G Wireless Networks (B5G/6G 2023)
Session Chair: Prof. Kyung-Joon Park (DGIST, Korea)
Room B (EM321), Time 16:00 ~ 18:00

[W2B-1] 2.4 Gbps Real-Time Visible Light Communication System Based on Blue Laser Diode
Jinheng Shao and Chao Zhang (Tsinghua University, China)

Young Jun Cho, Hyeon-Min Yoo, Yu-Vin Kim and Een-Kee Hong (Kyunghlee University, Korea)
**Workshop 2C: The 4th International Workshop on Smart Radio for IoT Era II (SRIoT 2023 II)**

Session Chair: Prof. Takeo Fujii (The University of Electro-Communications, Japan)
Room C (EM323), Time 16:00 ~ 18:00

- **[W2C-1] Overcoming Environmental Challenges in CAVs Through MEC-Based Federated Learning**
  Zekun Wang (KTH Royal Institute of Technology, Sweden); Jin Nakazato (University of Tokyo, Japan); Muhammad Asad and Ehsan Javanmardi (The University of Tokyo, Japan); Manabu Tsukada (the University of Tokyo, Japan)

  Atsushi Nakamura (Tokyo University of Science, Japan); Ferdinand Peper and Kenji Leibnitz (National Institute of Information and Communications Technology, Japan); Naoki Wakamiya (Osaka University, Japan); Mikio Hasegawa (Tokyo University of Science, Japan)

- **[W2C-3] Construction and Demonstration of Access Link for Millimeter Wave UAV Base Station Network**
  Ryunosuke Masaoka and Gia Khanh Tran (Tokyo Institute of Technology, Japan)

- **[W2C-4] Frame Design for Differential Packet-Level Index Modulation Implemented by LoRaWAN**
  Hitoshi Yamasaki (Fukuoka University, Japan); Hiroki Matsuura (NATANE eICT Lab., Japan); Mai Ohta and Makoto Taromaru (Fukuoka University, Japan)

- **[W2C-5] Hidden Node Recognition Utilizing Wireless LAN Sensing Data in Indoor Environments**
  Hayato Mukasa and Takeo Fujii (The University of Electro-Communications, Japan)

**Workshop 2D: The 1st International Workshop on Blockchain Intelligence Convergence II (BIC 2023 II)**

Session Chair: Prof. Ki-Hyung Kim (Ajou University, Korea)
Room D (EM315), Time 16:00 ~ 18:00

- **[W2D-1] A Study of Joint Framework for Robustness Against Noise on Speaker Verification System**
  Sangwook Han, Youngdo Ahn and Kyeongmuk Kang (Gwangju Institute of Science and Technology (GIST), Korea (South)); Jong Won Shin (Gwangju Institute of Science and Technology, Korea (South))

**Workshop 2E: The 10th International Workshop on Intelligent Vehicles II (IV 2023 II)**

Session Chair: Prof. Dong Seog Han (Kyungpook National University, Korea)
Room E (EM316), Time 16:00 ~ 18:00

- **[W2E-1] Fast Prototyping Platform for Human Machine Interfaces Design in Smart Vehicles**
  Jakub Pilch (University of Southern Denmark & Hamsø Engineering ApS, Denmark); Benaoumeur Senouci (North Dakota State University, USA); Morten Bøjskov Rothmann (Hamsø Engineering ApS, Denmark)

- **[W2E-2] Visual Tactile Sensor Based on Feature Tracking of Patterns for Soft Human-Machine
Interaction
Jinhyuk Lee and Min Young Kim (Kyungpook National University, Korea (South)); Suwoong Lee (Korea Institute of Industrial Technology, Korea (South))

Jong hun Lee (DGIST (Daegu Gyeongbuk Institute of Science and Technology), Korea (South)); Young-Seok Jin (DGIST, Korea (South)); Sang-Dong Kim (Daegu Geongbuk Institute of Science and Technology, Korea (South)); Bong-seok Kim (DGIST, Korea (South)); Seongeon Song (DGIST radar lab., Korea (South))

[W2E-4] On-Device Deep Learning-Based Multiple Behavior Detection Using IMU Motion Sensors
Dong-Eon Kim (Kyungpook National University, Korea (South)); Dau Ngoc Mai (VISIONIN, Korea (South)); Dong Seog Han (Kyungpook National University, Korea (South))
July 5, 2023 (Wednesday)

Session 1A: Wireless and Communication Networks I
Session Chair: Prof. Junsu Kim (Tech University of Korea, Korea)
Room A (EM317), Time 13:30 ~ 14:50

[1A-1] A Cluster-Based OFDMA MAC Protocol Using Carrier-Sensing Scheme for IEEE 802.11ax WLANs
Yen-Da Chen (Lunghwa University of Science and Technology, Taiwan); Jia-Wei Lin, Mu-Hua Hsueh and Kuei-Ping Shih (Tamkang University, Taiwan)

[1A-2] Federated Learning-Based Joint Radar-Communication mmWave Beamtracking with Imperfect CSI for V2X Communications
Sanjay Bhardwaj (Kumoh National Institute of Technology & ICT Convergence Research Center, Korea (South)); Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))

[1A-3] Optimal Adaptation of 3D Beamformers in UAV Networks
Kasun Prabhath (UNM, USA); Sudharman K Jayaweera (University of New Mexico & Bluecom Systems, USA)

[1A-4] Cooperative Beam Selection Based Fingerprint Database Using User Types in Unmanned Aerial Vehicle Supported Systems
Yuna Sim, Seungseok Sin and Jihun Cho (Chonnam National University, Korea (South)); Kyunam Kim (Alps Electric Korea Company Limited, Korea (South)); Sangmi Moon (Korea Nazarene University, Korea (South)); Intae Hwang (Chonnam National University, Korea (South))

