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5C-2	<p>2D Fluid Flows Prediction Based on U-Net Architecture <i>Aji Teguh Prihatno, Hyeoun Kang, Chang Woo Choi and Thi-Thu-Huong Le (Pusan National University, Republic of Korea); Shinwook Heo and Myeongkil Kim (SmartM2M, Republic of Korea); Ho Won Kim (Pusan National University, Republic of Korea)</i></p>	452
5C-3	<p>Real-time object detection using a domain-based transfer learning method for resource-constrained edge devices <i>Dongkyu Kim, Seokjun Lee, Nak-Myoung Sung and Chungjae Choe (Korea Electronics Technology Institute (KETI), Republic of Korea)</i></p>	457
5C-4	<p>Radar Fault Detection via Camera-Radar Branches Learning Network <i>Dian Ning and Dong Seog Han (Kyungpook National University, Republic of Korea)</i></p>	463

Oral Session - 5D: AI Foundation IV

Chair: Prof. Anand Paul (Kyungpook National University, Korea)

Feb. 22 (Wednesday), 9:10~10:30

5D-1	<p>Energy and Entropy based Intelligence Metric for Performance Estimation in DNNs <i>Burcu Kartal and Berk Ustundag (Istanbul Technical University, Turkey)</i></p>	468
5D-2	<p>TFE-Net: Time and Feature focus Embedding Network for Multivariate-to-Multivariate Time Series Forecasting <i>Seungchan Roh, YongGon Jung and Jun-Geol Baek (Korea University, Republic of Korea)</i></p>	474
5D-3	<p>Interaction-based Fault Detection and Classification Using Randomly Masked 1D Convolutional Neural Network <i>Jueun Kim, Seunghwan Song, Woo Young Hwang and Jun-Geol Baek (Korea University, Republic of Korea)</i></p>	479
5D-4	<p>Exploring Normalization Techniques in Neural Networks for Bitcoin Candlestick Price Prediction <i>Sutiwat Simtharakao and Daricha Sutivong (Chulalongkorn University, Thailand)</i></p>	483



Oral Sessions

Oral Session - 6A: Wireless Communication II

Chair: Prof. Huanhuan Song (University of Electronic Science and Technology of China, China) Feb. 22 (Wednesday), 14:00~15:20

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<i>Oner Orhan (Intel Corporation, USA); Vasuki Narasimha Swamy (Intel Labs, USA); Mehnaz Rahman and Hosein Nikopour (Intel Corporation, USA); Shilpa Talwar (Intel, USA)</i> | 489 |
| 6A-2 | Performance Evaluation of Training ResNet Receiver Under Mobility for 5G NR Wireless Communication Systems
<i>Ade Irawan (Universitas Pertamina, Indonesia)</i> | 495 |
| 6A-3 | Federated Learning of Wireless Network Experience Anomalies using Consumer Sentiment
<i>Weisi Guo (Cranfield University & Alan Turing Institute, University of Warwick, United Kingdom (Great Britain)); Bailu Jin and Schyler Sun (Cranfield University, United Kingdom (Great Britain)); Yue Wu (East China University of Science and Technology, China); Weijie Qi (Ranplan Ltd., United Kingdom (Great Britain)); Jie Zhang (University of Sheffield, Dept. of Electronic and Electrical Engineering, United Kingdom (Great Britain))</i> | 499 |
| 6A-4 | Early Exiting DNN MIMO Detector Design with Fast Signal Estimation Process
<i>Thien Duc Hua, Donghyun Lee, Anh-Tien Tran, Demeke Shumeye, Quang Tuan Do, Taeyun Ha and Sungrae Cho (Chung-Ang University, Republic of Korea)</i> | 505 |

Oral Session - 6B: Medical Diagnosis and eHealth IV

Chair: Dr. Vrajesh Sharma (Panjab University, India)

