

# Technical Paper Session

Paper NO.	Session	Session Name	Title	Authors with affiliation and country
1570641900	Session I-1	Artificial Intelligence and Machine Learning 1	A Hybrid Deep Learning Approach for Driver Distraction Detection	Jimiama Mafeni Mase, Peter Chapman, Graziela Figueredo and Mercedes Torres Torres (University of Nottingham, United Kingdom (Great Britain))
1570653056	Session I-1	Artificial Intelligence and Machine Learning 1	For Safer Navigation: Pedestrian-View Intersection Classification	Marcella Astrid, Jin-Ha Lee and Muhammad Zaigham Zaheer (University of Science and Technology, Korea (South)); Jae-Yeong Lee and Seung-Ik Lee (ETRI, Korea (South))
1570654784	Session I-1	Artificial Intelligence and Machine Learning 1	Machine learning-based Scheme for Fault Detection for Turbine Engine Disk	Carla Estefania Garcia, Mario Rodrigo Camana and Insoo Koo (University of Ulsan, Korea (South))
1570655210	Session I-1	Artificial Intelligence and Machine Learning 1	Low-Rank Matrix Completion Using Graph Neural Network	Luong Nguyen and Byonghyo Shim (Seoul National University, Korea (South))
1570669486	Session I-1	Artificial Intelligence and Machine Learning 1	A Study on Energy-Process-Latency Tradeoff in Embedded Artificial Intelligence	Jinhwi Kim (DGIST, Korea (South)); Apostolos Galanopoulos and Jude Joseph (Trinity College Dublin, Ireland); Jeongho Kwak (DGIST, Korea (South))
1570669640	Session I-1	Artificial Intelligence and Machine Learning 1	Medicinal Plant identification in the wild by using CNN	Trung Quoc Nguyen (Ho Chi Minh Open University, Vietnam); Vinh Truong Hoang (Ho Chi Minh City Open University, Vietnam)
1570650393	Session I-2	5G, 4G, WLAN 1	Performance Analysis of K Means Clustering Algorithms for mMTC Systems	Haesik Kim (VTT Technical Research Centre of Finland, Finland)
1570655671	Session I-2	5G, 4G, WLAN 1	Hybrid Wireless Indoor Positioning System Combining BLE Beacons And Wi-Fi APs	Santosh Subedi and Suk-seung Hwang (Chosun University, Korea (South)); Jae-Young Pyun (Chosun University, Korea (South))
1570655685	Session I-2	5G, 4G, WLAN 1	Pilot-based Sequence Design to Overcome a Blockage in mmWave Cellular Systems	Qasim Sultan (Chung-Ang University, Korea (South)); Yeong Jun Kim (LG Electronics, Korea (South)); Yong Soo Cho (Chung-Ang University, Korea (South))
1570655686	Session I-2	5G, 4G, WLAN 1	Fast Beamforming Technique for Millimeter Wave Systems with Large Antenna Arrays	Qasim Sultan, Mohammed Saquib Khan and Yong Soo Cho (Chung-Ang University, Korea (South))
1570656562	Session I-2	5G, 4G, WLAN 1	IEEE802.11 priority control by using even-odd selection backoff slot in a home environment	Yuki Kawahara and Takatoshi Sugiyama (Kogakuin University, Japan)
1570654454	Session I-3	Internet of Things 1	Location-aware Task Assignment and Routing in Mobile Crowd Sensing	Shathee Akter and Seokhoon Yoon (University of Ulsan, Korea (South))
1570654625	Session I-3	Internet of Things 1	Weighted-center Loss For Facial Expressions Recognition	Quan T. Ngo and Seokhoon Yoon (University of Ulsan, Korea (South))
1570662280	Session I-3	Internet of Things 1	Application of complex systems in neural networks against Backdoor attacks	Sara Kaviani and Insoo Sohn (Dongguk University, Korea (South)); Huaping Liu (Oregon State University, USA)
1570669019	Session I-3	Internet of Things 1	Low-cost Hardware Redundancy for Fault-mitigation in Power-constrained IoT Systems	Umar Afzaal and Jeong-A Lee (Chosun University, Korea (South))
1570655593	Session I-4	Maritime & Military Communications Systems	Cell Search Technique for Underwater Acoustic Cellular Systems in High-Doppler Environments	Muhammad Asim (Chung-Ang University, Korea (South)); Yong Soo Cho (Chung-Ang University, Korea (South))
1570666782	Session I-4	Maritime & Military Communications Systems	Hybrid Communication and Localization Underwater Network Nodes based on Magnetic Induction and Visible Light for AUV Support	Maurice Hott and Andrej Harlakin (Kiel University, Germany); Peter A. Hoeher (University of Kiel, Germany)
1570670208	Session I-4	Maritime & Military Communications Systems	LDPC Coded OFDM-IM Performance Evaluation Under Jamming Attack	Ahmet Kaplan, Mehmet Can, İbrahim Altunbaş and Gunes Karabulut Kurt (Istanbul Technical University, Turkey); Defne Kucukyavuz (Aselsan Inc., Turkey)
1570663688	Session I-4	Maritime & Military Communications Systems	PITI: Protecting Internet of Things via Intrusion Detection System on Raspberry Pi	Vasaka Visoottiviseth, Gannasut Chutaporn, Sorakrit Kungvanruttana and Jirapas Paisarduangjan (Mahidol University, Thailand)
1570656537	Session I-5	Wireless & Mobile Communication Systems 1	System Implementation of Synchronized SS-CDMA for QZSS Safely Confirmation System	Hiroshi Oguma and Rei Kawai (National Institute of Technology, Toyama College, Japan); Takeshi Asai (Next Dimension Co. Ltd., Japan); Mizuki Motoyoshi, Suguru Kameda and Noriharu Suematsu (Tohoku University, Japan)
1570661709	Session I-5	Wireless & Mobile Communication Systems 1	Towards a Framework for SLAM Performance Investigation on Mobile Robots	Duc-Tuan Ngo (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam); Hoang-Anh Pham (Ho Chi Minh City University of Technology & Vietnam National University Ho Chi Minh City, Vietnam)
1570664126	Session I-5	Wireless & Mobile Communication Systems 1	On the Error Performance of Non-orthogonal Multiple Access Systems	Abdulateef Almohamad (Qatar University, Qatar); Saud Althunibat (Al-Hussein Bin Talal University, Jordan); Mazen Omar Hasna (Qatar University, Qatar); Khalid A. Qaraqe (Texas A&M University at Qatar, USA)
1570664173	Session I-5	Wireless & Mobile Communication Systems 1	Heuristic Approach to Distributed Server Allocation with Preventive Start-Time Optimization against Server Failure	Souhei Yanase, Fujun He and Eiji Oki (Kyoto University, Japan)

1570664336	Session I-5	Wireless & Mobile Communication Systems 1	Influence of Meteorological Attenuation on the Channel Characteristics for High-Speed Railway at the Millimeter-Wave Band	Lei Ma, Ke Guan, Danping He and Bo Ai (Beijing Jiaotong University, China); Junhyeong Kim and Hee Sang Chung (ETRI, Korea (South))
1570654821	Session II-1	Information & Communication Theory 1	Transmit Beamforming for a MISO SWIPT System with a Power Beacon	Mario Rodrigo Camana, Carla Estefania Garcia and Insoo Koo (University of Ulsan, Korea (South))
1570656307	Session II-1	Information & Communication Theory 1	Dynamic Power Allocation Scheme for NOMA Uplink in Cognitive Radio Networks Using Deep Q Learning	Hoang Thi Huong Giang (University of Ulsan, Korea (South)); Pham Duy Thanh (University of Ulsan, Korea (South)); Insoo Koo (University of Ulsan, Korea (South))
1570662630	Session II-1	Information & Communication Theory 1	Efficient User Clustering and Reinforcement Learning Based Power Allocation for NOMA Systems	Sifat Rezwani, Seokjoo Shin and Wooyeol Choi (Chosun University, Korea (South))
1570662995	Session II-1	Information & Communication Theory 1	FBMC-OQAM PAPR Reduction Schemes	Nahla Al Harthi and Zhongfeng Zhang (Hanyang University, Korea (South), Korea (South)); Seungwon Choi (Hanyang University, Korea (South))
1570668811	Session II-1	Information & Communication Theory 1	Error-Correction Method Based on LDPC for Quantum Key Distribution Systems	Bohdan Bilash and Byung Kwon Park (KIST, Korea (South)); Chang Hoon Park (Ajou University & KIST, Korea (South)); Sang-Wook Han (KIST, Korea (South))
1570653182	Session II-2	Network Virtualization and Future Internet Technologies	Cognitive User Selection Based on Throughput Estimation in Cognitive Radio Networks	Muhammad Sajjad Khan and Liaqat Khan (International Islamic University Islamabad, Pakistan); Eung Hyuk Lee, Junsu Kim and Su Min Kim (Korea Polytechnic University, Korea (South))
1570656599	Session II-2	Network Virtualization and Future Internet Technologies	Accelerating Message Propagation in Blockchain Networks	Carlos Santiago and Choonhwa Lee (Hanyang University, Korea (South))
1570662858	Session II-2	Network Virtualization and Future Internet Technologies	Application Layer Benefits of Redundant Disjoint Paths in a Real-Time Ethernet	Stefan Farthofer and Diego Teixeira Barreto Lima (Salzburg Research, Austria); Jia Lei Du (Salzburg Research Forschungsgesellschaft m. b. H., Austria)
1570672173	Session II-2	Network Virtualization and Future Internet Technologies	Testbed-based Performance Evaluation of the Information-Centric Network	Nazib Abdun Nasir and Seong-Ho Jeong (Hankuk University of Foreign Studies, Korea (South))
1570672397	Session II-2	Network Virtualization and Future Internet Technologies	Proactive Caching in the Vehicular Networks based on Content Locality	Kamrul Hasan and Seong-Ho Jeong (Hankuk University of Foreign Studies, Korea (South))
1570672471	Session II-2	Network Virtualization and Future Internet Technologies	Survey on Organ Matching and Allocation Algorithms in Blockchain-based Systems for Organ Donation and Transplantation	Niyigena Clemence (Korea University of Technology and Education, Korea (South)); Soonek Seol (Korea University of Technology and Education, Korea (South)); Artem Lenskiy (Australian National University, Australia)
1570660228	Session III-1	Artificial Intelligence and Machine Learning 2	Sound Event Detection in Cowshed using Synthetic Data and Convolutional Neural Network	Yagya Raj Pandeya (Jeonbuk National University, Jeonju, South Korea & Guru Technologies, Korea (South)); Bhuwan Bhattarai (Jeonbuk National University, Korea (South)); Joon Whoan Lee (Chonbuk National University, Korea (South))
1570662988	Session III-1	Artificial Intelligence and Machine Learning 2	Fault Diagnosis of Rotating Machine Using an Indirect Observer and Machine Learning	Shahnaz Tayebihaghighi and Insoo Koo (University of Ulsan, Korea (South))
1570665354	Session III-1	Artificial Intelligence and Machine Learning 2	Early Detection At-Risk Students using Machine Learning	Siripen Pongpachet, Sawarin Jankapor, Sarun Janchai and Todsaporn Tongsanit (Mahidol University, Thailand)
1570669250	Session III-1	Artificial Intelligence and Machine Learning 2	AMC-IoT: Automatic Modulation Classification Using Efficient Convolutional Neural Networks for Low Powered IoT Devices	Muhammad Usman and Jeong-A Lee (Chosun University, Korea (South))
1570669405	Session III-1	Artificial Intelligence and Machine Learning 2	Implementation of Generalized Regression Neural Network (GRNN) for Solar Panel Power Estimation	Ronnie O. Serfa Juan (Cheongju University, Korea (South))
1570669501	Session III-1	Artificial Intelligence and Machine Learning 2	Deep Learning for Constellation-based Modulation Classification under Multipath Fading Channels	Thien Huynh-The (Kumoh National Institute of Technology, Korea (South)); Cam-Hao Hua (Kyung Hee University, Korea (South)); Van-Sang Doan (Kumoh National Institute of Technology, Korea (South)); Quoc-Viet Pham (Pusan National University, Korea (South)); Nguyen Toan Van (Hongik University, Korea (South)); Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570656613	Session III-2	5G, 4G, WLAN 2	A Comparison of Congestion Control Algorithms in Emulated Wi-Fi Networks	Yuki Horie (Chiba University, Japan); Hien Do Thi Thu (University of Information Technology, VNU-HCM, Vietnam); Kien Nguyen and Hiroo Sekiya (Chiba University, Japan)
1570668429	Session III-2	5G, 4G, WLAN 2	Ad-Hoc Networking with Redundant 4G LTE Gateway using BATMAN-Adv for Machine-To-Machine Networking	William Crowe and Tae Oh (Rochester Institute of Technology, USA)
1570669082	Session III-2	5G, 4G, WLAN 2	Proportional Fair Secondary Receiver Selection Algorithm for Full-duplex WLAN	Jin-Ki Kim (Ajou University, Korea (South)); Yoohwan Kim and Ju-Yeon Jo (University of Nevada, USA); Jae-Hyun Kim (Ajou University, Korea (South))

1570670758	Session III-2	5G, 4G, WLAN 2	DNN-based Beam and Blockage Prediction in 3GPP InH Scenario	Huaping Liu (Oregon State University, USA); Sangmi Moon, Hyeonsung Kim and Intae Hwang (Chonnam National University, Korea (South))
1570672143	Session III-3	Internet of Things 2	A Target-Oriented Selection Strategy for Multiple-Packet Aggregation in Wireless Sensor Networks	Min Li, Can Xiong and Yang Xiao (Chongqing University of Posts and Telecommunications, China)
1570672170	Session III-3	Internet of Things 2	Three-dimensional Scanner for Multipath Fading Measurement	Issei Makino and Nobuhiko Miki (Kagawa University, Japan)
1570672379	Session III-3	Internet of Things 2	Improved Pseudo-Bayesian Access Class Barring for Bursty M2M Communications	Yangqian Hu (Hanyang University, Korea (South)); Jie Liu and Hu Jin (Hanyang University, Korea (South))
1570672407	Session III-3	Internet of Things 2	Seamless Biometric IoT Authentication with Machine Learning Techniques	Rin Nadia (Sejong University, Korea (South)); Bayu Adhi Tama (Institute for Basic Science (IBS), Korea (South)); JaeSeung Song (Sejong University, Korea (South))
1570663797	Session IV-1	Information & Communication Theory 2	Outage Probability over Nakagami - m Fading Channel in the Random Direction Mobile Model	Jie Yao, Chunxiao Li, Shixiao Du and Wen Wu (Yangzhou University, China); Rui Gao (School of Information Engineering, Yangzhou University, China)
1570664974	Session IV-1	Information & Communication Theory 2	Reinforcement Learning based Real Time Aerial BS Positioning for Dense Urban 5G Mobile Network	Dokyun Ryoo and Seungwoo Baek (Seoul National University, Korea (South)); Yonghun Lee (University of Washington, USA); Seongjoon Kang (New York University Tandon School of Engineering, USA); Byungjun Kim (University of California, San Diego, USA); Saewoong Bahk (Seoul National University, Korea (South))
1570670173	Session IV-1	Information & Communication Theory 2	Performance Evaluation of Channel Bonding in Dense Scenario	Jinmyeong Lee and Kanghyun Lee (Seoul National University, Korea (South)); Yonghun Lee (University of Washington, USA); Seongjoon Kang (New York University Tandon School of Engineering, USA); Byungjun Kim (University of California, San Diego, USA); Saewoong Bahk (Seoul National University, Korea (South))
1570670185	Session IV-1	Information & Communication Theory 2	Performance of OVS-DPDK in Container Networks	Quang Huy Nguyen (Soongsil University, Korea (South)); younghan Kim (Soongsil University, Korea (South))
1570670294	Session IV-1	Information & Communication Theory 2	Construction of Selection-Scheduling of Accessing Node for high efficiency information Exchanging in <u>Overloaded Wireless MIMO Switching</u>	Arata Takahashi, Osamu Takyu and Hiroshi Fujiwara (Shinshu University, Japan)
1570656523	Session IV-2	Applications for ICT Convergence 1	An Accurate Indoor User Position Estimator For Multiple Anchor UWB Localization	Alwin Poulouse (Kyungpook National University, Korea (South)); Žiga Emeršič (University of Ljubljana & Faculty of Computer and Information Science, Slovenia); Odongo Steven Eyobu (Makerere University, Uganda); Dong Seog Han (Kyungpook National University, Korea (South))
1570658428	Session IV-2	Applications for ICT Convergence 1	Police Procurement System	P. Jadhav, Pr. Jadhav, S. Mhantati and K. Papat (Cummins College of Engineering, India); Sneha Kiran Thombre (IIT Guwahati & Cummins College of Engineering for Women, India)
1570662809	Session IV-2	Applications for ICT Convergence 1	Convolutional Neural Network-based UWB System Localization	Doan Tan Anh Nguyen, Han-Gyeol Lee and Jongun Joung (Chung-Ang University, Korea (South)); Eui-Rim Jeong (Hanbat National University, Korea (South))
1570662991	Session IV-2	Applications for ICT Convergence 1	Deep Learning-based Indoor Positioning System Using Multiple Fingerprints	Zhongfeng Zhang and Minjae Lee (Hanyang University, Korea (South), Korea (South)); SeungWon Choi (Hanyang University, Korea (South))
1570650001	Poster Session P-1	Communications System	An Improved Channel Estimation Method for Cell-Free Uplink Systems With Scalar Quantizers	Bumjun Kim, Daesung Yu and Seok-Hwan Park (Jeonbuk National University, Korea (South))
1570652031	Poster Session P-1	Communications System	Receiver Design of the WR-OFDM System Robust to Long Delay Multipath	Changyoung An, Hyeong Min Kwon and Heung-Gyoon Ryu (Chungbuk National University, Korea (South))
1570654415	Poster Session P-1	Communications System	Experiments on The Effectiveness of The Variable Contents Digital Cluster	Kyongho Kim (ETRI, Korea (South)); YoungJin Kwon (ETRI, Korea (South)); Yoonsook Hwang (ETRI, Korea (South)); Do Hyun Kim (ETRI, Korea (South))
1570654736	Poster Session P-1	Communications System	Duplex communication method for railway vehicle communication system	MinSuk Choi (ETRI, Korea (South)); Byungsik Yoon (ETRI & Hanyang University, Korea (South)); Dongil Sung and Dongjoon Kim (Korea Railway Network Authority, Korea (South))
1570654914	Poster Session P-1	Communications System	Compact Design of Random Access Channel in 5G New Radio	Gweondo Jo (ETRI, Korea (South))

