

# **2023 14th International Conference on Information and Communication Technology Convergence (ICTC 2023)**

**Jeju Island, South Korea  
11-13 October 2023**

**Pages 1-578**



**IEEE Catalog Number: CFP2392M-POD  
ISBN: 979-8-3503-1328-4**

**Copyright © 2023 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP2392M-POD
ISBN (Print-On-Demand):	979-8-3503-1328-4
ISBN (Online):	979-8-3503-1327-7
ISSN:	2162-1233

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## TABLE OF CONTENTS

MINSU: Precision Quantity Counter with DNN-Based Volume Estimation .....	1
<i>Shubhangi S. R. Garnaik, Dongyeop Lee, Youngho Kim, Jihoon Ryoo</i>	
Optimally Spaced Autoencoder .....	7
<i>Daw-Chih Liou, Cheng-Yuan Liou</i>	
An Optimal Re-Parametrization Scheme for Generalization in Reinforcement Learning.....	13
<i>Dzeuban Fenyom Ivan, Oladayo S. Ajani, Rammohan Mallipeddi</i>	
Optimizing Anomaly Detection in Large-Scale Logs.....	18
<i>Arnatchai Techaviseschai, Vasco Chibante Barroso, Sansiri Tarnpradab, Phond Phunchongharn</i>	
Transfer Learning in Brain Tumor Classification: Challenges, Opportunities, and Future Prospects .....	24
<i>Raja Waseem Anwar, Muhammad Abrar, Faizan Ullah</i>	
Handling Imbalanced Data in Convolutional Neural Network on Apache Spark.....	30
<i>Thet Hsu Aung, Aye Myat Myat Paing</i>	
Voice Pathology Detection Using Decision Tree Classifier .....	36
<i>Fahad Taha Al-Dhief, Nurul Mu’Azzah Abdul Latiff, Nik Noordini Nik Abd. Malik, Marina Mat Baki, Naseer Sabri, Musatafa Abbas Abbood Albadr, Nurul Fariesya Suhaila Md Sazihan</i>	
Deep Learning-Based Event Prediction for Text Analysis .....	42
<i>Muhammad Waseem, Qasim Umer, Choonhwa Lee, Sungwook Chung, Zohaib Latif</i>	
Asma’ak: An Emarati Sign Language Translator .....	48
<i>Maha Ahmed, Shaikha Jasem, Khawla Saleh, Asad Khattak, Omar Alfandi</i>	
GLEAM: GAN and LLM for Evasive Adversarial Malware .....	53
<i>Dharani Devadiga, Gordon Jin, Bisti Potdar, Hankyu Koo, Andrew Han, Anusha Shringi, Angad Singh, Kinjal Chaudhari, Saurav Kumar</i>	
Vitexco: Exemplar-Based Video Colorization Using Vision Transformer .....	59
<i>Duong Thanh Tran, Nguyen Doan Hieu Nguyen, Trung Thanh Pham, Phuong-Nam Tran, Thuy-Duong Thi Vu, Duc Ngoc Minh Dang</i>	
Convolutional Neural Network Based Identification of Respiratory Disease (CNN-IRD).....	65
<i>Qasim Umer, Zunaira Naveed, Choonhwa Lee, Asif Ali, Malik Khizar Saeed</i>	
Deep Learning-Based Dimensionality Reduction for Anomaly Detection in Smart Grids .....	71
<i>Anila Kousar, Saeed Ahmed, Abdullah Altamimi, Su Min Kim, Zafar Ali Khan</i>	
Enhanced Labeling Technique for Reddit Text and Fine-Tuned Longformer Models for Classifying Depression Severity in English and Luganda .....	76
<i>Richard Kimera, Daniela N. Rim, Joseph Kirabira, Ubong Godwin Udomah, Heeyoul Choi</i>	
Partial Granger Causality-Based Feature Selection Algorithm for Workload Prediction in Cloud Systems.....	81
<i>Changhoon Lee, Eunsoo Ko, Minjae Song, Hoyeong Yun, Wooju Kim</i>	

An Automated 3D Model Generation Framework for Construction Equipment Images Using Edge Detection Algorithm .....	87
<i>Jae-Kun Lee, Hye-Min Lee, Hyoun-Seok Moon</i>	
StyleBoost: A Study of Personalizing Text-To-Image Generation in Any Style Using DreamBooth.....	93
<i>Junseo Park, Beomseok Ko, Hyeryung Jang</i>	
Dual Attention Cascade Transformer for Polyp Segmentation.....	99
<i>Yuan Ju, Bingxin Wei, Haewoon Nam</i>	
Latent-Variable Classifiers Based on Total Correlation for Dynamic Environments .....	103
<i>Cheol Ho Kim, Byoung-hwa Lee, Jung-Hoon Lee, Ock Kee Baek</i>	
QC-LDPC Codes from Various Golomb Rulers.....	106
<i>Daekyeong Kim, Hyojeong Choi, Hong-Yeop Song</i>	
Maneuver by Airstreams for Stratospheric Balloon Base Stations .....	111
<i>Hyeonsu Lyu, Hyun Jong Yang</i>	
Hybrid Beamforming-Based Beam Tracking Using Angular Speed in Massive MIMO Systems .....	114
<i>Seungseok Sin, Jihun Cho, Huaping Liu, Sangmi Moon, Yuna Sim, Kyunam Kim, Jihyung Kim, Intae Hwang</i>	
Age of Information Analysis for Cache-Enabled UAV Networks .....	117
<i>Yong Lee, Mingun Kim, Jemin Lee</i>	
Multi-User Beamforming Under Per-Antenna Power Constraint.....	120
<i>Sucheol Kim, Hyeongtaek Lee, Hwanjin Kim, Junil Choi</i>	
Downlink Satellite Network Analysis with Beam Gain in Shadowing Channel .....	126
<i>Sungyu Kim, Seunghyeong Yoo, Jinseok Choi</i>	
DRL-Based Satellite Network Slice Planning and Handover in the Korean Peninsula Scenarios .....	132
<i>Seonghoon Kim, Taeyeoun Kim, Jeongho Kwak, Jihwan P. Choi</i>	
Modeling of Computation Offloading for LEO Satellite-Assisted Federated Learning on Ground-Space Integrated Architecture.....	134
<i>Jeonghwan Kim, Jeongho Kwak</i>	
Meta-Learning Based Obstructive Sleep Apnea Detection Using Single-Lead ECG Signals .....	139
<i>Yinxian He, Yu Zhou, Kyungtae Kang</i>	
Generative AI for Radiological Image Data: Current Trends and Outlook .....	143
<i>Ji-Won Han, Yeon-Joon Lee</i>	
Efficient Relative Coordinate Inference for Dynamic SLAM Exploiting Monocular Cameras.....	148
<i>Seung-Chan Yu, Ji-Sung Park, Dong-Ho Lee</i>	
Who Can Be Your AI Doctor?: Evaluation for Disease Diagnosis on Large Language Models .....	154
<i>Jonghyeon Kim, Chan-Yang Ju, Dong-Ho Lee</i>	
Uncertainty-Based Active Learning with Ensemble Technique for Enhancing the Performance of Natural Language Classification with Limited Data .....	160
<i>Seong-Won Jeon, Dong-Ho Lee</i>	
Leveraging Deep Generative Model for Causal Effect Estimation in Healthcare .....	166
<i>Yushin Kim, Sejong Lee, Sunghyun Cho</i>	

Quantum Federated Learning for Vehicular Computing Scenarios .....	168
<i>Joongheon Kim</i>	
Lattice Surgery-Based Logical Operations in a Fault-Tolerant Quantum Software Framework .....	173
<i>Youngchul Kim, Soo-Cheol Oh, Sangmin Lee, Ki-Sung Jin, Gyuil Cha</i>	
Quantization-Based Optimization with Perspective of Quantum Mechanics .....	177
<i>Jinwuk Seok, Changsik Cho</i>	
Identifying Recent Research Topics in Post-Quantum Cryptography Via Topic Modelling .....	181
<i>Boyeon Song, Tae Jong Kim</i>	
A Grover-Like Quantum Algorithm for Minimum Distance Decoding of Linear Block Codes.....	185
<i>Gangsan Kim, Jong-Shick Oh</i>	
Animal Feed Optimization Under Price Fluctuations Using Evolutionary Algorithms.....	190
<i>Member Joy Usigbe, Daison Darlan, Daniel Dooyum Uyeh, Rammohan Mallipeddi</i>	
Enhancing Social Interaction Skills for Autism Spectrum Disorder (ASD) Individuals in the Metaverse .....	193
<i>Arunima Sharma, Vaishali Babu</i>	
Predictive Analysis of Accidents Based on US Accident Data.....	199
<i>Mayura Manawadu, Udaya Wijenayake</i>	
Analysis for Binary Chaotic Sequences Generated by Cascade Chaotic Maps.....	205
<i>Hyojeong Choi, Daekyeong Kim, Sangwon Chae, Hong-Yeop Song, Yundong Lee, Sangung Shin, Hongjun Noh</i>	
Some New Binary Locally Repairable Codes with Availability Based on Golomb Rulers.....	210
<i>Hyojeong Choi, Hong-Yeop Song</i>	
RIS-Assisted MEC Computation Offloading for IoVT Networks.....	214
<i>Daniar Estu Widiyanti, Soo Young Shin</i>	
Energy Collaboration Based on Borrowing and Returning Mechanism with Demand Diffusion .....	218
<i>Min Li, Jiafu Zhao, Xuan Fu</i>	
A Robust Algorithm for Impulsive Noise Mitigation in OFDM Systems .....	224
<i>Der-Feng Tseng</i>	
OCDM System with PAPR Reduction for Sub-THz Wireless Communication.....	227
<i>Md. Moklesur Rahman, Heung-Gyoon Ryu</i>	
Deep Reinforcement Learning Based Opportunistic Routing for Cognitive Relay Networks .....	232
<i>Jintaek Oh, Hyunjoon Suh, Shinhyeok Kang, Taewon Hwang</i>	
DRL-Based AP Switch On/Off Scheme for Cell-Free Massive MIMO MEC Networks .....	235
<i>Hyunjoon Suh, Jintaek Oh, Shinhyeok Kang, Taewon Hwang</i>	
Statistical Approach for Robust Indoor Positioning Against Signal Variations .....	238
<i>Junhaeng Lee, Kyongho Kim, Jaejun Yoo</i>	
Deep Learning-Based Localization Using Spatial Information in the NLoS Scenarios .....	241
<i>Yongjun Ahn, Inkook Keum, Jinwoo Son, Byonghyo Shim</i>	