Feb. 22 (Wednesday), 14:00~15:20

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<i>Rui Qin and Sinuo Liu (University of Electronic Science and Technology of China, China); Toe Teoh Teik (Nanyang Technological University, Singapore); Brian D Brister (& RoboGunCo, USA)</i> | 508 |
| 6B-2 | A Mobile Application for Obesity Early Diagnosis Using CNN-based Thermogram Classification
<i>Hendrik Leo, Khairun Saddami and Roslidar Roslidar (Universitas Syiah Kuala, Indonesia); Rusdha Muharar (Syiah Kuala University, Indonesia); Khairul Munadi (Syiah Kuala University, Faculty of Engineering, Indonesia); Fitri Arnia (Universitas Syiah Kuala, Indonesia)</i> | 514 |
| 6B-3 | Interpretable Anomaly Detection for Lung Sounds Using Topology
<i>Ryosuke Wakamoto (Yamaguchi University & Information Services International-Dentsu, Ltd., Japan); Shingo Mabuchi (Yamaguchi University, Japan)</i> | 521 |
| 6B-4 | Suspicious Activity Trigger System using YOLOv6 Convolutional Neural Network
<i>Suryanti Awang, Mohd Qhairul Rafiqi Rokei and Junaida Sulaiman (Universiti Malaysia Pahang, Malaysia)</i> | 527 |



Oral Sessions

Oral Session - 6C: Information and Communications Technology III

Chair: Prof. Jehad Ali (Sejong University, Korea)

Feb. 22 (Wednesday), 14:00~15:20

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| 6C-1 | <p>Data Pipeline Design for Dangerous Driving Behavior Detection System
 <i>Hyeonjun Jo, Sungwoong Yeom, Chen Haoyu and Kyungbaek Kim (Chonnam National University, Republic of Korea)</i></p> | 533 |
| 6C-2 | <p>Instruction-based March Test Pattern Generation Scheme for At-Speed Test Cost Reduction
 <i>Seokmin Park, Gayeong Lee, Jaehwan Shin, Seunghan Lee and Young-woo Lee (Chonnam National University, Republic of Korea)</i></p> | 539 |
| 6C-3 | <p>Performance analysis of machine learning algorithms with clustering protocol in wireless sensor networks
 <i>Rahma Gantassi (Communication System Laboratory Sys'Com National Engineering School, Tunisia); Zaki Masood and Sol Lim (Chonnam National University, Republic of Korea); Quota Alief Sias (Universitas Negeri Malang, Republic of Korea); Yonghoon Choi (Chonnam National University, Republic of Korea)</i></p> | 543 |
| 6C-4 | <p>Urban Traffic State Estimation from Moving Camera for Real-time Application
 <i>Haechan Cho (Korea Advanced Institutes of Science and Technology, Republic of Korea); Yeohwan Yoon (Korea Institute of Civil Engineering and Building Technology, Republic of Korea); Jihu Kim (Korea Advanced Institutes of Science and Technology, Republic of Korea); Hwasoo Yeo (KAIST, Republic of Korea)</i></p> | 547 |

Oral Session - 6D: Security III

Chair: Dr. Hirotsada Honda (Toyo University, Japan)

Feb. 22 (Wednesday), 14:00~15:20

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| 6D-1 | <p>Cyber Security in Fog Computing Using Blockchain: A Mini Literature Review
 <i>Noura Saud Alyemni (KFU, Saudi Arabia); Norah Arif AlHumam and M M Hafizur Rahman (King Faisal University, Saudi Arabia)</i></p> | 553 |
| 6D-2 | <p>A Mini Literature Review on Challenges and Opportunity in Threat Intelligence
 <i>Mohammed Althamir, Jawhara Boodai and M M Hafizur Rahman (King Faisal University, Saudi Arabia)</i></p> | 558 |
| 6D-3 | <p>An End-to-End Convolutional Recurrent Neural Network With Multi-Source Data Fusion for Sleep Stage Classification
 <i>Tabassum Islam Toma and Sunwoong Choi (Kookmin University, Republic of Korea)</i></p> | 564 |
| 6D-4 | <p>Biometric in Cyber Security: A Mini Review
 <i>Elhaam Abdulrahman Debas, Razan Sulaiman Alajlan and M M Hafizur Rahman (King Faisal University, Saudi Arabia)</i></p> | 570 |