157065590	Poster Session P-1	Communications System	Random Beam-based Non-orthogonal Multiple Access for Low Latency Downlink MISO Broadcast Channels	Jung Hoon Lee (Hankuk University of Foreign Studies, Korea (South)); Yunjoo Kim (ETRI, Korea (South)); Jong Yeol Ryu (Gyeongsang National University, Korea (South))
157065596	Poster Session P-1	Communications System	Fast Initial Access Technique for Millimeter-Wave Systems Using Retrodirective Arrays	Yeong Jun Kim (LG Electronics, Korea (South)); Hyun Jun Lee (Chung-Ang University, Korea (South)); Yong Soo Cho (Chung-Ang University, Korea (South))
1570656478	Poster Session P-1	Communications System	Long-Term Evolution Vulnerability Focusing on System Information Block Messages	Minjae Kim (University of Science and Technology, Korea (South)); Jong-Geun Park (ETRI, Korea (South)); Daesung Moon, JongSoo Jang, Youngsoo Kim and Jong-Hoon Lee (ETRI, Korea (South))
1570656584	Poster Session P-1	Communications System	Position-Based Visual Servoing of Multiple Robotic Manipulators: Verification in Gazebo Simulator	Samyeul Noh (ETRI, Korea (South)); Chan-Won Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))
1570656612	Poster Session P-1	Communications System	Electrical Properties of Building Materials for Analysis of Effects on Radio Wave Propagation	Ju Yeon Hong, Chung-Sup Kim, Jong-Su Lim, Jun Seok Kim and Young Jun Chong (ETRI, Korea (South))
1570659894	Poster Session P-1	Communications System	SFFT-Based OTFS Communication System Robust to High Doppler and Long Delay Channel	Byounghak Park, Hyeong Min Kwon and Heung-Gyoon Ryu (Chungbuk National University, Korea (South))
1570662241	Poster Session P-1	Communications System	Design and Performance Analysis of Millimeter Wave Band Voltage-Controlled Oscillator	Sung-hun Lee (Kwangwoon University, Korea (South)); Seong Shin Lim (Kyungpook National University, Korea (South)); Seung-Soo Kim (Kwangwoon University, Korea (South))
1570663514	Poster Session P-1	Communications System	Proof-of-concept demonstration of a 22-GHz vehicular communication system over an urban roadway testbed	Hee Sang Chung, Sung Woo Choi, Seung Nam Choi and Dae-Soon Cho (ETRI, Korea (South)); Seon-Ae Kim (ETRI, Korea (South)); Jung Pil Choi (ETRI, Korea (South)); Gosan Noh (ETRI, Korea (South)); Junhyeong Kim (ETRI, Korea (South)); Ilgyu Kim (ETRI, Korea (South))
1570663791	Poster Session P-1	Communications System	Highly Immersive Telepresence with Computation Offloading to Multi-Access Edge Computing	Younggi Kim, Younghyun Joo, Hyoyoung Cho and Intaik Park (Samsung Electronics, Korea (South))
1570663921	Poster Session P-1	Communications System	Learning Control Policy with Previous Experiences from Robot Simulator	Donghun Lee (ETRI, Korea (South)); Hyunseok Kim (ETRI, Korea (South)); Seonghyun Kim and Chan-Won Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))
1570664361	Poster Session P-1	Communications System	DNN-based Phase Noise Compensation for Sub-THz Communications	HyeongSook Park, Eun-young Choi and Young Seog Song (ETRI, Korea (South)); Song Noh and Kyungsik Seo (Incheon National University, Korea (South))
1570664687	Poster Session P-1	Communications System	An Experimental Study on Reinforcement Learning on IoT Devices with Distilled Knowledge	Ingook Jang and Seonghyun Kim (ETRI, Korea (South)); Hyunseok Kim (ETRI, Korea (South)); Chan-Won Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))
1570664751	Poster Session P-1	Communications System	Channel Statistics based Adaptive Feedback for Cooperative Massive MIMO Systems	Jinho Kang (KAIST, Korea (South)); Wan Choi (Seoul National University, Korea (South))
1570664763	Poster Session P-1	Communications System	Enabling 5G Techniques to Support HD Video Streaming to High Speed Train Users	Juho Park, Junghoon Lee and JunHwan Lee (ETRI, Korea (South)); Moon-Sik Lee (ETRI & Stanford University, Korea (South))
1570664836	Poster Session P-1	Communications System	Performance Comparison of SU- and MU-MIMO in 802.11ax: Delay and Throughput	Yein Heo (POSTECH, Korea (South)); Jonggyu Jang (UNIST, Korea (South)); Yeongjun Kim (UNIST, Korea (South)); Hyun Jong Yang (UNIST, Korea (South))
1570666350	Poster Session P-1	Communications System	Learning Robot Manipulation based on Modular Reward Shaping	Seonghyun Kim and Ingook Jang (ETRI, Korea (South)); Hyunseok Kim (ETRI, Korea (South)); Chan-Won Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))
1570666693	Poster Session P-1	Communications System	A Carrier Frequency Offset based Key Masking Scheme for Physical-Layer Authentication in Spatially Correlated Channels	Seungnam Han (GIST, Korea (South)); Yonggu Lee (KAERI, Korea (South)); Euseok Hwang (GIST, Korea (South))
1570668810	Poster Session P-1	Communications System	Research on Plug-and-Play Twin-Field Quantum Key Distribution	Chang Hoon Park (Ajou University & KIST, Korea (South)); Min Ki Woo (Ajou University, Korea (South)); Byung Kwon Park and Yong-Su Kim (KIST, Korea (South)); Sangin Kim (Ajou University, Korea (South)); Sang-Wook Han (KIST, Korea (South))
1570668888	Poster Session P-1	Communications System	Reliability Enhancement Scheme for Wireless Backhaul in High Speed Train	Jae-Su Song and SeungKwon Baek (ETRI, Korea (South))
1570669259	Poster Session P-1	Communications System	Collision Avoidance in IEEE 802.11 DCF using a Reinforcement Learning Method	Chang Kyu Lee and Seung Hyong Rhee (Kwangwoon University, Korea (South))
1570669312	Poster Session P-1	Communications System	An Uplink Transmission Scheme for TSN Service in 5G Industrial IoT	Mi-Jeong Yang and S Lim (ETRI, Korea (South)); Sung-Min Oh (ETRI, Korea (South)); JaeSheung Shin (ETRI, Korea (South))
1570669484	Poster Session P-1	Communications System	Security Threats in 5G Edge Computing Environments	Youngsoo Kim (ETRI, Korea (South)); Jong-Geun Park (ETRI, Korea (South)); Jong-Hoon Lee (ETRI, Korea (South))

1570669553	Poster Session P-1	Communications System	Autonomous Mobile Robot Navigation in Indoor Environments: Mapping, Localization, and Planning	Samyeul Noh and Jiyoung Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))
1570669600	Poster Session P-1	Communications System	On the Effect of Shadowing Correlation on Hybrid Precoding Performance for Cell-free mmWave massive MIMO UDN System	Seung-Eun Hong (ETRI, Korea (South))
1570669679	Poster Session P-1	Communications System	Second-order Passive Intermodulation Distortion Modeling Using a Quadratic Volterra Filter for Wireless Relay Systems	Jinzi Song, BoBae Kim, Zhihui Jin and Sungbin Im (Soongsil University, Korea (South))
1570669687	Poster Session P-1	Communications System	A New MIMO Signal Constellation for Secrecy and Performance Enhancing	Hyein Lee (Jeonbuk National University, Korea (South)); Pingping Shang (Chonbuk National University, Korea (South)); Sooyoung Kim (Jeonbuk National University)
1570669708	Poster Session P-1	Communications System	Hardware Suitable Implementation for CNPC Transmission	Gwonhan Mun and Hee Wook Kim (ETRI, Korea (South)); Daeho Kim (Korea (South))
1570669979	Poster Session P-1	Communications System	253-GHz Angular and Delay Profile Measurements in Outdoor Street Environment	Jae-Joon Park, Juyl Lee, Kyung-Won Kim and Myung-Don Kim (ETRI, Korea (South))
1570670028	Poster Session P-1	Communications System	Resource Multiplexing Enhancements for Integrated Access and Backhaul in 5G New Radio Release 17	Junhyeong Kim (ETRI, Korea (South)); Ilgyu Kim (ETRI, Korea (South)); Hee Sang Chung (ETRI, Korea (South))
1570670034	Poster Session P-1	Communications System	Multi-shuffled Convolutional Blocks for Low-complex Modulation Recognition	Godwin Brown Tunze, Thien Huynh-The, Jae-Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670376	Poster Session P-1	Communications System	Utilizing Multi-modal Emotion Information in Dialogue Strategy Classification	Jin Yea Jang, Jieun Kim, Minyoung Jung and Hyedong Jung (KETI, Korea (South)); Saim Shin (KETI, Korea (South))
1570670564	Poster Session P-1	Communications System	Design of a Management Plane for 5G Open Fronthaul Interface	Jae Seung Lee and Jaewoo Park (ETRI, Korea (South)); Jeeyon Choi (ETRI, Korea (South)); Moon-Sik Lee (ETRI & Stanford University, Korea (South))
1570670565	Poster Session P-1	Communications System	REINDEAR: REINforcement learning agent for Dynamic system control in Edge-Assisted Augmented Reality service	Kyungchae Lee and Chan-Hyun Youn (KAIST, Korea (South))
1570671677	Poster Session P-1	Communications System	Bio-inspired Relay Selection Algorithm Using Finite Blocklength Regime for URLLC	Won Jae Ryu, Dong Seong Kim and Soo Young Shin (Kumoh National Institute of Technology, Korea (South))
1570672101	Poster Session P-1	Communications System	RSS-based LTE Base Station Localization Using Single Receiver in Environment with Unknown Path-Loss Exponent	Suhui Jeong, Halim Lee, Taewon Kang and Jiwon Seo (Yonsei University, Korea (South))
1570672127	Poster Session P-1	Communications System	PDCCH implementation based on 5G NR system and comparison with LTE PDCCH	Eun jeong Shin, Ok-Sun Park, Seong Chul Cho and JaeSheung Shin (ETRI, Korea (South))
1570672381	Poster Session P-1	Communications System	Implementation of unmanned aerial system for surveillance mode	Tae Yoon Kim (Ajou University, Korea (South)); Jae-Hyun Kim (Ajou University, Korea (South))
1570672489	Poster Session P-1	Communications System	MU-MIMO User Grouping for WLANs supporting Indoor VR Applications	Kyubo Shin (UNIST, Korea (South)); Seokwoo Choi (UNIST, Korea (South)); Hyoil Kim (UNIST, Korea (South))
0003	Poster Session P-1	Communications System	Finite-size effect in twin-field quantum key distribution	Jooyoun Park and Jun Heo (Korea University, Korea (South))
0004	Poster Session P-1	Communications System	Quantum error correction code under dephasing biased error channel	Jonghyun LEE and Jun Heo (Korea University, Korea (South))
0005	Poster Session P-1	Communications System	Deep Learning-based Limited Feedback for MIMO Systems	Jeonghyeon Jang (Korea University, Korea (South)); Hoon Lee (Pukyong National University, Korea (South)); Sangwon Hwang and Inkyu Lee (Korea University, Korea (South))
1570669348	Poster Session P-1	Communications System	Design of a Multi-device Backscatter Communication System with a Multi-Antenna Reader	Moldir Yerzhanova and Yun Hee Kim (Kyung Hee University, Korea (South))
1570649947	Poster Session P-2	Network	Design and Verification of Low Latency Access Network based on Mobile Edge Computing	Seung-Que Lee, Nam-il Kim and Jin-Up Kim (ETRI, Korea (South)); Hwansouk Yoo (RACHTEC, Korea (South))
1570650391	Poster Session P-2	Network	Analysis of Smart Street Lighting Mesh Network Using I2I Communication Technology	Yoo-seung Song (ETRI, Korea (South))
1570650551	Poster Session P-2	Network	Flexible Connectivity Level Control via Rate Splitting in Fog RAN Downlink With Finite-Capacity Backhaul	Junbeom Kim (Jeonbuk National University, Korea (South)); Hoon Lee (Pukyong National University, Korea (South)); Seung-Eun Hong (ETRI, Korea (South)); Seok-Hwan Park (Jeonbuk National University, Korea (South))
1570654408	Poster Session P-2	Network	An Interference Effects Analysis on 5G system with AAS in Adjacent Band	Sung Woong Choi (ETRI, Korea (South))
1570655226	Poster Session P-2	Network	Study for Recovering Crypto Key Mismatch of In-Vehicle Network DTLS	Daewon Kim (ETRI, Korea (South)); Hong-Il Ju (ETRI, Korea (South)); Boheung Chung (ETRI, Korea (South)); Byeong Cheol Choi (ETRI, Korea (South))
1570655810	Poster Session P-2	Network	Session and Service Continuity Visualization Monitoring System for 5G Network	Eung Ha Kim (ETRI, Korea (South))
1570655845	Poster Session P-2	Network	Performance Analysis for HSR Based In-Vehicular Network (IVN) under End-to-End Latency (EEL) Constraint with Store-and-Forward Mode	Dong Hwan Kim, Na Young Lee, Jong Rhee and Sang Yoon Park (Myongji University, Korea (South))

1570655901	Poster Session P-2	Network	CV-AODV: Compatibility Based Vehicular Ad-hoc On Demand Distance Vector Routing Protocol	Farooque Hassan Kumbhar (Kumoh Institute of Technology & WENS Lab, Korea (South)); Soo Young Shin (Kumoh National Institute of Technology, Korea (South))
1570656438	Poster Session P-2	Network	Channel characteristics for V2V expressway environment at 5.9 GHz	Chung Sup Kim, Hyuk-Je Kim and Ju Yeon Hong (ETRI, Korea (South)); Jong Soo Lim (ETRI, Algeria); Junseok Kim and Young Jun Chong (ETRI, Korea (South))
1570656495	Poster Session P-2	Network	MPTCP Congestion Control for Throughput Improvement in Non-Shared Bottleneck Links	Geon-Hwan Kim (Kyungpook National University, Korea (South)); Yeong-Jun Song (Kyungpook National University(KNU), Korea (South)); Changhoon Park, Won Ju Eom, JeongKeun Kim and You-Ze Cho (Kyungpook National University, Korea (South))
1570656497	Poster Session P-2	Network	Intra-protocol Convergence Problem in BBRv2's Bandwidth Probing	Yeong-Jun Song (Kyungpook National University(KNU), Korea (South)); Won Ju Eom, JeongKeun Kim, Changhoon Park, Geon-Hwan Kim and You-Ze Cho (Kyungpook National University, Korea (South))
1570656578	Poster Session P-2	Network	Applying New Radio Technologies in Non-Terrestrial Network and Following Issues	Sangmin Lee and Min-Su Shin (ETRI, Korea (South)); Dae-Ig Chang (ETRI, Korea (South))
1570656897	Poster Session P-2	Network	Supervised-Learning-Based Resource Allocation in Wireless Networks	Jonggyu Jang, Jung Hwa Park and Hyun Jong Yang (UNIST, Korea (South))
1570659121	Poster Session P-2	Network	A Scalable Name Service for NDN	Sae Hyong Park (ETRI, Korea (South)); YongYoon Shin and Namseok Ko (ETRI, Korea (South))
1570662131	Poster Session P-2	Network	Automatic Classification of Network Traffic Data based on Deep Learning in ONOS Platform	Jungmin Kwon and Jungjin Lee (Ewha Womans University, Korea (South)); Miseon Yu (KETI, Korea (South)); Hyunggon Park (Ewha Womans University, Korea (South))
1570662133	Poster Session P-2	Network	Traffic Data Classification using Machine Learning Algorithms in SDN Networks	Jungmin Kwon, Daeun Jung and Hyunggon Park (Ewha Womans University, Korea (South))
1570662234	Poster Session P-2	Network	Reliable data transmission in 5G Network using Access Traffic Steering method	Young-il Choi (ETRI, Korea (South))
1570663395	Poster Session P-2	Network	Service Caching For Edge Computing-Enabled Heterogeneous Networks	Mingun Kim, Hewon Cho and Jemin Lee (DGIST, Korea (South)); Seung-Eun Hong (ETRI, Korea (South))
1570663516	Poster Session P-2	Network	A Random Access for Low Latency Communications	Eunkyung Kim (ETRI, Korea (South)); Heesoo Lee (ETRI, Korea (South))
1570663552	Poster Session P-2	Network	An Efficient 5G Redirection Scheme Interworking with Legacy Networks	Mahn-suk Yoon (Gumi Electronics & Information Technology Research Institute, Korea (South)); Wan-jin Ko and Chang-Kyo Lee (Gumi Electronics and Information Technology Research Institute, Korea (South))
1570663567	Poster Session P-2	Network	Effective management and encryption processing method for security of optical transmission network	Hoyoung Choi, Jongjin Lee, Taehun Kim and Sungcheol Kim (KEPCO KDN, Korea (South))
1570663598	Poster Session P-2	Network	A Machine Learning based SLA-Aware VNF Anomaly Detection Method in Virtual Networks	Jibum Hong (POSTEC, Korea (South)); Suhyun Park (POSTECH, Korea (South)); Jae-Hyung Yoo (POSTEC, Korea (South)); James W. Hong (POSTECH, Korea (South))
1570663618	Poster Session P-2	Network	Study on Internet based STL for Low Power Gap-fillers configuring a Mobile TV Network	Jae-Hwui Bae, YoungSu Kim and Namho Hur (ETRI, Korea (South)); Dong-Joon Choi (ETRI, Korea (South))
1570663875	Poster Session P-2	Network	SDR-based 5G NR Control Channel Analysis Equipment for Network Monitoring	Igor Kim and Jungsun Um (ETRI, Korea (South)); Seung Keun Park (ETRI, Korea (South))
1570664340	Poster Session P-2	Network	Fast Convergence Bio-Inspired Traffic Grooming for Energy-Efficient IP-over-WDM Networks	Chankyun Lee and Min-ki Noh (KISTI, Korea (South)); Woojin Seok (KISTI, Korea (South))
1570664675	Poster Session P-2	Network	A Scalable Pub/Sub System for NDN	Hak Suh Kim (ETRI, Korea (South))
1570665749	Poster Session P-2	Network	Design and Implementation of Packet Filtering Module for Vehicular Multi-domain Network	Joongyong Choi and Boheung Jung (ETRI, Korea (South))
1570665768	Poster Session P-2	Network	Performance Evaluation of Data Transmission for Non-Terrestrial Networks	Dukhyun You and Jihyung Kim (ETRI, Korea (South)); Mi Young Yun (ETRI, Korea (South)); Moon-Sik Lee (ETRI & Stanford University, Korea (South)); Joonhyuk Kang (KAIST, Korea (South))
1570665785	Poster Session P-2	Network	System-Level Evaluation of Non-Coherent Joint Transmission in Indoor Ultra-Dense Networks	Minhyun Kim, Kyoung Seok Lee and Seung-Eun Hong (ETRI, Korea (South))
1570668550	Poster Session P-2	Network	Ad hoc cluster management for coverage extension on high frequency mobile backhaul network	Junsik Kim (ETRI, Korea (South)); SoonGi Park (ETRI, Korea (South))
1570668879	Poster Session P-2	Network	Improving the Packet Delivery Reliability and Privacy Protection in Monitoring Wireless Networks	Seokjoo Shin and Lilian Mutalemwa (Chosun University, Korea (South))
1570669335	Poster Session P-2	Network	Scheduling of Fully Dynamic TDD Cellular Networks with Control Signaling Considerations	Anseok Lee and Heesoo Lee (ETRI, Korea (South))
1570669358	Poster Session P-2	Network	Measurement based LTE Resource Block Sharing for Inter-Operators: PS-LTE and LTE-R	Jungsun Um and Igor Kim (ETRI, Korea (South)); Seung Keun Park (ETRI, Korea (South))

