

ICTC 2021 ICTC Convergence Symposium

October 20-22, 2021
Jeju Island, Korea

“Beyond the Pandemic Era with ICT Convergence Innovation”



ICTConvergence Symposium Program at a Glance October 20th (Wednesday), 2021

Time	Program
08:30~10:10	Special Session I: Towards 6G: Enabling Technologies (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 1: Prof. Namyoong Lee, POSTECH, Korea, “THz MIMO Communications”Invited Talk 2: Prof. Parth Pathak, George Mason University, USA “Resilient Cross-layer mmWave Network Design through Coordination”Invited Talk 3: Prof. Hu Jin, Hanyang University, Korea, “Next generation multiple access: Reboot of S-ALOHA with online control”
10:10-10:30	Coffee Break
10:30~11:20	Plenary Session I: Keynote Speeches and Opening Ceremony (Ramada Ballroom 1) <ul style="list-style-type: none">Opening Address 1: Prof. Young-Han Kim, President of KICSCongratulatory Address 1: Prof. Hisaya HADAMA, President of IEICE-CSCongratulatory Address 2: Prof. Xuemin (Sherman) Shen, President Elect, IEEE ComSocKeynote Speech 1: Dr. Xuemin (Sherman) Shen, President Elect(Professor), IEEE ComSoc(University of Waterloo), Canada, “6G: Holistic Network Virtualization and Intelligence”
11:20-12:40	Lunch
12:40-14:10	Industrial Session I: Beyond 5G for the Post-Pandemic Era (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 1: Dr. Zukang Shen, Director of Wireless Standards and Patents Department, Huawei, China, “Evolution of 5G Standards Toward 2025: 5G_Advanced”Invited Talk 2: Dr. Kevin K. Choi, CTO, KTsat, Korea, “Connectivity and SDG, the Role of Space Segment”Invited Talk 3: Dr. Emilio CALVANESE STRINATI, CEA-LETI, MINATEC, Grenoble, France, “6G Networks: Beyond Shannon Towards Semantic and Goal-Oriented Communications”
14:10-14:30	Coffee Break
14:30-16:10	Special Session II: Computer-Networking Convergence (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 4: Prof. Kyungyong Lee, Kookmin University, Korea, “Serverless Computing and Beyond for Computing-enabled 6G”Invited Talk 5: Prof. Wen Hu, UNSW Sydney, Australia, “Towards a Secure Cloud Radio LoRaWANs”Invited Talk 6: Dr. Taesik Cheung, ETRI, Korea, “Low-latency and High-precision Packet Networking Technologies”
16:10-16:30	Coffee Break
16:30~17:50	Plenary Session II: Keynote Speeches (Ramada Ballroom 1) <ul style="list-style-type: none">Keynote Speech 2: Prof. Rui Luis Aguiar, Head of Networks and Services, Instituto de Telecomunicações, “Challenges and Views for 6G Research: an European View”Keynote Speech 3: Dr. Juho Lee, Fellow, Samsung Research, Samsung Electronics, “Evolution from 5G to 6G”
17:50-18:20	Coffee Break
18:20-20:20	Banquet (Ramada Ballroom 1) <ul style="list-style-type: none">Opening Address 1: Seung Chan Bang, Organizing Committee ChairTPC Report: Jae-Hyun Kim, TPC ChairSPC Report: Moon-Sik Lee, SPC ChairAwards CeremonyBanquet Course

October 21st (Thursday), 2021

Time	Program
08:30~10:10	Special Session III: From Mobility to Localization: Recent Innovations (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 7: Prof. Jihwan Choi, KAIST, Korea, “LEO Satellite Internet for High-Speed Aerial Vehicles”Invited Talk 8: Dr. Kun Qian, University of California San Diego, USA, “Autonomous Sensing with Millimeter-Wave Radar”Invited Talk 9: Dr. Haeyoung Jun, Head of Service Standards Lab, Samsung Research, Korea, “High-precision and scalable positioning with UWB”
10:10-10:30	Coffee Break
10:30-12:10	Special Session IV: New Paradigms and Concepts (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 10: Prof. Wonbin Hong, POSTECH, Korea, “Addressing wireless blindspots using Transparent Antennas and Surfaces: Opportunities and Challenges”Invited Talk 11: Prof. Jihoon Ryoo, SUNY Korea (Stony Brook University), Korea, “Enable 4K quality 3D Video Streaming”Invited Talk 12: Prof. Youngbin Im, UNIST, Korea, “Memory Disaggregation and its Performance Enhancement Using SmartNICs”
12:10-12:30	Lunch
13:20-15:00	Industrial Session II: A Broader View of ICT Convergence for New Normal (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 4: Mr. Kahng, Jong-Oh, Vice president, LG Uplus, “5G will be a key driving force in the upcoming C-ITS era”Invited Talk 5: Mr. Dillon Seo, Country Manager, DTCP Korea, “Rising of Metaverse”Invited Talk 6: Dr. Soonmin Bae, Senior Vice President, KT, “Collaborative R&D Ecosystem for AI Platform”Invited Talk 7: Dr. Seungjoo Maeng, Master, Samsung Electronics, “How AI/ML Technology can be used in Mobile Communication Systems”
15:00-15:30	Coffee Break
15:30-17:30	Plenary Session III: Keynote Speeches (Ramada Ballroom 1) <ul style="list-style-type: none">Keynote Speech 4: Dr. Jilei Hou, Vice President, Qualcomm Technologies, Inc., “Pushing the Boundaries of AI Research”Keynote Speech 5: Dr. Byoung-Hoon Kim, Senior VP/Head of Future Technology Center, LG Electronics, “The Road to New Wireless Frontier 2030”Keynote Speech 6: Dr. Woo Jin Byun, Assistant VP, ETRI, “Integration of Terrestrial and Non-Terrestrial Networks Towards 6G”