Outdoor Long Range Ubiquitous Projectiles Tracking System Using P-MPLR and Computer Vision .....	245
<i>Minjae Kim, Hansu Jeong, Jeongwon Moon, Donghyeon Na, Woojin Choi, Sophia Lee, Ethan O'Sullivan, Anthony Smith</i>	
Laboratory Verification Process for Redirection Algorithm Design Using GNSS Deception.....	251
<i>Myoung-Ho Chae, Chae-Taek Choi, Seung-Ho Choi, Chang-Hoon Lee</i>	
Analysis of Traveling Performance for Orchard Weeding Robot Based on GNSS .....	254
<i>Jintack Jeon, Hoseung Jang, Changju Yang, Kyoung-Do Kwon, Youngki Hong, Gookhwan Kim</i>	
Ground Truth Generation Algorithm for Medium-Frequency R-Mode Skywave Detection.....	257
<i>Suhui Jeong, Pyo-Woong Son</i>	
Performance Evaluation for Absolute Time Synchronization in Wireless Time-Sensitive Service.....	262
<i>Yong Sun Kim, Kapseok Chang, Young-Jo Ko</i>	
A Method for Reducing Simulation Timing Deviation in QEMU-Based Virtual ECU .....	265
<i>Anna Yang, Jin Yong Kim, Woo Hyun Seol, Woo Jin Han, Hyng Rae Kim, Jeonghun Cho</i>	
An I/O Simulation Method for AUTOSAR-Based Operation Verification in an QEMU-Based Virtual ECU .....	271
<i>Anna Yang, Woo Jin Han, Hyeong Rae Kim, Jae Gon Kim, Daehyun Kum, Jeonghun Cho</i>	
Fault Dianosis Method Using Convolutional Recurrent Neural Network for Rotating Machine.....	277
<i>Namkyun Kim, Chanjun Chun, Si Jun Park, Seongmin Yun, Yong Ha Sung</i>	
A FMI-Based Approach for CAN Bus Simulation and Simulink Model Integration in Vehicle Simulation Environment.....	279
<i>Hyeongrae Kim, Harim Lee, Jeonghun Cho</i>	
Early HARQ Using LLR Trend Analysis .....	285
<i>Narayan Prasad Kusi, Jiho Kim, Dong Ho Kim</i>	
Group-Based Random Access with Age of Information Minimization in 6G umMTC .....	288
<i>Jiseung Youn, Joohan Park, Seyoung Ahn, Soohyeong Kim, Sunghyun Cho</i>	
Simple Power Adjustment Scheme for Uplink NOMA Based Random Access.....	292
<i>Seok-Ju Byun, Su-Jin Lee, Ye Hoon Lee</i>	
A Network Selection Scheme to Meet Heterogeneous QoS for Massive MTC in SAGIN .....	295
<i>Joohan Park, Jiseung Youn, Seyoung Ahn, Soohyeong Kim, Sunghyun Cho</i>	
Optimization of Reinforcement Learning-Based Backoff Indicator for 5G NR Random Access Procedure.....	299
<i>Jiha Kim, Cheolwoo You, Hyunhee Park</i>	
Entropy-Weighted Voting Method for Diffusion-Based Semantic Segmentation .....	304
<i>Seonggyun Jeong, Yong Seok Heo</i>	
Ship Detection in Synthetic Aperture Radar Images with Improved YOLOv8.....	308
<i>Chushi Yu, Yoan Shin</i>	
Skip Connection Model for SAR Ship Semantic Segmentation.....	312
<i>Jin Won Jung, Yoan Shin</i>	

A Precise Positioning Method with Integration of GNSS and Doppler Shift Based Positioning Using LEO Satellite.....	315
<i>M. Humayun Kabir, Md. Ali Hasan, Wonjae Shin</i>	
Dynamic Optimization Framework for Multi-Hop Code Offloading in LEO Satellite Edge Computing.....	318
<i>Jeonghwan Kim, Taewoo Lee, Jeongho Kwak</i>	
Evaluation for Elevation Angle-Dependent Beam Size in NR NTN Systems.....	321
<i>Sangmin Han, Wonjae Shin, Jae-Hyun Kim</i>	
A System for Constructing Spanning Trees in Graph Networks that Utilize Integer Linear Programming to Enhance Link Fault Tolerances.....	324
<i>Hieu Tran The, Kosuke Fujita, Nattapong Kitsuwat</i>	
Spectrum Slicer Placement Optimization by Betweenness Centrality in Elastic Optical Network.....	327
<i>Tsubasa Hachiya, Nattapong Kitsuwat</i>	
Cache Node Placement for Maximum Traffic Minimization in Content-Centric Networking.....	330
<i>Shohei Nakajima, Nattapong Kitsuwat</i>	
Dynamics of Random Sparse Matrix Network Topology.....	333
<i>Takako Hoshiyama, Hironori Shimoyama</i>	
Data-Driven Geometric Programming for System-Level Performance Optimization.....	338
<i>Soihem Gonmei, Junhwan Lee, Taesoo Kwon</i>	
A Study on the Scalability and Feasibility of the Space-Air Integrated Network.....	341
<i>Seungwoo Baek, Saewoong Bahk</i>	
On the Scalability of Parking Trajectory Optimization of Autonomous Ground Vehicles .....	344
<i>Esther Aboyeji, Oladayo S. Ajani, Rammohan Mallipeddi</i>	
Offloading Utility Optimization in Parked Vehicular Edge Computing.....	350
<i>Xuan-Quy Pham, Dong-Seong Kim</i>	
Efficient IoT Devices Deployment Using Branch and Bound Method .....	353
<i>Haesik Kim</i>	
A Novel of RTK Survey with TGM2017 Height Determination Using IoT Device .....	359
<i>Thawanrat Khumsa, Nikorn Sutthisangiam</i>	
Anomalous Human Trajectory Detection Using Clustering Methods .....	365
<i>Doi Thi Lan, Seokhoon Yoo</i>	
Towards Temporal Dependency Identification Based on Multivariate Time Series IIoT Data .....	368
<i>Abubakar Isah, Hyeju Shin, Sani Ahmad Hassan, Seugmin Oh, Jinsul Kim</i>	
Detection Method of Blind Spots Region on Merging Section Using V2X Communication of Autonomous Vehicles.....	372
<i>Hyeong-Seok Yun, Yun-Ki Yoon, Tae-Hyeong Kim, Kyung-Su Yun, Jae-Ho Seong, Tae-Hyoung Park</i>	
Optimization of Collision-Free Trajectories for Advanced Air Mobility Under Risk of a Non-Cooperative Intruder.....	378
<i>Uihwan Choi, Soojeon Lee</i>	

Power Efficient Long Range Drone Networking System for UAV Detection.....	381
<i>Gihwan Kim, Karteikay Dhuper, Soonchan Kwon, Prakshi Chander, Nahyeong Kim, Eric T. Matson, Nawon Kim, Tony Smith</i>	
ADS: Study on the Anti-Drone System: Today’s Capability and Limitation .....	387
<i>Yunwoo Ki, Suhyun Chun, Jihoon Ryoo</i>	
Detection of Pedestrian Turning Motions to Enhance Indoor Map Matching Performance.....	393
<i>Seunghyeon Park, Taewon Kang, Seungjae Lee, Joon Hyo Rhee</i>	
An Efficient Cubic Spline Interpolation Scheme for Wireless Communication Systems .....	399
<i>Byung-Jae Kwak, Jin Kyeong Kim, Keunyoung Kim, Young-Jo Ko</i>	
Security Analysis for Applying the Proof-Of-Stake Consensus Algorithm to IoET Network in Antarctica .....	403
<i>Woo Yong Lee, Keunyoung Kim</i>	
Cooperative Learning Strategy for Human Behavior Prediction Using Multi-Modal Data .....	406
<i>Doyun Lee, Hoon Lee</i>	
Cluster Hopping in Multi-Beam Satellite Communication Systems Using Deep Reinforcement Learning .....	412
<i>Shruti Sharma, Sangmin Han, Jaehyup Seong, Wonjae Shin</i>	
Extraction of Motor Imagery for Operation of UAV Communication Systems .....	415
<i>Won-Young Kang, Yoon Ku Lee, Youngjin Song, Juseung Lee, Sang Hyun Lee</i>	
Trends in Deep Reinforcement Learning for Distributed Coordination and Cooperation with Homogeneous Multi-Agents.....	419
<i>Joongheon Kim</i>	
Comparative Analysis of Multi-Loss Functions for Enhanced Multi-Modal Speech Emotion Recognition .....	425
<i>Phuong-Nam Tran, Thuy-Duong Thi Vu, Nhat Truong Pham, Hanh Dang-Ngoc, Duc Ngoc Minh Dang</i>	
RBBA: ResNet - BERT - Bahdanau Attention for Image Caption Generator .....	430
<i>Duc-Hieu Hoang, Anh-Khoa Tran, Duc Ngoc Minh Dang, Phuong-Nam Tran, Hanh Dang-Ngoc, Cuong Tuan Nguyen</i>	
A Segmentation Approach to Regression Problems with Switching-Points.....	436
<i>Shao-Tung Chang, Kang-Ping Lu</i>	
Visual-Based Deep Reinforcement Learning for Mobile Robot Obstacle Avoidance Navigation .....	440
<i>Zhiyuan Nan, Haewoon Nam</i>	
Deep Learning-Based Anomaly Detection Using Hybrid Loss .....	446
<i>Michael Onyekwelu, Mingyu Jang, Dongweon Yoon</i>	
Robust Approach for Lumen Segmentation in IVUS Image Using Deeply Learn U-Net Model.....	449
<i>Watcharaphong Yookwan, Ratanak Khoeun, Kamal Baha, Athitha Onouen, Pusit Kulkasem, Krisana Chinnasarn</i>	
An Improved Demodulation Method for Image Sensor Based Visible Light Communication Using Sparse Estimation Technique.....	455
<i>Yuki Ohira, Tomohiro Yendo</i>	



UAV Based Optimized Virtual Cooperative Sensing Using Particle Swarm Optimization.....	461
<i>Noor Gul, Su Min Kim, Jehad Ali, Junsu Kim</i>	
Continuous Steering Backups of NLoS-Assisted mmWave Networks to Avoid Blocking.....	467
<i>Rafid I. Abd, Kwang Soon Kim</i>	
Enhanced Deep Cooperative Q-Learning for Optimized Vehicle-To-Vehicle Communication in 5G/6G Networks.....	473
<i>Tahir H. Ahmed, Azwan Mahmud, Azlan Abd Aziz, Syamsuri Yaacob</i>	
Evaluation of Effect of Congestion on Time Synchronization Accuracy in IEEE 802.1AS.....	478
<i>Yohei Ozawa, Yoshihiro Ito</i>	
Intelligent O-RAN-Based Proactive Handover in Vehicular Networks.....	481
<i>Eshita Rastogi, Mukesh Kumar Maheshwari, Jaehoon Paul Jeong</i>	
Delay Optimization for Augmented Reality Service Using Mobile Edge Computing Federation System .....	487
<i>Huong Mai Do, Myungsik Yoo</i>	
REMS: Resource-Efficient and Adaptive Model Selection in 5G NWDAF .....	491
<i>Hyeonjae Jeong, Haneul Ko, Sangheon Pack</i>	
Traffic-Efficient Split Computing Mechanism for Internet of Things.....	494
<i>Hojin Yeom, Haneul Ko, Sangheon Pack</i>	
A UAV-Assisted Handover Scheme for Coverage Maximization Against 5G Coverage Holes.....	497
<i>Hyeonah Jung, Eshita Rastogi, Jaehoon Paul Jeong</i>	
A Design of Infrastructure Backup System for Private 5G Networks .....	503
<i>Ha Duong Phung, Thang Tran Huy, Younghan Kim</i>	
Supporting ICN in 5G Core Network.....	505
<i>Min Wook Kang, Yun Won Chung</i>	
Delayed-Choice Quantum Erasure Using Poisson-Distributed Photons .....	508
<i>Sangbae Kim, Byoung S. Ham</i>	
Mobility Robustness Optimization for Self-Organizing Networks: A Deep Reinforcement Learning Approach .....	511
<i>Kihoon Kim, Eunsok Lee, Sangheon Pack</i>	
Experimental Analysis of a Time-Dependent FSO System Under Summer Conditions in South Korea .....	514
<i>Tae-In Oh, Jong-Min Kim, Min-Ji Lee, Young-Chai Ko</i>	
Design of Quantum Approximate Optimization Algorithm for Graph Multi Coloring Problem.....	517
<i>Gunsik Min, Jun Heo</i>	
Symmetry Verification and Circuit Implementation Using Qiskit.....	520
<i>Youshin Chung, Jinyoung Ha, Yujin Kang, Jun Heo</i>	
A Reduced Complexity Method of Recursive Quantum Approximate Optimization Algorithm .....	523
<i>Youngjin Seo, Jun Heo</i>	
Preprocessing Taste Data for Deep Neural Networks.....	526
<i>Hyunjong Lee, Han Hee Jung, Jeongho Kwak, Junwoo Yea, Jihwan P. Choi, Kyung-In Jang</i>	