Oral Sessions

Oral Session - 7A: Information and Communications Technology IV

Chair: Dr. Murad Khan (Kuwait College of Science and Technology, Kuwait) Feb. 22 (Wednesday), 15:40~17:40

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| 7A-1 | <p>Detection of Morphological Characteristics of Atrial Fibrillation Using Semantic Segmentation
 <i>Kunwook Jo, Hoohyun Kim, Jongdoo Choi, Yun Kwan Kim, Lan-Mi Hwang (SeersTechnology, Republic of Korea); So-Ryong Lee, Eue-Keun Choi (Seoul National University Hospital, Republic of Korea); Hee Seok Song (SeersTechnology, Republic of Korea)</i></p> | 575 |
| 7A-2 | <p>An OAM Classification Technique using CNN Approach
 <i>Sudhanshu Arya and Yeonho Chung (Pukyong National University, Republic of Korea)</i></p> | 579 |
| 7A-3 | <p>Time-triggered Network Interface Extension for the Versal Network-on-Chip
 <i>Daniel Onwuchekwa, Josepaul Paulachan, Nambinina Rakotojaona and Roman Obermaisser (University of Siegen, Germany)</i></p> | 582 |
| 7A-4 | <p>Radar Signal Abnormal Point Classification based on Camera-Radar Sensor Fusion
 <i>Hyojeong Seo and Dong Seog Han (Kyungpook National University, Republic of Korea)</i></p> | 590 |
| 7A-5 | <p>Fast Verilog Simulation using Tcl-based Verification Code Generation for Dynamically Reloading from Pre-Simulation Snapshot
 <i>Yonghun Lee (Kyungpook National University, Republic of Korea); Daejin Park (Kyungpook National University (KNU), Republic of Korea)</i></p> | 595 |
| 7A-6 | <p>Coordinated autonomous networks for remote synchronized video services with the autonomous mobility robots - prelude implementation
 <i>Hideki Yamamoto and Masato Iwashita (Oki Electric Industry Co., Ltd., Japan); Leon Wong (Rakuten Mobile, Japan); Yusaku Kaneta (Rakuten Mobile Inc., Japan); Kenta Urano and Takuro Yonezawa (Nagoya University, Japan)</i></p> | 598 |

Oral Session - 7B: Applications for Information Systems V

Chair: Dr. Seung-mok Yoo (Electronics and Telecommunications Research Institute, Korea) Feb. 22 (Wednesday), 15:40~17:40

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| 7B-1 | <p>Design and Implementation of Decentralized TDMA for Low Power IoT Devices Based on Desynchronization of Nonlinear Oscillators
 <i>Takuma Osada (Tokyo University of Science, Japan); Hiroyuki Yasuda (The University of Tokyo, Japan); Aohan Li (The University of Electro-Communications, Japan); Song-Ju Kim (SOBIN Institute LLC, Japan); Mikio Hasegawa (Tokyo University of Science, Japan)</i></p> | 602 |
| 7B-2 | <p>Sequential Rasterized Image-based Trajectory Prediction Deep-Learning Model
 <i>Chaehyun Lee and Dong Seog Han (Kyungpook National University, Republic of Korea)</i></p> | 607 |