Session 1B: AI/Machine Learning Applications I
Session Chair: Prof. Taesoo Jun (Kumoh National Institute of Technology, Korea)
Room B (EM321), Time 13:30 ~ 14:50

Roy Chaoming Hsu (National Chiayi University, Taiwan)

[1B-2] Transmit Antenna Selection Using CNN-Based Multiclass Classification with Linear Interpolation of Wideband Channels
Jaehong Kim and Jinguon Joung (Chung-Ang University, Korea (South)); Eui-Rim Jeong (Hanbat National University, Korea (South))

[1B-3] Indoor Scene Recognition Using ARM-Based MobileNets Architectures
Wei-Lung Mao, Sung-Hua Chen, Yu-Tang Huang and Yao-Teng Yang (National Yunlin University of Science and Technology, Taiwan); Po-Heng Bone Chou (Research Center for Information Technology Innovation (CITI), Academia Sinica)

[1B-4] Efficient Malware Classification with Spiking Neural Networks: A Case Study on N-BaIoT Dataset
Yee Loo Foo, Muhammad Umair and Wooi Haw Tan (Multimedia University, Malaysia)

Session 1C: Future Internet and Networks
Session Chair: Prof. Junhee Seok (Korea University, Korea)
Room C (EM323), Time 13:30 ~ 14:50

[1C-1] A New Low-Rate DoS Attack Method Robust to Timing Skew for TCP Short Transfers
Ryuku Hisasue, Hiroshi Inamura and Shigemi Ishida (Future University Hakodate, Japan)

[1C-2] Coverage Probability Analysis of LEO Satellite Communication Systems with Directional
**Session 2A: Wireless and Communication Networks II**

Session Chair: Prof. Yun Hee Kim (Kyung Hee University, Korea)

Room A (EM317), Time 15:00 ~ 16:20

- **[2A-1]** A Classification of Cross-Layer Optimization Approaches in LoRaWAN for Internet of Things  
  Carl Christian A Chaguile and Melchizedek Alipio (De La Salle University, Philippines); Miroslav Bures (Czech Technical University in Prague, Czech Republic)

- **[2A-2]** Age-Of-Information Aware Intelligent MAC for Congestion Control in NR-V2X  
  Malik Muhammad Saad, Muhammad Ashar Tariq, Junho Seo, Mahnoor Ajmal and Dongkyun Kim  
  (Kyungpook National University, Korea (South))

- **[2A-3]** Partial-Information Multiple Access Protocol for Orthogonal Transmissions  
  Alberto Rech, Stefano Tomasin and Lorenzo Vangelista (University of Padova, Italy); Cristina Emilia Costa  
  (CNIT, Italy)

- **[2A-4]** Unscented Kalman Filter-Based Beam Tracking in NR MIMO System Using Hybrid Beamforming  
  Seungseok Sin, Yuna Sim and Jihun Cho (Chonnam National University, Korea (South)); Kyunam Kim (Alps Electric Korea Company Limited, Korea (South)); Sangmi Moon (Korea Nazarene University, Korea (South)); Intae Hwang (Chonnam National University, Korea (South))

**Session 2B: AI/Machine Learning Applications II**

Session Chair: Prof. Hyunhee Park (Myongji University, Korea)

Room B (EM321), Time 15:00 ~ 16:20

- **[2B-1]** Uplink Time Constrained Federated Learning over Wireless Networks  
  Ji Ho Choi and Dong In Kim (Sungkyunkwan University (SKKU), Korea (South))

- **[2B-2]** Ingredient Detection, Title and Recipe Retrieval from Food Images  
  Snigdha Sinha, Bhavikha Chopra, Mahendra N and Gitika Jain (PES University, India); Natarajan S (VTU, India)

- **[2B-3]** Various Object Trackers for UAV Chasing of Counter UAV Systems  
  Kyubin Kim (Chungang University, Korea (South)); Jaehong Kim, Han-Gyeol Lee and Jingon Joung  
  (Chung-Ang University, Korea (South))

- **[2B-4]** Deep Learning-Based Network Slice Recognition  
  Harun Ur Rashid and Seong-Ho Jeong (Hankuk University of Foreign Studies, Korea (South))

**Session 2C: Security and Network Management**

Session Chair: Prof. Seunghyun Park (Hansung University, Korea)
Room C (EM323), Time 15:00 ~ 16:20

[2C-1] A Robust Aggregation Approach for Heterogeneous Federated Learning
Dost Muhammad Saqib Bhatti and Haewoon Nam (Hanyang University, Korea (South))

[2C-2] A Lightweight Seamless Authentication Scheme for Edge-Assisted IoV Networks
Seunghwan Son, Myeonghyun Kim and YoungHo Park (Kyoungpook National University, Korea (South))

[2C-3] Traffic Characterization to Provide Trust for Internet of Things Devices
Evandro Luiz Cardoso Macedo and Luis Felipe M. de Moraes (Federal University of Rio de Janeiro (UFRJ), Brazil)

Manzoor Hussain, Jae-Won Suh, Bo-Seok Seo and Jang-Eui Hong (Chungbuk National University, Korea (South))

Session 3A: Mobile and Vehicular Networks, Autonomous Vehicles
Session Chair: Prof. Dong-Joon Shin (Hanyang University, Korea)
Room A (EM317), Time 16:50 ~ 18:10

[3A-1] Proposal of Enhanced Cell Range Expansion for Heterogeneous Mobile Networks
Kentaro Yoda and Hiroyuki Otsuka (Kogakuin University, Japan)

Songmu Heo and Hyogon Kim (Korea University, Korea (South))

Ashkan Gholamhosseinian (Technische Universität Ilmenau, Germany); Jochen Seitz (Technische Universität Ilmenau, Germany)