October 22nd (Friday), 2021

Time	Program
08:30~10:10	Special Session V: ICT for Social Good (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 13: Prof. Peng Liu, Pennsylvania State University, USA, “AI for Cybersecurity: Current Status and Future Directions”Invited Talk 14: Prof. Tadashi Okoshi, Faculty of Environment and Information Studies, Keio University, Japan, “Cyber/Physical Well-being Technology That Supports Human's Bounded Rationality”Invited Talk 15: Prof. Dukyong Yoon, Yonsei University College of Medicine, Korea, “ICT adopted in healthcare”
10:10-10:30	Coffee Break
10:30-12:10	Special Session VI: Expanding the Horizon (Ramada Ballroom 1) <ul style="list-style-type: none">Invited Talk 16: Dr. Lei Jiao, University of Oregon, USA, “Learning for Learning: Predictive Online Control of Federated Learning with Edge Provisioning”Invited Talk 17: Prof. Ji-Woong Choi, DGIST, Korea, “Artificial tactile sensing system mimicking human tactile cognition”Invited Talk 18: Dr. Sung-Uk Jung, Principal Researcher, ETRI, Korea, “The participatory AR platform and applications”

October 20th (Wednesday), 2021

Special Session I : Towards 6G: Enabling Technologies Ramada Ballroom 1 08:30~10:10



THz MIMO Communications

Prof. Namyoong Lee

POSTECH, Korea



Resilient Cross-layer mmWave Network Design through Coordination

Prof. Parth Pathak

George Mason University, USA



Next generation multiple access: Reboot of S-ALOHA with online control

Prof. Hu Jin

Hanyang University, Korea

Keynote Speeches Ramada Ballroom 1 10:30~11:20



6G: Holistic Network Virtualization and Intelligence

Dr. Xuemin (Sherman) Shen

President Elect(Professor), IEEE ComSoc(University of Waterloo), Canada

Industrial Session I : Beyond 5G for the Post-Pandemic Era Ramada Ballroom 1 12:40-14:10



Evolution of 5G Standards Toward 2025: 5G_Advanced

Dr. Zukang Shen

Head of Wireless Standards, Huawei, China



Connectivity and SDG, the Role of Space Segment

Dr. Kevin K. Choi

CTO, KTsat, Korea



6G Networks: Beyond Shannon Towards Semantic and Goal-Oriented Communications

Dr. Emilio CALVANESE STRINATI

CEA-LETI, MINATEC, Grenoble, France

Special Session II : Computer-Networking Convergence Ramada Ballroom 1 14:30-16:10



Serverless Computing and Beyond for Computing-enabled 6G

Prof. Kyungyong Lee

Kookmin University, Korea



Towards a Secure Cloud Radio LoRaWANs

Prof. Wen Hu

UNSW Sydney, Australia



Low-latency and High-precision Packet Networking Technologies

Dr. Taesik Cheung

ETRI, Korea

Keynote Speeches Ramada Ballroom 1 16:30~17:50



Challenges and Views for 6G Research : an European View

Prof. Rui Luis Aguiar

Head of Networks and Services, Instituto de Telecomunicações



Evolution from 5G to 6G

Dr. Juho Lee

Samsung Research, Samsung Electronics

October 21st (Thursday), 2021

Special Session III : From Mobility to Localization: Recent Innovations Ramada Ballroom 1 08:30~10:10