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7B-3	Rethinking bank branch closure strategies through omni-channel usage data analysis <i>Moo Geon Kim, Seong An Kang and Min Ho Ryu (Dong-A University, Republic of Korea)</i>	610
7B-4	PCR Radar-Based Counting System for Packaged Objects <i>Joongho Cho (University of Sejong, Republic of Korea); Soorim Yang and Jaeho Kim (Sejong University, Republic of Korea)</i>	613
7B-5	Strategic Use of Online Review of Mobile App <i>Sohui Kim and Min Ho Ryu (Dong-A University, Republic of Korea)</i>	617
7B-6	Multivariate Time Series Anomaly Detection via Temporal Encoder with Normalizing Flow <i>Jiwon Moon, Seunghwan Song and Jun-Geol Baek (Korea University, Republic of Korea)</i>	620

Oral Session - 8A: Wireless Communication III

Chair: Prof. Yong Soo Cho (Chung-Ang University, Korea)

Feb. 23 (Thursday), 9:30~11:30

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8A-2	Robustness of Deep Learning enabled IoT Applications Utilizing Higher Order QAM in OFDM Image Communication System <i>Nazmul Islam, Ijaz Ahmad and Seokjoo Shin (Chosun University, Republic of Korea)</i>	630
8A-3	Multi-network based MAC Protocol Identification with Decision Fusion <i>Anibal Roque Seraponzo (Xiamen - Huaqiao University, China); Qinggeng Guo and Shengliang Peng (Huaqiao University, China)</i>	636
8A-4	Performance Analysis of Beam-Tracking Technique for IRS-assisted Cellular Systems <i>Yeong Jun Kim (LG Electronics, Republic of Korea); Yong Soo Cho (Chung-Ang University, Republic of Korea)</i>	641
8A-5	Deep Learning-based Spectral Efficiency Maximization in Massive MIMO-NOMA Systems with STAR-RIS <i>Ridho Hendra Yoga Perdana (Hongik University, Republic of Korea); Toan-Van Nguyen (International University-VNU-HCM, Vietnam); Yushintia Pramitarini (Hongik University, Republic of Korea); Kyusung Shim (Hankyong National University, Republic of Korea); Beongku An (Hongik University, Republic of Korea)</i>	644
8A-6	Unscented Kalman Filter-based Beam Tracking in NR MIMO System using Hybrid Beamforming <i>Yuna Sim, Seungseok Sin and Jihun Cho (Chonnam National University, Republic of Korea); Kyunam Kim (Alps Electric Korea Company Limited, Republic of Korea); Sangmi Moon (Korea Nazarene University, Republic of Korea); Intae Hwang (Chonnam National University, Republic of Korea)</i>	650



Oral Sessions

Oral Session - 8B: Information and Communications Technology V

Chair: Prof. Alamgir Naushad (National University of Science and Technology, Pakistan) **Feb. 23 (Thursday), 9:30~11:30**

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| 8B-1 | <p>Simultaneously Transmitting and Reflecting-Reconfigurable Intelligent Surfaces with Hardware Impairment and Phase Error
 <i>Waqas Khalid (Korea University & Sejong, Republic of Korea); Muhammad Atif Ur Rehman (Manchester Metropolitan University, United Kingdom (Great Britain)); Trinh Van Chien (Hanoi University of Science and Technology, Vietnam); Heejung Yu (Korea University, Republic of Korea)</i></p> | 654 |
| 8B-2 | <p>Analysis of Resource Usage Management Plan for Federated Learning in Hybrid Cloud
 <i>Sangwon Oh and Hyeju Shin (Chonnam National University, Republic of Korea); Minsoo Hanh (Astana IT University, Kazakhstan); Jinsul Kim (Chonnam National University, Republic of Korea)</i></p> | 657 |
| 8B-3 | <p>Power Distribution Adjustment for Rate-Splitting Performance Improvement in MIMO Systems
 <i>Desti Madya Saputri (Institut Teknologi Bandung & Telkom University, Indonesia); Adit Kurniawan and Mohammad Sigit Arifianto (Institut Teknologi Bandung, Indonesia); Aloysius Adya Pramudita (Telkom University, Indonesia); Hurianti Vidyaningtyas (Institut Teknologi Bandung & Telkom University, Indonesia)</i></p> | 662 |
| 8B-4 | <p>Data Accuracy Pattern-based Transmission Period Control Algorithm for IoT networks
 <i>Jaeseob Han and Gyeong Ho Lee (KAIST, Republic of Korea); Hyunseo Park and Jun Kyun Choi (Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea)</i></p> | 668 |
| 8B-5 | <p>Development of AI Educational Datasets Library Using Synthetic Dataset Generation Method
 <i>Seulki Kim, Kwi-Hoon Kim and Taeyoung Kim (Korea National University of Education, Republic of Korea)</i></p> | 674 |
| 8B-6 | <p>An end-to-end motion planner using sensor fusion for autonomous driving
 <i>Nguyen Thi Hoai Thu and Dong Seog Han (Kyungpook National University, Republic of Korea)</i></p> | 678 |

