



KICS Summer Conference 2021 Program

Date June. 18 (Wed) ~ 18 (Fri), 2021

Venue Jeju Ramada Plaza Hotel

Organized by



Patrons



Society Safety System Forum, 5G-based Smart Factory Standardization Forum

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정보통신기획평가원
Ministry of Science and ICT



한국정보통신기술협회
Telecommunications Technology Association



Society Safety System Forum, 5G-based Smart Factory Standardization Forum

Table of Contents

4	Message from the Chairs
5	Committees
6	Registration
8	Program at a Glance
11	Oral Sessions
15	Vided Sessions
18	Session Room Location
19	Venue

Message from the Chairs

Dear members of The Korean Institute of Communications and Information Sciences (KICS) and participants of the Summer Conference,

The year 2021 is already entering the middle. We hope that you are getting through the difficult situation caused by COVID-19 wisely and healthily, and we are deeply grateful for the hard work of our members who are working in various fields such as universities, research institutes, and industries. One of the biggest events of the KICS Summer Conference will be held in Jeju this coming June. The online/offline summer conference is prepared with safety while complying with the government's quarantine guidelines, and will provide various academic programs and research exchanges.

At the Summer Conference, we prepared a variety of programs along with an invited lecture by Gauss Labs CEO Young-Han Kim. The paper presentation can be selected with options of on-site presentation, online presentation, and video presentation. We also have prepared an English paper session to promote foreign participation, an undergraduate-student paper session, and an idea contest for undergraduate students. In addition, seven in-depth tutorials on the latest ICT technologies, presentations by five rising researchers, a venture story special session, and a new industry special session are prepared. Special sessions for government-affiliated organizations such as ETRI/TTA/NIA/KIAP, KT NW intelligence special session, 5G forum, 6G forum, Giga Korea special session, and research groups/ societies/ITRC/branch special sessions are prepared. It will be a time to gather together to discuss the rapidly changing R&D environment and innovative technologies, and to share R&D achievements together.

The Summer Conference is expected to contribute to the development of domestic information/communication and related convergence field with the various programs. Finally, we hope that the 2021 Summer Conference will be a valuable time for a lot of academic exchange among members, and we would like to express our gratitude to all the executives and members of the KICS conference committee for their hard work in preparing for this event. Lastly we ask for your participation and interest in the Fall Conference held in November as well.

June 2021



Younghan Kim
KICS President



Jun Heo
Organizing
Committee Chair



Duk Kyung Kim
Technical Program
Committee Chair



Sunwoo Kim
Technical Program
Committee Chair



Pyoung Soo Kim
Technical Program
Committee Chair

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Dong Ku Kim(Yonsei University)

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Dong-Seong Kim(Kumoh National Institute of Technology)

Kyung-Joon Park(DGIST)

Changhee Joo (Korea University)

Hyun-Woo Lee(ETRI)

Registration

■ Registration Fee

			Early Birds	On-Site	Note
Conference Registration	Member	Student	144 USD 160,000 KRW	189 USD 210,000 KRW	Reception coupon is not included
		Regular/Life	216 USD 240,000 KRW	252 USD 280,000 KRW	
	Non-member	Student	171 USD 190,000 KRW	216 USD 240,000 KRW	Reception coupon is not included
		Regular	270 USD 300,000 KRW	306 USD 340,000 KRW	
Undergraduate Student			54 USD 60,000 KRW		
Tutorial Registration			Same as conference registration		
Reception Coupon			45 USD 50,000 KRW	45 USD 50,000 KRW	

* USD 1.00 = ₩1,000 (Round down less than one hundred won)

■ Registration Policy

1. To be published in the KICS Summer Conference 2021 Proceedings, a minimum of one author from each accepted paper MUST register and be a KICS member, and the paper must be presented at the conference.
2. A valid student ID is required at the registration desk to check the eligibility for student-rate registration.
3. Registrations include access to conference sessions, a program book, souvenirs, a reception, a luncheon (June, 17).
4. A reception coupon is included only in the Regular/Life member or Regular non-member registration. A reception coupon can be separately purchased during the early registration period.
5. Non-refundable author registration fees must be paid prior to the early registration due (June, 10, 2021).
6. For non-author registrations, absolutely no cancellations/refunds will be accepted after the early registration due (June, 10, 2021).

Registration

■ Method of Payment

* Card

- Visa, Master, and JCB are available to use for online registration.
- Payment by credit card is available through the online procedure.
- All service charges on credit card are to be paid by registrants.
- Actual debit amount is subject to change according to the exchange rate.

* Bank Transfer

- All bank remittance charges are to be paid by registrants.
- Sender's name should be the registrant's name.

Bank Name	WOORI BANK
Account No.	192-05-027627
Swift Code	HVBKCRSE
Bank Address	1-203, Hoehyeon-dong, Jung-gu, Seoul, Korea
Beneficiary	Korea Information and Communications Society (KICS)
Beneficiary Address	#06296, 3F, 32-3, Nonhyeon-ro 38-gil, Gangnam-gu, Seoul, Republic of Korea
Beneficiary TEL	+82-2-3453-5555

■ Refund Policy

If you have already registered for KICS Summer Conference 2021 and find that you are unable to attend or cancel the paper, please notify KICS Summer Conference 2021 secretariat in writing to conf2@kics.or.kr to request a refund and cancel your registration. Refund will be made upon receipt of this written notice after the conference. All bank service charges are to be paid by the registrant. No cancellations/refunds will be accepted after the early registration due (June, 10, 2021).