1570669416	Poster Session P-2	Network	Virtualization of Terrestrial Broadcasting System in NFV Architecture	Hye-Ju Oh and Soon-Choul Kim (ETRI, Korea (South)); Hyun-Jeong Yim (ETRI, Korea (South)); JungHoon Kim (Marueng Company, Korea (South)); YeonBae Kim (Pixtree Company, Korea (South))
1570669677	Poster Session P-2	Network	A Low-complexity Neural BP Decoder with Network Pruning	Seokju Han (KAIST, Korea (South)); Jeongseok Ha (KAIST, Korea (South))
1570670082	Poster Session P-2	Network	Beam Tracking Algorithm for UAV Communications using Kalman Filter	Ha-Lim Song and Young-Chai Ko (Korea University, Korea (South)); Jungil Cho (Hanwha Systems, Korea (South)); Chanho Hwang (Agency for Defense Development, Korea (South))
1570672086	Poster Session P-2	Network	Interference-Aware Resource Allocation in Indoor User-Centric Ultra Dense Networks	Seungkwon Cho (ETRI, Korea (South)); Seung-Eun Hong (ETRI, Korea (South))
1570672232	Poster Session P-2	Network	TAS Scheduling for Real-Time Forwarding of Emergency Event Traffic in TSN	Moonbeom Kim, Junhong Min, Doyeon Hyeon and Jeongyeup Paek (Chung-Ang University, Korea (South))
1570672350	Poster Session P-2	Network	Analysis of Full Duplex Relay to Maximize Performance in Cellular Network	Jong Soo Baik (University of Ajou, Korea (South)); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570672476	Poster Session P-2	Network	Location based Power Allocation to support QoS in Ultra Dense Network	Sung Hyun Oh and Jeong Gon Kim (Korea Polytechnic University, Korea (South))
1570672478	Poster Session P-2	Network	Collision Resolution Algorithm for Multi-user NOMA Random Access Systems	Zhanyang Gao and Hu Jin (Hanyang University, Korea (South))
1570672479	Poster Session P-2	Network	An Organizational Structure for the Thing-User Community Formation	Seong-Soon Joo, Woongshik You and Cheol Sig Pyo (ETRI, Korea (South)); Hyun-Kook Kahng (Korea University, Korea (South))
1570672486	Poster Session P-2	Network	Resource Allocation in Cluster based Ultra Dense Network	Seong Jung Kim and Jeong Gon Kim (Korea Polytechnic University, Korea (South))
1570672493	Poster Session P-2	Network	Merging strategy on Cluster-based MDS algorithm for Nodes localization in Wireless Sensor Networks	Insung Kang and Haewoon Nam (Hanyang University, Korea (South))
1570672617	Poster Session P-2	Network	The Performance Analysis of Multi-Hop Relay DTN Communication System in Interplanetary Network	Inkyu Kim (Korea Aerospace Research Institute, Korea (South))
0013	Poster Session P-2	Network	Link Connectivity in LEO Satellite Networks with Optical Inter-Satellite Links	Yonghwa Lee, Jihwan P. Choi (DIGIST)
1570650578	Poster Session P-3	Artificial Intelligence and Machine Learning	Towards Understanding Architectural Effects on Knowledge Distillation	Ik hee Shin (University of Science and Technology, Korea (South)); Yong-Hyuk Moon (ETRI, Korea (South)); Yong-Ju Lee (ETRI, Korea (South))
1570651685	Poster Session P-3	Artificial Intelligence and Machine Learning	Acoustic Feature based Abnormal Diagnosis Techniques with Capsule Networks	Nacwoo Kim, HyunYong Lee, SangJun Park, Jungi Lee and Byung Tak Lee (ETRI, Korea (South))
1570651702	Poster Session P-3	Artificial Intelligence and Machine Learning	Image coding based on Selective Super-Resolution Network	Younhee Kim (ETRI, Korea (South))
1570651788	Poster Session P-3	Artificial Intelligence and Machine Learning	A Comparative Study on the Maritime Object Detection Performance of Deep Learning Models	SungWon Moon (ETRI, Korea (South)); Jiwon Lee (ETRI, Korea (South)); Jung Soo Lee, Do-Won Nam and Wonyoung Yoo (ETRI, Korea (South))
1570654459	Poster Session P-3	Artificial Intelligence and Machine Learning	Learning a Video-Text Joint Embedding using Korean Tagged Movie Clips	Gyeong-June Hahm, Chang-Uk Kwak and Sunjoong Kim (ETRI, Korea (South))
1570654585	Poster Session P-3	Artificial Intelligence and Machine Learning	A Study on Sports Player Tracking based on Video using Deep Learning	Jung Soo Lee, SungWon Moon and Do-Won Nam (ETRI, Korea (South)); Jiwon Lee (ETRI, Korea (South)); Ah Reum Oh (ETRI, Korea (South)); Wonyoung Yoo (ETRI, Korea (South))
1570655509	Poster Session P-3	Artificial Intelligence and Machine Learning	A method for optimizing deep learning object detection in edge computing	Ryangsoo Kim, Geun-Yong Kim, Heedo Kim, Giha Yoon and Hark Yoo (ETRI, Korea (South))
1570655665	Poster Session P-3	Artificial Intelligence and Machine Learning	Explanation for building energy prediction	Marie Kim (ETRI, Korea (South))
1570655882	Poster Session P-3	Artificial Intelligence and Machine Learning	Filter Combination Learning for Convolutional Neural Network	Jaemin Jeong (Hallym University, Korea (South)); DongYoung Kim (Hallym Univ, Korea (South)); Yunhee Woo (Hallym University, Korea (South)); Jeong-Gun Lee (Hallym University, Korea (South))
1570656442	Poster Session P-3	Artificial Intelligence and Machine Learning	Map aerial photography inpainting for missing error Using AutoEncoder	HeyonJoong Wi, JoonGyu Maeng and Dong Hun Yang (University of Science and Technology, Korea (South)); Insung Jang and Seung-Ik Lee (ETRI, Korea (South)); Sang Gi Hong (ETRI, Korea (South))
1570656452	Poster Session P-3	Artificial Intelligence and Machine Learning	Deep learning-based method for detecting anomalies of operating equipment dynamically in livestock farms	Hyeon Park and Daeheon Park (ETRI, Korea (South)); Se-han Kim (ETRI, Korea (South))
1570656532	Poster Session P-3	Artificial Intelligence and Machine Learning	An Implementation of NNEF-Darknet Neural Network Model Converter	KyungHee Lee (ETRI, Korea (South))
1570656552	Poster Session P-3	Artificial Intelligence and Machine Learning	Train Throughput Analysis of Distributed Reinforcement Learning	SooYoung Jang and Noh-sam Park (ETRI, Korea (South))
1570656607	Poster Session P-3	Artificial Intelligence and Machine Learning	The present and future of continual learning	Heechul Bae, Soonyong Song and Jun Hee Park (ETRI, Korea (South))
1570656621	Poster Session P-3	Artificial Intelligence and Machine Learning	Pig Datasets of Livestock for Deep Learning to detect Posture using Surveillance Camera	Youjin Kim (ETRI, Korea (South))

1570656626	Poster Session P-3	Artificial Intelligence and Machine Learning	Magnifier Network for Ceramic Height Estimation	Hye-Jin Kim (ETRI, Korea (South)); Yoonsoo Han (KICET, Korea (South)); Su-young Chi (ETRI, Korea (South))
1570656681	Poster Session P-3	Artificial Intelligence and Machine Learning	Development of Local Air Pollution Observation Technology Based on Artificial Intelligent Image Analysis	Hong Ki Sung (Korea Institute of Civil Engineering and Building Technology, Korea (South)); Kyu soo Chong (KICT, Korea (South))
1570656968	Poster Session P-3	Artificial Intelligence and Machine Learning	Evaluation of Different Machine Learning Models for Photoplethysmogram Signal Artifact Detection	Tasbiraha Athaya and Sunwoong Choi (Kookmin University, Korea (South))
1570659985	Poster Session P-3	Artificial Intelligence and Machine Learning	Generative Adversarial Network for Robust Regression using Continuous Dataset	Yu-Lim Min (University of Science and Technology & ETRI, Korea (South)); Seung-Jin Hong (University of Science and Technology, Korea (South)); Hye-Jin Kim (ETRI, Korea (South)); Seung-Ik Lee (ETRI, Korea (South))
1570660231	Poster Session P-3	Artificial Intelligence and Machine Learning	Limit to Enhance the Drone Control with Deep Reinforcement Learning	SooYoung Jang and Noh-sam Park (ETRI, Korea (South))
1570662207	Poster Session P-3	Artificial Intelligence and Machine Learning	Guidelines for Evaluation of Visual Narrative Technology Based on Image Objects	Weon-Geun OH and Jong Gook Ko (ETRI, Korea (South))
1570662426	Poster Session P-3	Artificial Intelligence and Machine Learning	Where to Cut and Paste: Data Regularization with Selective Features	Jiyeon Kim (University of Science and Technology, Korea (South)); Ik hee Shin (University of Science and Technology, Korea (South)); Jong-Ryul Lee and Yong-Ju Lee (ETRI, Korea (South))
1570662788	Poster Session P-3	Artificial Intelligence and Machine Learning	Power Quality Problem Classification Methods Based on Active Transfer Learning	Seungmin Oh (ETRI, Korea (South)); Seok-Kap Ko (ETRI, Korea (South)); Eden Kim (ETRI, Korea (South)); Byung Tak Lee (ETRI, Korea (South))
1570663654	Poster Session P-3	Artificial Intelligence and Machine Learning	How to Aggregate Acoustic Delta Features for Deep Speaker Embeddings	Youngsam Kim and Jong-Hyuk Roh (ETRI, Korea (South)); Kwantae Cho (ETRI, Korea (South)); Sang Rae Cho (ETRI, Korea (South))
1570663834	Poster Session P-3	Artificial Intelligence and Machine Learning	Forecasting Time_Series Trends by Merging Structured and Unstructured Datasets	Ji Sang Park (ETRI, Korea (South)); Hyeon Sung Cho (ETRI, Korea (South)); Ji Sung Lee and Chung Kyo-il (ETRI, Korea (South)); Jeong Min Kim and Dong Jin Kim (Thinkpool Inc., Korea (South))
1570663961	Poster Session P-3	Artificial Intelligence and Machine Learning	A Light-weight stereo matching network for an embedded vision system	Jo-In Kang (Kwangwoon University, Korea (South)); Seong-Won Lee (Kwangwoon University, USA)
1570664146	Poster Session P-3	Artificial Intelligence and Machine Learning	Multi-Scale Multi-Band Dilated DenseLSTM for Robust Recognition of Speech with Background Music	Woon-Haeng Heo (Chungbuk National University, Korea (South)); Hyemi Kim (ETRI, Korea (South)); Oh-Wook Kwon (Chungbuk National University, Korea (South))
1570664148	Poster Session P-3	Artificial Intelligence and Machine Learning	Deep learning method to remove chemical, kinetic and electric artifacts on ISEs	Byunghyun Ban, Donghun Ryu and Minwoo Lee (Imagination Garden Inc., Korea (South))
1570664236	Poster Session P-3	Artificial Intelligence and Machine Learning	Phoneme Set Extension Based on Jensen-Shannon Divergence for Broadcast News Transcription	Jeong-Uk Bang (Chungbuk National University, Korea (South)); Sanghun Kim (ETRI, Korea (South)); Oh-Wook Kwon (Chungbuk National University, Korea (South))
1570664326	Poster Session P-3	Artificial Intelligence and Machine Learning	Champion Recommendation System of League of Legends	Seung-Jin Hong (University of Science and Technology, Korea (South)); Sang-Kwang Lee and Seong-Il Yang (ETRI, Korea (South))
1570664677	Poster Session P-3	Artificial Intelligence and Machine Learning	Blockchain based Data Marketplace System	HyunKyung Yoo (ETRI, Korea (South)); Namseok Ko (ETRI, Korea (South))
1570664679	Poster Session P-3	Artificial Intelligence and Machine Learning	Machine Learning-based Analysis of correlation between Energy Consumption data of the Company and its Sales	Jungi Lee, Nacwoo Kim, HyunYong Lee, SangJun Park and Byung Tak Lee (ETRI, Korea (South))
1570664899	Poster Session P-3	Artificial Intelligence and Machine Learning	Predicting Game Outcome in Multiplayer Online Battle Arena Games	Sang-Kwang Lee (ETRI, Korea (South)); Seung-Jin Hong (University of Science and Technology, Korea (South)); Seong-Il Yang (ETRI, Korea (South))
1570664910	Poster Session P-3	Artificial Intelligence and Machine Learning	Construction of a machine learning dataset for multiple AI tasks using Korean commercial multimodal video clips	Saim Shin (KETI, Korea (South)); Hyedong Jung, Jin Yea Jang, Minyoung Jung, Jieun Kim and Yoonyoung Jeong (KETI, Korea (South))
1570665009	Poster Session P-3	Artificial Intelligence and Machine Learning	GAN-based Augmentation for Populating Speech Dataset with High Fidelity Synthesized Audio	Moon-Ki Back and Seung-Won Yoon (Chungnam National University, Korea (South)); Kyu-Chul Lee (Changnam National University, Korea (South))
1570665686	Poster Session P-3	Artificial Intelligence and Machine Learning	Feature Selection for Stock forecasting using Multivariate Convolution Neural Network	Ji Sung Lee (ETRI, Korea (South)); Hyeon Sung Cho (ETRI, Korea (South)); Chung Kyo-il (ETRI, Korea (South)); Ji Sang Park (ETRI, Korea (South))
1570665714	Poster Session P-3	Artificial Intelligence and Machine Learning	Pornographic Video Detection with Convolutional Two-Stream Network Fusion	Wonjae Lee and Junghak Kim (ETRI, Korea (South)); Nam Kyung Lee (ETRI, Korea (South))
1570666652	Poster Session P-3	Artificial Intelligence and Machine Learning	Knowledge Distillation based Compact Model Learning Method for Object Detection	Jong Gook Ko and Wonyoung Yoo (ETRI, Korea (South))
1570666726	Poster Session P-3	Artificial Intelligence and Machine Learning	Robotic Behavioral Cloning Through Task Building	Jinchul Choi (ETRI, Korea (South)); Hyunseok Kim and Young-Sung Son (ETRI, Korea (South)); Chan-Won Park (ETRI, Korea (South)); Jun Hee Park (ETRI, Korea (South))