Oral Session - 8C: Decision and Control II

Chair: Dr. Abdul Rehman (Kyungpook National University, Korea) **Feb. 23 (Thursday), 9:30~11:30**

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| 8C-1 | <p>Reinforcement Learning for Predicting Traffic Accidents
 <i>Injoon Cho (Korea Advanced Institute of Science and Technology, Korea(South)); Praveen Kumar Rajendran and Taeyoung Kim (Korea Advanced Institute of Science and Technology, Republic of Korea); Dongsoo Har (KAIST, Republic of Korea)</i></p> | 684 |
| 8C-2 | <p>Kick-motion Training with DQN in AI Soccer Environment
 <i>Bumgeun Park (Korea Advanced Institute of Science and Technology, Republic of Korea); Jihui Lee (KAIST, Republic of Korea); Taeyoung Kim (Korea Advanced Institute of Science and Technology, Republic of Korea); Dongsoo Har (KAIST, Republic of Korea)</i></p> | 689 |



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8C-3	Inter-Protocol Fairness Evaluation of DQN-based Congestion Control Algorithms <i>Sang-Jin Seo and You-Ze Cho (Kyungpook National University, Republic of Korea)</i>	693
8C-4	Implementation of WiFi Communication on Multi UAV for Leader-Follower Trajectory based on ROS <i>Pipit Anggraeni, Hilda Khoirunnisa, Muhammad Fauzian Alfadhila and Muhammad Nursyam Rizal (Bandung Polytechnic for Manufacturing, Indonesia)</i>	697
8C-5	3D Object Localization Using Time of Flight And Angle of Arrival <i>Ho youn Sohn and Donghee Yi (Pusan National University, Republic of Korea); Jeongbin Seo (PUSAN National University, Republic of Korea); Guohua Zhu, Jaejun Lim and Suk Chan Kim (Pusan National University, Republic of Korea)</i>	703
8C-6	Double Deep Q-Learning based Backhaul Spectrum Allocation in Integrated Access and Backhaul Network <i>Jeonghun Park, Heetae Jin, Jaehan Joo, Geonho Choi and Suk Chan Kim (Pusan National University, Republic of Korea)</i>	706

Oral Session - 8D: Applications for Information Systems VI

Chair: Dr. Adeel Iqbal (Comsats University, Islamabad)