Ansa Shermin S and Sarang Dhongdi (Dept. of EEE, BITS Pilani K K Birla Goa Campus, Goa, India)

Session 3B: Ubiquitous Computing and Sensor Networks
Session Chair: Prof. Melchizedek Alipio (De La Salle University, Philippines)
Room B (EM321), Time 16:50 ~ 18:10

Mingfu Li, Guan-Yu Lu and Cheng-Bin Yao (Chang Gung University, Taiwan)

Sangman Han, Kwangyoung Chae and Hojun Lee (Hoseo University, Korea (South))

[3B-3] Read-Rate Improvement in 920MHz RFID System with Circular-Polarized 2D Beam Scan R/W Antenna
Yasushi Yamao and Sora Funayama (The University of Electro-Communications, Japan)

Kisook Chung (ETRI, Korea (South))
Session 3C: WLAN, WPAN, WBAN

Session Chair: Prof. Seokjoo Shin (Chosun University, Korea)

Room C (EM323), Time 16:50 ~ 18:10

[3C-1] Joint Optimization of Channel Allocation and AP Selection for WLAN with Multi-Priority Transmissions
Xinwei Chen, Xiaofeng Zhong and Shidong Zhou (Tsinghua University, China); Jie Wei (Beijing Jiaotong University, China)

[3C-2] Experimental Study of Data Network in Confined Space of Vessel: Opportunities and Challenges
Woo-Sung Jung and Tae Hyun Yoon (ETRI, Korea (South)); Daeseung Yoo (Electronics and Telecommunications Research Institute, Korea (South))

[3C-3] Throughput Satisfaction-Based Multi-Priority Channel Allocation with Channel-Switching for WiFi
Xinwei Chen, Xiaofeng Zhong and Shidong Zhou (Tsinghua University, China); Jie Wei (Beijing Jiaotong University, China)

[3C-4] Interference Cancellation in RIS-Assisted FD Relay Transmission
Donghyeon Kim (AI and Robotics Tech Lab, Korea (South)); Wooyeol Choi and Chanjun Chun (Chosun University, Korea (South)); Yohan Kim (Dongseo University, Korea (South)); Yonggang Kim (Kongju National University, Korea (South))
July 6, 2023 (Thursday)

**Session 4A: Wireless and Communication Networks III**

Session Chair: Prof. Lorenzo Vangelista (University of Padova, Italy)

Room A (EM317), Time 13:30 ~ 14:50

[4A-1] Performance Analysis According to Segment Length and Buffer Length in Adaptive Video Streaming
Joon-Young Jung (ETRI, Korea (South))

[4A-2] Joint Impact of Limited Fronthaul and Pilot Length on Payload Data Rate of Cell-Free Massive MIMO
Sangwon Jo, Daesung Yu and Seok-Hwan Park (Jeonbuk National University, Korea (South))

Jeong Woo Yoon, Junsu Kim and Su Min Kim (Tech University of Korea, Korea (South))

Kyu sung Shim (Hankyong National University, Korea (South)); Beongku An (Hongik University, Korea (South))

**Session 4B: e-Health**

Session Chair: Prof. Su Min Kim (Tech University of Korea, Korea)

Room B (EM321), Time 13:30 ~ 14:50

[4B-1] Recurrence Plot Based Person Identification with ECG Using CNN Model
Yeong Jun Jeon, Cheolhwan Lee and Soon Ju Kang (Kyungpook National University, Korea (South))

[4B-2] Smart Health Care Management System Diagnosis of Lungs Cancer
Ahed Ahed Abugabah (Zayed University, United Arab Emirates); Farah Shahid (University of Agriculture, United Arab Emirates); Amjad Alafeef (Ministry Of Culture, United Arab Emirates & Amman, Jordan); Rizwan Khan (Zhejiang Normal University, China)

[4B-3] A Study on Reducing Skin Irritation in Multi-Channel TES for Painless Force Feedback
Jin-Woo Yu, Bomin Kim and Jinmo Kim (DGIST, Korea (South)); Han-Joon Kim (Kumoh National Institute of Technology, Korea (South)); Ji-Woong Choi (DGIST, Korea (South))

[4B-4] Effect of En-Route Reassignment of Hospitals for Ambulances
Junghoon Lee (Jeju University, Korea (South))

**Session 5A: Wireless and Communication Networks IV**

Session Chair: Dr. Dost Muhammad Saqib Bhatti (Hanyang University, Korea)

Room A (EM317), Time 15:00 ~ 16:20

[5A-1] A Novel Approach to Collision Avoidance in LoRa Networks
Rao Muzamal Liaqat, Philip Branch and Jason But (Swinburne University of Technology, Australia)

Gyoungmin Been, Su Min Kim and Junsu Kim (Tech University of Korea, Korea (South))

[5A-3] NGUB: Novel Greedy Algorithms for User and Beam Selection in mmWave Networks
Tri-Hai Nguyen, Heejae Park, Kihyun Seol, Seonghyeon So and Laihyuk Park (Seoul National University of Science and Technology, Korea (South))

Session 5B: IoT
Session Chair: Prof. Ki-Hyung Kim (Ajou University, Korea)
Room B (EM321), Time 15:00 ~ 16:20

[5B-1] Privacy and Social Aware Hybrid Successive Relaying with Mixed Trustworthy Untrustworthy D2D Helpers
Jie Wei (Beijing Jiaotong University, China); Jianjing Wei (Beijing Jiaoada Signal Technology Co Ltd, China); Shaoming Hu and Wei Chen (Tsinghua University, China)

[5B-2] A Scheduling Method for Reducing Latency in Wi-SUN FAN Networks
Hee-Jun Lee and Sang-Hwa Chung (Pusan National University, Korea (South))

Nazakat Ali and Sasikumar Punnekkat (Mälardalens University, Sweden)