1570667233	Poster Session P-3	Artificial Intelligence and Machine Learning	Network Intrusion Detection System using Feature Extraction based on Deep Sparse Autoencoder	JooHwa Lee (University of Keimyung, Korea (South)); JuGeon Pak (Keimyung University Korea, Korea (South)); Myungsuk Lee (KMU, Korea (South))
1570668577	Poster Session P-3	Artificial Intelligence and Machine Learning	Zero-Keep Filter Pruning for Energy Efficient Deep Neural Network	Yunhee Woo (Hallym University, Korea (South)); DongYoung Kim (Hallym Univ, Korea (South)); Jaemin Jeong, Young Woong Ko and Jeong-Gun Lee (Hallym University, Korea (South))
1570668800	Poster Session P-3	Artificial Intelligence and Machine Learning	An Application of LSTM Recurrent Networks to Expanding of Search Tree Nodes in Symbolic Planning	Joonmyun Cho, Young-Sung Son and Jun Hee Park (ETRI, Korea (South)); Chan-Won Park (ETRI, Korea (South))
1570668908	Poster Session P-3	Artificial Intelligence and Machine Learning	Predictive Maintenance of Aircraft Engine using Deep Learning Technique	Ade Pitra Hermawan, Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))
1570669421	Poster Session P-3	Artificial Intelligence and Machine Learning	Generative Adversarial Network for Identifying Authors of Traced Images	Soonchul Jung (ETRI, Korea (South)); Jae Woo Kim (ETRI, Korea (South)); Yoon-Seok Choi (ETRI, Korea (South)); Hyeongju Jeon and Jin-Seo Kim (ETRI, Korea (South))
1570669560	Poster Session P-3	Artificial Intelligence and Machine Learning	Robust Keypoint Normalization Method for Korean Sign Language Translation using Transformer	San Kim, Chang Jo Kim, Han-Mu Park, Yoonyoung Jeong, Jin Yea Jang and Hyedong Jung (KETI, Korea (South))
1570669651	Poster Session P-3	Artificial Intelligence and Machine Learning	A Multi-Scaled Method for Parallel Bayesian Optimization in Deep Predictive Analytics	Yong-Hyuk Moon (ETRI, Korea (South)); Yong-Ju Lee (ETRI, Korea (South))
1570669685	Poster Session P-3	Artificial Intelligence and Machine Learning	Consumer-Oriented Multi-Party Matching Recommendation System Based Deep Learning	Woo Seok Seo (WooKyoung InformationTechnology, Korea (South)); Jae Hyun Jun and Dae Soo Kim (WooKyoung Information Technology, Korea (South)); Jong Il Kim and Tae Jin Bae (WooKyoung Information Technology, Korea (South))
1570669690	Poster Session P-3	Artificial Intelligence and Machine Learning	Object Detection in Artworks Using Data Augmentation	Hyeongju Jeon (ETRI, Korea (South)); Soonchul Jung and Yoon-Seok Choi (ETRI, Korea (South)); Jae Woo Kim and Jin-Seo Kim (ETRI, Korea (South))
1570669848	Poster Session P-3	Artificial Intelligence and Machine Learning	Mobile Convolutional Neural Networks for Facial Expression Recognition	Changrak Yoon (ETRI, Korea (South)); Do Hyun Kim (ETRI, Korea (South))
1570670093	Poster Session P-3	Artificial Intelligence and Machine Learning	Double Deep Q-Learning Based Channel Estimation for Industrial Wireless Networks	Sanjay Bhardwaj, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670151	Poster Session P-3	Artificial Intelligence and Machine Learning	Location tracking technique for Regional ENF Classification Using ARIMA	Seohyun Kim (Graduate School Of Korea University, Korea (South)); Ji Won Yoon (Korea University, Korea (South))
1570670222	Poster Session P-3	Artificial Intelligence and Machine Learning	Investigating Network Intrusion Detection Datasets Using Machine Learning	Gabriel Amaizu, Cosmas Ifeanyi Nwakanma, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670855	Poster Session P-3	Artificial Intelligence and Machine Learning	Renewable energy house complex for sharing surplus power	Tai Yeon Ku and Wan-Ki Park (ETRI, Korea (South)); Hoon Choi (Chungnam National University(Korea (South))
1570672115	Poster Session P-3	Artificial Intelligence and Machine Learning	Design of a Convolutional Neural Network for Speech Emotion Recognition	Kyong Hee Lee and Do Hyun Kim (ETRI, Korea (South))
1570672154	Poster Session P-3	Artificial Intelligence and Machine Learning	A Performance Comparison among Different Amounts of Context on Deep Learning Based Intent Classification Models	Minyoung Jung, Jieun Kim, Jin Yea Jang and Hyedong Jung (KETI, Korea (South)); Saim Shin (KETI, Korea (South))
0007	Poster Session P-3	Artificial Intelligence and Machine Learning	Optic Disk Detection in Fundus Photo using Deep Learning	Jaehan Joo, Guohua Zhu and Suk Chan Kim (Pusan National University, Korea (South))
0012	Poster Session P-3	Artificial Intelligence and Machine Learning	On the Performance of Deep Learning Models: A Case Study with COVID-19 Data	Seunghoon Park and Soohyun Park (Korea University, Korea (South)); Jacob C. Lee (Dongguk University, Korea (South)); Joongheon Kim (Korea University, Korea (South))
0015	Poster Session P-3	Artificial Intelligence and Machine Learning	SAE-CCNN: An Improved Deep Learning Based Indoor Localization with Boundary Constraints	Yongjeong Oh, Hea-Min Noh and Wonjae Shin (Pusan National University)
1570646247	Poster Session P-4	Signal Processing	Kalman Filter-based Adaptive Forecasting of PV Power Output	HyunYong Lee, Nacwoo Kim, Jungi Lee and Byung Tak Lee (ETRI, Korea (South))
1570646250	Poster Session P-4	Signal Processing	A Study on Distance Measure for Effective Anomaly Detection using AutoEncoder	HyunYong Lee, Nacwoo Kim, Jungi Lee and Byung Tak Lee (ETRI, Korea (South))
1570651500	Poster Session P-4	Signal Processing	Punch Analysis with FFT and LSTM of Accelerometer and Gyroscope Data	Hyunho Park and Eunjung Kwon (ETRI, Korea (South)); Sungwon Byon (ETRI, Korea (South)); Won-Jae Shin (ETRI, Korea (South)); Eui-Suk Jung (ETRI, Korea (South)); Yong-Tae Lee (ETRI, Korea (South))
1570653859	Poster Session P-4	Signal Processing	Gen-Z Memory Pool System Architecture	Wonok Kwon (ETRI, Korea (South))
1570655684	Poster Session P-4	Signal Processing	Vehicle Synchronization Signal for NR-based C-V2X Systems	Yeong Jun Kim (LG Electronics, Korea (South)); Jimin Lee and Yong Soo Cho (Chung-Ang University, Korea (South))
1570656213	Poster Session P-4	Signal Processing	Single Group Multicast Beamformer Design Using Active Constraints	Kyungrak Son (KAIST, Korea (South)); Wan Choi (Seoul National University, Korea (South))

1570656611	Poster Session P-4	Signal Processing	Intelligent Error Recovery Flow Prediction for Low Latency NAND Flash Memory System	Bogyeong Kang (KAIST, Korea (South)); Jeongju Jee and Hyuncheol Park (KAIST, Korea (South))
1570656635	Poster Session P-4	Signal Processing	Deep Transfer Learning-Based Adaptive Beamforming for Realistic Communication Channels	Hyewon Yang and Jeongju Jee (KAIST, Korea (South)); Girim Kwon (KAIST, Korea (South)); Hyuncheol Park (KAIST, Korea (South))
1570656638	Poster Session P-4	Signal Processing	Azalea unikernel IO offload acceleration	Yeonjeong Jeong (ETRI, Korea (South)); Jinmee Kim and Seung Hyub Jeon (ETRI, Korea (South)); Seung-Jun Cha, Yongseob Lee, Youngjoo Woo and Sungin Jung (ETRI, Korea (South))
1570656688	Poster Session P-4	Signal Processing	Accurate Occupancy Detection via Label Noise Filtering Technique	Young Min Kim (ETRI, Korea (South))
1570662229	Poster Session P-4	Signal Processing	Azimuth Angle Resolution Improvement Technique with Neural Network	Hyungju Kim (ETRI (ETRI), Korea (South)); Sungjin You and Byung Jang Jeong (ETRI, Korea (South)); Woo Jin Byun (ETRI, Korea (South))
1570662751	Poster Session P-4	Signal Processing	Performance Analysis and Disaster Signal Detection Method based on Deep Learning using SDR Platform	Jinhyuk Song (ETRI, Korea (South)); Sang-Jung Ra (ETRI, Korea (South)); Byungjun Bae (ETRI, Korea (South))
1570663320	Poster Session P-4	Signal Processing	Performance comparison of DTX detection schemes for 5G NR PUCCH	Young-Hoon Kim (ETRI, Korea (South)); Hyungsik Ju (ETRI, Korea (South)); Chan-Bok Jeong (ETRI & Chungbuk National University, Korea (South)); Moon-Sik Lee (ETRI & Stanford University, Korea (South))
1570663937	Poster Session P-4	Signal Processing	2D Reprojection of Plenoptic 3D Voxel Data Using Gaussian Intensity Spreading	Seong-Jun Bae, Soowoong Kim, Hahyun Lee, Jinho Lee and Sung-Chang Lim (ETRI, Korea (South)); Gun Bang (ETRI & Korea University, Korea (South)); Jungwon Kang (ETRI, Korea (South))
1570664142	Poster Session P-4	Signal Processing	A Study on VCM Anchor Generation for Object Segmentation	Gi-Mun Um (ETRI, Korea (South)); Sangwoon Kwak and Joungil Yun (ETRI, Korea (South)); Won-Sik Cheong (ETRI, Korea (South)); Jeongil Seo (ETRI, Korea (South))
1570664162	Poster Session P-4	Signal Processing	Sensor Fusion-based Cooperative Human Detection Scheme using MAVs in Indoor Environment	Myung-Eun Kim (ETRI, Korea (South)); HyoChan Bang and Sangyeon Lee (ETRI, Korea (South)); Ji Hun Jeon (ETRI, Korea (South))
1570664224	Poster Session P-4	Signal Processing	A Modified Min Sum Decoding Algorithm based on Approximation Enhancement for LDPC Codes	Nam-il Kim, Seung-Que Lee and Jin-Up Kim (ETRI, Korea (South))
1570664261	Poster Session P-4	Signal Processing	Blind Detection of Interleaving Parameter Using Hamming Weight of Combined Data	Seongjin Ahn, Mingyu Jang and Dongyeong Kim (Hanyang University, Korea (South)); Yeonsoo Jang (Agency for Defense Development); Dongweon Yoon (Hanyang University, Korea (South))
1570664295	Poster Session P-4	Signal Processing	Blind Estimation of Interleaving Parameter Using Soft Metric	Mingyu Jang, Yoonji Kim and Geunbae Kim (Hanyang University, Korea (South)); Cheol-sun Park (Agency for Defense Development, Korea (South)); Dongweon Yoon (Hanyang University, Korea (South))
1570664334	Poster Session P-4	Signal Processing	Performance Improvement of Video Classification using Generated Labeled Data	Alex Lee, Jeong-Woo Son and Sunjoong Kim (ETRI, Korea (South))
1570664717	Poster Session P-4	Signal Processing	Two Stages Method for IQ Imbalance Compensation in Multi-FA OFDM System	Young-jin Moon (ETRI, Korea (South))
1570664894	Poster Session P-4	Signal Processing	Image re-sampling from a perspective of wave field propagation	Taeone Kim (ETRI, Korea (South)); Jinwoong Kim and Joong-Ki Park (ETRI, Korea (South))
1570666502	Poster Session P-4	Signal Processing	Adaptive Queue Management in Embedded Edge Devices for Object Detection with Low Latency	Yousung Yang, Jinyeom Kim and Lee JooHyung (Gachon University, Korea (South)); Seongsoo Lee (ECELL Inc., Korea (South)); Sungback Hong (ETRI, Korea (South)); S H Shah Newaz (Universiti Teknologi Brunei, Brunei Darussalam)
1570668448	Poster Session P-4	Signal Processing	Implementation of ATSC 3.0 Service Handoff	Bong Ho Lee (ETRI, Korea (South)); Yang KyuTae (ETRI, Korea (South)); Sang-Jung Ra (ETRI, Korea (South)); Byungjun Bae (ETRI, Korea (South))
1570668520	Poster Session P-4	Signal Processing	Performance comparison of equalization schemes for OTFS over time-varying multipath channels	Wooram Shin (ETRI & KAIST, Korea (South)); Kyeongpyo Kim and Young-Jo Ko (ETRI, Korea (South))
1570668568	Poster Session P-4	Signal Processing	Persistent Memory Needs Lifetime Extension Techniques	Youngjoo Woo (ETRI, Korea (South)); Taesoo Kim (Georgia Tech, USA); Sung-In Jung (ETRI, Korea (South))
1570668878	Poster Session P-4	Signal Processing	Power Control Algorithm for Throughput Enhancement in Full-Duplex Communications	Won-Jae Lee (Ajou, Korea (South)); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570669282	Poster Session P-4	Signal Processing	An Anomaly Detection Scheme based on LSTM Autoencoder for Energy Management	Hong-Soon Nam and Youn-Kwae Jeong (ETRI, Korea (South)); Jongwon Park (Chungnam National University, Korea (South))
1570669295	Poster Session P-4	Signal Processing	Design of an efficient image protection method based on QR code	Young Sae Kim (ETRI, Korea (South)); Jin-Hee Han (ETRI, Korea (South)); Geon Woo Kim (ETRI, Korea (South))

1570669298	Poster Session P-4	Signal Processing	Q-Learning-Based Low Complexity Beam Tracking for mmWave Beamforming System	Seonyong Kim and Girim Kwon (KAIST, Korea (South)); Hyuncheol Park (KAIST, Korea (South))
1570669303	Poster Session P-4	Signal Processing	Analysis of Bit-Flipping Algorithm of Irregular Low-Density Parity-Check Codes	Myungin Kim (KAIST, Korea (South)); Jeongseok Ha (KAIST, Korea (South))
1570669328	Poster Session P-4	Signal Processing	A simple construction for QC-LDPC codes of short lengths with girth at least 8	Inseon Kim and Hong-Yeop Song (Yonsei University, Korea (South))
1570669485	Poster Session P-4	Signal Processing	Assessing Stable Production of a Photovoltaic System by using a Remote Monitoring System	Jihyun Lee (ETRI, Korea (South))
1570669595	Poster Session P-4	Signal Processing	Simple Link-layer Diversity Combining using Majority Voting in Dense WLANs	Jaehyoung Park (GIST, Korea (South)); Yonggang Kim (GIST, Korea (South)); Gyungmin Kim (GIST, Korea (South)); Hyuk Lim (GIST, Korea (South))
1570669674	Poster Session P-4	Signal Processing	Real-Time Forensic Marking Method based on Tiles Parallel Processing	ChangSeob Yun and Jae Hyun Jun (WooKyoung Information Technology, Korea (South)); Sungho Kim (Kyungpook National University, Korea (South)); Dae Soo Kim (WooKyoung Information Technology, Korea (South))
1570669701	Poster Session P-4	Signal Processing	Real Space 3D Mesh Transformation Preprocessing System for AR Services	Young-Suk Yoon and Sangheon Park (ETRI, Korea (South)); Sangwon Hwang and Sangyoun Lee (Yonsei University, Korea (South)); Hyunwoo Cho, Chanho Park and Sung-Uk Jung (ETRI, Korea (South))
1570669902	Poster Session P-4	Signal Processing	Early Termination Method for LDPC Codes Based on Majority-Voted Codeword	Cho Eunyoung, Hyunjae Lee and Hyosang Ju (Sungkyunkwan University, Korea (South)); Chanho Yoon (ETRI, Korea (South)); Young-Jo Ko (ETRI, Korea (South)); Sang-Hyo Kim (Sungkyunkwan University, Korea (South))
1570670293	Poster Session P-4	Signal Processing	Audio Watermarking System Robust to Offset Distortion in Acoustic Channel Transmission	Seungkwon Beack (ETRI, Korea (South)); Taejin Lee (ETRI, Korea (South))
1570670913	Poster Session P-4	Signal Processing	A Novel Frequency Domain Preamble Detection for OFDM based WLAN Systems	Eun Sook Jin (ETRI & KAIST, Korea (South)); Hyuncheol Park (KAIST, Korea (South))
1570672408	Poster Session P-4	Signal Processing	Multisuser 1-Bit Precoding for Downlink MISO Systems with QAM constellations	Sungyeal Park and SongNam Hong (Ajou University, Korea (South))
1570672452	Poster Session P-4	Signal Processing	Beamforming design for Full-Duplex DF Relaying Networks	Ji-Ho Lee and Young-Chai Ko (Korea University, Korea (South))
1570672654	Poster Session P-4	Signal Processing	XR Twin Based Intelligent UAV Software Development Environment	Jaeheon Kim and Youngjin Kim (Korea University of Technology and Education, Korea (South)); Won-Tae Kim (Koreatech University, Korea (South))
1570672864	Poster Session P-4	Signal Processing	Super Multi-view Autostereoscopic 3D Representation on Mobile Display	Homin Eum, Joonsoo Kim and Hong-Chang Shin (ETRI, Korea (South)); Jeongil Seo (ETRI, Korea (South))
0001	Poster Session P-4	Signal Processing	Resource Analysis of Parallelized Quantum Constant Addition	Jinyoung Ha and Jun Heo (Korea University, Korea (South))
0002	Poster Session P-4	Signal Processing	Improved Grover searching algorithm for weighted solutions	Youngjin Seo and Jun Heo (Korea University, Korea (South))
0008	Poster Session P-4	Signal Processing	Secure Forward Error Correction codes based on QKD protocol	Kwangseok Noh and Jun Heo (Korea University, Korea (South))
0009	Poster Session P-4	Signal Processing	Ripple carry adder for classical value addition on quantum computer	Byung Chan Kim, Jinyoung Ha and Jun Heo (Korea University, Korea (South))
0010	Poster Session P-4	Signal Processing	The Distance Measurement in Object Detection using ID on Ultrasonic Sensor for a Vehicle	Donghee Yi, Jeongbin Seo, Suk Chan Kim (Pusan National University, Korea (South))
0014	Poster Session P-4	Signal Processing	An Efficient Rate Splitting Multiple Access Scheme for Coordinated Multi-point Transmission	Nohgyeom Ha and Wonjae Shin (Pusan National University, Korea (South))
1570656590	Poster Session P-4	Signal Processing	Performance Analysis of Modulation Classification with a Preprocessing	Seongjin Ahn (Hanyang University, Korea (South)); Hong-Suk Shim (Hanwha Systems, Korea(South)); Sungkyun Park (Hanwha Systems, Korea (South)); Dongweon Yoon (Hanyang University, Korea (South))
1570646609	Poster Session P-5	Applications for ICT Convergence	5G based SmartCity Convergence Service Platform for Data sharing	Jiyeon Kim, Deockgu Jee, Eunjin Ko and Mi-Kyung Han (ETRI, Korea (South)); Seunghan Choi and SooYoung Jang (ETRI, Korea (South))
1570650085	Poster Session P-5	Applications for ICT Convergence	Emulator of Announcing Social and Natural Disaster Information for Developing and Testing UHD-based Disaster Broadcasting System	Sang-Yun Lee (ETRI, Korea (South)); Kyungsub Cho and Byungjun Bae (ETRI, Korea (South))
1570652046	Poster Session P-5	Applications for ICT Convergence	Multi-object tracking system using dissimilar apparatus in video sequence	Ah Reum Oh (ETRI, South Korea, Korea (South)); Jiwon Lee (ETRI, Korea (South)); Jung Soo Lee, SungWon Moon, Do-Won Nam and Wonyoung Yoo (ETRI, Korea (South))
1570652624	Poster Session P-5	Applications for ICT Convergence	Mathematical Model and Simulation for Nutrient-Plant Interaction Analysis	Byunghyun Ban (Imagination Garden Inc., Korea (South))
1570653239	Poster Session P-5	Applications for ICT Convergence	Nutrient Solution Management System for Smart Farms and Plant Factory	Byunghyun Ban, Janghun Lee, Donghun Ryu, Minwoo Lee and Tae Dong Eom (Imagination Garden Inc., Korea (South))
1570654777	Poster Session P-5	Applications for ICT Convergence	De-identification and restoration methods for protecting privacy in off-line documents	Jin-Hee Han (ETRI, Korea (South)); Young Sae Kim (ETRI, Korea (South)); Geon Woo Kim (ETRI, Korea (South))