Feb. 23 (Thursday), 9:30~11:30

8D-1	Bi-directional Visual Geo-localization-based Cross-Domain Matching between Digital Twin and Real World <i>Soo Rim Yang, Sejung Kim and Jaeho Kim (Sejong University, Republic of Korea)</i>	709
8D-2	A Review on AI-Enabled Content Caching in Vehicular Edge Caching and Networks <i>Arooj Masood, Quang Tuan Do and Demeke Shumeye (Chung-Ang University, Republic of Korea); Nhu-Ngoc Dao (Sejong University, Republic of Korea); Sungrae Cho (Chung-Ang University, Republic of Korea)</i>	713
8D-3	A Review on AI-Driven Aerial Access Networks: Challenges and Open Research Issues <i>Demeke Shumeye, Anh-Tien Tran and Arooj Masood (Chung-Ang University, Republic of Korea); Nhu-Ngoc Dao (Sejong University, Republic of Korea); Sungrae Cho (Chung-Ang University, Republic of Korea)</i>	718
8D-4	Analyzing Voter Preferences and Topics of Discussion on Twitter on Philippine National Elections 2022 <i>Geoffrey A. Solano (University of the Philippines Manila, Philippines); Nathaniel Oco (De La Salle University, Philippines); Reina Erika Demillo (University of the Philippines Manila, Philippines)</i>	724
8D-5	Preliminary Work on Automatic ARXML Generation for SOME/IP in AUTOSAR Classic Platform <i>KyuJin Kyung, Hyeongrae Kim and Jeonghun Cho (Kyungpook National University, Republic of Korea)</i>	730
8D-6	A Machine Learning Approach to Predict Customer Churn of a Delivery Platform <i>Sang-Joon Lee (Chonnam National University, Republic of Korea); Qing Liu and QiuYing Chen (Presenter, Republic of Korea)</i>	733



Poster Session

Poster Session - A: Information and Communications Technology P-I

Chair: Prof. Rutvij Jhaveri (Pandit Deendayal Energy University, India)

Feb. 21 (Tuesday), 15:40~17:40

PA-1	<p>Development of MIMO Scheme-based Optical Camera Communication System using Deep Learning method <i>Van Linh Nguyen, Duc Hoang Tran and Huy Nguyen (Kookmin University, Republic of Korea); ByungDeok Chung (ENS. Co. Ltd., Republic of Korea); Yeong Min Jang (Kookmin University, Republic of Korea)</i></p>	736
PA-2	<p>Design and Implementation of RS-OFDM scheme for Optical Camera Communication based on Deep Learning <i>Huy Nguyen, Duc Hoang Tran and Van Linh Nguyen (Kookmin University, Republic of Korea); ByungDeok Chung (ENS. Co. Ltd., Republic of Korea); Yeong Min Jang (Kookmin University, Republic of Korea)</i></p>	740
PA-3	<p>A Deep Learning-Based SAR Ship Detection <i>Chushi Yu (University of Soongsil, Republic of Korea); Yoan Shin (Soongsil University, Republic of Korea)</i></p>	744
PA-4	<p>cGAN Model-Based Radio Frequency Interference Mitigation for Radio Astronomy Data <i>Islam Helmy and Wooyeol Choi (Chosun University, Republic of Korea)</i></p>	748
PA-5	<p>A New Approach to Lidar and Camera Fusion for Autonomous Driving <i>Seongkeun Park (Soonchunhyang, Republic of Korea); Seunghwan Bae and Dongun Han (Soonchunhyang University, Republic of Korea)</i></p>	751
PA-6	<p>Visualization Algorithm for Cargo Stowage Optimization of Vehicle Carriers <i>Kim Ji Yeon, Young-Jin Kang, SangHyun Ha and Seok Chan Jeong (Dong-Eui University, Republic of Korea)</i></p>	754
PA-7	<p>Cost-effective peak shaving strategy based on clustering and XGBoost algorithm <i>Sol Lim (Chonnam National University, Republic of Korea); Rahma Gantassi (Communication System Laboratory Sys'Com National Engineering School, Tunisia); Yonghoon Choi (Chonnam National University, Republic of Korea)</i></p>	757
PA-8	<p>Design of poultry farm disease detection system based on K-Nearest Neighbor Algorithm <i>Seung Jae Kim (SunChon National University & Intelligent Smart Agriculture Grand ICT Research Center, Republic of Korea); Hyun Yoe (SunChon national University, Republic of Korea); Meong Hun Lee (SunChon National University, Republic of Korea)</i></p>	762