If you have any questions, please contact Registration Secretariat of KICS Summer Conference 2021 at conf2@kics.or.kr

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Post Conference

KICS Summer Conference 2021 publishes published papers at the Post-Conference of the Electronic Information Research and Information Center for sharing research information and communicating, and operates a bulletin board to enable questions and answers related to theses. (Real time and always operating)

► Post-Conference : <http://www.eiric.or.kr/>

Program at a Glance

Oral Session : June 16(Wednesday) / Jeju Ramada Hotel												
Venue Time	Mara	Udo	Biyang	Chuja	Volume1	Volume2	Volume3	Volume4	Ora(8F)	Ara(8F)		
	1B	2B	3B	4B	5B	6B	7B	8B	9B	10B		
12:30 ~ 13:50 (80min)	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session		
			3C	4C					9C	10C		
14:00 ~ 15:20 (80min)			Korean Paper Session	Korean Paper Session	Korean Paper Session				Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session
			3D	4D	5D				9D			
15:30 ~ 16:50 (80min)			Korean Paper Session	Korean Paper Session	Korean Paper Session				Korean Paper Session			
17:10 ~ 18:30 (80min)	Keynote Speech											

Program at a Glance

Oral Session / June 17(Thursday) / Jeju Ramada Hotel												
Venue Time	Mara	Udo	Biyang	Chuja	Volume1	Volume2	Volume3	Volume4	Ora (8F)	Ara (8F)	Hanlla (8F)	Virtual Session
08:30 ~ 09:30 (60min)	11A	12A	13A	14A	15A	16A	17A	18A	19A	20A		
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	English Paper Session 1	Korean Paper Session		
09:40 ~ 10:40 (60min)	11B	12B	13B	14B	15B		17B	18B	19B	20B		
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session		Korean Paper Session	Korean Paper Session	English Paper Session 2	Korean Paper Session		
10:50 ~ 11:50 (60min)	11C	12C	13C	14C	15C		17C	18C	19C	20C		
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session		Korean Paper Session	Korean Paper Session	English Paper Session 3	Korean Paper Session		
11:50 ~ 13:00 (70min)	Lunch											
13:00 ~ 14:20 (80min)	11D	12D	13D	14D	15D	16D	17D	18D	19D	20D	31D	VR1
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	English Paper Session 4	Korean Paper Session	Korean Paper Session	Korean Paper Session
13E			14E	15E	19E				20E	31E		
Korean Paper Session			Korean Paper Session	Korean Paper Session	English Paper Session 5				Korean Paper Session	Korean Paper Session		
13F				15F	19F				20F	31F		
16:00 ~ 17:20 (80min)				Korean Paper Session					Korean Paper Session	English Paper Session 6		Korean Paper Session

Program at a Glance

Oral Session / June 18(Friday) / Jeju Ramada Hotel											
Venue Time	Mara	Udo	Biyang	Chuja	Volume1	Volume2	Hanlla(8F)	Tamna(8F)	Ora(8F)	Ara(8F)	Virtual Session
08:30 ~ 09:50 (80min)	21A	22A	23A	24A	25A	26A	27A	28A	29A	VR2	VR5
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session					Korean Paper Session	Korean Paper Session
10:00 ~ 11:20 (80min)	21B	22B	23B	24B	25B	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	VR3	VR6
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session					Korean Paper Session	Korean Paper Session
11:30 ~ 12:50 (80min)	21C	22C	23C	24C	25C					VR4	
	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session	Korean Paper Session					Korean Paper Session	

Video Sessions
https://conf.kics.or.kr/
50A
50B

Oral Sessions June 17 (Thursday), Jeju Ramada Hotel

19A ENGLISH SESSION 1

Chair : Intae Hwang (Chonnam National University)

Date : June 17 (Thursday) / 08:30~09:30 (60min) / Ora

- 19A-1 Smart Lighting based Fuzzy Logic Controller to Reduce Energy Consumption
Ramdhan Nugraha, Daniar Estu Widiyanti, Muhammad Wicaksono, Soo Young Shin(금오공과대학교)
- 19A-2 A Two-Step, Cyclic Vernier-Based Time-to-Digital Converter Using Dynamic Element Matching
NGUYEN VAN NHAN, Jong-Wook Lee(Kyunghee University)
- 19A-3 Investigation of Deep Neural Networks for Rapid Characterization of Nonreciprocal, Time-Modulated Waveguide on Metamaterial
Ngoc Hung Phi, Bui Huu Nguyen, Jong-Wook Lee(경희대학교)
- 19A-4 Simple Moving Average for Power Monitoring On Smart LED
WICAKSONO MUHAMMAD, Nugraha Ramdhan, Daniar Estu Widiyanti, Soo Young Shin(금오공과대학교)
- 19A-5 Multi-node Wireless Sensor Networking System on LED Lamp Fitting Application
Daniar Estu Widiyanti, Ramdhan Nugraha, Muhammad Wicaksono, Soo Young Shin(금오공과대학교)
- 19A-6 Design of a Fault-Detection System for FDM-type 3D Printer using Temporal Convolutional Network
Danielle Jaye S. Agron, Gabriel Avelino R. Sampedro, Gabriel Amaizu, Jae-Min Lee, Dong-Seong Kim(금오공과대학교)