A Recent Reinforcement Learning Trend for Vehicular Ad Hoc Networks Routing.....	529
<i>Woongsoo Kim, Junhong Min, Yongseok Son, Jeongyeup Paek</i>	
Multi-Connection Scheduling for Resource Fairness in Bluetooth Low Energy Networks .....	533
<i>Moonbeom Kim, Jeongyeup Paek</i>	
Mimicking GFSK Modulation for WiFi-To-BLE Cross Technology Communication.....	536
<i>Chaeyeong Lee, Moonbeom Kim, Sungrae Cho, Jeongyeup Paek</i>	
Unified Framework for End-User Authentication Protocol in Feature-As-A-Service Models.....	539
<i>Jaehyung Ahn, Junhong Min, Hyung Tae Lee, Jeongyeup Paek</i>	
Iterative Closest Point of Object-Based Point Clouds for Multi-View Extension .....	543
<i>Junhyeong Ryu, Christina Suyong Shin, Jeongyeup Paek</i>	
On Architecting LEO Mega-Constellation Networks.....	546
<i>Jihwan P. Choi</i>	
An Adaptive Frame-Based Age-Aware Access Scheme for Time-Critical Satellite-IoT .....	549
<i>Huiyang Xie, Zhenyu Cao, Shilun Song, Junhui Jiang, Sang-Woon Jeon, Hu Jin</i>	
Space-Time Block Code Based Cooperative Physical Layer Security Schemes for LEO Satellite Systems.....	554
<i>Heyin Lee, Sooyoung Kim</i>	
Spectrum Sharing Method in Satellite and Terrestrial Coexisting Networks .....	558
<i>Hyunwoo Jung, Jung-Bin Kim</i>	
QoS Estimation of In-Vehicle Ethernet with CBS and TAS by Multiple Regression Analysis .....	561
<i>Honoka Awane, Yoshihiro Ito</i>	
QoS Comparison of ATS and CBS in IEEE 802.1TSN Over In-Vehicle Ethernet Based on Automotive Use Case .....	564
<i>Akari Yoshimura, Yoshihiro Ito</i>	
Study on Effect of Variable Traffic on QoS of ATS and TAS in IEEE 802.1TSN on In-Vehicle Ethernet .....	567
<i>Akari Yoshimura, Yoshihiro Ito</i>	
A Study of a New Routing Scheme for QoS Improvement Using SDN.....	570
<i>Hayato Ito, Yoshihiro Ito</i>	
Quantitative Evaluation of Effectiveness of FramePreemption in IEEE 802.1TSN on QoS Over In- Vehicle Ethernet .....	573
<i>Honoka Awane, Yoshihiro Ito</i>	
A Proposal of Throughput-Based MPTCP Scheduler for WebQoE Improvement .....	576
<i>Takeshi Kato, Yoshihiro Ito</i>	
Automation Testing with Appium Framework in IP Multimedia Subsystem .....	579
<i>Hieu Minh Tran, Tuan Duc Ninh, Thinh Duc Tran, Vuong Van Ngo, Linh Duc Nguyen</i>	
Deep Learning with Historical Features and Timewise Similarity for Multiple Objects Tracking .....	583
<i>Tuan Manh Tao, Changha Lee, Minsu Jeon, Chan-Hyun Youn</i>	
Comparison of TDOA Positioning Solutions in 5G Network: Indoor and Outdoor Performance.....	589
<i>Jiaqi Li, Seung-Hoon Hwang</i>	

Line Tracking Delivery Robot Using Wi-Fi-Based Indoor Positioning .....	592
<i>Su-Ji Lee, Ji-Yun Han, Gyu-Bin Kim, In-Seon Hwang, Jae-Young Pyun</i>	
Partitioning Traffic Engineering in Software Defined Wide Area Networks.....	596
<i>Yufeng Xin, Yifei Wang</i>	
A Dynamic Traffic Lights Controlling Combined with Vehicle Routes Planning Solution for Alleviating Traffic Congestion .....	602
<i>Changhao Fan, Chunxiao Li, Chunyan Qi</i>	
Trends and Applications of Robotics Development in Virtual Environments .....	607
<i>Joon Young Kim, Jeong Min Oh</i>	
Clustering-Beamforming Algorithm for Security Performance in Multiple Flying RISs-Supported Systems.....	610
<i>Yuna Sim, Jihun Cho, Huaping Liu, Sangmi Moon, Seungseok Sin, Kyunam Kim, Jihyung Kim, Intae Hwang</i>	
Optimization of IRS-Assisted OFDMA SWIPT Systems with Dynamic Subcarrier Allocation and AC Computing .....	613
<i>Binh-Minh Vu, Oh-Soon Shin</i>	
Heterogeneous Wireless Device Management in Edge Computing Systems for IoT Services .....	616
<i>Mafeni Vitumbiko, Younghan Kim</i>	
Weighted Tensor Robust Principal Component Analysis to Reduce Noise in Wireless Sensor Networks .....	619
<i>Hanh Hong-Phuc Vo, Myungsik Yoo</i>	
Sum-Rate Maximization for RSMA-Enabled Energy Harvesting Aerial Networks with Reinforcement Learning.....	622
<i>Jaehyup Seong, Mesut Toka, Wonjae Shin</i>	
Phase Shift Optimization for RIS Element-Based Index Modulation .....	625
<i>Krisma Asmoro, Soo Young Shin</i>	
Rail Camera: An Edge Resource Management for Smart Farm Application.....	630
<i>Seungwoo Kum, Jaewon Moon, Youngkee Kim, Alejandro Barrera Carvajal, Seungtaek Oh, Francisco Andres Perez</i>	
CLIMB: Computational Lane Identification Using Multi-Objective Bayesian Optimization.....	634
<i>Taehyeon Kim, Seho Park, Kyungtaek Lee</i>	
Empirical Study: Monocular Depth Estimation from RGB, NIR, Thermal Image in Adverse Weather Conditions .....	636
<i>Ukcheol Shin, Soonmin Hwang, Jean Oh</i>	
Digital Human Interaction Based on Mono Camera for Digital Twin.....	641
<i>Myeongseop Kim, Taehyeon Kim, Kyung-Taek Lee</i>	
Accurate Pose Estimation Method Using ToF-Stereo Camera Data Fusion.....	644
<i>Sukwoo Jung, Harrison Yun, Kyungtaek Lee</i>	
Robot-Based Object Pose Auto-Annotation System for Dexterous Manipulation .....	646
<i>Sunme Park, Yujin Kim, Seungwon Lee, Mingi Jung, Jongbum Park</i>	

Development of Visual and Tactile Based Human Behavior Imitation Learning Platform .....	649
<i>Jongbum Park, Seungwon Lee, Mingi Jung, Sunme Park, Yujin Kim</i>	
MagSafe Accessory Classification Using Magnetometer .....	653
<i>Jaemin Choi, Insu Kim, Suhyeon Shin, Junseob Kim, Sungrae Cho, Mucheol Kim, Hyosu Kim</i>	
Back-Of-Device Tap Recognition by Leveraging Magnetometer in Commodity Smartphones.....	656
<i>Insu Kim, Jaemin Choi, Suhyeon Shin, Junseob Kim, Mucheol Kim, Sungrae Cho, Hyosu Kim</i>	
A Review on AI-Enabled Congestion Control Schemes for Content Centric Networks .....	659
<i>Arooj Masood, Nhu-Ngoc Dao, Hyosu Kim, Yongseok Son, Hyung Tae Lee, Jeongyeup Paek, Sungrae Cho</i>	
UAV-Satellite Integration for Communication System: Potential Applications and Key Challenges .....	663
<i>Quang Tuan Do, Anh-Tien Tran, Demeke Shumeye Lakew, Hyosu Kim, Yongseok Son, Hyung Tae Lee, Jeongyup Paek, Sungrae Cho</i>	
Surface-Assisted In-Air Gesture Recognition .....	666
<i>Minhyeok Kim, Donghun Lee, Hyosu Kim</i>	
Experimental Analysis of the Recent Key Recovery Protocol with Respect to Commitment Schemes.....	669
<i>Seongbong Choi, Yongseok Son, Jeongyeup Paek, Hyung Tae Lee</i>	
A Blockchain-Based Trustworthy and Secure Review System for Decentralized e-Portfolio Platforms .....	675
<i>Mpyana Mwamba Merlec, Nday Kabulo Sinai, Hoh Peter In</i>	
Andaman Token: A Feasibility Study of Blockchain Adoption in the Tourism Industry.....	681
<i>Warodom Werapun, Nattawat Songsom, Tanakan Khongfai, Ayuth Intrapradit, Jakapan Suaboot</i>	
Cybersecurity and Electoral Processes - An Analysis of Block Chain Enabled Biometric Voter System and Risk Control in Kenya's 2022 Electoral Process and the United States Election System Infrastructure .....	687
<i>John Irungu, Anteneh Girma</i>	
Multi-UAV Employed Secure Parcel Delivery System Using Blockchain.....	695
<i>Ramdhan Nugraha, Md Masuduzzaman, Munkyu Choi, Soo Young Shin</i>	
Blockchain and eGovernment Convergence for the Optimization of ODA Activities in Developing Countries: A Scoping Review.....	701
<i>Uduakobong Ekanem, Yun Seon Kim</i>	
A Low-Complexity Iterative Detection Algorithm for Uplink Massive MIMO Systems.....	707
<i>Imran A. Khoso, Chung G. Kang</i>	
Hybrid Beamforming with Blockwise Beam Selection for mmWave BeamSpace MIMO Systems .....	710
<i>Md. Abdul Latif Sarker, Dong Seog Han</i>	
State-Of-The-Art Underwater Communication Standard in ISO/IEC JTC1 .....	713
<i>Shrutika Sinha, Arto Toppinen, Ari Hwang, Soo-Hyun Park, Eun Tae Won</i>	
Active and Passive Beamforming Based on RWMMSE and Gradient Projection for IRS-Aided MU-MISO Systems .....	717
<i>Seraphin Kimaryo, Eduard E. Bahingayi, Kyungchun Lee</i>	

Deep Denoising Channel Extrapolation for IRS-Assisted OFDM Systems .....	723
<i>Mubasher Ahmed Khan, Huijin Kang, Muhammad Awais, Yun Hee Kim</i>	
Evaluation of Satellite Signal Reception Error by Sky View Factor for QZSS Short Message SS- CDMA Communication System .....	726
<i>Hiroto Kita, Hiroshi Oguma, Suguru Kameda, Noriharu Suematsu</i>	
Hybrid Relay and OIRS-Aided Free Space Optical Communication System with Distributed Computing .....	731
<i>Haibo Wang, Zaichen Zhang, Yingmeng Ge, Baiping Xiong</i>	
Dynamic Load Balancing for Energy-Delay Tradeoff in a Cloud-RSU-Vehicle Architecture .....	737
<i>Pyeongjun Choi, Pildo Yoon, Jeongho Kwak</i>	
Paste-And-Cut: Collective Image Localization and Classification for Real-Time Multi-Camera Object Detection .....	740
<i>Young Eun Kang, Woosung Kang, Taehun Lee, Hoon Sung Chwa</i>	
Insights into Sidelink Resource Allocation: A Performance Study in 5G NR-V2X .....	743
<i>Mahmoud Elsharief, Saifur Rahman Sabuj, Han-Shin Jo</i>	
V2X Traffic-Load Generator System for Enabling Efficient Vehicle Communication Load- Balancing .....	745
<i>Yang Eunju, Kim Bongseob, Seo Geunhan, Yun Kyungsu, Hwang Sujin</i>	
Performance Evaluation of Object Detection Considering C-V2X Communication Errors.....	750
<i>Jeeyoo Kim, Ji-Woong Choi, Donghyeon Kim, Sinuk Choi</i>	
Utilization of Path History Data for the Extension of V2X Network Coverage.....	753
<i>Zachary Choffin, Han-Shin Jo, Seongcheol Jeong, Nathan Jeong</i>	
V2I and V2V Service Demonstration of Millimeter Wave Communication in Urban Road Environment .....	756
<i>Sung-Woo Choi, Heesang Chung, Dae-Soon Cho, Jung-Pil Choi, Seon-Ae Kim, Junhyeong Kim, Manho Park, Namsuk Lee, Jaesu Song, Nakwoon Sung</i>	
Multiple Control Plane Joint Operation Method Under Overlaid Cell Structure Environment for Future Mobile Communications .....	760
<i>Soon-Gi Park, Jun-Sik Kim, Sung-Cheol Jang, Yong-Seouk Choi, Young-Jo Ko</i>	
Multi Point Transmission with Channel Conditioned Spatial/Frequency Domain Processing.....	766
<i>Chanho Yoon, Woncheol Cho, Young-Jo Ko</i>	
Sub-THz Transmitter Radio Integrated Circuits for Super High-Speed 6G Mobile Communications.....	769
<i>Bonghyuk Park, Seunghun Wang, Sunwoo Kong, Seunghyun Jang, Hui-Dong Lee, Jung-Hwan Hwang</i>	
User Plane Management Function: A Solution for Automatic Deployment of UPF on Cloud-Native 5G Core Network Architecture.....	773
<i>Kieu-Ha Phung, Luong Vu Dung, Quang Tung Thai, Namseok Ko</i>	
Physical Layer Modem Implementation for Movable Wireless Backhaul System.....	779
<i>Jang-Won Moon, Moon Young Jin, Yong Su Lee, Bahng Seungjae, Jun Woo Kim, Kyung Yeol Sohn, Hoon Lee, Bang Youngjo, Jungsook Bae</i>	
Survey of Distributed File Systems: Concepts, Implementations, and Challenges .....	782
<i>Kiet Tuan Pham, Sangjin Lee, Lan Anh Nguyen, Jeongyeup Paek, Yongseok Son</i>	