1570655257	Poster Session P-5	Applications for ICT Convergence	An Implementation of Re-identifying Video Objects with Location Trajectory Data	Sungwon Byon (ETRI, Korea (South)); Eunjung Kwon and Eui-Suk Jung (ETRI, Korea (South)); Yong-Tae Lee (ETRI, Korea (South))
1570655553	Poster Session P-5	Applications for ICT Convergence	Malware Response Naming Scheme for Security Control Service	Shinho Lee, Wookhyun Jung, Seohyun Lee and Eui Tak Kim (ESTsecurity, Korea (South))
1570655704	Poster Session P-5	Applications for ICT Convergence	Interference Analysis for Compatibility between 5G system and Aeronautical Radio Altimeter	Ho Kyung Son and Young Jun Chong (ETRI, Korea (South))
1570655817	Poster Session P-5	Applications for ICT Convergence	Sumav: A Scheme for Selecting a Keyword from Detection Names using Conditional Probability	Sangwon Kim, Bora Kim, SuYoung Kim, Wookhyun Jung, Buynghoo Lee and Eui Tak Kim (ESTsecurity, Korea (South))
1570656034	Poster Session P-5	Applications for ICT Convergence	The Empirical Evaluation of Models Predicting Bike Sharing Demand	Seunghan Choi (ETRI, Korea (South)); Mi-Kyung Han (ETRI, Korea (South))
1570656203	Poster Session P-5	Applications for ICT Convergence	A study on fire detection technology through spectrum analysis of smoke particles	Soyoung Park (ETRI, Korea (South)); Kyuwon Han and Kang Bok Lee (ETRI, Korea (South))
1570656303	Poster Session P-5	Applications for ICT Convergence	Visualizing Cloud-Native AI+X Applications employing Service Mesh	Eunji Kim (GIST, Korea (South)); Jungsu Han (GIST, Korea (South)); JongWon Kim (GIST, Korea (South))
1570656455	Poster Session P-5	Applications for ICT Convergence	Exponential Data Embedding Scheme for Display to Camera Communications	Lakpa Dorje Tamang and Byung Wook Kim (Changwon National University, Korea (South))
1570656458	Poster Session P-5	Applications for ICT Convergence	Data Stream Management for Distributed Devices in Smart Factory	Yang Koo Lee (ETRI, Korea (South)); Jun Wook Lee (AIBlab, Korea (South)); Seung-Jun Lee and Daesub Yoon (ETRI, Korea (South))
1570656472	Poster Session P-5	Applications for ICT Convergence	Design and Implement of Firefighting-Active-Survey Terminal for Shortening Rescue Time	Sun-Hwa Lim (ETRI, Korea (South))
1570656474	Poster Session P-5	Applications for ICT Convergence	Distributed Anti-sway Control for Multi-crane Cooperation	Woojin Kim and Seung-Jun Lee (ETRI, Korea (South)); Yang Koo Lee (ETRI, Korea (South)); Daesub Yoon (ETRI, Korea (South))
1570656536	Poster Session P-5	Applications for ICT Convergence	Block-based masking region relocation and detection method for image privacy masking	Sohee Park (ETRI, Korea (South)); Geon Woo Kim (ETRI, Korea (South))
1570656564	Poster Session P-5	Applications for ICT Convergence	A Moving Pattern Classification Based on Multi-modal Data for Public Safety Services	Eunjung Kwon (ETRI, Korea (South)); Won-Jae Shin (ETRI, Korea (South)); Hyunho Park (ETRI, Korea (South)); Sungwon Byon (ETRI, Korea (South)); Eui-Suk Jung (ETRI, Korea (South)); Yong-Tae Lee (ETRI, Korea (South)); Kyu-Chul Lee (Changnam National University, Korea (South))
1570656569	Poster Session P-5	Applications for ICT Convergence	Performance Evaluation of GNSS and Motion Sensor Integrated Positioning Algorithm for Land Vehicle Monitoring	Chi-ho Park (DGIST, Korea (South)); Joong-hee Han (DGIST, Korea (South))
1570656601	Poster Session P-5	Applications for ICT Convergence	Person Re-identification in Movies/Dramas	Dong-Hyuck Im and Yongseok Seo (ETRI, Korea (South)); HyeonWoo Kim (Korea Univ, Korea (South)); Eeunjun Hwang (Korea University, Korea (South)); Jihyun Park (ETRI, Korea (South))
1570656677	Poster Session P-5	Applications for ICT Convergence	Dynamic Power Management for Heterogeneous Server Environments	Baik Song An (ETRI, Korea (South)); Jinho On (ETRI, Korea (South)); Byunggyu Lee (ETRI, Korea (South)); Su Min Jang (ETRI, Korea (South)); Sungik Jun (ETRI, Korea (South))
1570656685	Poster Session P-5	Applications for ICT Convergence	Scalable Pointer-based Memory Protection for Data-intensive Computing	Baik Song An (ETRI, Korea (South))
1570656758	Poster Session P-5	Applications for ICT Convergence	Toward Effective IT Services in Defence Talent Management Platform	Eunyoung Cho (ETRI, Korea (South)); Jeany Son and Blagovest Iordanov Vladimirov (ETRI, Korea (South)); Sungwoo Jun (University of Science & Technology & ETRI, Korea (South)); Jaeuk Baek, Soyeon Lee, Chang Eun Lee and Jin-Mo Choi (ETRI, Korea (South)); Feyissa Woyano (ETRI, Ethiopia); Sangjoon Park (ETRI, Korea (South))
1570658776	Poster Session P-5	Applications for ICT Convergence	Light-weighted Network based Human Pose Estimation for Mobile AR Service	Byunggyu Lee (ETRI, Korea (South)); Juyoung Kim and Sung-Uk Jung (ETRI, Korea (South))
1570661495	Poster Session P-5	Applications for ICT Convergence	Design of Integrated Messenger Anti-virus System using Chatbot Service	Shinho Lee, Jungwoon Lee, Wonrak Lee, Seohyun Lee, SuYoung Kim and Eui Tak Kim (ESTsecurity, Korea (South))
1570662748	Poster Session P-5	Applications for ICT Convergence	Energy Storage Operation with Renewable Generation for Energy Self-reliance in Smart Grid	Sewan Heo (ETRI, Korea (South)); Tai Yeon Ku and Wan-Ki Park (ETRI, Korea (South))
1570663303	Poster Session P-5	Applications for ICT Convergence	Simulation Study of Orthogonal Polyphase Code for Spectrum Shared Networked Radar	Jae-Han Lim (University of California, Los Angeles, USA & Kwangwoon University, Korea (South)); Minsoo Kang (ETRI, Korea (South)); HyungJung Kim (ETRI, Korea (South))
1570663543	Poster Session P-5	Applications for ICT Convergence	Anomaly Detection of Environmental Sensor Data using Recurrent Neural Network at the Edge Device	JaeMyoung Kim (ETRI, Korea (South)); Young Wook Cho (Chiron Soft, Korea (South)); Do Hyun Kim (ETRI, Korea (South))
1570663553	Poster Session P-5	Applications for ICT Convergence	Mass authentication information injection method for effective security management of AMI device	Taehun Kim, Muyong Hyun, Minyong Kim and Sungcheol Kim (KEPCO KDN, Korea (South))
1570663630	Poster Session P-5	Applications for ICT Convergence	ColorWatch: Color-Tactile Interpretation to Improve Color Perception and Accessibility for People with Visual Impairments	Chunghoon Lee (SungKyunkwan University, Korea (South)); Muhammad Shahid Jabbar and Jun Dong Cho (Sungkyunkwan University, Korea (South))

1570663639	Poster Session P-5	Applications for ICT Convergence	Evaluation of Image Similarity Algorithms for Malware Fake-Icon Detection	Jun-Seob Kim (Sejong University & ESTsecurity Corp., Korea (South)); Wookhyun Jung, Sangwon Kim, Shinho Lee and Eui Tak Kim (ESTsecurity, Korea (South))
1570663804	Poster Session P-5	Applications for ICT Convergence	3D Portable Mapping System to Build Radio Fingerprints and Spatial Map	Yu-Cheol Lee (Intelligent Cognitive Technology, Korea (South)); Wonpil Yu (ETRI, Korea (South))
1570663923	Poster Session P-5	Applications for ICT Convergence	Semi-Automatic SAR Image Land Cover Labeling Pipeline	Jaewon Lee (KETI, Korea (South)); Dalwon Jang and Jongseol J. Lee (KETI, Korea (South))
1570664138	Poster Session P-5	Applications for ICT Convergence	Behavior Tree-based Object Event Modeling with Dynamic Change Control for Virtual Reality Fire Fighting Training Contents	Ungyeon Yang (ETRI, Korea (South)); Jinseok Seo (Dong-Eui University, Korea (South))
1570664163	Poster Session P-5	Applications for ICT Convergence	Hybrid System to Minimize Damage by Zero-Day Attack based on NIDPS and HoneyPot	Jang Hyeon Jeong and Seong Gon Choi (Chungbuk University, Korea (South))
1570664655	Poster Session P-5	Applications for ICT Convergence	An Approach to Automatic Classification of Construction Workers by Degree of Risk	YouHee Choi (ETRI, Korea (South)); Do Hyun Kim (ERT, Korea (South))
1570665069	Poster Session P-5	Applications for ICT Convergence	MFCW Radar's Range and Velocity Estimation using Local Polynomial Approximation Based Function	Chungho Ryu (Yonsei University, Korea (South)); Joohwan Chun (KAIST, Korea (South)); Chungyong Lee (Yonsei University, Korea (South))
1570665375	Poster Session P-5	Applications for ICT Convergence	The Power Measuring Method for Individual PV Using Frequency Modulation on Single Line	Yong Hee Park and Lae Yeop Lee (Chungbuk National University, Korea (South)); Seong Gon Choi (Chungbuk University, Korea (South))
1570666347	Poster Session P-5	Applications for ICT Convergence	Design and Implementation of Large-Capacity Transmission Technology	Kwanwoong Ryu, Jewon Lee, Joon-Young Jung and Dong-Joon Choi (ETRI, Korea (South))
1570668509	Poster Session P-5	Applications for ICT Convergence	Enhancing Prediction of Chlorophyll-a Concentration with Feature Extraction using Higher-Order Partial Least Squares	Taewhi Lee, Jang-Ho Choi, Miyoung Jang, Jong Ho Won and Jiyong Kim (ETRI, Korea(South))
1570668803	Poster Session P-5	Applications for ICT Convergence	On the Requirements and Architecture of All-in-One Platform for Virtual Conferences	Kunwoo Park (Seoul National University, Korea (South)); Ganghyeon Oh (Networkdefines, Korea (South)); Kideok Cho (Network Defines, Inc., Korea (South)); Sangheon Pack (Korea University, Korea (South))
1570669065	Poster Session P-5	Applications for ICT Convergence	Drone security module for UAV data encryption	Keonwoo Kim (ETRI, Korea (South))
1570669270	Poster Session P-5	Applications for ICT Convergence	Measurement of brightness performance in viewing window based electronic holographic display system	Hayan Kim (ETRI, Korea (South))
1570669326	Poster Session P-5	Applications for ICT Convergence	Implementation of Software IPsec Communication using ARIA Cipher Algorithm in SDN	Won Seok Choi (Chungbuk National University, Korea (South)); Jang Hyeon Jeong and Seong Gon Choi (Chungbuk University, Korea (South))
1570669493	Poster Session P-5	Applications for ICT Convergence	Design and implementation of Multi-kernel manager	Seung Hyub Jeon (ETRI, Korea (South)); Seung-Jun Cha and Yeonjeong Jeong (ETRI, Korea (South)); Jinmee Kim (ETRI, Korea (South)); Sungin Jung (ETRI, Korea (South))
1570669609	Poster Session P-5	Applications for ICT Convergence	Hints for Memory Optimization of Asylo-based SGX Enclave Applications	Hocheol Nam, Jaewon Park, SeungGyun Lee, Seunghyun Yeo and Seehwan Yoo (Dankook University, Korea (South))
1570669822	Poster Session P-5	Applications for ICT Convergence	Impact of Data Center Cooling Technology to Effectiveness of Turbo-Mode	Jaehyong J Shin (Sungkyunkwan University & Samsung Electronics, Korea (South)); Euiyoung Seo (Sungkyunkwan University, Korea (South))
1570670012	Poster Session P-5	Applications for ICT Convergence	A Hybrid Approach for the Prediction of Chlorophyll-a Concentration at the Non-monitoring Area in the Geum River, Korea	Miyoung Jang (ETRI, Korea (South)); Jang-Ho Choi (ETRI, Korea (South)); Jaeyoung Kim and Dongil Seo (Chungnam National University, Korea (South)); Jiyong Kim (ETRI, Korea (South))
1570670062	Poster Session P-5	Applications for ICT Convergence	Multi-Point Gesture Recognition Leveraging Acoustic Signals and CNN	Donghwan Shin (Hanyang University, Korea (South)); Jongwon Yoon (Hanyang University, Korea (South))
1570670152	Poster Session P-5	Applications for ICT Convergence	Bandwidth Selection of Kernel Density Estimation for GIS-based Crime Occurrence Map Visualization	Yongjin Kim (Korea University of Science and Technology, Korea (South)); Gyeongdeok Kim (Korea University of Technology and Education, Korea (South)); Yong-Tae Lee (ETRI, Korea (South)); Kwangho Jang (Police Science Institute, Korea (South))
1570670166	Poster Session P-5	Applications for ICT Convergence	Handover Impact on E2E Delay of Multimedia Service in High-Speed Railway System	Sangchul Oh (ETRI, Korea (South)); Byungsik Yoon (ETRI & Hanyang University, Korea (South)); Dongjoon Kim and Dongil Sung (Korea Railway Network Authority, Korea (South))
1570670216	Poster Session P-5	Applications for ICT Convergence	Active jumping motion platform hardware in immersive virtual reality environment	Daehwan Kim, Suran Park and Kisuk Lee (ETRI, Korea (South))
1570670484	Poster Session P-5	Applications for ICT Convergence	Analysis of k value from k-anonymity model based on re-identification time	Chaewoon Kim, JunHyoun Oh and Kyungho Lee (Korea University, Korea (South))