19B ENGLISH SESSION 2

Chair : Jong-Wook Lee(Kyung Hee University)

Date : June 17 (Thursday) / 09:40~10:40 (60min) / Ora

- 19B-1 Tapered Partially Reflective Surface Amplitude Distribution for High Gain and Low Side Lobe Level
무하마드 후세인, 김동호, 이경근(세종대학교)
- 19B-2 MURRA: Multi-UAV-Assisted RIS-Aided Random Access
Nadhira Azizah Suwanda, I Nyoman Apraz Ramatryana, Soo Young Shin(금오공과대학교)
- 19B-3 Spectral Efficient Frequency Division Multiplexing with Index Modulation for Next Generation MIMO Networks
Muhammad Sajid Sarwar, Muneeb Ahmad, Soo Young Shin(금오공과대학교)
- 19B-4 RIS Partitioning on Quadrature NOMA UAV assisted Network
Krisma Asmoro, I Nyoman Apraz Ramatryana, Soo Young Shin(금오공과대학교)
- 19B-5 Reconfigurable Intelligent Surface-Assisted Channel Estimation for Indoor mmWave Communication Systems
Md. Abdul Latif, Igbafe Orikumhi, Sunwoo Kim(Hanyang University)
- 19B-6 Capacity Analysis of RIS-based Communications Under Transceiver Impairments
*Waqas Khalid; **Heejung Yu(Korea University & Sejong; **Korea University)

Oral Sessions June 17 (Thursday), Jeju Ramada Hotel

19C ENGLISH SESSION 3

Chair : Sang Hyun Lee(Korea University)

Date : June 17 (Thursday) / 10:50~11:50 (60min) / Ora

- 19C-1 On-demand High Mobility Vehicular Connectivity Prediction using Random Forest Classification
Kumbhar Farooque Hassan, Soo Young Shin(금오공과대학교)
- 19C-2 Sensors Data Collection Scheme based UAV-Trajectory Optimization using Reinforcement Learning
Silvirianti, Soo Young Shin(금오공과대학교)
- 19C-3 UAV-assisted Automated Oxygen Level Monitoring and Alerting Scheme in Smart Factory with the assistance of MEC and Blockchain
Md Masduzzaman, Anik Islam, Soo Young Shin(금오공과대학교)
- 19C-4 Neural Architectural Nonlinear Pre-Processing for mmWave Radar-based Human Gesture Perception in On-Driving Scenarios
백한결, 하유정, 유민재, 정소이, 김중현(고려대학교)
- 19C-5 Scene Understanding in UAVs via Semantic Ontology
Naqqash Dilshad; JaeSeung Song(Sejong University)
- 19C-6 Collision Avoidance Systems for Internet of drones: An overview
Lewis Nkenyereye; Naqqash Dilshad; Kelvin Dushime; JaeSeung Song(Sejong University)

19D ENGLISH SESSION 4

Chair : Heejung Yu(Korea University)

Date : June 17 (Thursday) / 13:00~14:20 (80min) / Ora

- 19D-1 A FSO-NOMA Communication System with Málaga Turbulence and Non-Zero Boresight Pointing Error for 6G Applications
Prakriti Saxena, 정연호(부경대학교)
- 19D-2 Statistical Quantum Federated Learning for NOMA Power Allocation
Narottama Bhaskara, Jamaluddin Triwidyastuti, Soo Young Shin(금오공과대학교)
- 19D-3 A Quantum Federated GAN for Wireless Communications
Jamaluddin Triwidyastuti, Narottama Bhaskara, Soo Young Shin(금오공과대학교)
- 19D-4 Required Base Station Density for Communication-Efficient Federated Learning in Small-Cell Networks
Khoa Anh Nguyen, *Quan Anh Nguyen, Jun-Pyo Hong(Pukyong National University, *헬로헬스그룹)
- 19D-5 Media-based modulation aided uplink NOMA for massive machine-type communications
AZAM IRFAN, I Nyoman Apraz Ramatryana, Soo Young Shin(금오공과대학교)
- 19D-6 IRSA-NOMA with Power Diversity-Based Priority for 6G
I Nyoman Apraz Ramatryana, Soo Young Shin(금오공과대학교)
- 19D-7 BER and Capacity Performance for Wavelet Based Three User MIMO-NOMA System
Muneeb Ahmad, Muhammad Sajid Sarwar, Soo Young Shin(Geumo University of Technology)
- 19D-8 Capacity Analysis of OAM-MIMO based on Transmitter and Receiver Distance
Abdullah Qayyum, Ahmed Al Amin, Soo Young Shin(금오공과대학교)

Oral Sessions June 17 (Thursday), Jeju Ramada Hotel

19E ENGLISH SESSION 5

Chair : Sang Hyun Lee(Korea University)