A Survey on File Defragmentation Techniques on Modern Storage Systems .....	785
<i>Sangjin Lee, Lan Anh Nguyen, Hyeonggi Yeo, Sunggon Kim, Sungrae Cho, Yongseok Son</i>	
A Survey on Epoch-Based In-Memory Database Systems.....	788
<i>Lan Anh Nguyen, Sangjin Lee, Hyung Tae Lee, Yongseok Son</i>	
Resource Allocation in Multi-Cell Networks: A Deep Reinforcement Learning Approach .....	793
<i>Harun Ur Rashid, Seong Ho Jeong</i>	
Metamaterial Lensing Surface for a Weight-Reduced Metal Waveguide Antenna on Satellites .....	796
<i>Sungtek Kahng, Woogon Kim, Jaewon Koh, Inyeol Moon, Yejune Seo, Seongbu Seo</i>	
A Novel Correlative Interferometer Technique with Multi-Sample Diversity for Finding Direction of Satellites .....	799
<i>Young-Seok Lee, Minkyu Oh, Inki Lee, Bang Chul Jung</i>	
Linear Subarrays for Multi-Beam Satellites .....	802
<i>Sangbae Oh, Jungjin Shin, Hyojoon Lim, Joongki Park, Heedong Do, Namyoon Lee</i>	
Air Quality Index Mapping Using Programmable Single Propeller UAV Towards Internet of Drone Things.....	805
<i>Nyoman Karna, Muhammad Alfarafi Maulana Firdausa, Soo Young Shin</i>	
Intravascular Ultrasound Image Registration Based on Geometric Spatial Energy .....	811
<i>Watcharaphong Yookwan, Jiranun Sangrueng, Janya Onpans, Supawadee Srikamdee, Krisana Chinnasarn</i>	
Inferring Discussion Topics About Exploitation of Vulnerabilities from Underground Hacking Forums.....	816
<i>Felipe Moreno-Vera</i>	
Beyond Perspectives: Enhancing Pose Estimation Via Viewpoint Transformation.....	822
<i>Jung Won Yoon, Hyun Jun Yook, Jae Eun Seo, Jae Hun Choi, Youn Kyu Lee</i>	
Enhancing Nighttime Vehicle Detection Via Transformer-Based Data Augmentation.....	827
<i>Min Young Lim, Seong Hee Park, Soo-Hyun Lee, Tae Hyung Kim, Dongwoo Kang, Youn Kyu Lee</i>	
Edge Storage Management Recipe with Zero-Shot Data Compression for Road Anomaly Detection .....	833
<i>Yeonghyeon Park, Uju Gim, Myung Jin Kim</i>	
Orthogonal Time Frequency Space Index Modulation Based on Non-Orthogonal Multiple Access .....	838
<i>Adnan Tariq, Muhammad Sajid Sarwar, Soo Young Shin</i>	
Orbital Angular Momentum (OAM) in Wireless Communication: Applications and Challenges Towards 6G .....	842
<i>Huan Zhang, Zhenyu Cao, Huiyang Xie, Hu Jin</i>	
STAR-RIS-IM Assisted Constellation Rotation NOMA System.....	848
<i>Nadhira Azizah Suwanda, Hye Yeong Lee, Soo Young Shin</i>	
A Novel Method in Mobile Subscriber Location Estimation for Enhancement of Paging Procedure in Mobile Cellular Networks .....	852
<i>Kieu-Ha Phung, Van-Phu Tran, Minh-Hung Le, Nguyen Tai Hung, Nguyen Huu Thanh, Pham Quang Diep, Le Van Hien, Mai Xuan Ngoc, Le Minh Tu</i>	

GPS Signal Transmission Interval Optimization in Relay-Type GPS .....	858
<i>Koki Kurahashi, Takatoshi Sugiyama</i>	
Spectrum Suppressed Transmission Applied by Higher Coding Rate FEC.....	861
<i>Yuki Kurihara, Takatoshi Sugiyama</i>	
3-Dimensional Drones' Allocation Control Based on Machine Learning in Multi-Hop Wireless Networks .....	865
<i>Keisuke Imamura, Takatoshi Sugiyama</i>	
Cost-Efficient Deployment Scheme for User and Control Plane Functions in Non-Public Networks .....	869
<i>Yunwoong Kyung, Jaewook Lee, Seokwon Jang, Haneul Ko, Taewon Song</i>	
Network Data Generation Using IP2Vec Embedding.....	872
<i>Minji Kim, Migyeong Kang, Eunil Park, Sangheon Park, Jinyoung Han</i>	
Towards a Lightweight Object Detection Through Model Pruning Approaches.....	875
<i>Hyerim Yu, Sangeun Lee, Byeongsang Yeo, Jinyoung Han, Eunil Park, Sangheon Park</i>	
Opportunistic Task Offloading in UAV-Assisted Mobile Edge Computing: A Deep Reinforcement Learning Approach .....	881
<i>Taewon Song</i>	
Adaptive Client Training Scale Orchestration for Federated Learning .....	885
<i>Younghwan Jeong, Taewon Song, Taeyoon Kim</i>	
The Simulation Study on the Effect of Transmission Error in Split Computing Approach.....	889
<i>Jaewook Lee, Keunsoo Ko, Haneul Ko</i>	
Survey for the Underwater Acoustic Channel Simulation .....	892
<i>Hyowon Lee, Namyoon Lee</i>	
OFDM Simulator for Underwater Acoustic Communications .....	894
<i>Seyong Kim, Jeonghun Park, Mintaek Oh, Jinseok Choi</i>	
Analysis of Deep Learning-Based MIMO Detectors .....	897
<i>Sangbu Yun, Youngjoo Lee</i>	
Challenges in Secure Underwater Wireless Sensor Network with Fine-Grained Access Control .....	900
<i>Donghyun Yu, Jemin Lee</i>	
On the Performance of Index Modulation in OFDM Systems Under Jamming Attacks .....	903
<i>Jaewon Yun, Yo-Seb Jeon</i>	
A Survey on Statistical Channel Modeling for Underwater Acoustic Communications .....	906
<i>Mintaek Oh, Jinseok Choi, Sungyu Kim, Seunghyeong Yoo, Seyong Kim, Jeonghun Park</i>	
Tour Routes Planning with Matrix-Based Differential Evolution .....	909
<i>Pei-Fa Sun, Jian-Yu Li, Ming-Yu Li, Zhan-Yang Gao, Hu Jin, Sang-Woon Jeon, Jun Zhang</i>	
A Fuzzy Logic-Based Differential Evolution for Energy-Efficient UAV Path Planning.....	912
<i>Wang Yukai, Jian-Yu Li, Peifa Sun, Sang-Woon Jeon</i>	
Exploration-Aided Downstream Graph Learning Tasks: A Survey on Exploratory Graph Learning.....	915
<i>Yu Hou, Won-Yong Shin</i>	

Multi-UAV Path Planning with Genetic Algorithm.....	918
<i>Mingyu Li, Pei-Fa Sun, Sang-Woon Jeon, Xiaoyan Zhao, Hu Jin</i>	
Differential Evolution Enhanced by Combining Group Learning and Elite Learning .....	921
<i>Guang-Xu Shen, Jian-Yu Li, Pei-Fa Sun, Sang-Woon Jeon, Hu Jin</i>	
Simple Energy Saving Scheme for Ad-Hoc Network Based on MIL-STD-188-220 .....	924
<i>Hyungkook Oh</i>	
Unravelling the Black Box: Enhancing Virtual Reality Network Security with Interpretable Deep Learning-Based Intrusion Detection System .....	928
<i>Urslla Uchechi Izuazu, Dong-Seong Kim, Jae Min Lee</i>	
Federated Learning with Differential Privacy for Intrusion Detection in Internet of Flying Things: A Robust Approach .....	932
<i>Vivian Ukamaka Ihekoronye, Dong-Seong Kim, Jae Min Lee</i>	
Structural Anomaly Detection in Advanced Manufacturing Execution Systems .....	938
<i>Md Raihan Subhan, Md Javed Ahmed Shanto, Love Allen Chijioke Ahakonye, Dong-Seong Kim, Taesoo Jun</i>	
Enhanced Healthcare System with NFT-Prescription.....	942
<i>Gifar Arif Haryadi, Allwinnaldo, Jae Min Lee, Dong-Seong Kim</i>	
Explainable Adversarial Mitigation Framework for Zero-Trust Cyber Warfare.....	947
<i>Ebuka Chinaechetam Nkoro, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim</i>	
Deep Skin Cancer Lesions Classification Scheme .....	953
<i>Gabriel Chukwunonso Amaizu, Love Allen Chijioke Ahakonye, Dong-Seong Kim, Jae-Min Lee</i>	
Computer Vision Based Smart Bin for Waste Classification.....	957
<i>Wongsathorn Wanwong, Kornkanok Pobchanad, Jakapong Boonyai, Sukonthee Sungkhun, Tanin Intataramanee, Watcharaphong Yookwan, Athitha Onouen, Krisana Chinnasarn</i>	
AuPPL: Augmented Physical Priors Through Language Enhancement Using Self-Supervised Learning .....	961
<i>Annie Dong, Anirudh Mazumder, Mustafa Efe Güzel, Badis Labbedi, Zhuo En Chua, Ebeer Soriano, Priyanshu Sethi, Michael Lutz</i>	
Language-Model-Based Methods for Vietnamese Single-Document Extractive Summarization .....	967
<i>Vo Le Cuong, Vu Xuan Thinh, Vu Duy Thien, Vo Sy Hung, Nguyen Xuan Viet</i>	
Temporal Analysis of World Disaster Risk: A Machine Learning Approach to Cluster Dynamics .....	973
<i>Christian Mulomba Mukendi, Hyebong Choi</i>	
MetaHate: Text-Based Hate Speech Detection for Metaverse Applications Using Deep Learning .....	979
<i>Judith Nkechinyere Njoku, Anthony Uchenna Eneh, Cosmas Ifeanyi Nwakanma, Jae-Min Lee, Dong-Seong Kim</i>	
A <sub>r</sub> *: A Bounded Suboptimal Search Algorithm Using Conditional Node Re-Expansion Policy .....	985
<i>Tien Minh Dam, Dao Tran Le, Long Viet Truong, Huyen Thi Dinh, Ngan Kim Nguyen, Tuan Anh Nguyen, Hung Viet Bui, Nguyen Manh Tiem, Le Manh Ha</i>	
Performance Analysis of the V2V System Based on the Nakagami-M Fading Channel.....	991
<i>Jiaqing Sun, Chunxiao Li, Chunyan Qi</i>	



