

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) • Invited Talk 1: Prof. Namyoon 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) • Opening Address 1: Prof. Young-Han Kim, President of KICS • Congratulatory Address 1: Prof. Hisaya HADAMA, President of IEICE-CS • Congratulatory Address 2: Prof. Xuemin (Sherman) Shen, President Elect, IEEE ComSoc • Keynote 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) • 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) • 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) • 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) • Opening Address 1: Seung Chan Bang, Organizing Committee Chair • TPC Report: Jae-Hyun Kim, TPC Chair • SPC Report: Moon-Sik Lee, SPC Chair • Awards Ceremony • Banquet Course

October 21st (Thursday), 2021

Time	Program
08:30-10:10	Special Session III: From Mobility to Localization: Recent Innovations (Ramada Ballroom 1) • Invited Talk 7: Prof. Namyoon Lee, 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) • 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"
12:10-13:20	Lunch
13:20-15:00	Industrial Session II: A Broader View of ICT Convergence for New Normal (Ramada Ballroom 1) • 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) • 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) • 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) • 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. Namyoon 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

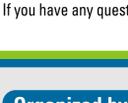
Early Registration Deadline: October 11, 2021, PM 11:00

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

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