Date : June 17 (Thursday) / 14:30~15:50 (80min) / Ora

- 19E-1 Federated Learning Framework for Intelligent IoT Networks
Arslan Musaddiq, Tariq Rahim, Dong-Seong Kim(ICT-CRC)
- 19E-2 Deep Learning-based Colorectal Cancer Detection in Endoscopic Images.
Tariq Rahim, Arslan Musaddiq, Dong Seong Kim(ICT-CRC)
- 19E-3 A Cloud QoS-driven Scheduler based on Deep Reinforcement Learning
Minh-Ngoc Tran, YoungHan Kim(Soongsil University)
- 19E-4 An Architecture for Machine Learning-based Fault Prediction and Migration In Cloud Service Systems
DINH DAI VU , Young Han Kim(숭실대학교)
- 19E-5 Training Deep Learning Model based on Serverless Computing
TA PHUONG BAC, Young Han Kim(숭실대학교)
- 19E-6 음성 향상을 위한 U-net과 컨볼루션 순환 네트워크의
Nisan Aryal, Sang-Woong Lee(가천대학교)
- 19E-7 Augmenting Seismic Data via Generative Adversarial Network for Low-cost MEMS Sensors
Aming Wu, *Jae-Kwang Ahn, Young-Woo Kwon(경북대학교, *기상청)
- 19E-8 Exploratory investigation of semantic reasoning in oneM2M
Aming Wu; Jae-Kwang Ahn; Young-Woo Kwon(Sejong University South Korea, Pakistan)

19F ENGLISH SESSION 6

Chair : Howon Lee(Hankyong National University)

Date : June 17 (Thursday) / 16:00~17:20 (80min) / Ora

- 19F-1 OAM-mMIMO: A Massive Capacity Scheme for 6G Wireless Backhaul Connectivity
Ahmed Al Amin, Abdullah Qayyum, Soo Young Shin(금오공과대학교)
- 19F-2 Transonic Speed Mobility Support Techniques for 6G-Non Terrestrial Networks
Chaitali J. Pawase, Nafis Ahmed, KyungHi Chang(인하대학교)
- 19F-3 Node Query-Aided Influence Maximization in Unobservable Networks
Cong Tran, *신원용(단국대학교, *연세대학교)
- 19F-4 QoS Assurance for Service Function Placement in Edge Computing: State of The Art, Issues and Challenges
Briyone Mutichiro, Younghan Kim(숭실대학교)
- 19F-5 Facial Emotion Recognition Using 3D Face Reconstruction
Alwin Poulouse, Chinthala Sreya Reddy, Jung Hwan Kim, Dong Seog Han(경북대학교)
- 19F-6 ITU 스트리트 캐넌 시나리오 기반 mmWave 채널 모델 경로 손실, 공동 강우, 가스 손실영향 분석
무하마드사지드하룬, 사킵나잠어스, *송훈근, 전상운(한양대학교, *한국산업기술시험원)

Oral Sessions June 17 (Thursday), Jeju Ramada Hotel

- 19F-7 3D 공간 전파 모델 기반 밀리미터파 통신채널 용량 분석
사킵나잠어스, 무하마드사지드하룬, *송훈근, 전상운(한양대학교, *한국산업기술시험원)
- 19F-8 Effect of Purity on Maximum Likelihood Quantum State Tomography
Syed Tihaam Ahmad; Ahmad Farooq; Junaid ur Rehman; Hyundong Shin(Kyunghee University)
- 19F-9 Zero Noise Extrapolation for Quantum State Tomography
Syahri Ramadhani*; Junaid ur Rehman*; Youngmin Jeong**; Kyesan Lee; Hyundong Shin***
(Kyung Hee University, Korea*; Samsung Electronics**, Kyung Hee University***)

Video Sessions

50A Video Session

- 50A-32 Wireless Communication Technologies in Omnidirectional CubeSat Crosslink: Comparative Study of The Link Budget and Antenna Requirements
Hua Duc Thien, 이윤성, 이동현, 조성래(중앙대학교)
- 50A-35 Handover in LEO Satellite Networks using Deep Reinforcement Learning
Thanh Phung Truong, 이정화, Arooj Masood, 조성래(중앙대학교)
- 50A-38 A Deep Reinforcement Learning based 5G-RAN Slicing Strategy for V2X Services
Weijian Zhou, Chaitali J. Pawase, KyungHi Chang(인하대학교)
- 50A-40 다중 채널 액세스 시스템의 사용자간 동일 전송을 보장을 위한 분산환경 강화학습 기법 연구
무하마드 소하이브, 전상운(한양대학교 에리카)
- 50A-63 IoT 기반 NOMA 시스템에서 근거리 사용자의 Outage 성능 향상을 위한 연구
Tuong Nguyen Minh, 김성환(울산대학교)
- 50A-65 A Self-Supervised Method Based on Noise2Noise Model for SAR Image Despeckling
Chushi Yu, Yoan Shin(승실대학교)
- 50A-72 A Missing Data Recovery Algorithm for IoT Systems based on Tensor Factorization Technique
Shathee Akter, 윤석훈(울산대학교)
- 50A-74 A Workflow-based Mobility Model of Workers in Shipyards
Duong Van Anh Dat, 윤석훈(울산대학교)
- 50A-75 A Blockchain-based Home Edge Computing-assisted Disaster Rehabilitation and Recovery Scheme using Unmanned Any Vehicle
Anik Islam, Nyoman Apraz Ramatryana, Soo Young Shin(금오공과대학교)
- 50A-150 Machine Learning-Based Beam Selection for V2X Communication
Igbafe Orikumhi, Sunwoo Kim(한양대학교)
- 50A-170 A Study on the Modulation Requirements for Personal Satellite Communications
Julius Ssimbwa, Byungju Lim, Young-Chai Ko(고려대학교)
- 50A-208 Bistatic Backscatter Communication with NOMA
Gerardo Sacarello, 김윤희(경희대학교)
- 50A-213 Power Minimization of Intelligent Reflecting Surface-Aided Uplink Systems
Jiao Wu, Hyunsoo Kim, Byonghyo Shim(서울대학교)
- 50A-214 ICN 기반 테스트베드 아키텍처의 라우팅 정보 업데이트 알고리즘
나지브, 정성호(한국외국어대학교)
- 50A-217 ICN 기반 테스트베드 아키텍처의 콘텐츠 이름 식별을 위한 메커니즘
나지브, 정성호(한국외국어대학교)
- 50A-225 정보 중심 네트워킹 기반 이헬스 정보 검색
하산 캄룰, 정성호(한국외국어대학교)
- 50A-226 ICN과 클라우드를 이용한 고속 콘텐츠 전달
하산 캄룰, 정성호(한국외국어대학교)
- 50A-247 Drone Mobility Optimization in 5G and Beyond Ultra-Dense Networks using SARSA Reinforcement Learning
kim, ajung, T. Jawad(세종대학교)