[5B-4] Signal of Opportunity Based TDOA Positioning Using Analog TV Signals
Khaled Walid Elgammal (Istanbul Medipol University, Turkey); Berke Can Turan (Sivas University of Science and Technology, Turkey); Oğuz Bedir (Istanbul Medipol University, Turkey); Hasari Celebi (Gebze Technical University, Turkey); Mehmet Kemal Ozdemir (Istanbul Medipol University, Turkey)

Session 6A: Machine Learning and Computational Intelligence
Session Chair: Prof. Kyung-Joon Park (DGIST, Korea)
Room A (EM317), Time 16:50 ~ 18:10

[6A-1] In Search of Distance Functions That Improve Autoencoder Performance for Intrusion Detection
Rémi Bouchayer and Jae Yun Jun Kim (ECE Paris, France); Hakima Chaouchi (Telecom Sud Paris-Institut Mines Telecom & CNRS SAMOVAR, France); Philippe Millet (Nexter Systems, France)

[6A-2] Here Comes SAID: A SOME/IP Attention-Based Mechanism for Intrusion Detection
Natasha Alkhatib (Institut Polytechnique de Paris, France); Hadi Ghauch (Royal Institute of Technology (KTH), Sweden); Jean-Luc Danger (Telecom Paris, France); Maria Mushtaq (Assistant Professor, France)

[6A-3] A Hybrid System for Myocardial Infarction Classification with Derived Vectorcardiography
Wen-Wei Chang (National Yang Ming Chiao Tung University, Taiwan)

[6A-4] A Design of Lightweight Convolutional Neural Network Accelerator for IoT Devices
Yeon-Seob Song and Kang-Yoon Lee (Sungkyunkwan University, Korea (South))

Session 6B: Computer Vision Applications
Session Chair: Prof. Junghoon Lee (Cheju National University, Korea)
Room B (EM321), Time 16:50 ~ 18:10

Nikesh Devkota and Byung Wook Kim (Changwon National University, Korea (South))

Ala Alsanabani (Xidian University, unknown); Ahed Abugabah (Zayed University, United Arab Emirates); Licheng Jiao (Xidian University, China)

[6B-3] Depth-Aware Feature Pyramid Network for Semantic Segmentation
Taehyeon Kim, Se-Ho Park and Kyung-Taek Lee (Korea Electronics Technology Institute, Korea (South))

[6B-4] Traffic Accident Detection and Classification in Videos Based on Deep Network Features
Zain Ul Arifeen, Jang-Eui Hong, Bo-Seok Seo and Jae-Won Suh (Chungbuk National University, Korea (South))
July 7, 2023 (Friday)

Session 7A: Wireless and Communications Networks V
Session Chair: Prof. Hovhannes A Harutyunyan (Concordia University, Canada)
Room A (EM317), Time 09:40 ~ 11:00

Jingwei Li, Xiaofeng Zhong and Shidong Zhou (Tsinghua University, China); Xuemeng Gong and Jie Wei (Beijing Jiaotong University, China)

Lien-En Hung, Chun-Kuan Lee and Hsu-Feng Hsiao (National Yang Ming Chiao Tung University, Taiwan)

[7A-3] Broadcasting in Chains of Rings
Narek Hovhannisyan, Hovhannes A Harutyunyan and Edward Maraachlian (Concordia University, Canada)

[7A-4] A Dynamic Reinforcement Learning Scheme for UAV-Based Joint Communication and Radar Systems
Soo Yeon Woo, Su Min Kim and Junsu Kim (Tech University of Korea, Korea (South))

Session Chair: Prof. Keun-Woo Lim (Telecom ParisTech, France)
Room B (EM321), Time 09:40 ~ 11:00

[7B-1] Efficient Throughput Degradation Prediction in Telco Networks Using Anomaly Detection
Rajiv Ranjan Sinha, Satish K Kolli, Sumit Soman and Koti Prasanna Maddala (Ericsson, India)

[7B-2] On the Optimization of User Allocation in Heterogeneous 5G Networks Using DUDe Techniques
Konstantinos Tsachrelias (University of Patras, Greece); Apostolos Gkamas (University Ecclesiastical Academy of Athens); Chrysostomos Athanasios Katsigiannis, Christos J Bouras and Vasileios Kokkinos (University of Patras, Greece); Philippos Pouyioutas (University of Nicosia, Cyprus)

[7B-3] Lightweight AP Selection Algorithm for Uniform Quality Everywhere in Cell-Free Massive MIMO
Akio Ikami, Yu Tsukamoto, Naoki Aihara, Takahide Murakami and Hiroyuki Shinbo (KDDI Research, Inc., Japan)

[7B-4] Self-Similarity of Traffic Within a 5G Standalone Network
Bryan Martin, Jacob G Snyder and Chad A Bollmann (Naval Postgraduate School, USA)
July 6, 2023 (Thursday)

**Poster Session 1**

Session Chair: Prof. Junbeom Hur (Korea University, Korea)

Rooms C, D, E (EM323, EM315, EM316), Time 13:30 ~ 14:50

[P1-1] Power Efficient Long Range IoT Communication of Wireless PPM System in ISM Band
Md. Moklesur Rahman and Heung-Gyoon Ryu (Chungbuk National University, Korea (South))

[P1-2] Building a Metaverse for Transportation Systems: A Brief Review
Judith Nkechinyere Njoku, Cosmas Ifeanyi Nwakanma and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))

[P1-3] Fast Locking Dual Band PLL for NB-IoT with QPSK Modulation
Jaehyung Jung (Sungkyunkwan University & SKAIChips, Korea (South)); Kang-Yoon Lee (SKAIChips)

Sudhanshu Arya (Stevens Institute of Technology, USA & Pukyong National University, USA); Yeonho Chung (Pukyong National University, Korea (South)); Francisco Lopez Hernandez (CeDInt-UPM, Spain)