Poster Session

Poster Session - B: Applications for Information Systems P-I

Chair: Prof. Pin-Han Ho (University of Waterloo, Canada)

Feb. 21 (Tuesday), 15:40~17:40

PB-1	Vehicle Lateral Motion Modeling Using Data-Driven Method <i>Chaehun Park, Cheolmin Jeong and Chang Mook Kang (Incheon National University, Republic of Korea); Wonhee Kim (Chung-Ang University, Republic of Korea); Young Seop Son (Kyungpook National University, Republic of Korea)</i>	767
PB-2	Indoor Space Flow Analysis Based on Deep Learning <i>Chang Woo Choi, Hyeoun Kang and Yoonyoung Hong (Pusan National University, Republic of Korea); Yongsu Kim (SmartM2M, Republic of Korea); Guem Bo Kim and Aji Teguh Prihatno (Pusan National University, Republic of Korea); Jang Hyun Ji (SmartM2M, Republic of Korea); Seung Do Hong (LG Electronics, Republic of Korea); Ho Won Kim (Pusan National University, Republic of Korea)</i>	771
PB-3	Illegal 3D Content Distribution Tracking System based on DNN Forensic Watermarking <i>Jaehyoung Park and Jihye Kim (Protocol Engineering Lab., Sejong University, Republic of Korea); Jiyoun Seo and Sangpil Kim (Korea University, Republic of Korea); Jong-Hyoun Lee (Sejong University, Republic of Korea)</i>	777
PB-4	Enhanced-feature pyramid network for semantic segmentation <i>Min Young Kim and Quyen Van Toan (Kyungpook National University, Republic of Korea); Jong Hyuk Lee (Kyungpook National University, Republic of Korea)</i>	782
PB-5	Analysis of Teaching and Learning Environment for Data Science and AI Education (Focused on 2022 Revised Curriculum) <i>Seulki Kim, Taeyoung Kim and Kwi-Hoon Kim (Korea National University of Education, Republic of Korea)</i>	788
PB-6	Contextual Dependency-aware Graph Convolutional Network for Extracting Entity Relations <i>Jiahui Liao and Yajun Du (Xihua University, China)</i>	791
PB-7	An Automatic Vehicle Speed Control System with Consideration of Various Uncertainties <i>Pyung Soo Kim and Su Yeol Kim (Tech University of Korea, Republic of Korea)</i>	799
PB-8	Study of validation methods for augmented data <i>Jong-Jin Jung (Korea Electronics Technology Institute & Digital Media Research Center, Republic of Korea)</i>	803



Poster Session

Poster Session - C: Information and Communications Technology P-II

Chair: Prof. Limei Peng (Kyungpook National University, Korea)