Video Sessions

- 50A-257 Scene Understanding in UAVs via Semantic Ontology**
Naqqash Dilshad and JaeSeung Song (Sejong University, Korea (South))
- 50A-258 Anomaly Detection of Malicious Energy Usage in Smart Factories using Deep Neural Network**
Love Allen Ahakonye, Cosmas Ifeanyi Nwakanma, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-259 Thermal Sensor-Based Activity Detection in Smart Spaces using GentleBoost Optimized Classifier**
Cosmas Ifeanyi Nwakanma, Goodness Oluchi Anyanwu, Adinda Riztia Putri, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-260 An Ensemble Learning Based Approach to Position Falsification Detection in Internet of Vehicles**
Goodness Oluchi Anyanwu, Cosmas Ifeanyi Nwakanma, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-261 LSTM-Based Human Fall Detection using Thermal Array Sensor**
Adinda Riztia Putri, Goodness Oluchi Anyanwu, Mareska Pratiwi Maharani, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-262 Collision Avoidance Systems for Internet of drones: An overview**
Lewis Nkenyereye, Naqqash Dilshad, Kelvin Dushime and JaeSeung Song (Sejong University, Korea (South))
- 50A-263 Capacity Analysis of RIS-based Communications Under Transceiver Impairments**
Waqas Khalid (Korea University & Sejong, South Korea, Korea (South)); Heejung Yu (Korea University, Korea (South))
- 50A-264 Breathing Pattern Forecasting using Deep Learning in Smart Factory Environment**
Fabliha Bushra Islam and Cosmas Ifeanyi Nwakanma (Kumoh National Institute of Technology, Korea (South)); Esmot Ara Tuli (Kumoh National Institute of Technology & Networked System Lab, Korea (South)); Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-265 An Inference Time Efficient 3D Printer Fault Detection using CNN**
Mark Verana, Cosmas Ifeanyi Nwakanma, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-266 Lightweight Multivariate LSTM for Industrial Power Prediction in Smart Grid**
Made Adi Paramartha Putra, Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))
- 50A-267 Automated Fall Detection on Smart Factory based on Deep Learning Approach**
Syifa Maliah Rachmawati (Kumoh National Institute of Technology, Korea (South)); Danielle Jaye S. Agron (Kumoh National Institute of Technology, Korea (South), Korea (South)); Dong Seong Kim and Jae-Min Lee (Kumoh National Institute of Technology, Korea (South))
- 50A-268 Design of an Enhanced Object Detection Algorithm through Image Scaling**
Gabriel Avelino R Sampedro (Kumoh National Institute of Technology, Korea (South) & Technological Institute of the Philippines, Philippines); Yohanna Jayanti Aruan, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))