Auto-Correlation Properties of Binary Sequences Obtained by Switching Two Bernoulli Chaotic Binary Sequences .....	995
<i>Akio Tsuneda, Masahiro Fujikawa</i>	
Performance Analysis of MIMO CR Multihop Relaying with Imperfect CSI in Short-Packet URLLCs .....	998
<i>Ngo Hoang Tu, Hoang Trong Dai, Kyungchun Lee</i>	
Throughput Performances of UAV Multi-Hop Communications by Applying Link Adaptation .....	1004
<i>Ruiyi Zhong, Takatoshi Sugiyama</i>	
Improvement of a Secret Sharing Scheme to Reduce the Total Data Size .....	1008
<i>Tatsuki Ishii, Kuniaki Tsuji, Yuya Tarutani, Yukinobu Fukushima, Tokumi Yokohira</i>	
A Survey on Deep Learning-Based Resource Allocation Schemes.....	1014
<i>Donghyeon Kim, Haejoon Jung, In-Ho Lee</i>	
On the Structured Design for Efficient Machine Learning Based PRACH Preamble Detection .....	1017
<i>Du Hui Yang, Sang Won Choi</i>	
Efficient Data Communication for Deep Learning Application Via Latent Code Transmission in B5G Wireless Networks .....	1022
<i>Dong Min Kim, Young Hoon Suh, Issamu Fred Ngwalo</i>	
Federated Learning with Variational Autoencoder for Popularity Profile Prediction.....	1027
<i>Minkyun Ahn, Minseok Choi</i>	
A Survey on AI-Empowered Security Solutions for 6G.....	1033
<i>Byungha You, Donghyeon Kim, Haejoon Jung</i>	
Deep Neural Network-Based Fingerprinting Localization for 5G NR mmWave Small-Cell.....	1036
<i>Suah Park, Minsoo Jeong, Hyeonjin Chung, Hongseok Jung, Hye-Kyung Jwa, Jeehyeon Na, Sunwoo Kim</i>	
Penetration Loss Analysis for mmWave MIMO Communication in Indoor Environments .....	1039
<i>Hyunsoo Lee, Hanvit Kim, Hyeonjin Chung, Keonho Cha, Sunwoo Kim</i>	
Mobility-Aware Resource Allocation in UAV-Assisted ISAC Networks .....	1042
<i>Igbafe Orikumhi, Jungsook Bae, Sunwoo Kim</i>	
Enhancing Prototypical Space for Interpretable Image Classification .....	1045
<i>Jae Soon Baik, Kyoung Ok Yang, Jun Won Choi</i>	
PIDNet: RGB-Depth Fusion Network for Real-Time Semantic Segmentation.....	1049
<i>Yunsik Shin, Chaehyun Lee, Yongho Son, Yanggon Kim, Junghee Park, Jun Won Choi</i>	
X-HDNN: Explainable Hybrid DNN for Industrial Internet of Things Backdoor Attack Detection.....	1053
<i>Love Allen Chijioke Ahakonye, Cosmas Ifeanyi Nwakanma, Jae Min Lee, Dong-Seong Kim</i>	
Blockchain-Aided Decentralized Collaborative Automatic Modulation Classification for Next-Generation Wireless Networks .....	1058
<i>Ahmad Zainudin, Revin Naufal Alief, Made Adi Paramartha Putra, Rubina Akter, Jae-Min Lee, Dong-Seong Kim</i>	

Carbon-Credit Monitoring and Prediction in Smart Factory Using Explainable AI and Data Analytics.....	1064
<i>Cosmas Ifeanyi Nwakanma, Martin Uwakwe, Ikenna Uzoma Ajere, Ebuka Chinaechetam Nkoro, Love Allen Chijioke Ahakonye, Dong-Seong Kim</i>	
Blockchain-Based Federated Learning for Bearing Fault Detection in the Industrial Internet of Things.....	1069
<i>Made Adi Paramartha Putra, Ahmad Zainudin, Revin Naufal Alief, Gabriel Avelino Sampedro, Dong-Seong Kim, Jae-Min Lee</i>	
Optimizing UAV Navigation Through Non-Uniform B-Spline Trajectory for Tracking UAV Enemy .....	1075
<i>Muhammad Wicaksono, Soo Young Shin</i>	
Predicting Bike-Sharing Demand: A Machine Learning Approach for Urban Mobility Analysis.....	1079
<i>Md Javed Ahmed Shanto, Rubina Akter, Dong-Seong Kim, Taesoo Jun</i>	
A Novel Deep Learning-Assisted Truck Driver Drowsiness Record Using Blockchain Technology .....	1082
<i>Odinachi Udemezuo Nwankwo, Dong Seong Kim, Jae-Min Lee</i>	
Low-Cost Small B5G Antenna of a Metamaterial Toughening the LoS Signal in Indoor Propagation.....	1087
<i>Sungtek Kahng, Jaewon Koh, Woogon Kim, Inyeol Moon, Yejune Seo, Seongbu Seo</i>	
CSI Feedback Compression Based on Deep Learning Using Wavelet Transform .....	1091
<i>Yong Jin Kwon, Anseok Lee, Heesoo Lee</i>	
Security Technology for C-Band Modem Communication in Unmanned Vehicle Environment .....	1095
<i>Juhan Kim, Yousung Kang</i>	
A Highly Reliable Power Saving Method for IoT Devices in a Wireless Environment .....	1098
<i>Minsuk Choi, Jaedeok Lim</i>	
Beam Tracking Using Monopulse Signal for UAV Communications with Doppler Shift .....	1101
<i>Dong-Hwee Kim, Byungju Lim, Young-Chai Ko</i>	
A Method of Access Node Change in Multi-Radio Multi-Connectivity .....	1104
<i>Sunmi Jun, Yong Seouk Choi, Heesang Chung</i>	
How Technologies Like AI Affect the Profit Rate: Empirical Study for 6 Capitalist Countries.....	1107
<i>Seong-Jin Park</i>	
Supervised Learning Based Small Cell Planning .....	1110
<i>Seok-Yeong Bang, Sang-Yeon Lee, Byungsuk Kim, Kyeongjun Shin, Een-Kee Hong</i>	
Interference Due to Phase Noise in Downlink Multi-TRP Scenario .....	1114
<i>Kyeongpyo Kim, Wooram Shin, Kapseok Chang, Young-Jo Ko</i>	
Sparse Channel Feedback for Energy-Efficient mmWave Massive MIMO Systems.....	1118
<i>Seungnyun Kim, Jiao Wu, Jihoon Moon, Byonghyo Shim</i>	
A Framework for Learned Approximate Query Processing for Tabular Data with Trajectory .....	1122
<i>Kihyuk Nam, Sung-Soo Kim, Choon Seo Park, Taek Yong Nam, Taewhi Lee</i>	
The Channel Estimation Based on FSC Method for IEEE 802.11p OFDM System .....	1125
<i>Kyunbyoung Ko, Hanho Wang</i>	
A Dynamic HARQ Feedback Method in NR Communication Systems .....	1130
<i>Namsuk Lee, Heesang Chung</i>	

Direction Finding Method for Fast Beam Alignment in Wireless Communication Systems .....	1133
<i>Seon-Ae Kim, Heesang Chung, Young-Hoon Kim</i>	
Overview of 5G-NR-V2X System and Analysis Methodology of Communication Performance.....	1137
<i>Byoungman An, Jimin Lee, Seonghyun Jang, Kitaeg Lim, Sanghun Yoon</i>	
Test of UHD/HD Integrated MATV Functions in Real Environment.....	1143
<i>Jaehwui Bae, Haechan Kwon, Youngsu Kim, Jaehyun Seo, Sung-Ik Park</i>	
A Study on a 3D Spatial Mapping System to Investigate Skyscrapers Using Drones.....	1146
<i>Sang-Su Kim, Ji-Yeon Kang, Hee-Tac Jung, Jin-Ho Park, Seung-Jae Lee, Jun-Hui Go</i>	
Multi Carrier Cell Management and Mobility Enhancement .....	1149
<i>Jun-Sik Kim, Soon-Gi Park, Yong-Seouk Choi</i>	
A D-Band 1-Channel Beamforming Transmitter Integrated Circuits for 6G Mobile Communication.....	1152
<i>Seunghun Wang, Hyoryeong Jeon, Yeonseung Kim, Seunghyun Jang, Hui-Dong Lee, Sunwoo Kong, Bonghyuk Park, Songcheol Hong, Sang-Gug Lee, Jung-Hwan Hwang</i>	
Video Streaming QoS Prediction Based on Downlink Control Information of LTE Cell .....	1154
<i>Gyeongjune Hahm, Minho Han, Hyecheon Kwon</i>	
A Brief Survey of Watermarks in Generative AI .....	1157
<i>Jaeyoung Hwang, Sanghoon Oh</i>	
Study on Test Plan Establishment for Enhancing Trustworthiness of Artificial Intelligence Systems .....	1161
<i>Yejin Shin, Sangyeon Kang</i>	
Space and Cost-Efficient Reed-Solomon Code Based Distributed Storage Mechanism for IPFS* .....	1165
<i>Heekyung Shin, Myungcheol Lee, Seongmin Kim</i>	
Intelligent Electronic Monitoring Supervision System Based on Multi-Label Classification.....	1170
<i>Suwan Park, Geonwoo Kim</i>	
A Method for Optimizing Water Quality of the Aquafarm Using Application Independent Digital Twins .....	1173
<i>Hyeon Park, Dae-Heon Park, Seng-Kyoun Jo</i>	
Occupational Health Service Platform Architecture Based on IoT and Edge Computing.....	1178
<i>Kyoungeun Sun, Sung Hei Kim, Hyungho Do</i>	
Advanced Metering Infrastructure Data Platform in Housing: Standardization Strategy.....	1181
<i>Eunbi Ko, Guk Sik Jeong</i>	
Platform Design for IoT Data Quality Improvement Through Flexible Preprocessing Pipeline Building.....	1185
<i>Jaewon Moon, Seungwoo Kum, Seungtaek Oh</i>	
ChatGPT Powered Digital Healthcare System .....	1189
<i>Jaeyong Lee, Gyeyoung Jung, Young Chang, Yuju Kang, Jaejeung Kim</i>	
Energy Efficient Operation Method of Iterative Channel Decoder in Wireless Communication Systems.....	1194
<i>Yong Su Lee, Jun Woo Kim, Moon Young Jin, Bahng Seungjae, Jang-Won Moon, Bang Youngjo, Hoon Lee, Jungsook Bae, Heesoo Lee</i>	

Dog Bowel Pad Training IoT by Automatic Snack Feeder and Owner's Voice Compliment Speaker for Human Convenience.....	1197
<i>Subin Kim, Yujin Jeong, Anthony Smith, Eunsoo Kim, Ahyeon Song, Cho Eun Lee, Jaden Soroka</i>	
Running Gait Posture Optimization Using Embedded IoT Sensor Shoes .....	1203
<i>Hojeong Eom, Suyoung Lee, Jihyeon Yun, Hyejin Kim, Minju Kim, Nicole Hornbrook, Eric T. Matson</i>	
Impact of Channelization on Two Power Allocation Schemes at 6 GHz Band .....	1209
<i>Igor Kim, Bongsu Kim, Seungkeun Park</i>	
Power-Supporting Operation of Energy Storage for Energy-Independent Housing Complex .....	1212
<i>Sewan Heo, Tai-Yeon Ku, Wan-Ki Park</i>	
Client-Centric On-Demand Remote Profile Provisioning Technique for M2M IoT Devices.....	1215
<i>Boheung Chung, Taesung Kim, Keonwoo Kim, Yousung Kang</i>	
Optimal Evacuation Path Search Scheme for Fire Situations Using 5G Communication Technology .....	1218
<i>Mahnsuk Yoon, Gilhwan Lim, Jaeuk Kwon, Hyunchul Choi, Hyunjoon Lee, Kyucheol Cho</i>	
Fire Evacuation Situation Recognition and Evacuation Route Search Scheme of 5G-Based Mobile System.....	1221
<i>Mahnsuk Yoon, Gilhwan Lim, Jaemin Lee, Hyunchul Choi, Hyunjoon Lee, Kyucheol Cho</i>	
Enhancing MPTCP Performance on High-Speed Trains with Predictive Handover-Aware Packet Scheduling.....	1224
<i>Min-Ki Kim, You-Ze Cho</i>	
A Method for Synchronizing Situation Information and Providing Customized Task Using the Disaster Situation Management Decision Support Platform .....	1227
<i>Eun Joo Kim, Sun-Wha Lim, Sang Gi Hong, Kang Bok Lee</i>	
Short-Term Korea East-Sea Temperature Forecasting Approach Based on Seq2Seq Model Using Multi Parameters .....	1230
<i>Daeseung Park, A-Ryoung Kim, Chae-Seok Lee, Ho-Jong Chang</i>	
A Comparative Analysis of Time Series Forecasting Methods for Short-Term Electricity Demand Prediction .....	1235
<i>A-Ryoung Kim, Daeseung Park, Chae-Seok Lee, Hojong Chang</i>	
A Study on Performance Analysis of Question Generation Based on Korean Pretrained Language Model .....	1239
<i>Hongyeon Yu, Donghoon Son, Jiwon Yang, Aram Lee, Seunghun Oh, Jeongeun Kim</i>	
Performance Analysis of Multiple High Altitude Platform Stations Cellular Network Coverage.....	1242
<i>Jaeyeol Lee, Tae-Yoon Kim, Jae-Hyun Kim</i>	
Performance Analysis of V2X with Enhanced Power Control.....	1245
<i>Manho Park, Heesang Chung</i>	
Comparison of goTenna and ClusterDuck Protocol: Evaluation of the Performance Under Various Conditions .....	1248
<i>Jinmyeong Lee, Seonghyeon Bae, Geonu Lim, Ryan Melenchuk, Sihyeong Lee, Anthony Smith</i>	
Decentralized Identifiers and NFT-Driven Blockchain Solution for Personal Data Trading.....	1254
<i>Daegeun Yoon, Sungjin Mun, Kisung Park, Sungkee Noh</i>	