[P1-5] Authentication and Access Control in Cloud-Based Systems
Rajeshwari Gadathas Krishna Babu (Grisebachstrasse 7 Lutterterrass & Sartorius Stedim Biotech GmbH, Germany); Aytaj Badirova (Georg-August-Universität Göttingen, Germany); Faraz Fatemi Moghaddam (GWDG - Georg-August-Universität Göttingen, Germany); Philipp Wieder (GWDG, Germany); Ramin Yahyapour (GWDG - University Göttingen, Germany)

[P1-6] Smart Block-Based Route Guidance Technology for the Visually Impaired
Jong Gyu Hwang (Korea Railroad Research Institute, Korea (South))

Daekug Lee, Dong Hoon Lee and Choong-Ho Cho (Korea University, Korea (South)); Eun Young Cho (DSC Regional Innovation Platform, Korea (South))

[P1-8] Bluetooth Low Energy-Based Adaptive Scheme for IoT Services
Byeong-hee Roh, Gaoyang Shan and Geunkyung Choi (Ajou University, Korea (South))

[P1-9] Service-Based Optimal Group Resource Allocation Strategy
Chaeyeon Cha and Hyunggon Park (Ewha Womans University, Korea (South))

[P1-10] Design and Implementation of a Low-Area Reconfigurable and Synthesizable Digital Loop Filter for ADPLL
Nabeel Ahmad and Kang-Yoon Lee (Sungkyunkwan University, Korea (South))

[P1-11] A Location Estimation Algorithm Combined with TDOA and TOA Considering Repeaters
Seul-Bi Jeon, Heui-Seon Park, Tae-Ho Jo and Suk-seung Hwang (Chosun University, Korea (South))

Hyun-Soon Nam (Electrics and Telecommunications Research Institute, Korea (South)); Jin-Kyu Choi (ETRI, Korea (South)); Jongkuk Lee (Electronics and Telecommunications Research Institute, Korea (South)); HeaSook Park (ETRI, Korea (South))

Chandra Sukanya Nandyala (Kyungpook National University, Korea (South)); Ethungshan Shitiri (Universitat Politècnica de Catalunya, Spain); Ho-Shin Cho (Kyungpook National University, Korea (South))
[P1-14] Real-Time Video-Based Point Cloud Encoding System on a Distributed Platform
Yura Kim and Yonghwan Kim (Korea Electronics Technology Institute, Korea (South))

Syed Muhammad Ammar Hassan Bukhari, Afaq Muhammad and Wang-Cheol Song (Jeju National University, Korea (South))

[P1-16] Development of Edge Camera System for Vehicle Detection System Using Local AI Optimizer Based on Minimum Network Resource
Yun-Won Choi (Electronics & Telecommunications Research Institute, Korea (South)); Jang Woon Baek (Electronics and Telecommunications Research Institute, Korea (South)); Jinhong Kim (ETRI, Korea (South)); Lee Joon-Goo (Electronics and Telecommunications Research Institute, Korea (South))

[P1-17] Smart Tourism Chatbot System Using Multi-Domain Tourism Information DST
Jeong Woo Jwa (Jeju National University, Korea (South))

[P1-18] Parallel Network Assisted Calibrated Beam Training for mmWave Communication Systems
Jihyung Kim (ETRI, Korea (South)); Soyoung Yoo and Junghyun Kim (Sejong University, Korea (South))

[P1-19] 5G Network Simulator for Network Caching
Dongju Kim, Joonyoung Lim and Younghwan Yoo (Pusan National University, Korea (South))

Yong-An Jung, Sang-Bong Byun, Dong-Cheul Han, Soo-Hyun Cho and Sung-hun Lee (Gumi Electronics & Information Technology Research Institute, Korea (South)); Jaeuk Kwon (Gumi Electronics and Information Technology Research Institute, Korea (South))

Hyebin Kang, Minuk Yang and Geun-Hyeong Kim (Chungbuk National University Hospital, Korea (South)); Tae-Soo Lee (Chungbuk National University, Korea (South)); Seung Park (Chungbuk National University Hospital, Korea (South))

Duc Nghia Vu, Dongwook Won (Chung-Ang University, Korea (South)), Nhu-Ngoc Dao (Sejong University, Korea (South)) and Sungrae Cho (Chung-Ang University, Korea (South))

Raihan Bin Molful, Syed Samiul Alam and Arbil Chakma (Kookmin University, Korea (South)); ByungDeok Chung (ENS. Co. Ltd., Korea (South)); Yeong Min Jang (Kookmin University, Korea (South))

Poster Session 2

Session Chair: Prof. Hyunggon Park (Ewha Womans University, Korea)
Rooms C, D, E (EM323, EM315, EM316), Time 15:00 ~ 16:20

[P2-1] An Efficient Microservices Architecture for MLOps
Seol Roh (Kyung Hee University, Korea (South)); Ki-Moon Jeong and HyeYoung Cho (Korea Institute of Science and Technology Information, Korea (South)); Eui-Nam Huh (Kyung Hee University, Korea (South))

[P2-2] Permanence Based Hidden Community and Graph Recovery in Social Networks
Jaeyoung Choi and Wooseok Sim (Gachon University, Korea (South))

[P2-3] Self-Defined Protocols for Ubiquitous Networks
Ichiro Satoh (National Institute of Informatics, Japan)

Won Seok Yoo and Won Cheol Lee (Soongsil University, Korea (South))

Rajeshwari Gadathas Krishna Babu (Grisebachstrasse 7 Luttertarrerae & Sartorius Stedim Biotech GmbH, Germany); Aytaj Badirova (Georg-August-Universität Göttingen, Germany); Faraz Fatemi Moghaddam (GWDG - Georg-August-Universität Göttingen, Germany); Philipp Wieder (GWDG, Germany); Ramin Yahyapour (GWDG - University Göttingen, Germany)