1570670954	Poster Session P-5	Applications for ICT Convergence	Personalized Instrument Cluster for Car-sharing Service: Like my car	YoungJin Kwon (ETRI, Korea (South)); Kyongho Kim and Do Hyun Kim (ETRI, Korea (South))
1570671556	Poster Session P-5	Applications for ICT Convergence	Development of Unit Robot Skill based Task Recipe for Task Planning	Hyonyoung Han and Eun Seo Lee (ETRI, Korea (South)); Hyun Chul Kang (ETRI, Korea (South))
1570671737	Poster Session P-5	Applications for ICT Convergence	Comparison of Various UEP Techniques for IRNSS Message Structure	Gangsan Kim, Hyunwoo Cho and Hong-Yeop Song (Yonsei University, Korea (South)); Sanguk Lee (ETRI, Korea (South))
1570672201	Poster Session P-5	Applications for ICT Convergence	Statistically Secure and Massively Scalable Fingerprinting Scheme for Mobile Game Broadcasting Content	Seong Whan Kim (University of Seoul, Korea (South))
1570672205	Poster Session P-5	Applications for ICT Convergence	A novel method of combining pixel density map and SLIC for low-power display	Simon Suh (Ajou university); Young-Jin Kim (Ajou University, Korea (South))
1570672875	Poster Session P-5	Applications for ICT Convergence	Real-Time Snow Cover Map Generation for Virtual City Tours	Kyung-Kyu Kang and Chang-joon Park (ETRI, Korea (South))
0006	Poster Session P-5	Applications for ICT Convergence	Towards Flow Control of Driver-Vehicle Interactions	Auk Kim(KAIST), Jung-Mi Park(Samsung Research, Korea (South)), Woohyeok Choi and Uichin Lee(KAIST, Korea (South))
1570648864	Poster Session P-6	Internet of Things	NB-IoT Downlink Channel Estimation	Jeong Wook Won (ETRI, Korea (South))
1570650831	Poster Session P-6	Internet of Things	Hierarchical Access Control for SDP-IoT	Yun-kyung Lee (ETRI, Korea (South))
1570652632	Poster Session P-6	Internet of Things	Proposal of Smart Segmentation Framework for preventing threats from spreading in IoT	Jaedeok Lim, Seongyoung Sohn and Jeong Nyeo Kim (ETRI, Korea (South))
1570655339	Poster Session P-6	Internet of Things	Power management system in the microgrid with the proper electric vehicle data preprocessing	Jangkyum Kim (KAIST, Korea (South)); Nakyoung Kim, Jaeseob Han and Hyeonseok Seo (KAIST, Korea (South)); Jun Kyun Choi (KAIST, Korea (South))
1570655340	Poster Session P-6	Internet of Things	Seal-bid renewable energy certification trading in power system using blockchain technology	Jangkyum Kim and Hyunseo Park (KAIST, Korea (South)); Gyeong Ho Lee (KAIST, Korea (South)); Jun Kyun Choi (KAIST, Korea (South)); Youngjoo Heo (Hyundai E&C, Korea (South))
1570655541	Poster Session P-6	Internet of Things	Wireless Energy Harvesting IC for Low Power IoT sensor	Jin-Sup Kim (KETI, Korea (South))
1570655697	Poster Session P-6	Internet of Things	Anomaly Detection using Elevation and Thermal Map for Security Robot	Ho Chul Shin (ETRI, Korea (South)); Kiin Na (ETRI, Korea (South))
1570655730	Poster Session P-6	Internet of Things	Throughput Maximization for Uplink IoT NOMA Systems with Efficient Resource Allocation	Gunhee Jang, Cheol Lee, Namkyu Kim and Wooseok Kang (Chung-Ang University, Korea (South)); The-Vi Nguyen (Chung-Ang University, Korea (South)); Sungrae Cho (Chung-Ang University, Korea (South))
1570655823	Poster Session P-6	Internet of Things	Localization of Internet of Things Network via Deep Neural Network Based Matrix Completion	Sunwoo Kim and Byonghyo Shim (Seoul National University, Korea (South))
1570656243	Poster Session P-6	Internet of Things	VibAuth: Enabling Accurate, Usable, and Deployable User Authentication by Leveraging Vibration	Jinseon Park (Chung-Ang University, Korea (South)); Syed Asif Raza Shah (Sukkur Institute of Business Administration University, Korea (South)); Hyosu Kim and Heesu Jun (Chung-Ang University, Korea (South))
1570656449	Poster Session P-6	Internet of Things	A study on the correlation between subjective driver readiness and NDRT type during automated driving	Jungsook Kim (ETRI, Korea (South)); Woojin Kim (ETRI, Korea (South)); Hyunsuk Kim (ETRI & Emotion Recognition IoT Research Section, Korea (South)); Daesub Yoon (ETRI, Korea (South))
1570656568	Poster Session P-6	Internet of Things	Localized Optimal Real-time Multicast Routing in Geolocation-based Wireless Sensor Networks	Yongbin Yim (ETRI (ETRI), Korea (South)); Jung Hee Lee (ETRI, Korea (South)); Namseok Ko (ETRI, Korea (South)); Hosung Park (Busan University of Foreign Studies, Korea (South))
1570656587	Poster Session P-6	Internet of Things	Intelligent Cooling Management System Responding to Automated Demand Response	Kiwoong Kwon, Sanghun Kim, Jungmee Yun and SangHak Lee (KETI, Korea (South))
1570656705	Poster Session P-6	Internet of Things	Enhancing the Connectivity of Satellite IoT Devices in Terrestrial-Non terrestrial Integrated Networks based on the Stackelberg Game Approach	Gyeongrae Im, Dong-Hyun Jung and JoonGyu Ryu (ETRI, Korea (South))
1570656967	Poster Session P-6	Internet of Things	Hybrid FS/PS SWIPT based Backscatter Communication for Internet of Things	Hyun Suk Choi and Dong In Kim (Sungkyunkwan University, Korea (South))
1570659466	Poster Session P-6	Internet of Things	PUF-based Authentication Scheme for IoT Devices	Seungyong Yoon (ETRI, Korea (South))
1570661224	Poster Session P-6	Internet of Things	A study on Time-series DBMS Application for EdgeX-based lightweight edge gateway	Jaemin Kim, Chorwon Kim and Byung Hee Son (ETRI, Korea (South)); JiHyoung Ryu (ETRI, Korea (South)); Sungchang Kim (ETRI, Korea (South))
1570662614	Poster Session P-6	Internet of Things	Eyeball tracking and Object Detection in Smart Glasses	Kwang-Yong Kim (ETRI, Korea (South)); Kibong Song (ETRI, Korea (South))
1570663859	Poster Session P-6	Internet of Things	LwM2M based IoT Microservice Model with Replicas Synchronization Technique	SeungChul Son, Seok-Kap Ko, Hyungok Lee and Byung Tak Lee (ETRI, Korea (South))
1570664245	Poster Session P-6	Internet of Things	Power Purchase Cost Minimization in Radial Microgrid Network with Linear Programming	Lae Yeop Lee (Chungbuk National University, Korea (South)); Seong Gon Choi (Chungbuk University, Korea (South))
1570664256	Poster Session P-6	Internet of Things	Secure IoT Device Authentication Scheme using Key Hiding Technology	Byoung-Koo Kim (ETRI, Korea (South))

1570665382	Poster Session P-6	Internet of Things	Enhancing Localization Accuracy in Industrial Indoor Environment using Metaheuristic Algorithm	Danielle Jaye S. Agron, Jae-Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570665772	Poster Session P-6	Internet of Things	Tactical Remodeling of Unrecoverable Packets in MIL-STD-1553 Network-bus for Industrial-IoBT	Williams-Paul Nwadiugwu, Chi-Yun Kim, Etobi-Damian Tita and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570666109	Poster Session P-6	Internet of Things	Back-off Improvement By Using Q-learning in IEEE 802.11p Vehicular Network	Lee Dong jin (University of ajou, Korea (South)); Yafeng Deng and Young-June Choi (Ajou University, Korea (South))
1570667030	Poster Session P-6	Internet of Things	Prototyping of Collaborative Working Environment Using Mixed Reality 3D City Models	Yoon-Seop Chang, Ahyun Lee and Insung Jang (ETRI, Korea (South))
1570668680	Poster Session P-6	Internet of Things	Design and Performance Evaluation of Crime Type and Crime Risk Score Estimation Technique for Fast and Efficient Response of Severe Crimes	Myung-Sun Baek (ETRI, Korea (South)); Yong-Tae Lee (ETRI, Korea (South)); Kwangho Jang (Police Science Institute, Korea (South)); Heejo Lee (Mobigen, Korea (South)); Wonjoo Park (ETRI, Korea (South))
1570669015	Poster Session P-6	Internet of Things	Requirements and Design of Mental Health System for Stress Management of Knowledge Workers	Kyonghyun Park and Minjung Kim (ETRI, Korea (South)); Daesub Yoon (ETRI, Korea (South)); Hyunsuk Kim (ETRI, Korea (South)); Jungsook Kim (ETRI, Korea (South)); Oh-Cheon Kwon (ETRI, Korea (South))
1570669078	Poster Session P-6	Internet of Things	Co-location Detection System Using Mobile Magnetometer Data	Hyotaek Lim, David Ishak Kosasih and Byung-Gook Lee (Dongseo University, Korea (South))
1570669317	Poster Session P-6	Internet of Things	Software-based Random Number Generators for Resource Constrained Devices	Seungil Noh (Kwangwoon University, Korea (South)); Jaehan Kim (University of California, Berkeley, USA); Youngjoo Shin (Korea University, Korea (South))
1570669330	Poster Session P-6	Internet of Things	Remote Two-wheel Robot control using OPC-UA	Seung-Jun Lee (ETRI, Korea (South)); Yang Koo Lee (ETRI, Korea (South)); Jun Wook Lee (AIBlab, Korea (South)); Woojin Kim and Daesub Yoon (ETRI, Korea (South))
1570669476	Poster Session P-6	Internet of Things	Distributed Computing Architecture for Logistic Job Allocation in Smart Factory	Philip T. Daely (Kumoh National Institute of Technology, Korea (South) & Institut Teknologi Telkom Surabaya, Indonesia); Alifia Putri Anantha, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570669478	Poster Session P-6	Internet of Things	A study of Efficient Small Data Transmission in Industry IoT based 3GPP NB-IoT System	Hwang You-sun, JaeSheung Shin and Sookyang Kang (ETRI, Korea (South))
1570669536	Poster Session P-6	Internet of Things	Time Synchronization Method for LPWA Using Simple Sync Procedure in IoT Wireless Network	Sunghwan Kang and Joonyoung Eom (IREXNET Co., Ltd., Korea (South)); Junseok Eom (ToCoS Inc., Korea (South)); SeongIn Kang (Korea Expressway Corporation, Korea (South))
1570669555	Poster Session P-6	Internet of Things	Implementation of an UAV Real-Time Wireless Communication System Using Wi-Fi	Jungyu Choi, Zhihui Jin and Sunbin Im (Soongsil University, Korea (South))
1570669572	Poster Session P-6	Internet of Things	Visualization and Interaction System for Hologram-Like	JuHwan Kim and Dongsik Jo (WonKwang University, Korea (South))
1570669668	Poster Session P-6	Internet of Things	Dynamic Analysis Tool for IoT Device	Daeil Jang (Korea Internet Security Agency, Korea (South)); Taeun Kim and Dowon Kim (Korea Internet Security Agency, Korea (South))
1570669738	Poster Session P-6	Internet of Things	Federated Reinforcement Learning for Automatic Control in SDN-based IoT Environments	Hyun-Kyo Lim, Ju-Bong Kim, Sang-Youn Kim and Youn-Hee Han (Korea University of Technology and Education, Korea (South))
1570670040	Poster Session P-6	Internet of Things	GPU-specific Task Offloading in the Mobile Edge Computing Network	Namkyu Kim and Yunseong Lee, Yunseong Lee, Chunghyun LeeThe-Vi Nguyen and Van Dat Tuong (Chung-Ang University, Korea (South)); Woongsoo Na(ETRI, Korea (South)); Laihyuk Park (Seoul National University of Science and Technology, Korea (South)); Sungrae Cho (Chung-Ang University, Korea (South))
1570670075	Poster Session P-6	Internet of Things	Smart Device for Ice Fission Determination using Fourier's Law on ATmega32p	Gabriel Avelino R Sampedro, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670097	Poster Session P-6	Internet of Things	Attack Detection in Fog Layer for IIoT Based on Machine Learning Approach	Mareska Pratiwi Maharani (Kumoh National Institute of Technology, Korea (South)); Philip T. Daely (Kumoh National Institute of Technology, Korea (South) & Institut Teknologi Telkom Surabaya, Indonesia); Jae-Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670100	Poster Session P-6	Internet of Things	Design of SW Framework for Trustworthy AI-Data Commons	Sunhwan Lim (ETRI, Korea (South))

1570670115	Poster Session P-6	Internet of Things	The Study of Customer Satisfaction Index Characteristic with Local Water Supply Service	Junseok Eom and Taewook Choi (ToCoS Inc., Korea (South)); Yungsuk Yoon (Manager of K-water, Korea (South)); Kyung Geun Lee (Sejong University, Korea (South))
1570670141	Poster Session P-6	Internet of Things	Edge Computing-Based Anomaly Detection for Multi-Source Monitoring in Industrial Wireless Sensor Networks	Alifia Putri Anantha (Kumoh National Institute of Technology, Korea (South)); Philip T. Daely (Kumoh National Institute of Technology, Korea (South) & Institut Teknologi Telkom Surabaya, Indonesia); Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670156	Poster Session P-6	Internet of Things	Extension of Rule-based SLICE Platform With Deep Learning Model	Hyunhak Kim, Young-Ho Suh and Sungpil Woo (ETRI, Korea (South)); Dong-Hwan Park (ETRI, Korea (South))
1570670284	Poster Session P-6	Internet of Things	A UAV-assisted Blockchain Based Secure Device-to-Device Communication Using Bloom Filter in Internet of Military Things	Mohammad Golam Mohtasin (Kumoh National Institute of Technology (KIT) & IT Convergence, Korea (South)); Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570670568	Poster Session P-6	Internet of Things	The method for providing of parking location guidance service in a smart parking lot	Eunjo Kim, Woongshik You and Cheol Sig Pyo (ETRI, Korea (South))
1570670601	Poster Session P-6	Internet of Things	ISG: Interworking System for Semantic data representation in Graph DB	JiEun Lee and Jonggwan An (Sejong University, Korea (South)); SeungMyeong Jeong (KETI, Korea (South)); JaeSeung Song (Sejong University, Korea (South))
1570670955	Poster Session P-6	Internet of Things	Acquisition of Tactile Information from Point Cloud	Hee Jun Ahn (KyungHee University, Korea (South)); Een-Kee Hong (Kyunghee University, Korea (South))
1570671259	Poster Session P-6	Internet of Things	A study on the modeling of the IoT-based motion pattern analysis system to extermination harmful wild animals	Hyunddo Yoon (KETI, Korea (South)); So Young Kim and Yea Sol Jang (KETI, Korea (South)); MinSik Ghil (ToBeSystem, Korea (South)); Wan Yong Rha (Shinsung University, Korea (South)); Seok Yoon (Dangjin Agricultural Technology Center, Korea (South))
1570671641	Poster Session P-6	Internet of Things	Investigation on the Effect of Mental Workload on the Time-related Take-over Performance	Jungsook Kim (ETRI, Korea (South)); Hyunsuk Kim (ETRI, Korea (South)); Woojin Kim, Seung-Jun Lee and Daesub Yoon (ETRI, Korea (South))
1570672179	Poster Session P-6	Internet of Things	Performance of RPL Routing Protocol over Multihop Power Line Communication Network	Mingyu Park (Chung-Ang University, Korea (South)); Gunmo Jeong and Heedeok Son (Chung-Ang University, Korea (South), Korea (South)); Jeongyeup Paek (Chung-Ang University, Korea (South))
1570672402	Poster Session P-6	Internet of Things	A Study on Blockchain-based Music Distribution Framework: Focusing on Copyright Protection	Ahyoung Kim (ETRI, Korea (South))
1570672415	Poster Session P-6	Internet of Things	Design of Greenhouse Heat Control Scheme: Uniform Heat Transfer Approach	Dong-Hee Noh, Sunghwan Jeong and Choi Ju-Hwan (KETI, Korea (South))
1570672484	Poster Session P-6	Internet of Things	Performance Measurement of GraphQL API in Home ESS Data Server	Eunggi Lee, Kiwoong Kwon and Jungmee Yun (KETI, Korea (South))
1570672566	Poster Session P-6	Internet of Things	Computational Holographic Imaging based on Volume Holographic Optical Element for Color Dispersion Free Holographic Virtual Display	Yong Seok Hwang and Eun-Soo Kim (Kwangwoon University, Korea (South))
1570673204	Poster Session P-6	Internet of Things	Pinhole based Table Top Light-Field Holographic Display with High Optical Efficiency	Yong Seok Hwang and Eun-Soo Kim (Kwangwoon University, Korea (South))
1570677454	Poster Session P-6	Internet of Things	Research on how to prevent online counterfeiting with blockchain-based cross border data sharing	Heongu Lee (Office of Strategic R&D Planning, Korea (South)); Changhak Yeon (BlockOdyssey, Korea (South))
0011	Poster Session P-6	Internet of Things	A Survey on Drone Simulation Software Technologies	Yeongeun Kang and Joongheon Kim (Korea University, Korea (South))
1570655225	Session V-1	Artificial Intelligence and Machine Learning 3	Deep Learning-Based Bearing Fault Detection Using 2-D Illustration of Time Sequence	Dhiraj Neupane and Jongwon Seok (Changwon National University, Korea (South))
1570669875	Session V-1	Artificial Intelligence and Machine Learning 3	A Study on the Effectiveness of A2C and A3C Reinforcement Learning in Parking Space Search in Urban Areas Problem	Hung-Chin Jang, Yi-Chen Huang and Hsien-An Chiu (National Chengchi University, Taiwan)
1570669904	Session V-1	Artificial Intelligence and Machine Learning 3	Myanmar Text-to-Speech System based on Tacotron (End-to-End Generative Model)	Yuzana Win and Htoo Pyae Lwin (Yangon Technological University, Myanmar); Tomonari Masada (Rikkyo University, Japan)
1570669921	Session V-1	Artificial Intelligence and Machine Learning 3	Myanmar Text-to-Speech System based on Tacotron-2	Yuzana Win (Yangon Technological University, Myanmar); Tomonari Masada (Rikkyo University, Japan)
1570670081	Session V-1	Artificial Intelligence and Machine Learning 3	Deep learning-based facial landmarks localization with loss comparison	Savina Colaco and Dong Seog Han (Kyungpook National University, Korea (South))