Video Sessions

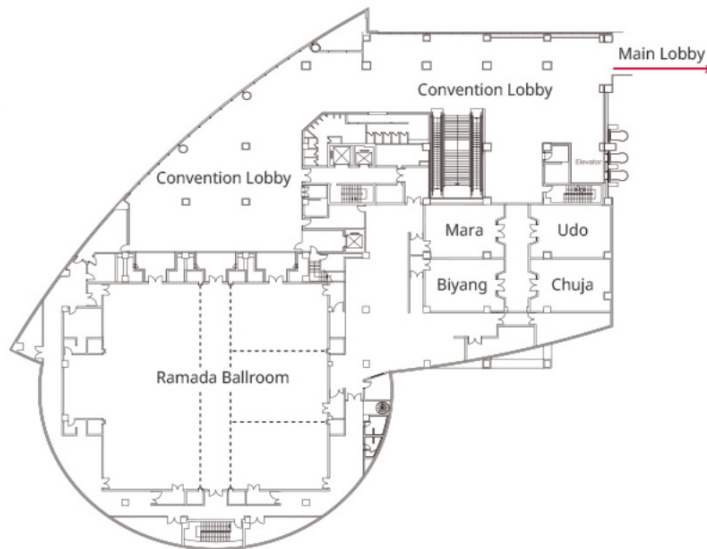
- 50A-269 Intelligent and Real-Time Smart Card Fraud Detection for Optimized Industrial Decision Process**
Simeon Ajakwe (Kumoh National Institute of Technology, Gumi, Korea (South)); Cosmas Ifeanyi Nwakanma, Dong Seong Kim and Jae Min Lee (Kumoh National Institute of Technology, Korea (South))
- 50A-270 Exploratory investigation of semantic reasoning in oneM2M**
Nargis Khatoon (Sejong University South Korea, Pakistan)
- 50A-271 Augmenting Seismic Data via Generative Adversarial Network for Low-cost MEMS Sensors**
Aming Wu (Kyungpook National University, Korea (South)); Jae-Kwang Ahn (Korea Meteorological Administration, Korea (South)); Young-Woo Kwon (Kyungpook National University, Korea (South))
- 50A-272 Overview of Automatic Machine Fault Diagnosis using Generative Adversarial Network**
Duc Hoang Tran and Yeong Min Jang (Kookmin University, Korea (South))
- 50A-273 Convolutional Neural Network-Based Metal Surface Defect Detection**
Ida Bagus Krishna Yoga Utama and Yeong Min Jang (Kookmin University, Korea (South))
- 50A-274 Angle-Based Localization and Security Enhancement in Optical Camera Communication**
Md. Faisal Ahmed, Md. Shahjalal, Md. Morshed Alam and Yeong Min Jang (Kookmin University, Korea (South))
- 50A-275 Effect of Purity on Maximum Likelihood Quantum State Tomography**
Syed Tihaam Ahmad (Kyunghee University, Korea (South)); Ahmad Farooq, Junaid ur Rehman and Hyundong Shin (Kyung Hee University, Korea (South))
- 50A-276 Neural Network Tomography for Noisy Quantum States**
Syed Muhammad Kazim and Junaid ur Rehman (Kyung Hee University, Korea (South)); Youngmin Jeong (Samsung Electronics, Korea (South)); Kyesan Lee and Hyundong Shin (Kyung Hee University, Korea (South))
- 50A-277 Zero Noise Extrapolation for Quantum State Tomography**
Syahri Ramadhani and Junaid ur Rehman (Kyung Hee University, Korea (South)); Youngmin Jeong (Samsung Electronics, Korea (South)); Kyesan Lee and Hyundong Shin (Kyung Hee University, Korea (South))
- 50A-278 CNN-based Unwanted UAV Detection System**
Ann Janeth Garcia, Jae-Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-279 Demand Responsive Transportation System for Low-Demand Parts of Metropolitan Area**
Ali Aouto, Jae Min Lee and Dong Seong Kim (Kumoh National Institute of Technology, Korea (South))
- 50A-280 Data Augmentation on Limited Biometric Data Set for M2M Authentication Model Testing**
Rin Nadia (Sejong University, Korea (South)); Dana Koshen (Nazarbayev University, Kazakhstan); JaeSeung Song (Sejong University, Korea (South))

Session Room Location

(Jeju Ramada Plaza Hotel, Korea)

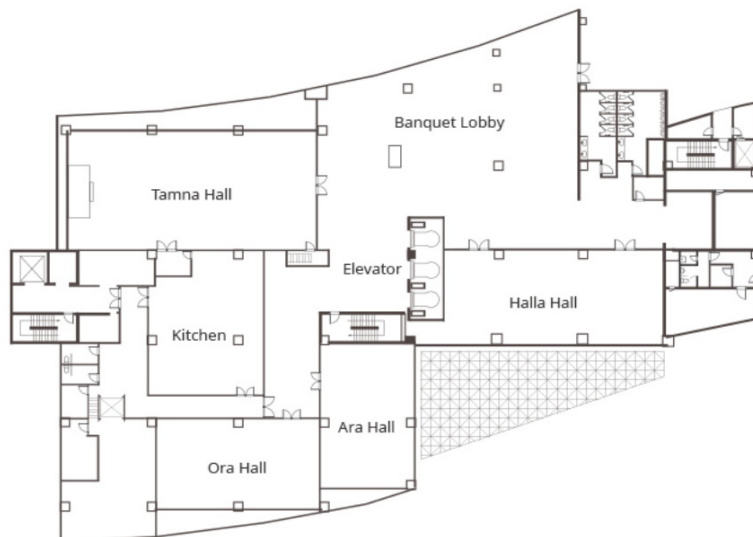
■ 2F

- Ramada Ballroom
- Mara Hall
- Biyang Hall
- Chuja Hall



■ 8F

- Halla Hall
- Tamna Hall
- Ora Hall
- Ara Hall



Conference Venue : Ramada Plaze JeJu

URL: <http://www.ramadajeju.co.kr/ENG/>

Ramada Plaza Jeju is Korea's first coastal hotel

Located only five minutes away from Jeju International Airport and Jeju Port, Ramada Plaza Jeju gives you a unique experience as if you are in a cruise ship on the ocean.



Ramada Plaza Jeju has been founded and financed by the Korean Teachers Credit Union under a franchise agreement with Ramada International as the highest grade hotel "Ramada Plaza". Designed after the Northern European cruise ship SILJA LINE, this resort-type business hotel opened on July 1 2003 with 400 rooms and suites in a building with 9 floors above ground and 1 underground floor.

The hotel with unique, prestige interior designs has various types of rooms and suites, and banquet halls in different sizes including Grand Ballroom capable of accommodating up to 1,500 guests for seminars, meetings, and wedding ceremonies. With other convenient and versatile facilities, Ramada Plaza Jeju provides guests with some of the best hotel services and experience.