[P2-7] A Deep Learning-Based Spectral Efficiency Maximization in Multiple Users Multiple STAR-RISs Massive MIMO-NOMA Networks
Ridho Hendra Yoga Perdana (Hongik University, Korea (South)); Toan-Van Nguyen (International University-VNU-HCM, Vietnam); Beongku An (Hongik University, Korea (South))

Myeonghyun Kim, Seunghwan Son and YoungHo Park (Kyungpook National University, Korea (South)); Kil-Houm Park (Kyungpook National University. Daegu, Korea, Korea (South))

[P2-9] MCS Selection Based on Convolutional Neural Network in Mobile Communication Environments
Eui-Rim Jeong, Jeong Eun Oh and A-Min Jo (Hanbat National University, Korea (South))

[P2-10] A Study on the Production Management System for Analyzing Operator Errors and Manufacturing Data in the Assembly Process
Sung-hun Lee, Yong-An Jung, Sang-Bong Byun, Dong-Cheul Han and Soo-Hyun Cho (Gumi Electronics & Information Technology Research Institute, Korea (South))

[P2-11] Development of an Intelligent IoT Platform for PV Power Plant Monitoring and Control
Ida Bagus Krishna Yoga Utama, Duc Hoang Tran and Muhammad Miftah Faridh (Kookmin University, Korea (South)); ByungDeok Chung (ENS. Co. Ltd., Korea (South)); Yeong Min Jang (Kookmin University, Korea (South))

Dong Jae Lee (University MS Class & Kookmin University, Korea (South)); Sunwoong Choi (Kookmin University, Korea (South))

[P2-13] A 1.4mW Sigma Delta ADC with Configurable Filter for Sensor Applications
Mounika Phanidarapu, YoungGun Pu and Kang-Yoon Lee (Sungkyunkwan University, Korea (South))

[P2-14] Adversarial Attack of ML-Based Intrusion Detection System on In-Vehicle System Using GAN
Eunseong Seo, Jeongeun Kim, Wook Lee and Junhee Seok (Korea University, Korea (South))

Wasinee Noonpakdee (Thammasat University, Thailand)

[P2-16] CTC: Content-Aware Tailoring of Adaptive Video Streaming Using Multi-Head Critic Network
Wangyu Choi and Jongwon Yoon (Hanyang University, Korea (South))

[P2-17] A Study on Latency Prediction in 5G Network
Seunghan Choi (Electronics and Telecommunications Research Institute, Korea (South)); Changki Kim (ETRI, Korea (South))

[P2-18] Phase Noise Estimation in Full-Duplex Orthogonal Frequency Division Multiplexing Systems
Fan-Shuo Tseng and Tsang-Yi Wang (National Sun Yat-sen University, Taiwan); Chun-Tao Lin (National Taipei University of Technology, Taiwan); Chun-Cheng Su (National Sun Yat-sen University, Taiwan)

[P2-19] Link-Level Performance Evaluation of Sidelink Synchronization Signal Block for 5G V2X
Daegun Jang, Subin Jo, Gayeon Kim, Jeonghoon Bae, Taejun Choi and Taehyoung Kim (Soonchunhyang University, Korea (South))
[P2-20] Implementation of WebRTC-Based Hybrid Transmission System for 3D Visualization  
JungWook Wee, Minju Cho and Youn-Sung Lee (Korea Electronics Technology Institute, Korea (South))

Seung-Geun Yoo, Min-A Kim, Jin-Woo Kim, Sang-Wook Park and Hyoung-Kyu Song (Sejong University, Korea (South))

[P2-22] Design of a FHIR Interface for Wearable Healthcare Devices  
Junghoon Lee (Jeju University, Korea (South))

[P2-23] Soft-Error Injection System for Processor on FPGA Platform  
Jeahack Lee, Byung-Soo Kim, Kyeung-Ho Shin and Hyoung-Kyu Song (Sejong University, Korea (South))

[P2-24] A 316.5nA Quiescent Current of DC-DC Converter with 92.8% Peak Efficiency for a IoT Application  
Juwon Oh (Sungkyunkwan University, Korea (South)); Jong Wan JO (University of Sungkyunkwan, Korea (South)); YoungGun Pu (Sungkyunkwan University, Korea (South))

[P2-25] VTD-XML Parsing Performance Optimization Based on Helper Thread Sampling Prefetching  
Jianxun Zhang, J. Zhang (Tianjin University of Technology and Education, China)

[P2-26] GAN-Based Image-To-Image Translation of Fundus Photography: Topcon to Eidon  
Jaehan Joo (Pusan National University, Korea (South)); Jeongbin Seo (PUSAN National University, Korea (South)); Geonho Choi and Suk Chan Kim (Pusan National University, Korea (South))

[P2-27] Improving Network Performance in Semantic Communications: A Survey  
Dongwook Won, Duc Nghia Vu, Jun Suk Oh, Chunghyun Lee, Chihyun Song, Taeyun Ha and Sungrae Cho (Chung-Ang University, Korea (South))

[P2-28] Survey on Challenges and Solutions of C-V2X: LTE- V2X Communication Technology  
Donghyeon Hur, Donghyun Lee, Junsuk Oh, Dongwook Won, Chihyun Song and Sungrae Cho (Chung-Ang University, Korea (South))

[P2-29] Scattering Matrix Design of Reconfigurable Intelligent Surface Based on Group Connected Impedance Network in MU- MIMO System  
Min-A Kim, Seung-Geun Yoo, HyoYoung-Do Kim, Kyeung-Ho Shin and Hyoung-Kyu Song (Sejong University, Korea (South))

Jeongbae Park and Sang-Hwa Chung (Pusan National University, Korea (South))