LEO Satellite Internet for High-Speed Aerial Vehicles

Prof. Jihwan Choi

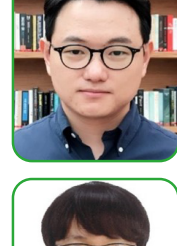
KAIST, Korea



Autonomous Sensing with Millimeter-Wave Radar

Dr. Kun Qian

University of California San Diego, USA



High-precision and scalable positioning with UWB

Dr. Haeyoung Jun

Head of Service Standards Lab, Samsung Research, Korea

Special Session IV : New Paradigms and Concepts Ramada Ballroom 1 10:30~12:10



Addressing wireless blindspots using Transparent Antennas and Surfaces: Opportunities and Challenges

Prof. Wonbin Hong

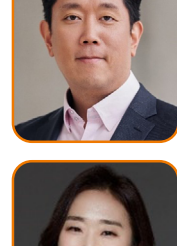
POSTECH, Korea



Enable 4K quality 3D Video Streaming

Prof. Jihoon Ryoo

SUNY Korea (Stony Brook University), Korea



Memory Disaggregation and its Performance Enhancement Using SmartNICs

Prof. Youngbin Im

UNIST, Korea

Industrial Session II : A Broader View of ICT Convergence for New Normal Ramada Ballroom 1 13:20-15:00



5G will be a key driving force in the upcoming C-ITS era

Mr. Kahng, Jong-Oh

Vice president, LG Uplus



Rising of Metaverse

Mr. Dillon Seo

Country Manager, DTCP Korea



Collaborative R&D ecosystem for AI platform

Dr. Soonmin Bae

Senior Vice President, KT



How AI/ML technology can be used in mobile communication systems

Dr. Seungjoo Maeng

Master, Samsung Electronics

Keynote Speeches Ramada Ballroom 1 15:30-17:30



Pushing the Boundaries of AI Research

Dr. Jilei Hou

Vice President, Qualcomm Technologies, Inc.



The Road to New Wireless Frontier 2030

Dr. Byoung-Hoon Kim

Senior VP/Head of Future Technology Center, LG Electronics



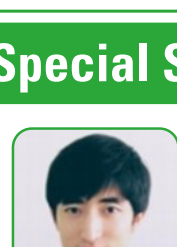
Integration of Terrestrial and Non-Terrestrial Networks Towards 6G

Dr. Woo Jin Byun

Assistant VP, ETRI

October 22nd (Friday), 2021

Special Session V : ICT for Social Good Ramada Ballroom 1 08:30~10:10



AI for Cybersecurity: Current Status and Future Directions

Prof. Peng Liu

Pennsylvania State University, USA



Cyber/Physical Well-being Technology That Supports Human's Bounded Rationality

Prof. Tadashi Okoshi

Associate Professor, Faculty of Environment and Information Studies, Keio University



ICT adopted in healthcare

Prof. Dukyong Yoon

Yonsei University College of Medicine, Korea

Special Session VI : Expanding the Horizon Ramada Ballroom 1 10:30~12:10



Learning for Learning: Predictive Online Control of Federated Learning with Edge Provisioning

Dr. Lei Jiao

University of Oregon, USA



Artificial tactile sensing system mimicking human tactile cognition

Prof. Ji-Woong Choi

DGIST, Korea



The participatory AR platform and applications

Dr. Sung-Uk Jung

Principal Researcher, ETRI, Korea

Online Registration

Early Registration Deadline: October 11, 2021, PM 11:00

Registration Fee

		MEMBER / NON-MEMBER	
		USD (International)	KRW (Domestic)*
Regular	Early Birds	\$450	₩450,000
	On-Site	\$500	₩500,000
Student**	Early Birds	\$400	₩400,000
	On-Site	\$450	₩450,000
Extra Banquet Ticket		\$60	₩60,000

If you have any questions, please contact Registration Secretariat of ICTC 2021 at ictc@kics.or.kr

Organized by

KICS

The Korean Institute of Communications and Information Sciences

Technically Co-Sponsored by

IEEE ComSoc

IEEE Communications Society

IEICE Communications Society

Patrons

Ministry of Science and ICT

ETRI

Electronic and Telecommunications Research Institute

KCEST

Jeju CVB

Jeju Convention & Visitors Bureau

KOREA TOURISM ORGANIZATION

SAMSUNG

LG Electronics

SK telecom

KT

LG U+

Youngwool

Netvision

telecom

INNOX

advanced materials

HUAWEI

Qualcomm

ERICSSON

LG

RTek

Fiber Radio Technologies

ICT Convergence Korea Forum

Society Safety System Forum

5G-based Smart Factory Standardization Forum

For any inquiries on ICTC 2021, please contact: ictc@kics.or.kr