Location

From Jeju International Airport to Ramada Plaza Jeju

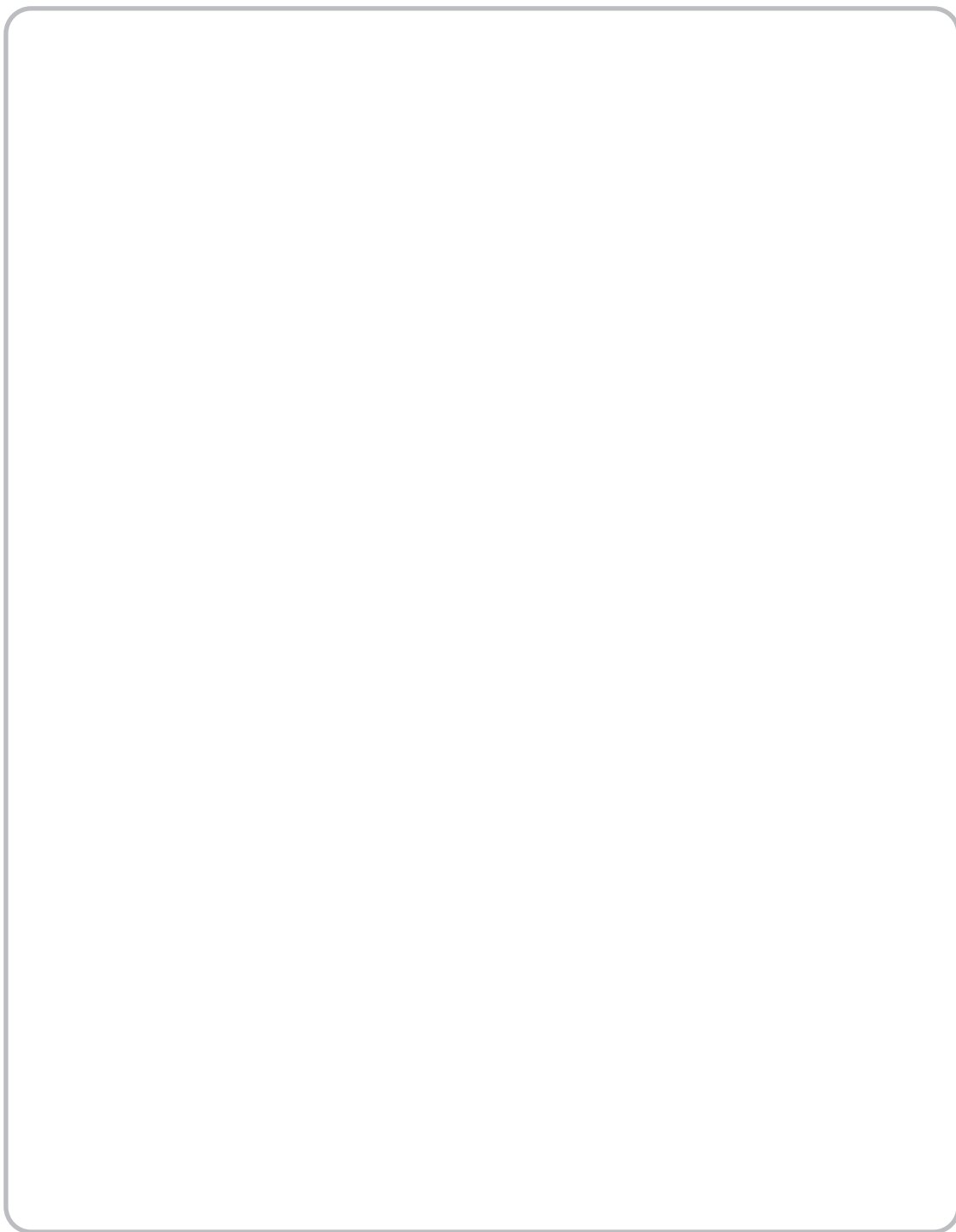
To Yongmun rotary → Hancheon Bridge → Seomun Market → Turn left at Seomun Sageori (four-way intersection) → Go straight to Tapdong-ro Total of 3.8km | 10 minutes