BSS: An Efficient Block Storage System for Block Archive Service in Blockchains.....	1257
<i>Woochang Jeong, Chanik Park</i>	
Service Availability of HAPS Considering Its Elevation Angle, Density, and Altitude .....	1263
<i>Hyunduk Kang, Ho-Kyung Son</i>	
MMSE-Based Turbo Equalization Schemes with Damping for Coded OTFS Systems.....	1267
<i>Wooram Shin, Kyeongpyo Kim, Kapseok Chang, Young-Jo Ko</i>	
A Study on Switching Between Aerial Systems with UxNB Functionality.....	1272
<i>Jungsook Bae, Hyun Lee, Heesoo Lee</i>	
A Study on Intelligent Manufacturing Video and Control Data Transmission System Using 5G Communication .....	1275
<i>Lee Sung-Hun, Cho Soo-Hyun, Jung Yong-An, Byun Sang-Bong, Han Dong-Cheul</i>	
Adversarial2Adversarial: Defending Against Adversarial Fingerprint Attacks Without Clean Images .....	1278
<i>Pyo Min Hong, So Hyun Kang, Jinhyeon Kim, Ji Hoo Kim, Youn Kyu Lee</i>	
Two-Stage Image Restoration: A Shield Against Adversarial Attacks on Face Identification.....	1283
<i>Min Young Lim, Pyo Min Hong, Youn Kyu Lee</i>	
A Method on Neural Network Optimization Deployment Frameworks for Lightweight Target Devices .....	1286
<i>Jaebok Park, Changsik Cho, Kyunghee Lee, Jiyoung Kwak</i>	
CNC Milling Machine Anomaly Classification with Continual Active Learning .....	1289
<i>Eden Kim, Seungchul Son, Seokkap Ko</i>	
An Neural Collaborative Filtering (NCF) Based Recommender System for Personalized Rehabilitation Exercises .....	1292
<i>Yoon-Seop Chang, Mikyong Han, Boosun Jeon, Jae-Chul Kim, Nohsam Park</i>	
A Study on the Material Properties and Process Conditions Reasoning Using Regression and Classification of Machine Learning .....	1298
<i>Hyunjong Kim, Hyunwoo Oh, Suyoung Chi</i>	
Knowledge Generation Pipeline Using LLM for Building 3D Object Knowledge Base .....	1303
<i>Soohyung Lee, Hyerin Lee, Kisuk Lee</i>	
Human Detection in Infrared Image Using Daytime Model-Based Transfer Learning for Military Surveillance System .....	1306
<i>Eun Seop Kim, Whui Kim, Juderk Park, Kunmin Yeo</i>	
Handling Anomaly in Residential Energy Consumption Data .....	1309
<i>Youhee Choi, Tai Yeon Ku, Wan-Ki Park</i>	
Music Genre Classification with CNN Model Evaluation .....	1313
<i>Yoonhee Jang</i>	
Neural Network Model Transformation Framework for On-Devices .....	1316
<i>Kyung Hee Lee, Ji Young Kwak, Jaebok Park, Hong Soog Kim, Seon-Tae Kim, Chang Sik Cho</i>	
Enhancing Fine-Tuning in Low Data Regime by Increasing Representation Entropy During Pre- Training Phase.....	1319
<i>Jaeill Kim, Jungwook Shin, Wonjong Rhee</i>	

Towards Better Time-Series Data Augmentation for Contrastive Learning .....	1322
<i>Jang-Ho Choi, Moonyoung Chung, Taewhi Lee, Jiyong Kim</i>	
Exploring Uncertainty-Aware Class-Wise Thresholds for Recognition Model's Uncertainty Detection .....	1325
<i>Jihyun Hwang, Minsu Jang</i>	
Recursive Inference for Individual's Identification in Video Data Based on the Description .....	1330
<i>Dearo Kim, Jiyoum Lim, Jeongwoo Son, Namkyung Lee</i>	
Use of Attention Mechanism for Decoder in Deep Learning-Based Image Super Resolution .....	1334
<i>Hyeongyu Kim, Byungchan Choi, Haewoon Nam</i>	
Deep Learning on MCUs: Comparative Analysis of Compile and Interpreter Based Execution Methods .....	1338
<i>Gunju Park, Seungtae Hong, Jeong-Si Kim</i>	
Enhancing the Predictive Power with Time-Adjusted Residual Effect Simulations: Recency- Frequency and Time Regularity Measurements .....	1341
<i>Doyeon Kwak, Emma Bergqvist, Se-Un Park, Sunbum Youn</i>	
Implementation of Deep Learning Based Intelligent Image Analysis on an Edge AI Platform Using Heterogeneous AI Accelerators .....	1347
<i>Ryangsoo Kim, Jaein Kim, Hark Yoo, Sung Chang Kim</i>	
Unidirectional-Edge Detection Based Background Subtraction Method for Real-Time Object Detection in Restricted Environments .....	1350
<i>Whui Kim, Ju Derk Park, Jae Hong Ryu, Byeong Cheol Choi, Chang Won Lee</i>	
AI Knows Which Words Will Appear in Next Year's Korean CSAT .....	1353
<i>Byunghyun Ban, Jejong Lee, Hyeonmok Hwang</i>	
Automated Labeling Method for Direction Detection of Objects Inside X-Ray Image .....	1358
<i>Jungi Lee, Hyunyoung Lee, Nac-Woo Kim, Yumin Hwang, Seok-Kap Ko</i>	
Golf Ball Dynamic Motion Parameter Estimation Based on Ball Trajectory Video and LSTM .....	1361
<i>Eunji Kwak, Jungbeom Ko, Hyunchul Kim, Asif Mehmood, Jongsuk Kim</i>	
Stable Robotic Grasping of Target Object Using Deep Reinforcement Learning .....	1366
<i>In Jun Park, Hyonyoung Han</i>	
Power Saving Mechanisms for NR Sidelink Communication.....	1371
<i>Jicheng Yin, Seung-Hoon Hwang</i>	
Design and Implementation of Ultra-Realistic Application Service Testbed Supporting End-To-End Ultra-High Precision Networking Architecture .....	1374
<i>Byeongok Kwak, Pyungkoo Park, Hosun Yoon, Seungwoo Hong, Seong Moon</i>	
Marmot: A Light-Weight Secure SRv6 Header Authentication System .....	1377
<i>Sae Hyong Park, Namseok Ko</i>	
The Study on SRv6 for User Plane in 5G-Advanced and 6G Mobile Networks.....	1381
<i>Jongseok Lee, Sunjin Kim, Namseok Ko</i>	
A Solution for Establishing Traffic Routes Per Application in 5G-Advanced and 6G Mobile Networks .....	1384
<i>Sunjin Kim, Jongseok Lee, Namseok Ko</i>	

An Architecture of Programmable Network Based on Adaptive SRv6 Policy .....	1387
<i>Hyunkyung Yoo, Sunghyuk Byun, Sunhee Yang, Namseok Ko</i>	
Energy-Efficient UAV-Based Edge Computing Systems for XR Applications .....	1390
<i>Jaewoo Jung, Seongah Jeong</i>	
Adaptive Control of Congestion Window in QUIC.....	1394
<i>So-Yong Kim, Seok-Joo Koh</i>	
Edge Media Server for Real-Time 4K Video Streaming with Multiple 5G-Enabled Drones.....	1397
<i>Jae-Kwan Yun, Moonsoo Lee, Chaedeok Lim</i>	
Jamming Power Optimization for Data Freshness in Covert Relay Networks .....	1401
<i>Seungmin Sim, Jinwoong Kim, Jemin Lee</i>	
Design of Cloud-Based Remote Collaborative System for Broadcasting Production Workflow .....	1404
<i>Soon Kim, Jae-Young Lee, Hye-Ju Oh</i>	
Heat Energy Data Based Energy Efficiency and Error Detection Service in Complex Apartment .....	1407
<i>Chang-Sic Choi, Tai-Yeon Ku, Wan-Ki Park</i>	
Intelligent Anomaly Detection System for Critical Network Infrastructure.....	1410
<i>Boo Geum Jung, Jinhyuk Yim, Yoon-Sik Yoo, Kangwoon Hong, Jongkuk Lee, Heasook Park</i>	
Experimental Demonstration of Virtual OLT-Based PON Slicing for Co-Existence of Different Services .....	1413
<i>Chansung Park, Yongwook Ra, Hwanseok Chung</i>	
Zero Trust Black Network Access for Mobile Broadband Mission-Critical Services .....	1416
<i>Boo Geum Jung, Yoon-Sik Yoo, Jinhyuk Yim, Kangwoon Hong, Jongkuk Lee, Heasook Park</i>	
Cryptanalysis and Countermeasures of the Recent Authentication and Key Agreement Scheme for Internet of Drones.....	1419
<i>Sungjin Yu, Keonwoo Kim, Kim Taesung, Boheung Chung, Yousung Kang</i>	
A Packet Processing Scheme in 5G MAC Protocol Using DPDK .....	1423
<i>Jaesu Song, Heesang Chung</i>	
Study on Device Based Geo-Fencing and Triggering Services for Enhancing Alert Area Accuracy in Cell Broadcast Service .....	1427
<i>Hyunjoo Kang, Seung-Hee Oh, Sang-Lim Ju</i>	
Addressing Timely AI Technology Standardization Challenges Through a Hierarchical Analysis Approach .....	1431
<i>Daejung Kim, Bora Jeon, Kyoung Cheol Koo</i>	
DR Based Sentence & SPO Tuple Pair Generation for Open Information Extraction .....	1434
<i>Joonyoung Jung, Dong-Oh Kang</i>	
Development of Wireless Communication System for LTE-R Based Train Control.....	1437
<i>Byungsik Yoon, Sookjin Lee, Sangcheol Oh, Sungchan Lee, Dongil Sung</i>	
DAQS: Dynamic and Accurate QoS for SR-IOV.....	1440
<i>Sungmin Kang, Joonyong Hwang, Younghoon Kim</i>	
Harm of Giants in Cloud Computing Market .....	1443
<i>Kure Chel Lee, Yun Ho Choi, Ki Duck Kim</i>	