Feb. 21 (Tuesday), 15:40~17:40

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|------|--|-----|
| PC-1 | <p>Federated Learning-Enabled Digital Twin for Smart Additive Manufacturing Industry
 <i>Made Adi Paramartha Putra (Kumoh National Institute of Technology, Republic of Korea & STMIK Primakara, Indonesia); Syifa Maliah Rachmawati, Revin Naufal Alief and Love Allen Chijioke Ahakonye (Kumoh National Institute of Technology, Republic of Korea); Augustin Gohil (Cognitgo Co., USA); Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Republic of Korea)</i></p> | 806 |
| PC-2 | <p>Preliminary Design for Development of Detachable Test Automation System Based on AUTOSAR
 <i>Songhee Lee, Junho Kwak and Jeonghun Cho (Kyungpook National University, Republic of Korea)</i></p> | 812 |
| PC-3 | <p>Proposal of Docker and Kubernetes Direction through the Event Timeline of Kubernetes
 <i>Seungchan Woo (Protocol Engineering Lab., Sejong University, Republic of Korea); Jong-Hyouk Lee (Sejong University, Republic of Korea)</i></p> | 815 |
| PC-4 | <p>Deep Learning-based Human Vehicle Interface for Smart Golf Cart
 <i>Min Woo Yoo, Chaehyun Lee and Dong Seog Han (Kyungpook National University, Republic of Korea)</i></p> | 821 |
| PC-5 | <p>A Data Augmentation Approach to 28GHz Path Loss Modeling Using CNNs
 <i>Bokyung Kwon, Youngbin Kim and Hyukjoon Lee (Kwangwoon University, Republic of Korea)</i></p> | 825 |
| PC-6 | <p>Implementation of Single and Multi Linear Regression for Prediction of Energy Consumption based on Previous Data of Energy Production
 <i>Quota Alief Sias (Universitas Negeri Malang, Republic of Korea); Rahma Gantassi (Communication System Laboratory Sys'Com National Engineering School, Tunisia); Sol Lim and Yonghoon Choi (Chonnam National University, Republic of Korea)</i></p> | 830 |
| PC-7 | <p>A Review on Rate-Splitting Multiple Access-Assisted Downlink Networks: Energy Optimizations
 <i>Anh-Tien Tran, Demeke Shumeye, Thien Duc Hua and Quang Tuan Do (Chung-Ang University, Republic of Korea); Nhu-Ngoc Dao (Sejong University, Republic of Korea); Sungrae Cho (Chung-Ang University, Republic of Korea)</i></p> | 833 |
| PC-8 | <p>Introduction of Optimization Algorithm for Adaptive Gradient
 <i>Mouna Lamine and Sang-Chul Kim (Kookmin University, Republic of Korea)</i></p> | 837 |



Poster Session

Poster Session - D: Applications for Information Systems P-II

Chair: Dr. Keshav Kaushik (University of Petroleum and Energy Studies, India) Feb. 21 (Tuesday), 15:40~17:40

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|------|--|-----|
| PD-1 | <p>Analysis of Recent IIoT Security Technology Trends in a Smart Factory Environment
 <i>Jihye Kim and Jaehyoung Park (Protocol Engineering Lab., Sejong University, Republic of Korea); Jong-Hyouk Lee (Sejong University, Republic of Korea)</i></p> | 840 |
| PD-2 | <p>FLB2: Layer 2 Blockchain Implementation Scheme on Federated Learning Technique
 <i>Revin Naufal Alief (Kumoh National Institute of Technology, Republic of Korea); Made Adi Paramartha Putra (Kumoh National Institute of Technology, Republic of Korea & STMIK Primakara, Indonesia); Augustin Gohil (Cognitgo Co., USA); Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Republic of Korea)</i></p> | 846 |
| PD-3 | <p>AI in Classroom: Group Score Prediction System
 <i>Yeoun Chan Kim (TagHive Inc., Republic of Korea); Pankaj Agarwal (Tag-Hive. Inc, Republic of Korea)</i></p> | 851 |
| PD-4 | <p>Deep Learning-based Ultra Short Baseline Underwater Positioning
 <i>Hojun Lee, Kye-Won Kim, Taegeon Chung and Hak-Lim Ko (Hoseo University, Republic of Korea)</i></p> | 856 |
| PD-5 | <p>Preventive Maintenance Techniques through Learning-based Remaining Useful Lifetime Prediction in IoT Sensor Networks: The Survey
 <i>Donghyun Lee, Yongin Jeon, Junsuk Oh, Chung Hyun Lee, Taeyun Ha and Sungrae Cho (Chung-Ang University, Republic of Korea)</i></p> | 860 |
| PD-6 | <p>Remaining Useful Life Prediction Using an Ensemble Learning-Based Network for a Belt Conveyor System
 <i>Junhyung Jo and Zeu Kim (Pohang University of Science and Technology, Republic of Korea); Young-Joo Suh (Pohang University of Science and Technology (POSTECH), Republic of Korea)</i></p> | 863 |
| PD-7 | <p>Optimization of Cloud Computing Workload Prediction Model with Domain-based Feature Selection Method
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