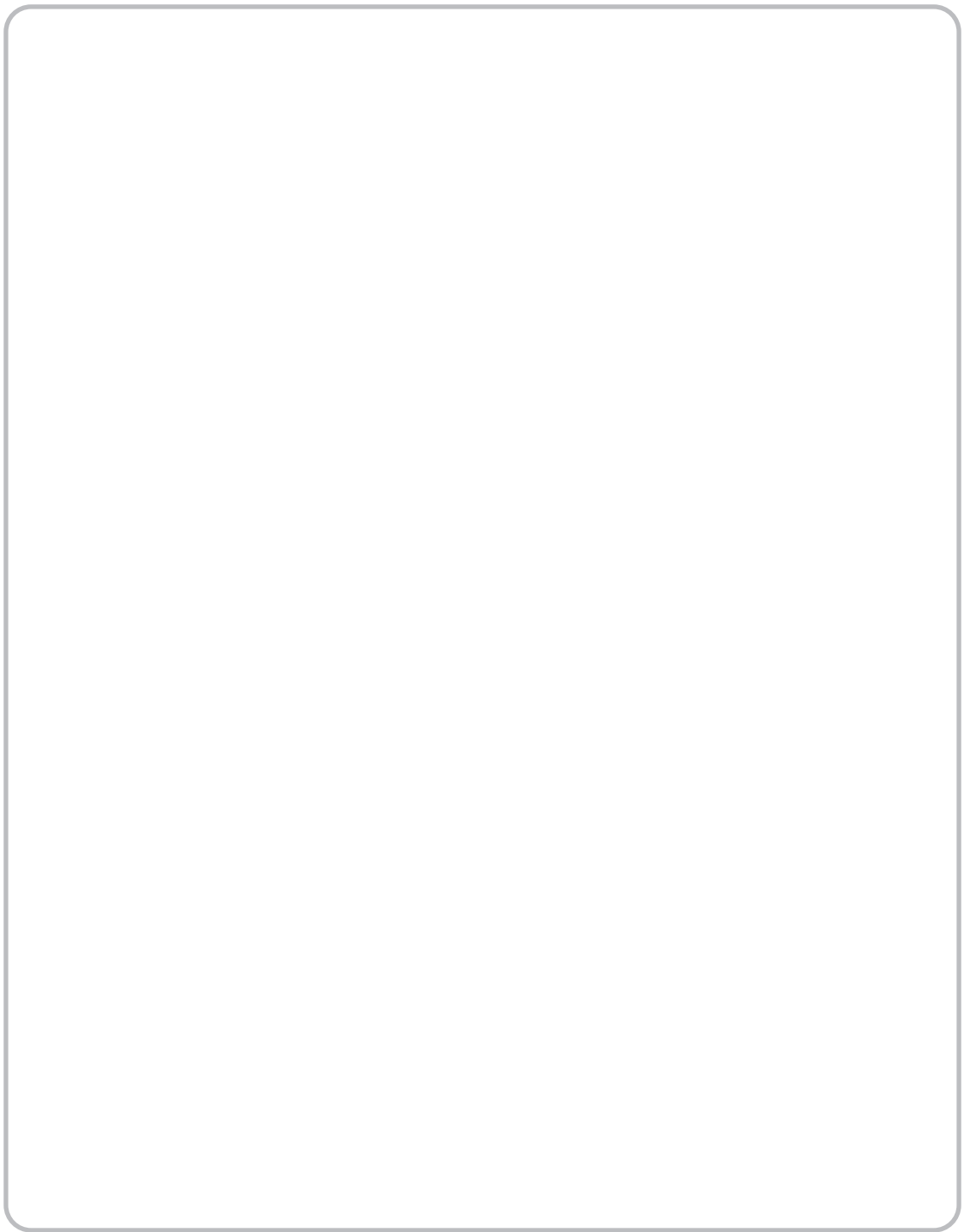
MEMO

MEMO

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MEMO





커넥티드카

자동차의 AVN(Audio, Video, Navigation)을 통해 인포테인먼트 서비스를 AI 음성 인식으로 제어



스마트드론

'클라우드 관제 시스템'을 활용, 거리·공간 제약 없이 경로 자동 비행 및 영상 촬영, 실시간 전송·저장



원격제어

관제센터에서 영상전송솔루션을 연결하여 수백km 떨어진 현장을 실시간 모니터링 하며 중장비를 원격제어



스마트시티

도시 교통, 환경, 안전, 주거 등의 분야에 첨단 IT를 적용하는 사업



C-ITS/자율주행

실시간 교통 현황과 도로 상황 정보를 활용하여 사고를 예방하고 교통 흐름을 개선



스마트팩토리

제조공정 전반에 IoT와 AI 기술을 적용하여 지능화된 설비진단 및 품질검사, 효율적인 안전/환경/에너지 관리 서비스 제공

스냅드래곤 인사이드즈

스냅드래곤 인사이드즈가 되어
특별한 혜택들을 만나보세요.

스냅드래곤 인사이드즈는 스냅드래곤에 관한 최신 뉴스와 인사이드즈에게만 공개되는 특별한 소식을 가장 먼저 받을 수 있습니다. 함께 스냅드래곤의 미래를 만들어 나갈 여러분의 참여를 기다립니다.

스냅드래곤 인사이드즈 채널 보러가기:



인스타그램
@Snapdragon_KR



유튜브
@SnapdragonKR





SK텔레콤의 AI 서비스가 새로운 생활을 만듭니다

우리 가족을 알아보고 지켜주는 집과
당신의 목소리 하나로 시작되는 서비스

누군가에겐 자신을 먼저 챙겨주는 가족이자
누군가에겐 다정한 친구이고 말벗

내 취향을 기억하고 추천해 주는 플랫폼부터
필요로 하기 전에 알아서 돕는 기술까지

모든 순간 AI가 함께 하는
새로운 생활이 시작됩니다.

더 나은 모두의 생활을 위해
SK텔레콤은 당신 가까이에서 언제나 함께하겠습니다

A person stands on a dark rock in the foreground, their arms raised in a gesture of triumph or awe. The background is a vast, deep blue night sky filled with countless stars and the soft, ethereal glow of the Milky Way galaxy stretching across the frame. The horizon is dark, with a hint of a sunset or sunrise glow in shades of orange and yellow at the bottom right.

SAMSUNG

Experience the World of 5G with Samsung Networks

Samsung Networks has fully led the advancement of the telecommunications industry and we are delivering unimaginable speeds and superior connections. Samsung is continuing our commitment to pushing 5G innovations forward. Discover all the different ways Samsung 5G can change how you do just about everything.