An Efficient Network Operation Automation Scheme Using Network Status Information for Local 5G Networks.....	1447
<i>Mahnsuk Yoon, Jihun Seo, Kyucheol Cho</i>	
Security Enhancement Scheme for Mobile Device Using H/W Cryptographic Module.....	1450
<i>Seungyong Yoon, Byoungkoo Kim, Yousung Kang</i>	
Image Classification on Resource-Constrained Microcontrollers .....	1453
<i>Seungtae Hong, Gunju Park, Jeong-Si Kim</i>	
An Analysis of Network Performance Requirements for Industrial IoT Services Based on 5G Non-Public Network in Smart Energy .....	1456
<i>Sookhyun Jeon, Ji-Myong Kim, Jaeseung Song, Younghyun Kim</i>	
Secure Dimensionality Reduction: Applying Linear Discriminant Analysis Over the TFHE Homomorphic Encryption Scheme* .....	1462
<i>Geonwoo Jeon, Mi Yeon Hong, Joon Soo Yoo, Ji Won Yoon, Baekkyung Song</i>	
An Investigation into the Correlation Between MRI Preprocessing and Performance of Alzheimer's Disease Classification CNN Model.....	1468
<i>Hyeon Sung Cho, Jae-Chan Jeong, Hyo Bong Hong</i>	
Study on WiFi-Based Indoor Positioning Prediction Using Machine Learning Techniques .....	1471
<i>Kyounghyun Park, Giyoung Lee, Yangkoo Lee, Daesub Yoon, Seonghun Seo, Jaejun Yoo, Min Jung Kim</i>	
VATMAN : Video-Audio-Text Multimodal Abstractive Summarization with Trimodal Hierarchical Multi-Head Attention.....	1475
<i>Doosan Baek, Jiho Kim, Hongchul Lee</i>	
An Analysis of CFAR Thresholds and Scale Factors with Window Effects in Pulse Compression .....	1479
<i>Kyoungchan Seo, Junho Song, Jong-Mann Kim, Jegyung Son</i>	
New AMR(Automatic Modulation Recognition) Algorithm Based on the Phase Difference Tendency of Unknown Communication Signal.....	1483
<i>Chung-Sup Kim, Kwan-Woong Ryu, Hyuk-Je Kim, Jun-Seok Kim, Sung-Woong Choi</i>	
Wheat Diseases Recognition Using Optimal Features Assisted Modified Soft Attention Network .....	1487
<i>Muhammad Nadeem, Aqib Khan, Ji-Won Kim, L. Minh Dang, Hyeonjoon Moon</i>	
Study on the Possibility of Advancement for Shipyard Workplace Safety Management System Using Drone Images .....	1493
<i>Yoonsook Hwang, Woo-Sung Jung, Dae Seung Yoo</i>	
A Study on Improving the EDISON Data Registration Process Based on Dynamic Design .....	1497
<i>Sunggeun Han, Jeongcheol Lee, Hoon Choi</i>	
Design of an Architecture for Interoperability Between Heterogeneous Metaverse Platforms .....	1500
<i>Heeyoung Jung</i>	
Study on Modeling Formalism and Co-Simulation for the System-Level Test of Maritime Components .....	1504
<i>Jeongsik Kim, Woo-Sung Jung, Namhun Kim</i>	
A Microservice-Based MLOps Platform for Efficient Development of AI Services in an Edge-Cloud Environment .....	1507
<i>Chorwon Kim, Geon-Yong Kim, Sungchang Kim</i>	



Design Issues in Implementation of Decentralized AI-Data Commons Framework.....	1510
<i>Young-Ho Suh, Sungpil Woo, Boyun Eom, Dong-Hwan Park, Sunhwan Lim, Chan-Won Park</i>	
ADA: Augmented-Reality Development Adaptor for Supporting AR Glass.....	1513
<i>Heeyoon Jeong, Kwang-Soon Choi, Yeseul Son, Yoonmo Yang</i>	
Prompt-Based Segmentation and Inpainting : A New Approach to Disaster Image Creation .....	1517
<i>Minji Choi, Ji Hoon Choi, Ru-Bin Won, Byungjun Bae</i>	
Simulation of User Arrangement in Virtual Reality for Design Metaverse Network : Focus on Statistical Distribution.....	1521
<i>Sangwon Oh, Il-Kwon Jeong, Ibrahim Aliyu, Cho-Rong Yu, Tai-Won Um, Jinsul Kim</i>	
Segmentation-Based Masked Sampling for Text-To-Animated Image Synthesis in Disaster Scenarios .....	1524
<i>Ru-Bin Won, Ji Hoon Choi, Minji Choi, Byungjun Bae</i>	
A Study on Visual Attention for Measuring Responsiveness in Online Performance Environment.....	1528
<i>Tayhyeong Kim, Yongwan Kim, Wonkuk Boo, Jinsung Choi, Ryongha Kim, Ki-Hong Kim, Daehwan Kim</i>	
A Study of W-Band FMCW Radar System in 65-Nm CMOS Technology for W-Band Level Sensor.....	1531
<i>Soo-Jeong Kim, Kwang-Ho Ahn, Soo-Chang Chae, Ki-Jin Kim</i>	
A Study on Prototype Jammer System .....	1534
<i>Kangwoon Hong, Jong-Kook Lee, Hea-Sook Park</i>	
A Design of 80 GHz Cascode LNA for W-Band Level Sensing System.....	1537
<i>Chung Geun Jang, Kj-Jin Kim, Kwang-Ho Ahn, Soo-Chang Chae</i>	
Proposal of Descriptive Approach for XR Device Sensor Data Handling and Compatibility .....	1540
<i>Yeseul Son, Heeyoon Jeong, Yoonmo Yang, Kwang-Soon Choi</i>	
Modeling and Performance Evaluation of 6-Axis Robot Attitude Sensor.....	1544
<i>Wonpil Yu, Song Li</i>	
A Smart Speaker Lamp for Assisting Bedtime Smartphone Non-Use: A Feasibility Study .....	1547
<i>Gyeyoung Jung, Seungsu Kim, Minju Song, Yuju Kang, Jaeyong Lee, Jaejeung Kim</i>	
A Design of High Power 65nm CMOS 79GHz Power Amplifier .....	1553
<i>Ji Hye Hwang, Gwang Ho Ahn, Soo Chang Chae, Ki Jin Kim</i>	
Fast Bit Inversion Vulnerability Pre-Estimation Using Tcl and UPF in RTL Simulation Runtime .....	1556
<i>Myeongjin Kang, Nayoung Kwon, Seungmin Lee, Daejin Park</i>	
A Design of High Resolution ADC-Assisted Gated-Ring Oscillator TDC with Digital Calibration.....	1562
<i>Na Hyun Kim, Dong-Gyu Kim, Kang Yoon Lee</i>	
Design of a Drone-Based Real-Time Service System for Facility Inspection .....	1566
<i>Dong-Wan Ryoo, Moon-Soo Lee, Chae-Deok Lim</i>	
A Design of Low Noise InP HEMT LNA Based on Device Modeling .....	1569
<i>Ji-Seung Seo, Soo-Chang Chae, Kwang-Ho Ahn, Ki-Jin Kim</i>	
Lightweighted Shallow CTS Techniques for Checking Clock Tree Synthesizable Paths and Optimizing Clock Tree in RTL Design Time.....	1572
<i>Nayoung Kwon, Daejin Park</i>	

Selective Carrier Frequency Offsets to a Subgroup of Navigation Satellite Signals Under Constant Envelope Multiplexing .....	1578
<i>Hyungsoo Lim</i>	
A Survey on Doppler Mitigation Approaches in Satellite Communications .....	1581
<i>Yeonwoong Kim, Junggon Seo, Byungha You, Haejoon Jung, In-Ho Lee, Jung-Bin Kim</i>	
Location-Based Trigger Conditions for Handover in Non-Terrestrial Network .....	1584
<i>Hee Wook Kim, Joon Gyu Ryu</i>	
Dual-Band Single-Layer Reflectarray Antenna for LEO Satellite Communication .....	1586
<i>Bagas Satriyotomo, Seongmin Pyo</i>	
Impact of RIS on Outage Probability and Ergodic Rate in Wireless Powered Communication.....	1590
<i>Waqas Khalid, Manish Nair, Trinh Van Chien, Heejung Yu</i>	
RIS Channel Modeling Based on 3GPP Channel Model.....	1593
<i>Jihyung Kim, Juho Park, Jinkyu Kang</i>	
A Common Phase Error Estimation Scheme with MMSE Equalizer .....	1595
<i>Juho Park, Junhwan Lee, Moon-Sik Lee</i>	
Service Procedures for On-Board UEs in the 3GPP Mobile IAB Systems .....	1598
<i>Yousun Hwang, Sung-Min Oh</i>	
Survey on Protocol Architectures for Cellular-Based Low Earth Orbit Satellite Communications.....	1601
<i>Yousun Hwang, Sung-Min Oh</i>	
Application of Adaptive Polar Code Based CV-QKD Scheme for LEO Satellite Systems .....	1604
<i>Qiang Wang, Thara Son, Meixiang Zhang, Sooyoung Kim</i>	
Patent Trends on Reconfigurable Intelligent Surface .....	1610
<i>Juho Park, Jihyung Kim, Eunkyong Ko, Kyeong Taik Oh, Jae-Eon Oh</i>	
Modeling of Inter-Satellite Link Protocol for Satellite Constellation.....	1612
<i>Seunghwa Jung, Eugene Bang, Yoola Hwang</i>	
A Network Architecture of NOMA-CDRT Based on 3GPP New Radio Standards .....	1614
<i>Gungoo Lee, Jung-Bin Kim</i>	
Empowering User Capabilities Via Non-Orthogonal Multiple Access in 3GPP Non-Terrestrial Networks .....	1617
<i>Gyeongrae Im, Dong Hyun Jung, Jung-Bin Kim, Joon Gyu Ryu</i>	
A Ka-Band 4-Channel CMOS Beamforming Front-End IC with Built-In Linearizer for Data Relay Satellite System .....	1620
<i>Seong-Mo Moon, Euijin Oh, Junhan Lim, Dongpil Chang, Wonseob Lee, Jinseok Park</i>	
A Survey of the Applications of Evolutionary Computation in Satellite Domain .....	1622
<i>Yu Sun, Zhenyu Cao, Shilun Song, Hu Jin</i>	
Performance Analysis of Spread Spectrum Random Access for GEO Satellite Communication System .....	1628
<i>Donghoon Kang, Kahee Han, Hyungsoo Lim, Yoola Hwang</i>	
AI-Based Algorithm for GNSS Spoofing Detection.....	1630
<i>Jae Hwan Bong, Doyoung Kim, Seongkyun Jeong</i>	

Visibility and Connectivity Analysis of LEO Satellite Networks Under LoRa Protocols .....	1633
<i>Junse Lee, Sooyeob Jeong, Joon Gyu Ryu</i>	
An Enhancement of the Location-Based Measurement Initiation in an Earth-Moving Cell .....	1635
<i>Seungkwon Cho, Mi-Young Yun, Junhwan Lee</i>	
Design of 5G Non-Terrestrial Network Handover Using Transparent Satellite .....	1638
<i>Kyung-Rak Lee, Hee-Wook Kim, Joon-Gyu Ryu, Jin-Young Kang</i>	
L-Band Planar Array Antenna with High Efficiency for DCS_VSAT Applications.....	1640
<i>Soon Young Eom, Dong Pil Chang</i>	
Performance Evaluation of Location-Based Conditional Handover Scheme Using LEO Satellites .....	1642
<i>Jongtae Lee, Wonjae Lee, Jae-Hyun Kim</i>	
Comparative Analysis on the Resource Allocations for Interference-Limited LEO Satellite Systems .....	1645
<i>Gyuseong Jo, Sooyoung Kim, Hee Wook Kim, Daesub Oh</i>	
MMSE-Based MIMO Receiver for Cooperative Downlink NOMA in LEO Satellite Networks.....	1650
<i>Jeong Seon Yeom, Yujin Lee, Bang Chul Jung</i>	
STAR-RIS-Enabled NOMA with Signal Constellation Adjustment for 6G LEO Satellite Networks .....	1653
<i>Ju Yeong Baek, Young-Seok Lee, Bang Chul Jung</i>	
Ka-Band Compact Phase Shifter Based on Multi-Step and Flip Symmetric Structures.....	1656
<i>Hakmin Lee, So-Hyeun Yun, Changsoo Kwak, Dongpil Chang, Manseok Uhm, Byoung-Sun Lee</i>	
Vision-Assisted Beam Prediction for UAV-Enabled Millimeter-Wave Communications Using SE-ResNet50 .....	1659
<i>Zahra Zarei, Fitsum Debebe Tilahun, Chung G. Kang</i>	
SpatioTemporal Transformer-Based Regressive Domain Adaptation for Remaining Useful Life Prediction .....	1662
<i>Hyunyong Lee, Nac-Woo Kim, Jungi Lee, Seok-Kap Ko</i>	
A Convolutional Transformer-Based Model for Estimation of Soiling-Driven PV Power Loss .....	1665
<i>Hyunyong Lee, Yu Min Hwang, Seok-Kap Ko</i>	
Development and Verification of Usage Prediction Service for Intelligent Smart Water Service .....	1668
<i>Youngjoon Choi, Sungsik Park, Junwook Lee, Yongwoo Kim</i>	
Development of Real-Time Freezing Burst Diagnosis Service Using Smart Water Meter Reading Data .....	1673
<i>Sungsik Park, Youngjoon Choi, Junwook Lee, Yongwoo Kim</i>	
The Effect of Noise Injection Method on DRL-Based Controller Robustness of Human Gait Model.....	1677
<i>Young-Jun Koo, Jeong-Woo Lee, Bumho Kim, Yungjoon Jung</i>	
An Analysis of the Impact of Dataset Characteristics on Data-Driven Reinforcement Learning for a Robotic Long-Horizon Task .....	1681
<i>Ingook Jang, Samyeul Noh, Seonghyun Kim, Donghun Lee</i>	
Knowledge-Based Reinforcement Learning for Industrial Robotic Assembly.....	1684
<i>In Jun Park, Hyonyoung Han, Joonmyun Cho, Jun Hee Park</i>	