1570670513	Session V-1	Artificial Intelligence and Machine Learning 3	An Image-based Human Physical Activities Recognition in an Indoor Environment	Farman Ullah (COMSATS University Islamabad, Pakistan); Asif Iqbal (Inha University, Incheon, South Korea, Korea (South)); Ajmal Khan (COMSATS University Islamabad, Pakistan); Rida Gul Khan and Larabi Malik (COMSATS University Islamabad, Pakistan); Kyung Sup Kwak (Inha University, Korea (South))
1570663333	Session V-2	5G, 4G, WLAN 3	Design and Simulation of the Multi-RAT Load-balancing Algorithms for 5G-ALLSTAR Systems	Alessandro Giuseppe (University of Rome Sapienza, Italy); Syed Maaz Shahid (University of Ulsan, Korea (South)); Emanuele De Santis (University of Rome "La Sapienza", Italy); Seok Ho Won (ETRI, Korea (South)); Sungoh Kwon (University of Ulsan, Korea (South)); Taesang Choi (ETRI, Korea (South))
1570664830	Session V-2	5G, 4G, WLAN 3	Delay-Sensitive Task Offloading for Internet of Things in Nonorthogonal Multiple Access MEC Networks	Van Dat Tuong, Thanh Phung Truong and Anh-Tien Tran (Chung-Ang University, Korea (South)); Arooj Masood (Ultra-intelligent Computing and Communications Lab, Korea (South)); Demeke Shumeye (Chung-Ang University, Korea (South)); Chunghyun Lee (Chun-Ang University, Korea (South)); Yunseong Lee and Sungrae Cho (Chung-Ang University, Korea (South))
1570670005	Session V-2	5G, 4G, WLAN 3	UE current consumption on carrier aggregation in LTE-A systems	Juliano Bazzo (Samsung SIDIA, Brazil); Rayner M. Pires and Alvaro Ortega (Sidia Institute of Science and Technology, Brazil); Navid Portela Salehi (Universidade do Estado do Amazonas & Sidia Institute of Science and Technology, Brazil); Paulo T. M. Santos (Fundação Centro de Análise, Pesquisa e Inovação Tecnológica (FUCAPI) & Sidia Institute of Science and Technology, Brazil)
1570672111	Session V-2	5G, 4G, WLAN 3	Position and Machine Learning-Aided Beam Prediction and Selection Technique in Millimeter-Wave Cellular System	Mohammed Saquib Khan, Qasim Sultan and Yong Soo Cho (Chung-Ang University, Korea (South))
1570662372	Session V-3	SDN and Network Virtualization	Optimal Primary and Backup Resource Allocation with Workload-Dependent Failure Probability	Mengfei Zhu, Fujun He and Eiji Oki (Kyoto University, Japan)
1570662930	Session V-3	SDN and Network Virtualization	Virtual Network Embedding Algorithm Based on Content Delivery Network	Sackdavong Mangkhasum (Kyushu Institute of Technology, Japan)
1570669808	Session V-3	SDN and Network Virtualization	Deep Reinforcement Learning Based Dynamic Resource Allocation in Cloud Radio Access Networks	Rehenuma Tasnim Rodoshi (Chosun University, Korea (South)); Taewoon Kim (Hallym University, Korea (South)); Wooyeol Choi (Chosun University, Korea (South))
1570670191	Session V-3	SDN and Network Virtualization	An architecture for enabling VNF auto-scaling with flow migration	Tuong Vu and Jangwon Lee (Soongsil University, Korea (South)); Quang Huy Nguyen (Soongsil University, Vietnam); Kyoungjae Sun (Soongsil University, Korea (South)); younghan Kim (Soongsil University, Korea (South))
1570672373	Session V-4	Internet of Things 3	Deterministic Scheduling With Packet Aggregation in Industrial Internet of Things	Heng Wang, Jianglin Hu, Shuai Tan and Tong Shi (Chongqing University of Posts and Telecommunications, China)
1570672469	Session V-4	Internet of Things 3	Data-driven IoT-based Water Quality Monitoring and Potability Classification System in Rural Areas	Melchizedek I Alipio (De La Salle University, Philippines)
1570660793	Session V-5	Smart Media & Broadcasting, and Smart Devices	Performance of Smart Personal Assistant Applications based on Speech Recognition Technology using IoT-based Voice Commands	Haris Isyanto (Universitas Muhammadiyah Jakarta, Indonesia); Ajib S. Arifin and Muhammad Suryanegara (Universitas Indonesia, Indonesia)
1570669601	Session V-5	Smart Media & Broadcasting, and Smart Devices	A User Profile-based Smart Home Energy Management System	Murad Khan (Kyungpook National University & Sarhad University of Science and Technology, Korea (South)); Muhammad Toaha Raza Khan, Muhammad Saad Malik and Dongkyun Kim (Kyungpook National University, Korea (South))
1570670725	Session V-5	Smart Media & Broadcasting, and Smart Devices	Usability Evaluation of Voice-based Intelligent Personal Assistants	Dilawar Zwakman (School of Information Technology, Thailand); Debajyoti Pal (King Mongkut's University of Technology Thonburi, Thailand); Tuul Triyason and Vajirasak Vanijja (King Mongkut's University of Technology Thonburi, Thailand)
1570665433	Session VI-1	Energy Internet, Smart Grid Infrastructure and Applications	IoT-Based HVAC Monitoring System for Smart Factory	Fabliha Islam, Cosmas Ifeanyi Nwakanma, Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))
1570654763	Session VI-1	Energy Internet, Smart Grid Infrastructure and Applications	A Human Mobility Model in Malls	Dat Van Anh Duong and Seokhoon Yoon (University of Ulsan, Korea (South))

1570672155	Session VI-1	Energy Internet, Smart Grid Infrastructure and Applications	An ARQ-Based Selection Cooperation Protocol for Wireless Energy Harvesting Networks	Heng Wang, Zhengcen Peng, Qiuni Tan and Min Li (Chongqing University of Posts and Telecommunications, China)
1570664950	Session VI-2	Wireless & Mobile Communication Systems 2	An IP Fast Reroute Method against Multiple Node Failures	Naoto Numata, Masashi Ishigai, Yuya Tarutani, Yukinobu Fukushima and Tokumi Yokohira (Okayama University, Japan)
1570665847	Session VI-2	Wireless & Mobile Communication Systems 2	Verification of Interference Estimation by a Radio Sensor Considering Detection Sensitivity for Dynamic Spectrum Access in Spatial White Space	Tsuyoshi Kobayashi, Kenichiro Yamamoto, Osamu Takyu and Yasushi Fuwa (Shinshu University, Japan)
1570670970	Session VI-2	Wireless & Mobile Communication Systems 2	Delayed Pseudo-Bayesian Transmission Control for S-ALOHA Systems	Jie Liu and Hu Jin (Hanyang University, Korea (South))
1570669752	Session VI-3	Applications for ICT Convergence 2	Applications and Challenges in Video Surveillance via Drone: A Brief Survey	Naqqash Dilshad (Sejong University, Korea (South)); Jaeyoung Hwang (Sejong University, Korea (South)); JaeSeung Song (Sejong University, Korea (South)); Nak-Myoung Sung (KETI, Korea (South))
1570670142	Session VI-3	Applications for ICT Convergence 2	In-Vivo Estimation of Glucose Level Using PPG Signal	Shantanu Sen Gupta (Kookmin University & School of Electrical Engineering, Korea (South)); M Shifat Hossain, Chowdhury Azimul Haque and Ki-Doo Kim (Kookmin University, Korea (South))
1570672446	Session VI-3	Applications for ICT Convergence 2	Blockchain-based Farming Activities Tracker for Enhancing Trust in the Community Supported Agriculture Model	Duc-Hiep Nguyen (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam); Nguyen Huynh Tuong (Faculty of Computer Science & Engineering, Ho Chi Minh city University of Technology, Vietnam); Hoang-Anh Pham (Ho Chi Minh City University of Technology & Vietnam National University Ho Chi Minh City, Vietnam)
1570669901	Session VI-4	Big Data and Smart Computing	Real-time and Secure Geospatial Data Warehouse for Intelligent Transportation Systems	Sean Ryan S. Chan and Datuluna G. Dilangalen (University of the Philippines - Diliman, Philippines); Wilson Tan (University of the Philippines, Philippines)
1570658137	Session VI-4	Big Data and Smart Computing	i-tStar (3D): Three-Dimensional Interactive Trajectory Star Coordinates	Jing He (Tsinghua University, China); Haonan Chen (China University of Mining and Technology-Beijing, China); Lingyu Wang (Xuzhou University of Technology, China); Yebin Zou (Ningxia University, China)
1570665708	Session VI-4	Big Data and Smart Computing	Privacy-preserving People Counting with Channel State Information	Yongjae Yoo and Jihwan Suh (Seoul National University, Korea (South)); Yonghun Lee (University of Washington, USA); Seongjoon Kang (New York University Tandon School of Engineering, USA); Byungjun Kim (University of California, San Diego, USA); Saewoong Bahk (Seoul National University, Korea (South))
1570669537	Session VI-4	Big Data and Smart Computing	Network Controlled Handover Mechanisms in Mobile Edge Computing	Ming-Chin Chuang and Shuo-Ang Ke (China University of Technology, Taiwan); Chao-Lin Chen (Institute For Information Industry, Taiwan)
1570668430	Session VI-5	Signal and Image Processing	Spatial Compression of Sensing Information for Exploiting the Vacant Frequency Resource using Radio Sensors	Kenichiro Yamamoto and Osamu Takyu (Shinshu University, Japan); Keiichiro Shirai (Shinshu University Japan, Japan); Yasushi Fuwa (Shinshu University, Japan)
1570665207	Session VI-5	Signal and Image Processing	Many-to-Many Matching based Resource Allocation to support Multi-Connectivity	Haeyoung Lee, Seiamak Vahid and Klaus Moessner (University of Surrey, United Kingdom (Great Britain))
1570670137	Session VI-5	Signal and Image Processing	Topographic Analysis of High Volume Impacts of Music on Brain Lobe using EEG	Chowdhury Azimul Haque, Tae-Ho Kwon and Ki-Doo Kim (Kookmin University, Korea (South))
1570670759	Session VI-6	Vehicular Information and Communication Technologies	Deep Learning for Channel Estimation and Tracking in Vehicular to Infrastructure Communications	Huaping Liu (Oregon State University, USA); Hyeonsung Kim, Sangmi Moon and Intae Hwang (Chonnam National University, Korea (South))
1570656236	Session VI-6	Vehicular Information and Communication Technologies	Sequence Design for Position Estimation of High-Velocity Vehicles in Millimeter-Wave Cellular Systems	Mohammed Saquib Khan and Yong Soo Cho (Chung-Ang University, Korea (South))
1570656311	Session VI-6	Vehicular Information and Communication Technologies	UAV-assisted NOMA Downlink Communications based on Content Caching	Pham Duy Thanh (University of Ulsan, Korea (South)); Hoang Thi Huong Giang and Insoo Koo (University of Ulsan, Korea (South))
1570656575	Session VI-6	Vehicular Information and Communication Technologies	Calculated Distance Error Improvement by Using Drones in Relay Type GPS	Kouhei Yoshida and Takatoshi Sugiyama (Kogakuin University, Japan)
1570665201	Session VI-6	Vehicular Information and Communication Technologies	Implementation of a Collision Avoidance System To Assist Safe Driving Based on Data Fusion in Vehicular Networks	Haeyoung Lee, Jihoon Yang and Klaus Moessner (University of Surrey, United Kingdom (Great Britain))
1570670561	TPC Special Session I-1	Special Session on KU-AIER (Korea University AI Engineering Research)	Kirchhoff's Circuit Law Applications to Graph Simplification in Search Problems	Jaeho Choi (Chung-Ang University, Korea (South)); Joongheon Kim (Korea University, Korea (South))

1570670746	TPC Special Session I-1	Special Session on KU-AIER (Korea University AI Engineering Research)	Video Placements and Dynamic Streaming Services in Wireless Caching Networks	Minseok Choi (Jeju National University, Korea (South)); Joongheon Kim (Korea University, Korea (South))
1570671595	TPC Special Session I-1	Special Session on KU-AIER (Korea University AI Engineering Research)	Dichromatic Model Based Highlight Removal via Deep Learning	Chan-Ho Lee, Jun-Sang Yoo and Jong-Ok Kim (Korea University, Korea (South))
1570672075	TPC Special Session I-1	Special Session on KU-AIER (Korea University AI Engineering Research)	Reinforced Edge Selection using Deep Learning for Robust Surveillance in Unmanned Aerial Vehicles	Soohyun Park (Korea University, Korea (South)); Jeman Park (Georgia Institute of Technology, USA); David Mohaisen (University of Central Florida, USA); Joongheon Kim (Korea University, Korea (South))
1570672107	TPC Special Session I-1	Special Session on KU-AIER (Korea University AI Engineering Research)	On the Performance of Generative Adversarial Network (GAN) Variants: A Clinical Data Study	Jaesung Yoo (Korea University, Korea (South)); Chihoon Hwang (Chung-Ang University & School of Software, Korea (South)); Jeman Park (Georgia Institute of Technology, USA); An Wang (Case Western Reserve University, USA); David Mohaisen (University of Central Florida, USA); Joongheon Kim (Korea University, Korea (South))
1570668548	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	A method of bandwidth widening using multi direct digital synthesizer for SAR	Kyeongrok Kim (Ajou, Korea (South)); Josaphat Tetuko Sri Sumantyo and Joko Widodo (Chiba University, Japan); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570668534	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Analysis of forest loss by Sentinel-1 SAR time series	Jung-Hoon Lee (Ajou University, Korea (South)); Josaphat Tetuko Sri Sumantyo (Chiba University, Japan); Mirza Waqar (Chiba University, Japan); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570666970	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Temperature Variation Aware Li-ion Battery Aging Simulator for Satellite Systems	Seongik Jang and Hoesek Yang (Ajou University, Korea (South))
1570669544	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Prediction of Propagation between Satellite and Ground Station in Atmospheric Environments	Changseong Kim and Yong Bae Park (Ajou University, Korea (South))
1570671454	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	SAR-to-Optical Image Translation Using SSIM and Perceptual Loss Based Cycle-Consistent GAN	Jieon Hwang and Chushi Yu (University of Soongsil, Korea (South)); Yoan Shin (Soongsil University, Korea (South))
1570670047	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Single Image Super Resolution Using Convolutional Neural Networks for Noisy Images	Tae Bok Lee and Yong Seok Heo (Ajou University, Korea (South))
1570669931	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	High-resolution bridge displacement monitoring using Time-series PS-InSAR technique	Suresh Krishnan Palanisamy Vadivel and Duk-jin Kim (Seoul National University, Korea (South))
1570670238	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Cloud Removal on Satellite Image using Transfer Learning based Generative Adversarial Network	Sangho Ahn and Sehyeong Kim (Ajou University, Korea (South)); Jinwoo Do (Ajou, Korea (South)); Jaehyeong Park and Kang Juyoung (Ajou University, Korea (South))
1570668621	TPC Special Session II-1	Special Session on Satellite Information Convergence Application Service	Design of 4D-8PSK-TCM with Hybrid T-Algorithm based on Deep Learning	Song Kim (Ajou University, Korea (South)); Joan Adria Ruiz-de-Azua (UPC-BarcelonaTech, Spain); Hyuk Park (Universitat Politècnica de Catalunya, Spain); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570664882	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Single Trace Attack on Key Reconciliation Process for Quantum Key Distribution	Dongjun Park (Koera University, Korea (South)); Donghoe Heo, Suhri Kim and Seokhie Hong (Korea University, Korea (South))
1570666767	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Quantum Minimum Searching Algorithm and Circuit Implementation	Yujin Kang and Jun Heo (Korea University, Korea (South))
1570668849	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Single Photon Quantum Key Distribution Using Phase-Squeezed State	Hyun Seung Moon and Jun Heo (Korea University, Korea (South))
1570669302	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Polarization-entangled photon generation in multimode fiber at visible wavelength	KyungTaek Lee, Ikjun Hong and Ju Han Lee (University of Seoul, Korea (South))
1570669765	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Quantum Maximum Likelihood Decoding for Linear Block Codes	Hyunwoo Jung (Korea Advanced Institute of Science and Technology (KAIST), Korea (South)); Jeonghwan Kang and Jeongseok Ha (KAIST, Korea (South))