Poster Session 3
Session Chair: Prof. Sunwoong Choi (Kookmin University, Korea)
Rooms C, D, E (EM323, EM315, EM316), Time 16:50 ~ 18:10

[P3-1] A Design of Phase Shifting Phase Locked Loop with Dual Loop Structure for Beamforming Application  
Nahyun Kim and KangYoon Lee (SKAIChips, Korea (South))

[P3-2] Fairness-Aware Data Offloading in Wireless Body Area Networks with QoS Constraint  
Tri Gia Nguyen (FPT University, Vietnam); Amit Samanta (University of Utah, USA)

[P3-3] Design of Lighting Data Platform for Realization of Natural Light Reproducing Lighting  
SeungTaek Oh, YangSoo Kim and JaeHyun Lim (Kongju National University, Korea (South))

[P3-4] MDRM Pattern: Relational Heterogeneous Metadata Management Patterns in a Microservice
Environment
Dongmin Kim and Jaegi Son (Korea Electronics Technology Institute, Korea (South))

[P3-5] ADMM-Based Channel Estimation Methods for Millimeter Wave MIMO System
Prateek Saurabh Srivastav (Pukyong National University, Busan, South Korea, Korea (South)); Hoon Lee (Pukyong National University, Korea (South))

[P3-6] A Novel LLR Scaling Factor Selection Using LDL Bayes Classifier
Seunghun Yu (Samsung Electronics, Korea (South)); Kwon. Y Park (Samsung Electronics Co., Ltd., Korea (South)); Jongmin Cho and Kyusuk Mo (Samsung Electronics, Korea (South)); Si Chang No (Samsung, Korea (South)); Min-ho Shin (Samsung Electronics, Korea (South))

[P3-7] Channel Learning Based Relay Selection in Underwater Acoustic Sensor Network
Seunghwan Seol, Yongcheol Kim, Bonggyu Park and Jaehak Chung (Inha University, Korea (South))

[P3-8] Deep Learning Based RS-OFDM Scheme Considering Mobility Environment for Optical Camera Communication System
Huy Nguyen (Kookmin University, Korea (South)); ByungDeok Chung (ENS. Co. Ltd., Korea (South)); Yeong Min Jang (Kookmin University, Korea (South))

[P3-9] Topology Control of an Unmanned Aerial Vehicle in 3D Network
Sang-Chul Kim and Jabborov Akmaljon (Kookmin University, Korea (South))

[P3-10] Federated Learning Using Blockchain-Based Marketplace
Boyun Eom, Sunhwan Lim, Young-Ho Suh and Sungpil Woo (ETRI, Korea (South)); Chan-Won Park (Electronics and Telecommunications Research Institute, Korea (South))

[P3-11] Toward a Dynamic Tasks Offloading and Resource Allocation for the Metaverse in In-Network Computing
Ibrahim Aliyu, Seunghun Oh, Sangwon Oh, Hyeju Shin, Kwang-moo Chung and Tai-Won Um (Chonnam National University, Korea (South)); Young-Ae Jung (Sun Moon University, Korea (South)); Minsoo Hanh (Astan IT University, Kazakhstan); Jinsul Kim (Chonnam National University, Korea (South))

Jin-Kyu Choi (ETRI, Korea (South)); Hyun-Soon Nam (Electrics and Telecommunications Research Institute, Korea (South)); Jongkuk Lee (Electronics and Telecommunications Research Institute, Korea (South)); HeaSook Park (ETRI, Korea (South))

[P3-13] Delay in Underwater Acoustic Networks
Andrey Stefanov (IBU Skopje, Macedonia, the former Yugoslav Republic of)

[P3-14] Overcoming Wireless Channel Modeling and Relay Signal Selection via Artificial Intelligence Techniques in the 5G and Beyond
Saud Alhajaj Aldossari (Vice Dean of Engineering College, Saudi Arabia & PSA University, Saudi Arabia); Abdallah Aldosary (Prince Sattam bin Abdulaziz University, Saudi Arabia); Kwang-Cheng Chen (University of South Florida, USA)

[P3-15] DNN-Based CSI-RS Port Virtualization Matrix Design in Massive MIMO System
Dongheon Lee (Yonsei, Korea (South)); Seongyeop Joung (School of Electrical and Electronic Engineering, Yonsei University, Korea (South)); Sooyong Choi (Yonsei University, Korea (South))

[P3-16] CNN-Based DMRS Pattern Optimization for 5G Vehicle-To-Everything Communications
Gayeon Kim, Taejun Choi, Jeonghoon Bae, Daegun Jang and Taehyoung Kim (Soonchunhyang University, Korea (South))

[P3-17] Radio Sensor Detection of Interference to Satellite Earth Station in Frequency Spectrum Sharing
Takatoshi Obata and Osamu Takyu (Shinshu University, Japan)

[P3-18] Channel Estimation with DnCNN in Massive MISO LEO Satellite Systems
Min Jeong Kang (Hankuk University of Foreign Studies, Korea (South)); Seong Ho Chae (Tech University of...
[P3-19] Towards Enhancing Cyber Security Awareness Using Gamification Escape Room
Basil Y Alothman (Kuwait College of Science and Technology (KCST), Kuwait); Khaznah Al-Khulifa, Reem Al-Shammari and Chibli C. Joumaa (Kuwait College of Science and Technology, Kuwait); Murad Khan (Kyungpook National University & Sarhad University of Science and Technology, Korea (South))

[P3-20] Power Control Scheme for NOMA Random Access with Imperfect SIC
Seok-Ju Byun and Ye Hoon Lee (Seoul National University of Science and Technology, Korea (South))

[P3-21] Study on the Vulnerability of Video Retargeting Method for Generated Videos by Deep Learning Model
Aro Kim, Dong-hwi Kim and Sang-hyo Park (Kyungpook National University, Korea (South))