Bibliometric Study on Artificial Intelligence Technologies for Semiconductor Defects.....	1690
<i>Seongeun Kim, Eunil Park</i>	
Image Annotation Using VQGAN and Backtranslation.....	1696
<i>Dong-Hyuck Im, Yong-Seok Seo</i>	
An Empirical Investigation of Visual Reinforcement Learning for 3D Continuous Control .....	1699
<i>Samyeul Noh, Seonghyun Kim, Ingoon Jang, Donghun Lee</i>	
PINN Application for Compressible Gas Flow Transient Analysis.....	1703
<i>Sangjoon Lee, Byung-Tak Lee, Seok Kap Ko</i>	
Digital Phenotype Collection System Utilizing Smart Devices.....	1709
<i>Jeong Mook Lim, Kyoung Ju Noh, Seungeun Chung, Hyuntae Jeong, Se Won Oh</i>	
Brush Up with AR: Supporting Children's Enjoyable Tooth-Brushing Through Augmented Reality Feedback.....	1712
<i>Yuju Kang, Nari Kim, Ellie Lee, Gyeyoung Jung, Jaeyong Lee, Seungkyun Han, Jaejeung Kim</i>	
Elastic Deformable Augmentation for Autonomous Driving .....	1718
<i>Jungwook Shin, Jaeill Kim, Wonjong Rhee</i>	
LPI Radar Signal Recognition with U <sup>2</sup> -Net-Based Denoising .....	1721
<i>Siho Lee, Haewoon Nam</i>	
Usefulness of Using Nvidia IsaacSim and IsaacGym for AI Robot Manipulation Training .....	1725
<i>Yongsung Son, Hyonyong Han, Joonmyun Cho</i>	
A Lightweight Deep-Learning Radar Gesture Recognition Based on a Structured pruning-NAS .....	1729
<i>Eungang Son, Seungeon Song, Jonghun Lee</i>	
Dual Adaptive Data Augmentation for 3D Object Detection .....	1732
<i>Joohyun Lee, Jin-Hee Lee, Jae-Keun Lee, Je-Seok Kim, Soon Kwon, Sangdong Kim</i>	
Clustering Mobile Traffic Data with Autoencoder Using Time-Series Encoded as Images.....	1738
<i>Sang-Yeon Lee, Hyun-Min Yoo, Jong-Seok Rhee, Geon Kim, Een-Kee Hong, Byungsuk Kim, Kyeongjun Shin</i>	
Development of AutoML Based Multifunctional Complex Dyeing Sensor for Energy Saving .....	1742
<i>Jeong-In Lee, Jin-Soo Han, Wan-Ki Park</i>	
Multi-View Stereo Using Discontinuity-Aware Planar Parameters.....	1746
<i>Hanshin Lim, Hyon-Gon Choo</i>	
An Interactive System for Painterly Image Harmonization.....	1751
<i>Juwon Lee, Jung-Jae Yu, Wonyoung Yoo</i>	
Yield Monitoring Service with Time Series Representation of Growth from Crop Images .....	1755
<i>Seungtaek Oh, Sung Kyeom Kim, Jaewon Moon, Seungwook Choi, Soonho Lee, Seungwoo Kum, Hyun Kwon Suh</i>	
A Study on Imputation-Based Online Learning in Varying Feature Spaces.....	1759
<i>Jung-Hoon Lee, Sungyup Lee, Cheol Ho Kim, O. K. Baek</i>	

Agile <sup>AFP</sup> : ML-Enabled Agile Private/Public 5G/B5G Service and Network Autonomic Federation Platform.....	1765
<i>Taesang Choi, Jeongyoon Kim, Sangsik Yoon, Moonkook Park, Seungyu Ko, Ranganai Chaparadza</i>	
Comparison of KoBERT and BERT for Emotion Classification of Healthcare Text Data.....	1771
<i>Mose Gu, Jaehoon Paul Jeong</i>	
Design and Implementation of Data-Intensive Application Using Memory Expansion Device .....	1776
<i>Hooyoung Ahn, Seonyoung Kim, Yoo-Mi Park, Woojong Han</i>	
A Device Driver for the AB21 SoC in Supreme-K System.....	1781
<i>Youngho Kim, Eunji Lim, Shinyoung Ahn, Yoomi Park</i>	
Federated Learning in Prediction of Dementia Stage: An Experimental Study.....	1785
<i>Boyun Eom, Muhammad Zubair, Dong-Hwan Park, Hyunhak Kim, Young-Ho Suh, Sunhwan Lim, Chanwon Park</i>	
Multi-Robot Benchmark for Collaborative Manipulation Tasks .....	1789
<i>Seonghyun Kim, Ingoon Jang, Samyeul Noh, Donghun Lee, Heechul Bae</i>	
High-Level Visual Representation Via Perceptual Representation Learning .....	1793
<i>Donghun Lee, Seonghyun Kim, Samyeul Noh, Heechul Bae, Ingoon Jang</i>	
Design and Implementaion of a Cloud-Based Metaverse Virtual Performance Platform .....	1796
<i>Yu Cho Rong, Kang Kyung Kyu, Choi In Moon, Gil Youn Hee</i>	
A Design of Platform for Autonomic Management and Control in 5G .....	1799
<i>Jeongyun Kim, Taesang Choi</i>	
Optimization of Video Streaming Using SRT Protocol in Mobile Communication Network .....	1802
<i>Jeong-Hwan Lee, Jihun Cha</i>	
Design and Implementation of O-RAN M-Plane System.....	1805
<i>Seung-Que Lee, Junhwan Lee, Moon-Sik Lee, Hwansuck Yoo</i>	
Phase Drift Compensation of Sub-THz Horn Antenna Pattern in Presence of Phase Center Offset and Orientation Misalignment.....	1808
<i>Kyung-Won Kim, Myung-Don Kim, Jung-Nam Lee</i>	
An Implementation of Assistant Service for Phone Call Receiver .....	1811
<i>Sungwon Byon, Hyun-Ho Park, Eunjung Kwon, Eui-Suk Jung</i>	
Implementation of Single Chip 28 GHz SPDT Switch-Less Front-End Circuits in a 65nm CMOS Process.....	1814
<i>Seunghyn Jang, Bonghyuk Park, Sunwoo Kong, Kwang-Seon Kim, Hui-Dong Lee, Jung-Hwan Hwang</i>	
A Design of TRX Dual Mode Baseband Analog with Dynamic Range and DC Offset Controller for Applying NB-IoT .....	1817
<i>Han-Min Song, Young-Gun Pu, Ji-Hoon Song, Kang-Yoon Lee, Dong-Gyu Kim</i>	
Wireless Embedded Index Coded Transmissions with Multiple Antennas.....	1821
<i>Heekang Song, Kyungrak Son, Wan Choi</i>	
Vehicle Re-Identification with Spatio-Temporal Information .....	1825
<i>Hye-Geun Kim, Youkyoung Na, Hae-Won Joe, Yong-Hyuk Moon, Yeong-Jun Cho</i>	

A Deep Learning Approach Based on Image Patch Sets for Art Forgery Detection.....	1828
<i>Soonchul Jung, Jae Woo Kim, Jin-Seo Kim, Yoon-Seok Choi</i>	
Development of a Hand Motion Tracking Based Teleoperation System for Imitation Learning .....	1832
<i>Jinchul Choi, Heechul Bae, Chan-Won Park</i>	
3D Object Classification and Segmentation from Large Scale Area Reconstruction .....	1835
<i>Hye Sun Kim, Yun Ji Ban, Chang Joon Park, Ho Won Kim</i>	
Gesture Classification Based on System's Emotion and Strategy for Korean Dialogue Systems.....	1838
<i>Yeongbeom Lim, Jin Yea Jang, San Kim, Saim Shin, Minyoung Jung</i>	
Multi-Modal Emotion Recognition Utilizing Korean-English Vision and Language Information Alignment Pre-Trained Model.....	1841
<i>Jeeyoung Yun, San Kim, Minyoung Jung, Saim Shin, Jin Yea Jang</i>	
RGOR: De-Noiseing of LiDAR Point Clouds with Reflectance Restoration in Adverse Weather .....	1844
<i>Seung-Jun Han, Dongjin Lee, Kyoung-Wook Min, Jeongdan Choi</i>	
Preliminary Study for Conversational Korean-Vietnam Neural Machine Translation .....	1850
<i>Seon Hui Kim, Seung Yun, Sang-Hun Kim</i>	
A Study on Few-Shot Object Detection for Warships Based on Data Generation Using Image Outpainting.....	1855
<i>Sungwon Moon, Dowon Nam, Jiwon Lee, Wonyoung Yoo, Jungsoo Lee</i>	
Lower Body Action Classification Using Unlabeled Predicted Motion .....	1858
<i>Ho-Chul Shin, Hur Ki Soo, Dong-Woo Lee, Son Yong Ki</i>	
Stacking Ensembles-Based Approach for Pattern Diagnosis of Tabular Data.....	1861
<i>Junkoo Lee, Tai-Myoung Chung</i>	
Automatic Highlight Generation of Soccer Videos .....	1867
<i>Jiwoo Park, Younkyung Jwa, Jiin Kwak, Jihun Lim, Sehee Kim</i>	
Complex Motion-Aware Splatting for Video Frame Interpolation .....	1872
<i>Minho Park, Yuseok Bae</i>	
Few Images Based 3D Reconstruction of Korean Wooden Architecture Bracketing System(Gongfo) .....	1877
<i>Jong Gook Ko, Seung Jae Lee</i>	
Code Repository Vulnerability Focusing on RepoJacking .....	1880
<i>Minjae Kim, Wookhyun Jung, Shinho Lee, Taehyeong Kwon, Eui Tak Kim</i>	
A Viewport Adaptive Low-Latency Streaming System for Large-Scale Multi-View Service.....	1885
<i>Jewon Lee, Eunhee Hyun, Soon-Choul Kim, Joon-Young Jung</i>	
A Study on Military Object Detection in Panoramic View Using Stable Diffusion .....	1889
<i>Jiwon Lee, Sungwon Moon, Dowon Nam</i>	
CongNaMul: A Dataset for Advanced Image Processing of Soybean Sprouts.....	1892
<i>Byunghyun Ban, Donghun Ryu, Su-Won Hwang</i>	
Improved Classification Algorithm for Restricted Coulomb Energy-Based Neural Network.....	1898
<i>Kyou Jung Son, Byung-Soo Kim, Seokhun Jeon, Jae-Hack Lee</i>	

Comparative Analysis of WAVE and 5G Mobile Communication Performance for Advanced V2X  
Communication ..... 1901  
*Taeuk Park, Mahn-Suk Yoon, Hyunjoo Lee*

An Improvement of a Lightweight NFC Authentication Algorithm Based on Modified Hash  
Function..... 1904  
*Min-Shiang Hwang, Hou-Wen Li, Cheng-Ying Yang*

Performance Analysis of Space–Time Line Code Systems with Phase-Shift Keying Modulation..... 1908  
*Chan Hyung Kim, Yojin Lim, Seung-Chan Lim, Jingon Joung*

**Author Index**