1570670283	TPC Special Session II-2	Special Session on Quantum Key Distribution and Quantum Signal Processing	Investigation of Bore-sight and Jitter in Free Space Optical Communications with pointing error and Weak Turbulence	Kug-Jin Jung, Jong Min Kim and Young-Chai Ko (Korea University, Korea (South))
1570670552	TPC Special Session II-3	Special Session on DGIST ICT (Information and Communication Technology) Research	A Tutorial on Quantum Convolutional Neural Networks (QCNN)	Seunghyeok Oh (Korea University, Korea (South)); Jaeho Choi (Chung-Ang University, Korea (South)); Joongheon Kim (Korea University, Korea (South))
1570670624	TPC Special Session II-3	Special Session on DGIST ICT (Information and Communication Technology) Research	3D Modeling and WebVR Implementation using Azure Kinect, Open3D, and Three.js	Won Joon Yun and Joongheon Kim (Korea University, Korea (South))
1570672084	TPC Special Session II-3	Special Session on DGIST ICT (Information and Communication Technology) Research	DSP: Dynamic Service Placement with Reconfiguration Cost and Delay	Jeongho Kwak (DGIST, Korea (South)); George Iosifidis (Trinity College Dublin, Ireland)
1570672138	TPC Special Session II-3	Special Session on DGIST ICT (Information and Communication Technology) Research	Impact of Finite Blocklength on AoI Violation Probability in UAV Networks	Hyeonjun Sung and Minsu Kim (Daegu Gyeongbuk Institute of Science & Technology (DGIST), Korea (South)); Jemin Lee (Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea (South))
1570672457	TPC Special Session II-3	Special Session on DGIST ICT (Information and Communication Technology) Research	Analysis on Path Rerouting Algorithm based on V2X Communication for Traffic Flow Improvement	Kyungtae Kim and Seokjoo Koo (Daegu Gyeongbuk Institute of Science and Technology, Korea (South)); Ji-Woong Choi (DGIST, Korea (South))
1570670168	TPC Special Session II-4	Special Session on 5G/Unmanned Vehicle Technology (Hanyang University ITRC 5G/UVRC)	Energy-Efficient FDD-based Massive MIMO Systems Using Finite Rate Feedback	Seungnyun Kim and Byonghyo Shim (Seoul National University, Korea (South))
1570671258	TPC Special Session II-4	Special Session on 5G/Unmanned Vehicle Technology (Hanyang University ITRC 5G/UVRC)	Economic Theoretic LEO Satellite Coverage Control: An Auction-based Framework	Junghyun Kim (Korea University, Korea (South)); Thong Ngo (California State University, Long Beach, USA); Seungcheol Oh and Sean (Seok-Chul) Kwon (California State University Long Beach, USA); Changhee Han (Korea Military Academy, Korea (South)); Joongheon Kim (Korea University, Korea (South))
1570668870	TPC Special Session II-4	Special Session on 5G/Unmanned Vehicle Technology (Hanyang University ITRC 5G/UVRC)	Belief Propagation based Scheduling for Energy Efficient Multi-drone Monitoring System	Soyi Jung (Ajou University, Korea (South)); Peng Yang and Tony Q. S. Quek (Singapore University of Technology and Design, Singapore); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570668873	TPC Special Session II-4	Special Session on 5G/Unmanned Vehicle Technology (Hanyang University ITRC 5G/UVRC)	Location-Aided User clustering and Power Allocation for NOMA in 5G mmWave Networks	Igbafe Orikumhi (Hanyang University, Korea (South)); Hyekyung Jwa and Jeehyeon Na (ETRI, Korea (South)); Sunwoo Kim (Hanyang University, Korea (South))
1570673520	TPC Special Session II-4	Special Session on 5G/Unmanned Vehicle Technology (Hanyang University ITRC 5G/UVRC)	Video Object Detection Using Motion Context and Feature Aggregation	Jaekyum Kim, Junho Koh and Jun Won Choi (Hanyang University, Korea (South))
1570663795	TPC Special Session III-1	Special Session on Internet Infra System Technologies 1	On Performance VNF Load Prediction Models in Service Function Chaining	Yunyoung Cho, Seokwon Jang and Sangheon Pack (Korea University, Korea (South))
1570668834	TPC Special Session III-1	Special Session on Internet Infra System Technologies 1	GAN and DRL Based Intent Translation and Deep Fake Configuration Generation for Optimization	Talha Ahmed Khan (Jeju National University, Korea (South)); Khizar Abbas (Jeju National University, South Korea, Korea (South)); Muhammad Afaq, Adeel Rafiq and Wang-Cheol Song (Jeju National University, Korea (South))
1570669521	TPC Special Session III-1	Special Session on Internet Infra System Technologies 1	NDN-based Emergency Communication over Edge Computing Infrastructure	Minh-Ngoc Tran and younghan Kim (Soongsil University, Korea (South))
1570669648	TPC Special Session III-1	Special Session on Internet Infra System Technologies 1	Dynamic Policy Management System for High Availability in a Multi-site Cloud	Quang Hiep Mai (Soongsil University, Korea (South)); HyunSik Yang (Soongsil University & DCN lab, Korea (South)); Young Han Kim (Soongsil University, Korea (South))
1570670434	TPC Special Session III-1	Special Session on Internet Infra System Technologies 1	IAAS: IoT-Based Automatic Attendance System with Photo Face Recognition in Smart Campus	Jaehoon Jeong, Minho Kim, Yeonghyeon Lee and Patrick Lingga (Sungkyunkwan University, Korea (South))
1570666664	TPC Special Session III-2	Special Session on Mission-Aware Networking (IMN) 1	Linear Approximation-Based Weighted Frequency Hopping Scheme for Sharing Radar Band	Sunju Choi, Hoki Baek and Jae Sung Lim (Ajou University, Korea (South))
1570674905	TPC Special Session III-2	Special Session on Mission-Aware Networking (IMN) 1	Delay-aware TDMA Scheduling with Deep Reinforcement Learning in Tactical MANET	Gwangjin Wi and Sunghwa Son (Daegu Gyeongbuk Institute of Science & Technology, Korea (South)); Kyung-Joon Park (DGIST, Korea (South))
1570670291	TPC Special Session III-2	Special Session on Mission-Aware Networking (IMN) 1	On Performance of Distributed Mobility Management in Tactical Networks	Hongrok Choi, Sangwon Seo, Daeyoung Jung and Sangheon Pack (Korea University, Korea (South))
1570673247	TPC Special Session III-2	Special Session on Mission-Aware Networking (IMN) 1	A Novel DTN Protocol for Group Mobility	Min Wook Kang and Yun Won Chung (Soongsil University, Korea (South))

1570670448	TPC Special Session IV-1	Special Session on Internet Infra System Technologies 2	MAST: Myo Armband Sign-Language Translator for Human Hand Activity Classification	Zuhaib Muhammad Shakeel, Soonhyuk So, Patrick Lingga and Jaehoon Jeong (Sungkyunkwan University, Korea (South))
1570670572	TPC Special Session IV-1	Special Session on Internet Infra System Technologies 2	Service Function Chaining and Traffic Steering in SDN using Graph Neural Network	Adeel Rafiq, Talha Ahmed Khan, Muhammad Afaq and Wang-Cheol Song (Jeju National University, Korea (South))
1570675169	TPC Special Session IV-1	Special Session on Internet Infra System Technologies 2	An Extended Agent-Based Mechanism For Testing Service Function Chain	Cuong Le and Myungsik Yoo (Soongsil University, Korea (South))
1570675170	TPC Special Session IV-1	Special Session on Internet Infra System Technologies 2	A Web Application Load Prediction Model Using Recurrent Neural Network in Cloud	Minh Nhat and Myungsik Yoo (Soongsil University, Korea (South))
1570663881	TPC Special Session IV-2	Special Session on Mission-Aware Networking (IMN) 2	A Machine Learning Framework for Prevention of Software-Defined Networking controller from DDoS Attacks and dimensionality reduction of big data	Jehad Ali and Byeong-hee Roh (Ajou University, Korea (South)); Byungkyu Lee (LIG Nex1 Co. Ltd. Seongnam, Korea (South)); Ji Myung Oh (LIG Nex1, Korea (South)); Muhammad Adil (Virtual University, Pakistan)
1570671373	TPC Special Session IV-2	Special Session on Mission-Aware Networking (IMN) 2	LISP-based Hierarchical Service Mobility Management for the Tactical Edge	Kyoungjae Sun (Soongsil University & School of Electronic Engineering, Korea (South)); younghan Kim (Soongsil University, Korea (South))
1570672565	TPC Special Session IV-2	Special Session on Mission-Aware Networking (IMN) 2	Integrate multi-agent simulation environment and multi-agent reinforcement learning (MARL) for real-world scenario	Sangho Yeo, Seungjun Lee, Boreum Choi and Sangyoon Oh (Ajou University, Korea (South))
1570672929	TPC Special Session IV-2	Special Session on Mission-Aware Networking (IMN) 2	A Comparative Analysis of Searchable Encryption Schemes using SGX	Hyundo Yoon and Junbeom Hur (Korea University, Korea (South))
1570666685	TPC Special Session IV-3	Special Session on THz and Optical Wireless Communications	THz Wireless Systems Design for Personal Area Networks Applications	Inkyu Lee (Korea University, Korea (South))
1570669498	TPC Special Session IV-3	Special Session on THz and Optical Wireless Communications	Cells on Network Flying Platforms: Optimal Resource Allocation and Deployment for Sensor Network	Ju-Hyung Lee and Young-Chai Ko (Korea University, Korea (South))
1570669899	TPC Special Session IV-3	Special Session on THz and Optical Wireless Communications	Capacity-Achieving Precoding with Low-Complexity for Terahertz LOS Massive MIMO using Uniform Planer Arrays	Hwanjoon Cho, Chanho Park and Namyoon Lee (POSTECH, Korea (South))
1570677329	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	A Decentralized Energy Trading System Based on Public Blockchain	Md. Mainul Islam, Israt Jahan, Moh. Khalid Hasan and Yeong Min Jang (Kookmin University, Korea (South))
1570677339	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	Neural Network-based LED Detection in Vehicular System for High Data Rate in OCC	Md. Faisal Ahmed, Md. Shahjalal, Md. Osman Ali and Yeong Min Jang (Kookmin University, Korea (South))
1570677344	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	Statistical Feature Extraction in Machine Fault Detection using Vibration Signal	Van Bui, Van Hoa Nguyen, Huy Nguyen and Yeong Min Jang (Kookmin University, Korea (South))
1570677348	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	OCC Technology-based Developing IoT Network	Van Hoa Nguyen, Huy Nguyen, Hoan Nguyen and Yeong Min Jang (Kookmin University, Korea (South))
1570677359	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	Design and implementation of AS-QL scheme for LED matrix based Optical Camera Communication	Hoan Nguyen, Huy Nguyen, Van Hoa Nguyen and Yeong Min Jang (Kookmin University, Korea (South))
1570677449	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	Consortium Blockchain-based V2G energy trading system using tokens	Junho Hong, Eunhwa Oh, Yeojin Yang, Kyungwoo Roh, Minji Oh and Jaesung Kim (Chungbuk National University, Korea (South))
1570677460	TPC Special Session V-1	Special Session on Internet of Energy (IoE)	Energy Management by Scheduling ESS with Active Demand Response in Low Voltage Grid	Md. Morshed Alam, Md. Habibur Rahman, Himawan Nurcahyanto and Yeong Min Jang (Kookmin University, Korea (South))
1570673535	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	A Comparison of Oversampling Methods for Constructing a Prognostic Model in the Patient with Heart Failure	Young-Tak Kim, Dong-Kyu Kim, Hakseung Kim and Dong-Joo Kim (Korea University, Korea (South))
1570671000	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	Inter-Image Affinity based Interactive Video Object Segmentation	Yuk Heo (Korea University, Korea (South)); Yeong Koh (Chungnam National University, Korea (South)); Chang-Su Kim (Korea University, Korea (South))
1570674085	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	Transfer Learning using Transformation: Is Large Unlabeled Data Helpful at Segmentation?	Heejeong Lim, Seongwook Yoon and Sanghoon Sull (Korea University, Korea (South))
1570673280	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	Score Prediction Network and Graph-based Selection for Semantic Line Detection	Dongkwon Jin and Chang-Su Kim (Korea University, Korea (South))
1570673896	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	An Ensemble Deep Learning Approach for Sleep Stage Classification via Single-channel EEG and EOG	In-Nea Wang, Choel-Hui Lee, Hyun-Ji Kim, Hakseung Kim and Dong-Joo Kim (Korea University, Korea (South))
1570674832	Workshop III-1	Joint International Workshop on Artificial Intelligence Research (IWAIR)	Resampling Strategy for Mitigating Unfairness in Face Attribute Classification	Dohyung Kim, Sungho Park, Sunhee Hwang, Minsong Ki, Seogkyu Jeon and Hyeran Byun (Yonsei University, Korea (South))
1570656718	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	3GPP Release-16 for Industrial Internet of Things and Mission Critical Communications	Cosmas Ifeanyi Nwakanma (Kumoh National Institute of Technology, Korea (South))

1570662386	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	MR-Block: A Blockchain-Assisted Secure Content Sharing Scheme for Multi-User Mixed-Reality Applications in Internet of Military Things	Anik Islam (Kumoh National Institute of Technology, Korea (South))
1570662388	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	Blockchain-Assisted UAV-Employed Casualty Detection Scheme in Search and Rescue Mission in the Internet of Battlefield Things	Md Masuduzzaman (Kumoh National Institute of Technology, Korea (South))
1570671114	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	Machine Learning Algorithm for Intelligent Prediction for Military Logistics and Planning	Simeon Ajakwe (Kumoh National Institute of Technology, Gumi, Korea (South))
1570672306	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	Decentralized Latency-Aware Edge Node Grouping With Fault Tolerance for Internet of Battlefield Things	Md. Sajjad Hossain (Kumoh National University of Technology, Korea (South))
1570672480	Workshop III-2	Joint International Workshop on Military Informatics 1 (IoT for Military and Logistics)	Wideband spectrum sensing using low-power IoT device	Hyeongyun Kim (Hanyang, Korea (South)); Junil Ahn (Agency for Defense Development, Korea (South)); Haewoon Nam (Hanyang University, Korea (South))
1570656420	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Principles of Neural Network Approaches to Solving Singularly Perturbed Problems	Assiya Zhumanazarova (Gachon University, Korea (South))
1570656567	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Low channel electroencephalogram based deep learning method to pre-screening depression	Min Kang, Jinhyeok Park, Seokhwan Kang and Youngho Lee (Gachon University, Korea (South))
1570656591	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Implementation of interactive healthcare advisor model using chatbot and visualization	TaeHo Hwang and JuHui Lee (Gachon University, Korea (South)); Semin Hyun (University of Gachon, Korea (South)); KangYoon Lee (Gachon University, Korea (South))
1570668625	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Classification of Diagnosis of Alzheimer's Disease Based on Convolutional Layers of VGG16 Model using Speech Data	Minwoo Kim (Gachon University, Korea (South)); Hyungjun Kim (Gachon University & Ideabears Inc., Korea (South)); JoonS Lim (Gachon University, Korea (South))
1570669753	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Feature Extraction Model Based on Inception V3 to Distinguish Normal Heart Sound from Systolic Murmur	JinHee Bae, Minwoo Kim and JoonS Lim (Gachon University, Korea (South))
1570670494	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Impact of Text Distance and Size in AR on User Experience: Focusing on the Implement of Experimental Applications	Gi Sung Oh and Seok Hee Oh (Gachon University, Korea (South))
1570670500	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Serious Virtual Reality Game for Isometric Eye Training of Strabismic Patients	Je Hyun Kim and Seok Hee Oh (Gachon University, Korea (South))
1570670927	Workshop IV-1	The 3rd Workshop on Advances in Convergence of ICT and Brain Science for better health (ACIBS)	Correlation between the immersion and presence focused on virtual reality contents	Won Jun Jeong and Seok Hee Oh (Gachon University, Korea (South))
1570650404	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	A Study on the Identification of Warship Type Class by Measuring Similarity with Virtual Warship	Jiwon Lee (ETRI, Korea (South)); SungWon Moon, Do-Won Nam and Jung Soo Lee (ETRI, Korea (South)); Ah Reum Oh (ETRI, South Korea, Korea (South)); Wonyoung Yoo (ETRI, Korea (South))
1570650721	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	Sub-munition Dispersion Estimation using Doppler Signal Dispersion	Chungho Ryu (Yonsei University, Korea (South)); Kuk-Kwon Park (Inha University, Korea (South)); Dongju Lee (Agency for Defense Development, Korea (South)); Chang-Kyung Ryoo (Inha University, Korea (South)); Chungyong Lee (Yonsei University, Korea (South))
1570663913	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	Flying Drone Classification based on Visualization of Acoustic Signals with Deep Neural Networks	Soonyong Song and Young-Sung Son (ETRI, Korea (South)); Young-il Kim (Electronics and Telecommunications Research Institute, Korea (South))
1570670072	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	The analysis of image acquisition method for Anti-UAV surveillance using cameras image	Young-il Kim and Kunmin Yeo (ETRI, Korea (South)); Seong Hee Park (ETRI, Korea (South)); Wun-cheol Jeong (ETRI & University of Science Technology, Korea (South)); Soonyong Song and Tae-Wook Heo (ETRI, Korea (South))
1570670297	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	RF-Based UAV Surveillance System: A Sequential Convolution Neural Networks Approach	Rubina Akter (Kumoh National Institute of Technology & Networked Systems Laboratory, Korea (South)); Van-Sang Doan, Godwin Brown Tunze, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))

1570670323	Workshop IV-2	Joint International Workshop on Military Informatics 2 (Emerging Technology in Military)	Anti-Drone System: A Visual-based Drone Detection using Neural Networks	Ann Janeth Garcia, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
1570669338	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	Sb-based nanocomposites as high-performance anode for rechargeable Na-ion batteries	Dong-Keun Yu, In-Su Hwang, Seok-Hyeon Jeong and Cheol-Min Park (Kumoh National Institute of Technology, Korea (South))
1570669339	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	Black P/C composites for sodium-ion batteries	Tae-Hyun Kim, Ki-Hun Nam, Yeon-Ho Jang, Young-Han Lee and Cheol-Min Park (Kumoh National Institute of Technology, Korea (South))
1570669340	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	Ge-based intermetallics for Li-ion battery anodes	Do-Hyeon Kim (Kumoh National Institute of Technology, Korea (South)); Vinoth Ganesan (Kumoh National Institute of Technology, Korea); Jeong-Myeong Yoon and Cheol-Min Park (Kumoh National Institute of Technology, Korea (South))
1570669564	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	Latency Based Reliability Analysis for Naval Combat System	Esmot Ara Tuli (Kumoh National Institute of Technology & Networked System Lab, Korea (South)); Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))
1570669630	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	A study on the design and manufacture power systems of non-contact chemical agent detectors based on the semiconductor laser	Jea-Hyoun Park, Yea Sol Jang and Yong Gon Seo (KETI, Korea (South)); Hyunddo Yoon (KETI, Korea (South)); Jong Won Lee (UNIST, Korea (South))
1570670903	Workshop V-1	Joint International Workshop on Military Informatics 3 (Military Civil IT Convergence)	Analysis of the Asymmetrical Relationships between State Actors and APT Threat Groups	Yu-Kyung Kim, Jemin J Lee, Myong-Hyun Go and Kyungho Lee (Korea University, Korea (South))
1570669580	Workshop VI-1	Joint International Workshop on Military Informatics 4 (Military communication and Network)	Service-Aware Resource Allocation Design of UAV RAN Slicing	Jun-Woo Cho (Ajou University, Korea (South)); Peng Yang and Tony Q. S. Quek (Singapore University of Technology and Design, Singapore); Jae-Hyun Kim (Ajou University, South Korea, Korea (South))
1570670111	Workshop VI-1	Joint International Workshop on Military Informatics 4 (Military communication and Network)	An Enhanced Dual-polarized Transmission System with 4D-TCM 8PSK Modulation and XPIC	Byeongjae Kim and Donghyun Kim (Agency for Defense Development, Korea (South))
1570672477	Workshop VI-1	Joint International Workshop on Military Informatics 4 (Military communication and Network)	Comparison of CNN Architectures using RP Algorithm for Burst Signal Detection	Dongho Seo (Hanyang University, Korea (South)); Junil Ahn (Agency for Defense Development, Korea (South)); Haewoon Nam (Hanyang University, Korea (South))