[P3-22] Structured Medical Dataset Analysis Tool Based on ChatGPT
JinCheol Park (Chungbuk National University Hospital, Korea (South)); Ja-Hyun Nam and Jee-Woo Choi (Mediv Corp., Korea (South)); Yong-Goo Shin (Korea University, Korea (South)); Seung Park (Chungbuk National University Hospital, Korea (South))

[P3-23] Design of Precision Medicine Web-Service Platform Towards Health Care Digital Twin
Shivani Sanjay Kolekar, Chen Haoyu and Kyungbaek Kim (Chonnam National University, Korea (South))

[P3-24] Computational Complexity Analysis of Beamspace Transformation for Dual Array Antennas
Tae-yun Kim and Suk-seung Hwang (Chosun University, Korea (South))

Poster Session 4
Session Chair: Prof. Jae Yun Jun Kim (ECE Paris, France)
Rooms C, D, E (EM323, EM315, EM316), Time 09:40 ~ 11:00

[P4-1] 5G URLLC Evolving Towards 6G: Research Directions and Vision
Gweondo Jo and JaeSheung Shin (ETRI, Korea (South)); Sung-Min Oh (Electronics and Telecommunications Research Institute (ETRI), Korea (South))

[P4-2] A Survey of Deep/Machine Learning in Maritime Communications
Shrutika Sinha (Kookmin University, Seoul, South Korea, Korea (South)); Soo-Hyun Park (Kookmin University, Korea (South)); Soo Yeon Kwon (Korea Maritime Transportation Safety Authority, Korea (South))

[P4-3] Development of Edge AI Device Platform for Application Developer
SungJae Yoon and Seung Hyub Jeon (ETRI, Korea (South))

[P4-4] Design and Implementation of Autonomous Collaboration Service Between IoT Using Distributed Platform
Chang Su Lee (KOREA Univ, Korea (South)); U Seok Ji (RIWHA Networks co., Korea (South)); Mi Hyang Jeon (RIWHA Network co., Korea (South))

[P4-5] Airy YOLOv5 for Disabled Sign Detection
Akhrorjon Akhmadjon Ugli Rakhmonov and Barathi Subramanian (Kyungpook National University, Korea (South)); Taehun Kim (Dipvision Corporation, Korea (South)); Jeonghong Kim (Kyungpook National University, Korea (South))

Jin Won Jung and Yoan Shin (Soongsil University, Korea (South))

[P4-7] Relay Communication with Phase Dithering and Intentional Delay in SC-FDE Systems
Eui-Rim Jeong, Min-A Lee and Yu-ra Heo (Hanbat National University, Korea (South)); Oh Hyuk Jun (Kwangwoon University, Korea (South))
[P4-8] Low-Complexity Optimization for Two-User Uplink NOMA Empowered by a Large Intelligent Reflecting Surface
Luiggi Cantos and Yun Hee Kim (Kyung Hee University, Korea (South))

[P4-9] Low-Complexity Anomaly Detection Method Based on Feature Importance Using Shapley Value
Joohong Rheey and Hyunggon Park (Ewha Womans University, Korea (South))

[P4-10] DopeNet: Range-Doppler Radar-Based UAV Detection Using Convolutional Neural Network
Ali Aouto, Taesoo Jun, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))

Hye Hyun Lee and Kang-Yoon Lee (Sungkyunkwan University, Korea (South))

[P4-12] A Solar Tracking System Using Feedback Controller and State Estimation Filter
Pyung Soo Kim and Su Yeol Kim (Tech University of Korea, Korea (South))

[P4-13] The Role of Microservices in the Internet of Things: Applications, Challenges, and Research Opportunities
Md. Delowar Hossain, Tangina Sultana, Ga-Won Lee and Eui-Nam Huh (Kyung Hee University, Korea (South))

[P4-14] Credit Card Default Prediction by Using Heterogeneous Ensemble
Wook Lee (Korea University, Korea (South)); Sangmin Lee (Kwangwoon University, Korea (South)); Junhee Seok (Korea University, Korea (South))

Hyok Song, In Kyu Choi and Min-Soo Ko (Korea Electronics Technology Institute, Korea (South)); Jisang Yoo (Kwangwoon University, Korea (South))

[P4-16] Noise-Robust Pipe Wall-Thinning Detection System Using Deep Learning
Jae Han Park (Kumoh National Institute of Technology, Korea (South)); Hun Yun and Jae Seong Im (KEPCO Engineering & Construction, Korea (South)); Munkyu Choi and Soo Young Shin (Kumoh National Institute of Technology, Korea (South))

[P4-17] Efficient Design and Implementation Method to Reduce NR-Based gNB Transmitter Development Time
Chan-Bok Jeong (Electronics and Telecommunications Research Institute (ETRI) & Chungbuk National University, Korea (South)); Hyungsik Ju (ETRI, Korea (South)); Youngil Jeon and Moon-Sik Lee (Electronics and Telecommunications Research Institute, Korea (South))

[P4-18] A Study on Asset Identification in Smart Buildings Automation Systems
Minsu Park and Seong-je Cho (Dankook University, Korea (South)); Hongeun Kim (Dongkuk University, Korea (South))

[P4-19] Performance Evaluation of Transport Protocols and Roadmap to a High-Performance Transport Design for Immersive Applications
Inayat Ali (Electronics and Telecommunications Research Institute (ETRI), Korea (South))

[P4-20] Predicting Heart Failure Prognosis Using Deep Learning Based on FT-Transformer
Geunho Kim, Minuk Yang, Geun-Hyeong Kim and Seonghwan Eom (Chungbuk National University Hospital, Korea (South)); Tae-Soo Lee (Chungbuk National University, Korea (South)); Seung Park (Chungbuk National University Hospital, Korea (South))